

**Co-creation dynamics in a European Research
Infrastructure Consortium (ERIC)**
The case of the DARIAH-ERIC Working Groups

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Co-creation dynamics in a European Research Infrastructure Consortium (ERIC). The case of the DARIAH-ERIC Working Groups.

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List of Abbreviations

| | |
|--------|--|
| CIO | (DARIAH) Chief Integration Office |
| DANS | Data Archiving and Networking Services (Dutch research data repository and center for expertise) |
| DARIAH | Digital Research Infrastructure for the Arts and humanities |
| DCO | DARIAH Coordination Office |
| ERA | European Research Area |
| ERIC | European Research Infrastructure Consortium |
| ESFRI | European Strategy Forum on Research Infrastructures |
| JRC | (DARIAH) Joint Research Committee |
| RDA | Research Data Alliance |
| RI | Research Infrastructure |
| SB | (DARIAH) Scientific Board |
| STS | Science and technology studies |
| VCC | (DARIAH) Virtual Competence Centre |
| WG | (DARIAH) Working Group |

1 Introduction

1.1 The motivation for this PhD

This dissertation results from years-long research that verges on collaboration between researchers. There are numerous ways and contexts where collaboration occurs in research: the collaboration I investigate is situated in the ERIC Research Infrastructures.

Regarding Research Infrastructures (RIs), one does not think about day-to-day exchanges among PhD students, Postdocs, or research groups. Instead, one thinks of Research Infrastructures as powerful instruments employed for scientific research, such as the Cherenkov telescope arrays in La Palma¹ or the Large Hadron Collider at CERN².

However, science does not happen only through observations and measurement, but also, if not especially, through relationships, exchanges, or socialisation between researchers. Daily meetings of a research group, internal dynamics comprising senior and junior researchers: all these social dynamics, sometimes unnoticeable (like a tacit group agreement), other times visible and structural (such as the merging of two research groups), have an impact on scientific outcomes. Current literature converges around the idea that (scientific) knowledge doesn't take place in a vacuum. Still, it is shaped by socialisation processes among researchers and the institutional framework in which both the social and epistemic dynamics take place (Merton 1938; Kuhn 1962; Latour and Woolgar 1986).

This research occurs at the intersection between three dimensions (actors and processes): researchers, knowledge creation and their institutional and organizational framing.

¹ <https://www.cta-observatory.org/about/array-locations/la-palma/>, accessed on 01.04.2023

² <https://home.cern/science/accelerators/large-hadron-collider>, accessed on 01.04.2023.

In the European context, Research Infrastructures have developed into the European *Research Infrastructure Consortium (ERICs)*³ in the last two decades. These Research Infrastructures comprise member countries contributing to specific ERICs; the ERICs are also given legal status and they are supported by a European development scheme called *European Strategy Forum on Research Infrastructures (ESFRI)*⁴. Therefore, framing Research Infrastructures within the ERIC consortium is crucial when studying the dynamics of knowledge creation and socialisation inside them.

The ERICs are both scientific and policy instruments that build on the objectives of the *European Research Area (ERA)*⁵, a system of scientific research programs to build a European unique market for research and innovation, by encouraging researchers' mobility, increasing scientific collaboration among countries and therefore reducing fragmentation.

The question may arise whether scientific research done within the ERICs Research Infrastructure differs from research done in other well-known research places, like universities. And if it is so, what are the differences? I suggest, and I will develop this concept in the following chapters, that the institutional and organizational framing of where research takes place does influence the process and the outcomes of knowledge creation, just as much as the socialisation processes. This means that scientific research done in the ERICs has specific features.

This research is informed by my own experience within the DARIAH-ERIC. Unlike the Research Infrastructures mentioned above focused on STEM (Science, Technology, Engineering and Mathematics), DARIAH is a Research Infrastructure for the arts and humanities.

It is interesting to take DARIAH as a case study, because it portrays the community of arts and humanities researchers, which often lacks representativeness in

³ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-infrastructures/eric_en, accessed on 01.04.2023.

⁴ <https://www.esfri.eu/>, accessed on 01.04.2023.

⁵ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-area_en, accessed on 01.04.2023.

reflections and projects involving Research Infrastructures⁶. This lack of representativeness can partly be explained by the underlying difficulty in grouping the many disciplines in the arts and humanities domain: these hardly share data standards and methods; they form sub-communities where disciplinary approaches often differ from each other according to the type of records analysed. In turn, the arts and humanities, probably because of their inner epistemic and methodological diversity, resist the idea of losing their methodology, epistemology and perhaps their specificities too. Therefore, DARIAH-ERIC's mission is ambitious in its definition: to represent the arts and humanities in a shared Research Infrastructure. This mission is complex but at the same time urgent and necessary, primarily to ensure that arts and humanities researchers are: "able to assess the impact of technology on their work in an informed manner, access the data, tools, services, knowledge and networks they need seamlessly and in contextually rich virtual and human environments and produce excellent, digitally enabled scholarship that is reusable, visible and sustainable" ⁷

The DARIAH strategy document⁸ concludes: "As such, it (the DARIAH-ERIC, my note) supports and enhances the sustainable development of digitally enabled research and teaching through its network of people, knowledge, content, methods and tools".

The case study of DARIAH-ERIC is also interesting because of my first-hand experience within this Research Infrastructure. Since 2016 I have been part of the DARIAH Coordination Team (DCO), a distributed team with the shared objective of coordinating the activities of the DARIAH-ERIC. The teams are located in Berlin (Germany), Paris (France), Dublin (Ireland) and The Hague (The Netherlands), where I am based with two other colleagues. More details of DARIAH's organization will be detailed in Chapter 2, where I also address the methodological limitations resulting from conducting research in a Research Infrastructure while being part of

⁶ As an example, the European projects RI-TRAIN (<http://ritrain.eu/>) and ENRIITCH (<https://enriitc.eu/>), now concluded, comprised a very small number of Social Sciences and Humanities Research Infrastructures.

⁷ <https://www.dariah.eu/about/mission-vision/>, accessed on 29.04.2023.

⁸ <https://www.dariah.eu/about/documents-list/>, accessed on 29.04.2023.

its organigram. However, for now, I wish to highlight the strong connection with the DARIAH-ERIC and its research community, which I have seen growing and developing into a professional and interdisciplinary community, and which motivated the research questions.

In the next section of this introduction, I will introduce and examine the concept of infrastructure. This concept is essential in this research as it sets the conceptual and analytical background for the subsequent investigation of infrastructures and collaboration among researchers. It directly leads to the research question, which I introduce later in this chapter.

1.2 Terminologies around Infrastructures

The physical infrastructures surrounding us are often unnoticed. Infrastructures such as roads, public transport, retail logistics, and electricity allow us to perform daily tasks without even realising their existence (Star and Ruhleder 1996; Star 1999): they facilitate our routine such as bringing kids to school, eating, shopping, going to work. To one extent, our world is organised as an infrastructure, which invisibly allows us to move between activities and roles.

The word "infrastructure" carries a concrete, tangible connotation, and its etymology supports such understanding: it is composed of "infra" and "structure". *Infra* is used in Latin as an adverb and preposition and means: "below, beneath". *Structure* also originates from the Latin "structura" and means "arrangement, order", deriving from the verb "strūere": to build, assemble, arrange.

A literal interpretation of the word *infrastructure* leads to a reading which indicates a structure, an arrangement of elements embedded into other structures (Star and Ruhleder 1996) and stands below, therefore going unnoticed to whoever makes use of it. In the last decades, infrastructures have also become increasingly pervasive. They are not just essential to the transport and logistic sectors, but their role has become relevant in fields such as education and scientific research (Papon 2004; Hallonsten 2020a).

This research focuses on the European landscape of Infrastructures supporting research, known as European Research Infrastructures Consortium (ERICs)⁹. It examines them as complex and dynamic structures of technical, social, political and organisational elements. It does so by focusing on the dynamics of collaboration and knowledge creation among the community of researchers that takes part in the making of the Research Infrastructure, namely the DARIAH Working Groups.

1.2.1 Research Infrastructures

In 2000, the formation of a European Research Area (ERA) strengthened the idea that a strategic and policy approach was necessary to improve the international position of the EU in scientific and technological development (Cramer et al. 2020). Considering this, the ERA can be seen as a scientific, political and societal response to the need to increase the competitiveness of European Research Institutions by encouraging collaboration among the member states (Cramer et al. 2020).

Research Infrastructures are defined by the EU as “facilities, resources and related services that are used by the scientific community to conduct top-level research in their respective fields” (European Commission 2009)

In their 2020 article, Cramer and collaborators juxtapose Research Infrastructures to the concept of *Big Science* and suggest that the two terms are partially overlapping (Cramer et al. 2020). The concept of Big Science emerged in the Sixties when Weinberg criticised what proposed as Big Science, to indicate massive economic and technological investments operated by national governments and international agencies. In his article, Weinberg reflects on the hazards of Big Science, and its consequences on intellectual freedom in favour of bureaucratization and centralization of scientific discoveries (Weinberg 1961).

As an example, the European Organization for Nuclear Research (CERN), a collaborative nuclear and particle physics laboratory began its activities in 1954, as the first European large-scale scientific enterprise (NATO 1954; NATO Archive 1953)

⁹ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-infrastructures/eric_en, accessed on 28.04.2023.

Following the establishment of NATO, many other international scientific collaborations flourished in Europe and the US alike, to the point that Cramer and Hallonsten defined the twenty-first century, in terms of science organization and funding, as the “era of Research Infrastructures”.

It is in this context and spirit, that the European Research Infrastructure Consortium (ERIC) was established in 2009.

Since then, 21 European Research Infrastructures have been established (“ERIC Landscape” 2021) and the interest around them has rapidly increased from different fields, such as economics and research policy (Lindstrøm and Kropp 2017; Moskovko, Astvaldsson, and Hallonsten 2019; Hallonsten 2020a; Cramer et al. 2020), philosophy and epistemology (Pozzo et al. 2020) and Science and technology studies (Kaltenbrunner 2015a).

Research Infrastructures can be described as socio-technical implementations that allow researchers to create, store and access data (Ribes and Lee 2010); they are hidden and transparent, visible upon breakdown (Star 1999) and susceptible to the organisational aspects that influence the creation and adoption of technology (P. N. Edwards et al. 2007). RIs can also be considered for their capacity to bridge communities and connect scholarly resources (research instruments or scholarly outputs). In a recent publication, Edmond defined RIs as installations, interfaces, or structures that “assemble a mediating set of technologies for research and resource discovery, collaboration, sharing, and dissemination of scientific output” (Edmond et al. 2020). Anderson describes RIs in their material and experiential character and as embedded in the research practices (Anderson 2013).

This brief overview highlights how a shared understanding of RIs does not exist, confirming the complexity of defining and communicating RIs.

To a certain extent, this difficulty is confirmed by the fact that many alternative terms are used to refer to RIs, particularly to specific aspects of them. The following passage describes alternative terms that refer to RIs.

1.2.2 Knowledge Infrastructures

RIs can be defined as *Knowledge Infrastructures*. In 2013 Edwards (P. N. Edwards et al. 2007) defined knowledge infrastructures as “robust networks of people, artefacts, and institutions that generate, share, and maintain specific knowledge about the human and natural worlds.” The term knowledge infrastructure began circulating in the scientific literature after a workshop titled: *Knowledge Infrastructures: Intellectual Frameworks and Research Challenges*, which took place at the University of Michigan, School of Information in 2007 (P. N. Edwards et al. 2007). The research term "Knowledge Infrastructure" is commonly referred to by scholars in information science, library and archival science (e.g. Christine Borgman and Paul Edwards), whose work is at the interface of *science and technology* and *science of science*. The term “knowledge infrastructure” reflects a debate on power and society too: those authors state that Knowledge Infrastructures are "not good or bad in themselves, nor are they neutral" (Kranzberg 1986): undoubtedly, they reflect the power relations within our society.

1.2.3 Information Infrastructures

In specific contexts, Research Infrastructures can be referred to as *information infrastructures*, primarily dealing with aspects of knowledge and information creation and exchange. "Information infrastructure" emerged in the literature in the 1990s, and it has remained steadily cited since then (Star and Ruhleder 1996; Hanseth and Monteiro 1997). The first time this term was used, it was described by two of the most prolific authors in the infrastructure literature: Star and Ruhleder (Star and Ruhleder 1996). Before their contribution, the term infrastructure had a prominently physical and engineering connotation (Hughes 1993). However, Star and Ruhleder introduced a relational aspect to the concept of infrastructures: the relationship between humans' organised ways of doing things and the technologies supporting their practices. As highlighted by Simonsen et al. (Simonsen, Karasti, and Hertzum 2020), Star and Ruhleder's contribution lies in the fact that they shifted the attention from the "what" to the "when" of infrastructure, highlighting the fact that infrastructure is a complex network of relations and contexts in continuous evolution.

1.2.4 Cyber-Infrastructures

RIs can also be defined as *cyber-infrastructures* too.

In the domain of natural sciences in 2003, D. Atkins proposed that socio-technical facilities (then called *cyberinfrastructures*) could represent a substantial advancement for the knowledge economy. The expectation was that they could enable the scientific community to build “new types of scientific and engineering knowledge environments and organisations, and to pursue research in new ways and with increased efficacy” (Atkins, National Science Foundation (U.S.), and Blue-Ribbon Advisory Panel on Cyberinfrastructure 2003).

What emerges from this literature is the understanding of *cyberinfrastructure* as an intermediate layer between the research communities and the "base" technology, described in the literature as computation and storage. In this vision, cyberinfrastructures would provide knowledge management, interfaces and visualisation, computation, and collaboration services: the final goal of cyberinfrastructures - according to Atkins - is enabling research communities to work in a distributed, distributed, virtual and collaborative way (Atkins, National Science Foundation (U.S.), and Blue-Ribbon Advisory Panel on Cyberinfrastructure 2003).

The term cyberinfrastructure is still in use and is especially adopted in computer science literature and interdisciplinary research fields where technical components, such as grid and cloud technologies, play a central role.

1.2.5 E-Infrastructure

E-infrastructure is the abbreviation of Electronic Infrastructure. Among the authors that study "e-infrastructure", Ribes, Finholt and Lee have investigated e-infrastructure (and cyberinfrastructures) from a socio-technical perspective (Ribes and Lee 2010): sustainability, standardisation, up-scaling, and integration of heterogeneity are some of the themes related to the functioning of e-infrastructure. Interestingly, "e-infrastructures" is widely used in the literature created by national and international funding agencies. For example, this term has become widely used in the documentation produced by the European Commission, which describes e-infrastructures as providers of "digital-based services and tools for data and

computing-intensive research in virtual and collaborative environments”¹⁰. It can be thought that the term "e-infrastructures" has become a generic umbrella term adopted by funding agencies to indicate the technical and networking aspect of (research) infrastructures.

Such diversity in the terminology expresses the richness of research communities in "appropriating" the term *infrastructure*, as it reflects different practices: the data and knowledge exchange among different actors or the technological development of a network of services for the research community, are just a couple of examples. Analysing the terminology developed around infrastructures means ultimately getting to know the communities and their practices that have evolved together. Each terminology developed around RIs is not only a linguistic and conceptual variation around the core term of infrastructure. It carries a profound connection between a research field and the context in which it emerges and evolves. Without such a clear understanding, this analysis suggests, it is difficult to grasp the essence and potential of RIs completely.

1.3 Towards the research question

Research Infrastructures are socio-political and socio-technical systems. As emerged in the previous sections, Research Infrastructures are not neutral: they result from complex interrelations between social and political dynamics. When the term *infrastructure* began to be employed in the 1950s, it was to refer to national or international agreements overseeing shared access to military infrastructures. However, it soon became visible that national governments and international institutions were involved in the strategic running of the infrastructure too (NATO Archive 1953).

Despite being dedicated to research and not to military endeavours, RIs share the same character of being connected to national and international agendas,

¹⁰ <https://joinup.ec.europa.eu/collection/rolling-plan-ict-standardisation/e-infrastructures-research-data-and-computing-intensive-science>, accessed on 01.04.2023.

represented by the institutions (national or international) that make such infrastructure possible.

It is through this socio-political reading that RIs (in particular the ERICs) cannot be only interpreted through their social (the communities of researchers) and material (the technology) aspects: from this perspective, they also become visible as the result of a strategic, policy-oriented vision of the European Commission (Moskovko, Astvaldsson, and Hallonsten 2019).

What are the effects of looking at Research Infrastructures from such a perspective?

From this standpoint, we see Research Infrastructures striving to avoid fragmentation (of resources, knowledge, and access to scientific facilities) or to act as connectors.

Let me first consider that the ERIC framework builds on the objectives of the ERA (European Research Area). The ERA, in turn, promotes the free circulation of researchers among European countries and shared access to scientific instruments and facilities, thus reducing fragmentation by leveraging this existing knowledge and material capital. In this context, fragmentation has a negative connotation. It is connected to its potential adverse economic consequences, such as duplication of effort or insufficient resources present at a single institution, too small to invest in large scientific instruments (Delanghe, Muldur, and Soete 2011).

The ERIC framework addresses these risks through convergence and consolidation of the expertise dispersed across the EU state members into central hubs such as a RIs: "to safeguard the scientific excellence of Community research and the competitiveness of the Community's economy, as based on medium-term to long-term forecasts, through the efficient support of European research activity" (European Union 2009).

The main goal of integration is ultimately that of efficacy and "advancement of the European research market" (Moskovko, Astvaldsson, and Hallonsten 2019; Cramer et al. 2020).

On the one hand, "integration" is a tool to provide European researchers access to resources and instruments that would otherwise be too expensive for a single institute or country. This is the case of RIs as the European Spallation Source

(ESS)¹¹, a massive endeavour to build the largest and most influential research facility based on neutron science. This ERIC comprises 13 European member countries, and the construction phase will end in 2025. This RI, once operative, expects to host 2-3000 European researchers yearly.

1.3.1 Research Infrastructures as connectors

Another possible reading of *integration* suggests the interpretation of RIs as "connectors" between research communities. One of the aims of the ERIC framework is to facilitate research communities to connect and collaborate more efficiently: from the very beginning RIs are born as hubs to facilitate the exchange and contact between researchers from different countries (European Union 2009). This is the case with the Digital Research Infrastructure for the arts and humanities (DARIAH-EU). This ERIC comprises twenty member countries, one observer country and several cooperating partners. From its inception, DARIAH-EU has invested in the communities of practices in the (digital) arts and humanities by creating the so-called DARIAH Working Groups (WG): grass-rooted, collaborative groups of researchers and experts having their roots in existing communities of practice.

Considering RIs at different levels of integration allows us to connect them to the strategic level and focuses on what they offer to the research communities. Some offer access to instruments and data, other methodologies and best practices, others access to a rich network of researchers.

I would like to close this section on Research Infrastructures by stressing on their complexity through an image provided by Jennifer Edmond (DARIAH's director from 2017 to 2022). Edmond describes infrastructures through the metaphor of the blind man sensing different parts of an elephant: similarly to the elephant, Research Infrastructures can be depicted differently depending on which of their "part" is described (Edmond 2015). RIs will be described as technical infrastructures, for others as a research community, and finally, as research data. All the stakeholders are, therefore, right in their judgment.

¹¹ <https://europeanspallationsource.se/>, accessed on 20.10.2023.

In the light of the concepts discussed in the previous paragraphs, the ERICs Research Infrastructures emerge as multidimensional realities: they include policy, technical, social, and political characters, making them interesting objects of investigation.

In particular, I am interested in looking at Research Infrastructures through the eyes of the researchers that take part in them. For this reason, the DARIAH Working Groups are the perfect empirical setting. To summarise, this study is informed by the case study of the DARIAH-ERIC through my personal experience and that of the community of researchers in the DARIAH.

Each DARIAH Working Group is run by European researchers (from different institutions) who focus on specific research topics (e.g., ethics and legality in the Arts and humanities) or methodology. The purpose of the DARIAH Working Groups is to provide concrete solutions to challenges encountered by existing research communities. These groups are composed of international researchers from different institutions, connecting around the same research interest. Among others, the Working Groups community comprises a group on research data management in the humanities, a group on Bibliographical Data Research or a group supporting theatre artists to implement digital technologies in their work.

The DARIAH Working Groups are both the "producers" and the "users" of the research resources made available through DARIAH: their goal is to create solutions to research problems they encounter daily as researchers. Employing the examples above, for instance, the Working Group on Research Data Management aims to provide humanities researchers with information and practical tools for correctly managing and publishing their data, in line with the principles of Open Science. Similarly, the Bibliographical Working Group aims to foster cooperation between the parties involved in Bibliographical Data Management, such as data producers, curators, and scholars. From this perspective, the epistemic driver of the Working Group is not strictly to develop new theoretical insights, but rather to provide solutions to existing challenges or to connect communities.

The DARIAH Working Groups and their internal organisation will be described and analysed in detail in Chapter 3. While leaving the most analytical part to the following

chapters, here I would like to give further arguments on why the Working Groups are at the centre of this investigation and what my research goals are.

As mentioned above, my initial interest in the DARIAH Research Infrastructure and its Working Groups was empirical: it started and grew while working with them and developed into an academic interest and research. Since starting to work as a DARIAH community coordinator in 2016, what I found interesting in the Working Groups was the *flexibility* of their collaboration - sometimes intense, other times looser; sometimes within the group, other times open and in connection with other scholarly centres or researchers. Some Working Groups were very engaged with planning new activities, while others were not meeting or exchanging for a long time and were thinking of dissolving the Working Group. Finally, all DARIAH Working Groups are voluntarily run, and their members do not receive any monetary compensation; I was hence interested to find out whether they had other types of reward through their participation in the DARIAH-ERIC.

These considerations, along with the reflection on Research Infrastructures provided above, helped me to form my research question around the following points:

- What kind of collaboration takes place in the DARIAH Working Groups?
- What social and epistemic dynamics occur inside the Working Groups?
- How do researchers collaborate inside Research Infrastructures?
- Finally, do Research Infrastructures encourage collaboration among researchers?

These research questions are located at the intersection between the social, epistemic and organizational layers, populated by researchers and other actors representing the supporting part of the infrastructure. My investigation through my PhD focuses on this contact point, which can also be seen as a friction point between two social and epistemic systems (that of the research community and that of the Research Infrastructures). For this reason, identifying the socio-political and

epistemic dynamics can clarify and ultimately reveal under which circumstances and boundary conditions those actors meet and collaborate.

The existing literature on the ERICs has, until now, focussed on their policy and governance aspects (Lindstrøm and Kropp 2017; Moskovko, Astvaldsson, and Hallonsten 2019; Cramer et al. 2020; Hallonsten 2020a). In this dissertation, I couple such an organizational perspective - which has deeper roots in the governance and research policy field - with a research methodology originating in science and technology studies (STS), with contributions from social epistemology and philosophy of science. For the latter, authors such as Knorr-Cetina, Leonelli, Wagenknecht and Hesjedal provide successful concepts and methodologies including examples of ethnographic methodology (Karin Knorr-Cetina 1981; Leonelli 2007; Wagenknecht 2016; Ankeny and Leonelli 2016; Hesjedal 2022).

By unravelling such dynamics between Research Infrastructures' governance and research communities, I will be able to answer the research questions posed above.

1.4 Chapters overview

The current chapter (Chapter 1, *Introduction*) is the opening of this research. Here for the first time, I introduce the stakeholders I will study, the research themes, and the theoretical frameworks from which this research takes inspiration. This chapter also lists the research questions and provides a motivation for them.

Chapter 2 introduces in detail the two stakeholders at the analytical core of this research: the DARIAH-ERIC and the DARIAH Working Groups. This chapter is primarily descriptive; it first provides the reader with an in-depth description of the DARIAH ERIC and a brief history of it, from its preparatory phase in 2006 until its recognition as an ERIC in 2014. This chapter then continues by providing an overview of the ERIC framework's regulatory statutes and DARIAH's, with a particular focus on the funding models. The focus on the funding models is particularly relevant because it directly impacts the type of knowledge created in the DARIAH infrastructure (e.g., the type of research outputs created by the research

communities). The first part of the chapter continues with an overview of the internal organisation of DARIAH-ERIC, its structure and governance, and finally, its mission statement, the strategic plan divided among four thematic "pillars": service provision, education and training, Open Science policy and research communities.

The second part of Chapter 2 focuses on the DARIAH Working Groups. Here I introduce the main features of the Working Groups (e.g., they are transnational and voluntarily run), the governance framework and the rules that support their existence and the number of members that are part of the DARIAH Working Groups. Finally, I give an overview of the life phases of the DARIAH Working Groups, from their proposal submission to their termination.

In *Chapter three*, I introduce the conceptual and methodological approach. I first outline the research design employed. While introducing the research design, I refer to the theoretical frameworks that shaped my reflection: namely, infrastructure studies, research policy and science and technology studies (STS). I conclude this first section by summarising the most relevant points from these approaches and presenting the synthesis and research design.

The second part of this chapter focuses on the empirical aspect of the research: the data collection and the data analysis. First, I illustrate the preparation and the running of the interviews; then, I proceed with the analysis of the data gathered. To let the concepts around infrastructures and collaboration emerge from the interviews, I applied a thematic analysis. This methodology allowed me to focus on broader segments of texts, where concepts, thoughts and feelings were expressed.

I conclude Chapter 3 with a focus on the interpretative dimension, which will then be further expanded in Chapters 4, 5 and 6. In this part, I anticipate the *micro/macro hermeneutic dimensions* (micro and macro refer here to the interpretative lens by which the interviewees from the DARIAH Working Groups reflect on the infrastructure (macro) or the dynamics inside the Working Groups (micro), as well as the socio-political and the epistemic dimensions, which I used as the axes of a graph to "measure" the concepts emerging from the interviews.

Finally, I conclude Chapter 3 with an overview of the methodological limitations of this research.

Chapter 4 presents the themes emerging from the interviews. In this chapter, the themes are interpreted and supported by quotes from the transcribed interviews. In addition, at this point of the research, I group the emerging themes according to the interpretative axes presented in the previous chapter: micro/ macro and socio-political/ epistemic.

Chapter 5 acts as a bridge, connecting the chapters where the data (empirical material) and the themes are presented (Chapter 4) to the chapter where the theoretical framework is outlined (Chapter 6). It is a discussion chapter providing a first interpretative layer to the themes and data emerging from the interviews. Here I focus on two primary dynamics emerging from the interviews (and introduced already in the previous chapter): the epistemic and the socio-political dynamics. These two dynamics define the relationship within the Working Groups and between the Research Infrastructure and the Working Groups. In this chapter, the defining concepts of this research begin taking shape, for example, around the concepts of placemaking and governance.

Chapter 6 is the central chapter dedicated to the theoretical framework which this dissertation produces. Here, I summarise the analytical and hermeneutic steps of the previous chapters (the literature analysis as point of departure) and provide a synthesising framework. In particular, I discuss the why and how the concept of co-creation becomes central for the understanding of the interaction dynamics between researchers and the Research Infrastructures. In my study, co-creation is understood both as a process and an outcome, which supports (and is supported by) the findings about the epistemic and social dynamics of the DARIAH Working Groups.

Chapter 7 is the concluding chapter. It summarises the main findings, statements, and possible interventions this dissertation delivers for the scientific debate about

Research Infrastructure and for the concrete, practical work in managing Research Infrastructures.

2 The DARIAH-ERIC and the DARIAH Working Groups

2.1 Introduction

As seen in the chapters' overview, Chapter 2 introduces the two stakeholders of this research: the DARIAH-ERIC and the DARIAH Working Groups.

In the first part I provide an in-depth description of the DARIAH ERIC and a brief history of it, from its preparatory phase in 2006 until its recognition as an ERIC in 2014. I will also give an overview of the internal organization, its relationship with the ERIC framework, and finally its strategic plan. The second part of this chapter will focus on the DARIAH Working Groups. I will provide an overview of their life phases, from proposal to termination, I will describe their main features (e.g., they are transnational and voluntarily run), and will focus on their governance framework.

As I will examine in the next chapters, the DARIAH-ERIC (pertaining to the regulations of the ERIC framework) and the DARIAH Working Groups, engage in a mutual exchange, which reflects both interdependencies and contrasts. The analysis that follows in this Chapter is therefore necessary to understand the characters and behaviours of both systems, which will be unfolded in Chapters 5, 6 and 7.

2.2 A brief history of DARIAH

The history of the DARIAH-ERIC (in short, DARIAH) began in January 2006, when representatives of four European institutions¹² met to identify how they could join efforts in providing services to the research communities they served, with a strong focus on the arts and humanities. The idea behind this meeting was to create a consortium of institutions to ensure the long-term sustainability of the digital

¹² Sheila Anderson, director of AHDS (UK); Peter Doorn, director of DANS (The Netherlands); Laurent Romary, director for scientific information at CNRS (France); Ralf Schimmer, representing Harald Suckfuell, in charge of scientific information for the Max Planck Society (Germany).

humanities community and the technical infrastructure necessary to support its work (Romary 2011).

In 2006, DARIAH was listed on the first publication of the European Strategy Forum on Research Infrastructure (ESFRI) Roadmap (ESFRI 2006). Following this recognition, DARIAH became a European project, thanks to funding secured under the European Commission's 7th Framework Programme (FP7), for its preparatory phase called *Preparing DARIAH*¹³, which ran from 2008 to 2011. Following this, in February 2011 DARIAH moved into a transition phase which would further build on the groundwork for its establishment as an infrastructure¹⁴.

In August 2014, the European Commission established DARIAH as an ERIC (EU Commission 2014) with 15 Founding Members (Austria, Belgium, Croatia, Cyprus, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, The Netherlands, Slovenia and Serbia). DARIAH was awarded the so-called *Landmark Status* in the 2016 ESFRI Roadmap, as a Research Infrastructure that reached its implementation phase and was considered a pan-European hub of scientific excellence¹⁵. DARIAH-ERIC is in its operational phase since 2019.

2.3 DARIAH's structure and governance

As described by Edmond, DARIAH has quite a traditional "chain of command" (Edmond et al. 2020). An executive and *organisational team* (responsible for the day-to-day operations, also called DARIAH Coordination Office) reports to a *Board of Directors* (one President and two Directors). This board, in turn, answers to the *General Assembly*, composed of all the countries' representatives: the General Assembly (GA) ultimately approves the election of new Directors, the annual budget and finally supports changes to the statutes. The General Assembly meets two times each year, once virtually and once in person (DARIAH-ERIC 2014).

¹³ <https://cordis.europa.eu/project/id/211583>, accessed on 10/02/2023.

¹⁴ <https://www.dariah.eu/about/history-of-dariah/>, last accessed on 10/02/2023.

¹⁵ <https://www.dariah.eu/about/history-of-dariah/>, last accessed on 10/02/2023.

In parallel, DARIAH features a knowledge-based organisational structure, which comprises the *Scientific Board (SB)*, the *Virtual Competence Centres (VCCs)*, the *Joint Research Committee (JRC)* and the *Working Groups (WGs)*.

The *Scientific Board* has an advisory role: it advises the General Assembly, the Board of Directors, and the Joint Research Committee on research developments and innovative technology services in the arts and humanities¹⁶.

The *Virtual Competence Centres (VCCs)* are virtual expertise centres that guarantee high-quality research-based activities in DARIAH-ERIC. Differently from the Scientific Board they are involved personally in DARIAH's activities and have an advisory role toward the Joint Research Committee (JRC) and the Working Groups (WGs). There are four VCCs.

VCC1, or *e-Infrastructure*, is responsible for DARIAH's technical infrastructure. It supports and advises both DARIAH's Directors and the Working Groups on technological and infrastructural developments.

VCC2, *Research and Education Liaison*, promotes the development and accessibility of training on the use of digital technologies to arts and humanities researchers VCC2 also provides a link between the existing training communities in the arts and humanities domain.

VCC3, *Scholarly Content Management*, advises researchers on the scholarly content life cycle, from creation and management to archiving or dissemination.

VCC4, *Advocacy, Impact and Outreach*, can be considered a transversal VCC, which intersects all the others, as it aims to assess the impact of DARIAH and to amplify its outreach to stakeholders such as (among others) research communities and policymakers.

The VCCs also have the essential task of advising and guiding the DARIAH Working Groups (WG). I will introduce the DARIAH Working Groups in detail in the second part of this chapter, but I would like first to give a brief, general introduction here.

¹⁶ <https://www.dariah.eu/about/organisation-and-governance/#scientific-board>, accessed on 20.02.2023.

The Working Groups are groups of researchers from DARIAH member countries¹⁷; they are transnational and collaborate in a distributed manner.

The WGs are self-organised and share an interest in a common research topic. Working Groups have a specific purpose: they develop services for the research community which can be of scholarly, technical, editorial, or organisational nature. One could say that they essentially contribute to building and extending the DARIAH Infrastructure.¹⁸

The Joint Research Committee (JRC) brings together the coordinators of the VCCs (also called VCC heads) and the Chief Integration Officer (CIO)¹⁹. The latter, the CIO, has a specific role in the DARIAH coordination team (DCO), designated to coordinate the activities of the JRC. Since 2017, the function of the CIO is executed by means of a team (also called Chief Integration Office, see Figure 1) with clear division of labour between officers responsible for the WGs, the in-kind contributions, and other clearly defined regular organisations tasks.

¹⁷ The coordinators of the DARIAH Working Groups need to be institutionally based in one or more DARIAH's member countries. However, the rest of the WG participants can be institutionally based in DARIAH non-member countries. This is regulated in the Internal Rules of Procedure document (DARIAH-ERIC 2020)

¹⁸ <https://www.dariah.eu/activities/working-groups-list/>, last accessed on 20.02.2023.

¹⁹ The CIO has also the role of supervising the "collection" the in-kind contributions from the member countries (see subsection on ERIC Regulation)

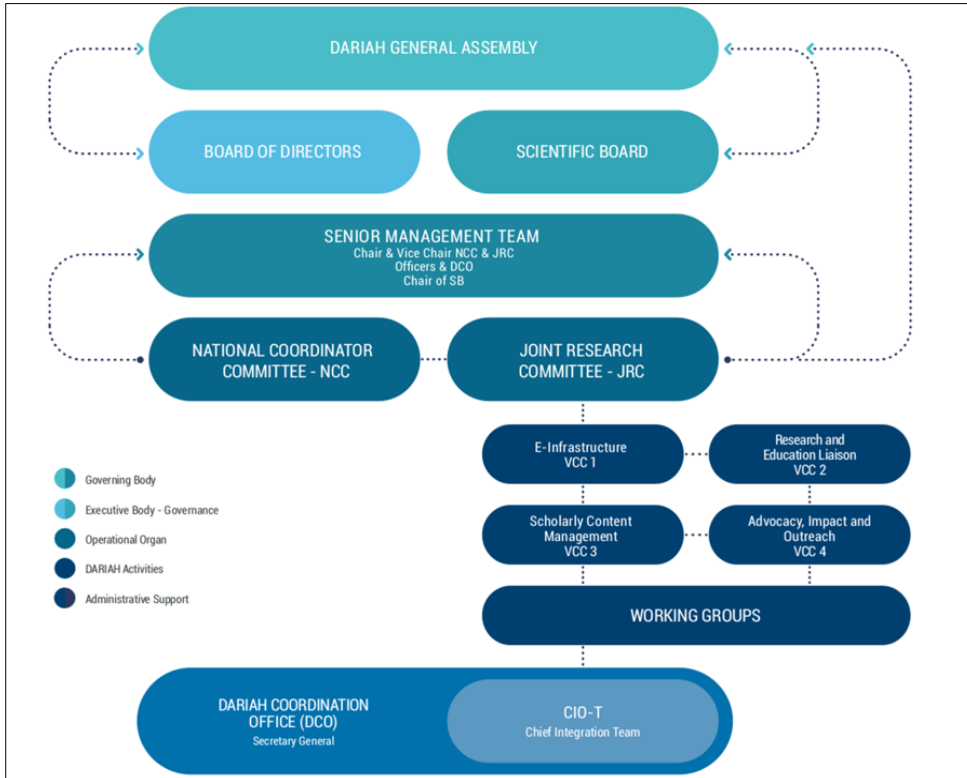


Figure 2-1. Organogram of the DARIAH-ERIC²⁰

2.4 DARIAH as an ERIC

2.4.1 ERIC legal and organizational regulations

The DARIAH-ERIC regulation derives from the general ERIC regulation. These regulations come in the form of a *statute*, which gives high-level guidance on the functioning of any Research Infrastructure (European Commission 2009).

²⁰ <https://www.dariah.eu/about/organisation-and-governance/>, accessed on 20.10.2023.

The statute provides the ERICs (in this case, DARIAH) the status of legal entities. As a legal entity, DARIAH can participate in projects as a beneficiary or accept financial contributions from the member states (DARIAH-ERIC 2014).

As expressed by the ERIC statutes, member states have a prominent role in the ERICs. Therefore, at least two member countries (excluding the country hosting the ERIC) are requested to set up an ERIC (European Commission 2009).

For DARIAH, this ratio was largely surpassed since its inception, by beginning its activity as an ERIC in 2014 with 15 member countries.

The financial viability of an ERIC is ensured by a requested membership fee. Each member country participating in the ERIC contributes financially to the ERICs in two ways. Member countries contribute through a cash contribution for their participation: the calculation of this financial contribution is indicated in the statute and is related to the GDP of the same country (DARIAH-ERIC 2014). Member countries contribute not only in cash, but through in-kind contributions too: these are non-monetary contributions from the member countries to the DARIAH-ERIC in addition to the cash contributions. They include the provision of research services, resources, training, or other means to support research, including organisational activities as chairing a Working Group. The in-kind contributions aim to make national scholarly resources available to a broader scholarly audience through the DARIAH Research Infrastructure. In-kind contributions have a monetary value attached (corresponding to their estimated realisation cost) and their suitability for the DARIAH-ERIC is examined by one of the internal research teams, the Joint Research Committee (DARIAH-ERIC 2020).

The existence of the in-kind contributions funding model is quite representative of a *marketplace* structure in which DARIAH has built its organisation, with the end goal of sharing and making accessible what has been created by research communities in the DARIAH member countries (Edmond et al. 2020).

Such marketplace is a format which is used by many ERICs. While cash contributions ensure the stable functioning of the DARIAH Coordination Office (with staff employed by DARIAH), the in-kind contributions build the tangible core of the

infrastructure, and therefore are continuously monitored and discussed in the context of the DARIAH strategy (Barbot et al. 2021).

2.4.2 DARIAH mission and pillars

Since its inception, one of the most significant challenges for the DARIAH-ERIC has been that of recognising and communicating its own mission and impact.

DARIAH's directors have openly described this difficulty, especially when compared to other ERICs in the humanities, such as the CLARIN-ERIC²¹.

“DARIAH's role and impact is perhaps the more challenging one to understand. CLARIN takes a well-defined community (linguists) and offers them a relatively clear set of tools and services. However, DARIAH serves a more inchoate and diverse community — the arts and humanities writ large — and provides them with something other than a digital library or archive” (Edmond et al. 2020).

From the beginning in 2006, the founding countries of DARIAH realised how crucial the community of researchers would have been in providing inputs and supporting the infrastructure. This understanding informed the initial design of the infrastructure's Working Groups, community-driven research groups with semi-structured governance. It also informed the creation of *Virtual Competence Centres* (VCCs) as thematic hubs around which research communities could develop.

Another understanding that played a crucial role in the initial design of the infrastructure has been that of DARIAH as a *marketplace* for the arts and humanities: a central virtual location to which researchers could refer to when in need of a service (e.g. access to storage or software), know-how (a community of experts, giving training or guidance to junior researchers), resources (e.g. cultural heritage data, stored in members countries archives) (Romary 2011; Edmond et al. 2020).

These two elements, the research community, and the marketplace, have developed since 2014 when DARIAH became an ERIC. However, during the past few years, two additional aspects of DARIAH's design have gained momentum: *Open Science policies* and *training and education*.

²¹ <https://www.clarin.eu/>. Accessed on 15.02.2023.

It was in 2019 that DARIAH outlined its mission according to four strategic pillars in a strategic plan document: 1. Marketplace, 2. Training and Education, 3. Research Communities 4. Open Science Policy (DARIAH-EU 2019), envisioned to capture the period 2019-2026.

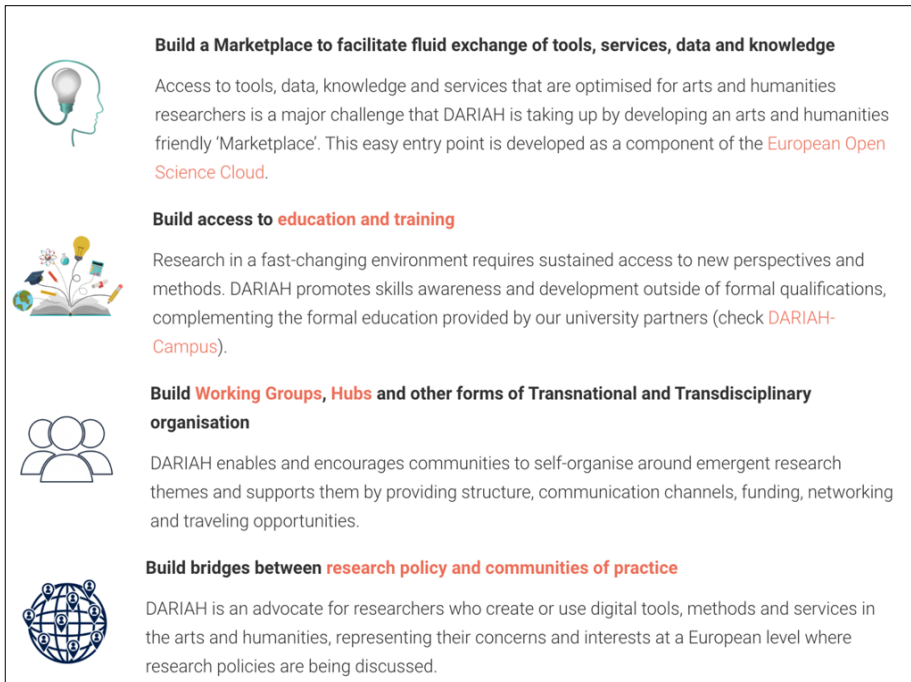


Figure 2-2. The four strategic pillars in DARIAH-ERIC²²

Let us look at the strategic pillars in detail:

1. Marketplace of tools and services

As previously mentioned, the idea of a marketplace in the DARIAH-ERIC has been present in its design since the initial discussions among DARIAH's founders. The idea of providing a virtual place that could function as a "toolbox" that researchers could turn to in case they needed access to services, data or resources found a more concrete application when

²² <https://www.dariah.eu/about/mission-vision/>, accessed on 20.02.2023.

DARIAH took part in the European Project *SSHOC*²³. Through the Social Science and Humanities Marketplace (SSH), researchers can access tools and services, training materials, publications, datasets, and workflows.

2. Training and Education

Training and Education have always been one of DARIAH's focal points: the Working Group #DARIAHTEACH²⁴ was one of the first Working Groups created in the DARIAH research community. The Virtual Competence Centre VCC2 is also dedicated to this task (I will give more information on the VCCs in the next section). Similarly to the SSH Marketplace aforementioned, also training and education developments became more concrete with the realisation of a platform called *DARIAH Campus*²⁵. Following the idea of the marketplace – DARIAH Campus makes training and learning modules in the digital Arts and humanities freely available to researchers.

3. Working Groups and transnational/ interdisciplinary communities

This strategic pillar focuses on the research communities that develop around DARIAH. These communities are represented by the DARIAH Working Groups, on which I will elaborate in the second part of this chapter.

4. Open Science Policy

The principles of Open Science²⁶ have always been crucial for the DARIAH-ERIC, which was created to make scholarly materials freely accessible to the community of arts and humanities scholars, just like the other strategic pillars mentioned above. However, it was not until 2018 that DARIAH decided to prioritise Open Science and to bring it to the top of its strategic agenda (Edmond and Tóth-Czifra 2018; Romary and Tóth-Czifra 2019). To

²³ <https://www.sshopencloud.eu/ssh-open-marketplace>, last accessed on 21.02.2023.

²⁴ <https://teach.dariah.eu/>, accessed on 16.04.2023.

²⁵ <https://campus.dariah.eu/>, accessed on 21.02.2023.

²⁶ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science_en#documents, accessed on 16.04.2023.

facilitate the adoption of Open Science practices by the DARIAH research group, an Open Science Officer was appointed. The responsibility of promoting DARIAH's community among other European Research Communities and Infrastructures falls on the Open Science officer (Tóth-Czifra 2021).

2.5 The DARIAH-ERIC Working Groups

2.5.1 Introduction: Features of the Working Groups

The DARIAH Working Groups²⁷ are groups of researchers that gather spontaneously around similar research interests within the domain of the Arts and humanities.

They are grassroots collaborative initiatives (not created by the central coordination of the ERIC) and originate from existing communities of practice.

The DARIAH WGs can be described foregrounding the following aspects:

- Representing and based on certain communities of practice
- Characterised by loose leadership
- Having a transnational character
- Based on voluntary work

In the following, I describe each of these aspects more closely, and refer -where appropriate – to related concepts in existing literature.

2.5.2 Based on the existing community of practices

As aforementioned, contacts among researchers who form and participate in a WG can be established in many ways. Nonetheless, they all have in common the fact that they revolve around existing communities of practices. The concept of Community of Practice is rooted in the work of Lave and Wenger, where these arise as socially situated activities and whose participation is experienced by its members as a learning process (Lave and Wenger 1991; Lave 1991). In communities of

²⁷ <https://www.dariah.eu/activities/working-groups-list/>, accessed on 16.04.2023.

practice, learning takes place "in action" and can be described as becoming a skilled community member. Wenger describes three main characteristics that communities of practice should have (Wenger 1998; 2011).

1. They represent a domain and share specific knowledge and competence that distinguishes them from other communities.
2. The members of the community of practice engage in exchanges and discussions and build relationships that enable them to learn from each other.
3. A community of practice members are practitioners who share resources, methodologies, tools and practices.

In light of this description, it seems reasonable to consider the DARIAH Working Groups as communities of practice: the DARIAH Working Groups members belong to the same disciplinary domain of the arts and humanities. They exchange and share resources and practices. Finally, its members learn from each other and create a fertile ground for collaborations. Sometimes, the DARIAH Working Groups resume pre-existing research projects whose funding is terminated. In other cases, they create "ramifications" toward new networks of researchers: as an example, the DARIAH WG Digital Numismatic²⁸ was founded as an extension of the *Nomisma.org*²⁹ network. As the coordinator of the WG Digital Numismatics mentioned during the interview:

We have been having annual meetings for eight or nine years now. But we have a regular monthly video call for this management group, and essentially, we've turned that into DARIAH. So, we're in a bit of a strange position because what has happened is we've always been a Working Group, but it was very unofficial. And DARIAH has actually given us an official

²⁸ <https://www.dariah.eu/activities/working-groups/wg-digital-numismatics/>, accessed on 24.07.2022.

²⁹ <https://nomisma.org/>, accessed on 16.04.2023.

name for it now, which is very, very useful, certainly. (Interviewee #WG9)

2.5.3 Loose leadership

Leadership in the DARIAH WGs consists in coordinating the activities performed by the WGs, rather than coordinating its members. The coordination activities can be defined as "mission-oriented", focused on the realisation of the research project; the coordinators ensure that the expected outcomes (a report, a document, a tool, a workshop) are successfully completed.

Each WG usually has two (in one case, three) coordinators managing the activities of the WGs. As the interviews in Chapter 4 will show, the coordinators generally perform most of the strategic and hands-on activities (writing reports, proposals, documents) and involve the rest of the members in specific activities (e.g., participation in workshops or collaborative editing).

Despite the "loose" character that leadership assumes in the Working Groups, it nonetheless has a crucial role in the success of the WGs.

2.5.4 Transnational

Researchers of the WGs are often from different institutions (universities, research institutes, research libraries or archives), networks and countries, and usually know each other from previous collaborative projects or during previous research positions.

The following points describe how networks of researchers emerge within the DARIAH Working Groups:

- Via institutional connections: researchers are affiliated with their respective institutions and meet when these embark in collaborative projects.
- Via personal contacts: collaborative research networks arise outside the Institutional framework and build on personal connections, between researchers that meet at conferences, for example. As emerged from one of the interviews:

There are other networks. As I said, for instance, the digital archaeology network. That's very human, people-based, and there I'm directly involved with people, and people know me. I know people, and then they will invite me to apply, and there is nothing official or nothing really tangible. It's all [based] on relations, experiences [...] and the work you do...I must say I developed a series of network connections.

(Interviewee #WG8)

- Via social media: Other times, research networks may arise through social media, like Twitter. As one of the interviewees acknowledges:

I really met people I did not know at all through Twitter, and I have been pulled into certain, um, grant applications. Certain article-writing groups, etcetera [were also enabled] through Twitter, too.

(Interviewee #WG8)

2.5.5 Voluntary

The DARIAH Working Groups operate on a voluntary basis; they are not compensated for their contributions to the DARIAH-ERIC network. They do, however, have access to several funding options. One example is the bi-annual funding scheme specifically intended for Working Groups, whose budget supports the realisation of a one-year long research project³⁰.

Additionally, the Working Groups have access to several resources. For instance, DARIAH pays for the travel expenses of two Working Group members to the annual meeting. Additionally, DARIAH offers them a blogging tool, a mailing list, and access to the ERIC's network of researchers, supporting them in terms of communication.

³⁰ <https://www.dariah.eu/2021/11/05/dariah-working-groups-funding-call-2021-2023/>, accessed on 16.04.2023.

The fact that participation in Working Groups can be irregular and sporadic is one of the effects of voluntary work. For instance, a participant may only attend part of a two-day collaborative session due to conflicting job or family obligations. The WG coordinators and the other participants generally tolerate such intermittent commitment.

2.5.6 The position of the Working Groups in the ERIC - Ties to the ERIC

Despite their lack of formal leadership and voluntary involvement, the DARIAH WGs have a formal relationship with the ERIC's coordination. So, while they emerge self-organised and self-sustained, the ERIC provides a stable governance framework for them. The WG Policy document³¹, which outlines in depth the requirements for forming a WG, the reporting requirements and the circumstances for terminating a WG, contains the rules for the operation of the WGs.

As described in the WG Policy document, one can distinguish specific life phases of a WG: WGs need to present an initial plan that is subject to the approval of DARIAH's directors. Once operational, they submit an activity report for the previous year; if they fail to provide such a report, or the activities are considered insufficient, the Working Group is invited to terminate its activities (see Fig. 2.4).

2.6 Working Groups Participants' facts and numbers

At the moment of conducting this research, the DARIAH-ERIC counts 17 active Working Groups³². The topics of their investigation are diverse and, as mentioned above, reflect the current discussion in Digital Art and Humanities community of practices. The table below (see Table 2-1) lists the names of the current Working Groups.

Names

The names of the Working Groups reflect what a certain WG focuses on; for example, the *Research Data Management Working Group* focuses on creating

³¹ https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 01.03.2023.

³² <https://www.dariah.eu/activities/working-groups-list/>, accessed on 16.04.2023.

shared guidelines among scholars in the humanities on research data management practices. The *ELDAH Working Group* (Ethics and Legality in the Digital Arts and humanities) developed a software for creating a consent form that researchers can share with their interviewees.

Number of Members

The size of the Working Groups varies; some have four or fewer members (see #dariah Teach in the chart below), while others have up to 85 members (see the Women Writers in History WG in the table below). There are typically two coordinators for every Working Group. In one case there are three coordinators: this is the situation in one group that has formalised the division of tasks (one person handles general coordination, another handles WG communications, and a third person is responsible for content curation in the WG's database). Table 2-1 shows the number of members for every active DARIAH Working Group.

Activities

The proposal submitted to the coordination of the ERIC in the accreditation process includes a description of the tasks that each WG will perform. Typical activities and outcomes of the work of the WGs are workshops and seminars, guidelines (e.g., WG Research Data Management³³), software (e.g., WG Digital Practices for the Study of Urban Heritage³⁴), Training Material (e.g., #dariah Teach³⁵), content creation and accessibility (e.g., Women Writers in History³⁶), Methodology (e.g., WG Digital Numismatic³⁷). Through dedicated websites (such as the #dariahTeach website³⁸),

³³ <https://www.dariah.eu/activities/working-groups/research-data-management/>, accessed on 02.04.2023

³⁴ <https://www.dariah.eu/activities/working-groups/digital-practices-for/>, accessed on 02.04.2023.

³⁵ <https://www.dariah.eu/activities/working-groups/dariahteach/>, accessed on 02.04.2023.

³⁶ <https://www.dariah.eu/activities/working-groups/women-writers-in-history/>, accessed on 02.04.2023.

³⁷ <https://www.dariah.eu/activities/working-groups/wg-digital-numismatics/>, accessed on 02.04.2023.

³⁸ <https://teach.dariah.eu/>, accessed on 02.04.2023.

blog pages (such as the UDigiSH blog page³⁹), Google Groups, and email lists, all the results of these activities are shared and made publicly available. (e.g., WG Artificial intelligence and Music).

Meetings

The frequency of the Internal WG meetings is also at the discretion of the WG coordinators. Most meetings occur online and can vary from once a month to every few months. The meetings serve the scope of updating each other, planning sessions (where tasks are assigned) or brainstorming sessions. The Working Groups sometimes embark on hands-on, collaborative sessions in the form of writing sprints. These collaborative working sessions can take place online, in person or as hybrid events and can last for several days, as the writing sprint organised in the summer of 2022 by the WG Research Data Management. I will describe this working session in more detail in the following chapters.

³⁹ <https://udigish.hypotheses.org/>, accessed on 02.04.2023.

| Name Working Groups | Members |
|--|----------------|
| Theatralia | 24 |
| Research Data Management | 36 |
| Bibliographical Data | 36 |
| Digital Practices for the study of Urban Heritage | 42 |
| Artificial Intelligence and Music | 23 |
| DARIAH Teach | 11 |
| Digital Numismatics | 25 |
| ELDAH | 41 |
| Visual Media and Interactivity | 9 |
| Guidelines and Standards | 11 |
| Analysing and linking biographical data | 7 |
| DH Course registry | 8 |
| Thesaurus Maintenance | 31 |
| Geo Humanities | 9 |
| Medievalist sources | 3 |
| WG Sustainable publishing of (meta-)data | 20 |
| Lexical Resources | 2 |
| Women Writers | 85 |
| Image Science and Media Art Research | 1 |
| Community Engagement | 3 |
| tot. | 427 |

Table 2-1. Names and number of DARIAH Working Group members

2.7 Life's phases of a DARIAH Working Group

From their beginning to their dissolution, the DARIAH Working Groups follow a path articulated by a series of procedures, whose steps are recorded in the Working Group Policy Document⁴⁰. These steps are also summarised in *Figure 2-4*.

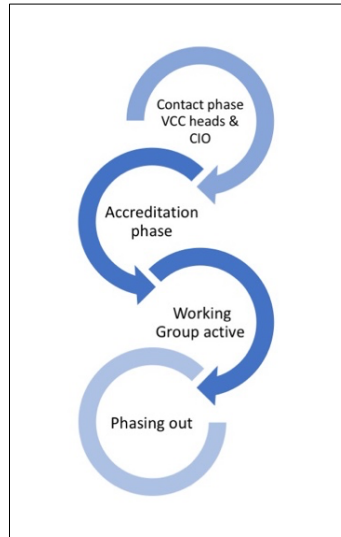


Figure 2-3. DARIAH's Working Groups phases, as reported in the DARIAH WG Policy Document⁴¹

- **Ideation Phase – Contact phase VCC heads & CIO**

A DARIAH Working Group typically starts with a study or collection of inquiries meant to close a theoretical gap for which the scientific community lacks an answer.

For example, the Bibliographical Data WG⁴² aims to connect experts working on the bibliographical data lifecycle, especially in the field of digital humanities. Despite being a rapidly evolving field, "there are no comprehensive initiatives aimed at

⁴⁰ https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 01.02.2023.

⁴¹ https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 20.10.2023.

⁴² <https://www.dariah.eu/activities/working-groups/bibliographical-data-bibliodata/>, accessed on 17.04.2023.

addressing the issues of bibliographical data from the perspective of digital humanities and data-driven research", shares one of the coordinators⁴³. Usually, the idea comes from a small number of researchers who know each other from previous (national or international) collaborations. This small group, in most cases, constitutes the core group of the future DARIAH WG. The core group usually communicates its ideas to other known researchers and tests the interest in forming a DARIAH WG. This phase usually involves using collaborative text editors like Google Docs. At this point of the formation process, all the researchers interested in the Working Group can shape its vision and objectives.

- **First Contact with the ERIC**

During this phase, the core group approaches the DARIAH ERIC (or a person known inside it) to test the interest on the topic and to require guidance with the proposal's template (which is included in the Working Group Policy document⁴⁴). This phase is still characterised by informal exchanges between researchers and DARIAH's coordination.

- **Proposal submission – Accreditation phase**

In this phase, the future WG submits the official WG proposal to the ERIC. The proposal is sent to the DARIAH's coordination team. It includes the names, the institution of the coordinators and participants, the motivations to establish such a WG, the objectives, the planned activities and the envisioned deliverables or milestones.

According to what emerged from the interviews, there is no set amount of time between the ideation phase and the submission of the WG proposal. This phase may last anywhere between six and twelve months.

- **Validation phase**

The WG proposal is received by the ERIC's coordination and shared with the Joint Research Committee (JRC). As each WG is associated with one of the four Virtual Competence Centres, or VCCs, the incoming WG proposal is assigned to a VCC

⁴³ New DARIAH Working Group on Bibliographical Data, accessed on 26.07.2022 <https://www.dariah.eu/2019/11/04/new-dariah-working-group-on-bibliographical-data/>

⁴⁴ https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 15.02.2023.

head, who is requested to provide feedback. This feedback is then shared with the WG proponents, who implement it and improve the initial proposal. As soon as the JRC approves the WG proposal, this can be shared with the Board of Directors (BoD) for the final approval. The Board of Directors can reject a proposal, in which case the Senior Management Team (SMT) is consulted for a final (and definite) decision (Scharnhorst, Morselli, and Admiraal 2019). The involvement of the Senior Management Team in the decision-making process ensures that the proposals are thoroughly evaluated before being approved or rejected. This helps maintaining a high level of accountability and transparency within the organisation.

- **Working Group is Active**

From this moment the Working Group is active and is included on the WG page on the DARIAH website⁴⁵. The Working Group can perform activities using the DARIAH name and logo, apply for the DARIAH bi-annual funding, and is supported by a dedicated DARIAH WG coordinator and a communication officer (to disseminate news concerning the WG). Each year, the WG is requested to provide a report of the activities, including the research outputs concluded in the previous year (Scharnhorst, Morselli, and Admiraal 2019).

- **Working Group is dissolved - Phasing Out**

In case the WG fails to report about the previous year's activities, or if the activities and research outputs performed are considered insufficient, the DARIAH coordination can suggest to the WG that it be temporarily suspended or terminated (Scharnhorst, Morselli, and Admiraal 2019). It also happened that the WG decided spontaneously to terminate its activities. This highlights the importance of regular reporting and active participation in the WG to avoid suspension or termination. It also emphasises the autonomy of the WGs in deciding to terminate their activities.

The following table summarises the phases of the DARIAH Working Group's lifecycle. For each phase, the stakeholders are highlighted.

⁴⁵ <https://www.dariah.eu/activities/working-groups-list/>, accessed on 17.04.2023.

| Phase or Activity | Members of the WG | ERIC coordination office |
|-------------------------------------|--|--|
| Working Group ideation phase | Core members of WG have the initial idea and begin to test interest and recruit members from different institutions/ countries | This phase usually takes place among the founders of the Working Group. The ERIC is not involved yet, if not informally: the founder might be interested in informal feedback from the ERIC's coordination office. |
| First contact with the ERIC | Core members of the WG make initial contact with the ERIC, the VCC heads, to test the interest of the ERIC in the topic | VCC heads, JRC are the first contacts. Even if there is not yet an official request, the ERIC bodies are informed of the idea of a certain community to submit a proposal. |
| Proposal Submission | Core members of the Working Group work on the submission template | - |
| Accreditation Phase | - | The proposal's template is designed by the ERIC's coordination office. The submitted proposal is first reviewed by a VCC head. The final review and approval (or |

| | | |
|--|-----------------------------------|--|
| | | refusal) is done by the DARIAH Board of Directors. |
| Working Group is active, works on a plan and/or funded projects | All members of the Working Groups | The ERIC has a designated person coordinating the community of Working Groups who follows the Working Groups through different phases of their life and activities; this person is responsible for receiving the reporting of the Working Groups |
| Working Group is inactive or terminated | | In the case the Working Group is not active anymore, the ERIC may decide to terminate it. The Working Group itself can also decide to stop the activities. |

Table 2-2 DARIAH Working Group's lifecycle

3 Research Design. Theoretical approach, methodology and data collection

3.1 Introduction

Following on from the first two chapters, the current chapter focuses on the overall research design, including the methodology I adopted, and details of the data collection. The first part of this chapter examines the literature available and the theoretical approaches relevant to answer the research questions.

As a reminder, the central research questions are:

- What kind of collaboration takes place in the DARIAH Working Groups?
- What social and epistemic dynamics occur inside the Working Groups?
- How do researchers collaborate inside Research Infrastructures?
- Finally, do Research Infrastructures encourage collaboration among researchers?

In the literature I review I attempt to collocate the research of this PhD into the existing philosophical and sociological research landscape, identifying analogies and differences with other approaches that reflect on research in general and on Research Infrastructures specifically. I also investigate disciplinary approaches beyond social sciences and philosophy.

In the second part of this Chapter, I explain how the data were gathered, primarily through interviews and participant observation. Here, I describe the methodology in further detail: how the interviews were planned, carried out, and finally how the data from the interviews were handled and analysed.

Eventually, this Chapter considers the limitations of the chosen research design: what is missing? What are the risks? What are the biases we need to consider?

3.2 The theoretical approach

3.2.1 The theoretical angle and literature study

In the previous chapter (Chapter 2), I already described in detail the two main objects of this research: the DARIAH-ERIC Research Infrastructure and its Working Groups. Furthermore, with the research question in mind—whether ERIC Research Infrastructures support collaboration among researchers—I chose to observe and study these two stakeholders first in isolation and then, in a dynamic relationship.

In the initial phase of my research, I relied on the so-called “reference models” of Research Infrastructures (Fihn et al. 2016). In such a reference model, the infrastructural perspective on the ERICs describes the main actors and the actions taking place between them. But I soon realised that the literature relevant to analyse the dynamics of a Research Infrastructure is distributed over different bodies of knowledge.

In this phase, I identified and consequently focused on two existing approaches: the first, based on the analysis of Research Infrastructures (see Figure 3.1), while the second studies collaborative practice both among single researchers and research groups (see Figure 3.2).

Both approaches will be discussed later in detail below. By analysing these two approaches, I aimed to identify the gaps and overlaps in the existing literature and to develop a comprehensive framework for my research. This phase provided me with a solid foundation for the subsequent stages of my research. Figure 3.2 sketches how the bodies of knowledge I retrieved from the literature and the main research dimensions of my study are interrelated.

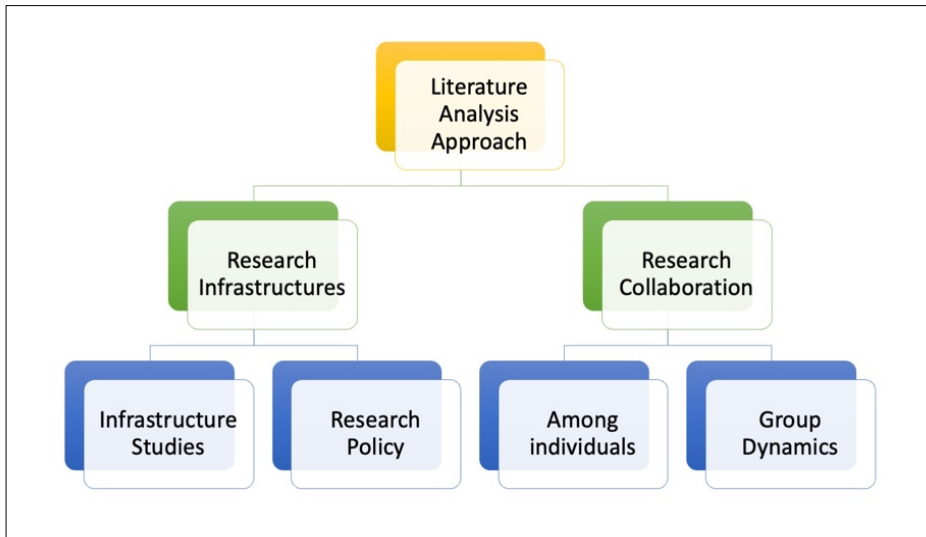


Figure 3-1. Various approaches to the literature analysis.

These two approaches (the one studying the ERIC Research Infrastructures and the one studying collaborative dynamics) will intersect throughout the whole research. To a certain extent, the adoption of the two research lines recalls the dichotomy between *actors* and *system* (in which the actors interact) depicted by authors reflecting in terms of *system theory* (Luhmann 2013; Baraldi, Corsi, and Esposito 2021). There is a dialectic relationship between the system and its actors: in other words, the interaction between actors creates the system, and the system in turns creates boundary conditions for the actors. Both parties are complex objects in themselves, and consequently the existing literature focuses either on Research Infrastructures (what I called the “system”) or on research communities (what I called the “actors”).

Despite being apparently irreconcilable, they (perspective on the ERIC and on the collaborative dynamics in the ERIC) nonetheless provide a balance to my analysis. They help me negotiating and navigating between an approach that would otherwise be too oriented towards Research Infrastructures and an approach solely focused on researchers and collaborative aspects. The resulting approach from this balancing exercise has ultimately proved constructive in investigating the point of

encounter, between the ERICs Research Infrastructures, researchers, and their collaborative practises.

The following subsections illustrate the disciplines and the literature that eventually guided me in this research. The literature that I will describe has been retrieved mainly through the reference database *Web of Science*⁴⁶. This instrument supported me especially in the first phase of my research, where I gathered information on the state of the art on the study of the (Research) Infrastructure concept. Also, the literature on Research Infrastructures provided by the Research Policy field of study, emerged as a subset of the more general research on Research Infrastructures. By contrast, the second branch of the literature approach (that focussing on collaboration on researchers) developed in parallel with the analysis of the interviews, and unfolded as I deepened my understanding of the DARIAH Working Groups relations. While discovering new social dynamics among researchers, I explored the Science and technology studies (STS) seminal works on collaboration in science with contributions from the fields of Philosophy of Science and Social Epistemology. It can be said that while the first branch of my investigation adopted an inductive approach (starting from the literature available and applying to it my case study), the second part (that coming from the analysis of the interviews) follows a deductive and empirical approach. In this case the interviews, and the information that have emerged through them, guided my reflection and consequently the research for a framework that could best give them a solid theoretical foundation.

3.2.2 Infrastructure studies

The first field of investigation I turned my attention to at the beginning of this research was *infrastructure studies* (Jackson et al. 2007; P. Edwards et al. 2009). At first, I needed to familiarise myself with the concept of infrastructure and, consequently, to connect this literature to my case study.

⁴⁶ <https://www.webofknowledge.com/>, accessed on 1.05.2022.

I soon realised that the concept of infrastructure is not univocal; on the contrary, it is very diverse depending on the historical period in which it developed, and the discipline that analyses it (Koselleck and Presner 2002).

The term "infrastructure" was initially used to refer primarily to physical infrastructures for communication and transportation, such as roads and cables (Hughes 1993). Research Infrastructures are defined by their engineering definition as a substructure, which refers to a structure that is below the user's line of sight, invisible to them, but necessary for the conduction of routine operations (both military and civilian).

The materiality of infrastructure has been a good starting point in understanding the crucial character of infrastructures as mechanisms that allow social actors to perform an action or to provide a service.

Authors which contributed to Infrastructure Studies have however remarked on the socio-technical nature of infrastructures: infrastructures, in other words, reflect the features, characters and roles of their creators; ultimately infrastructures are shaped by their users (Star and Ruhleder 1996; Star 1999; Latour 2005; Kaltenbrunner 2015b).

Similarly, Research Infrastructures (RIs) too have been described as socio-technical implementations that allow researchers to create, process, store and access data (Ribes and Lee 2010); they are hidden and transparent, visible upon breakdown (Star 1999), and susceptible to the organisational aspects that influence the creation and adoption of technology (P. N. Edwards et al. 2007). RIs are also relational and embedded in research practices: "we hold that infrastructure is a fundamentally relational concept. It becomes infrastructure in relation to organised practices.....Thus we ask, when – not what – is an infrastructure" (Star and Ruhleder 1996).

Finally, they are seen for their capacity to bridge communities and connect resources (research instruments or scholarly outputs) and ultimately knowledge (Edmond 2020).

3.2.3 Policy studies of infrastructures

The second approach I examined looks at Research Infrastructures from the perspective of research policy (see Fig. 3-1). Research policy studies examine Research Infrastructures as inscribed in a policy, political, and economic system and, simultaneously, as a reflection of it. This perspective has been crucial in analysing my case study because it shows Research Infrastructures not only as research instruments, but also as socio-political instruments inscribed in political and economic discourses.

In the last two decades, the ERIC Research Infrastructures have been increasingly the object of scholarly investigations. This research interest has materialised from disciplines such as Research Policy and Sociology of Science, and authors such as Papon (Papon 2004), Hallonsten (Hallonsten 2020b), Moskovko (Moskovko, Astvaldsson, and Hallonsten 2019), Lindstrøm (Lindstrøm and Kropp 2017) and Cramer (Cramer et al. 2020) dedicated their research to the legal and policy aspects of the ERICs.

Papon mainly focused on the historical policy perspective (Papon 2004), while Hallonsten compared existing ERICs in a taxonomy (Hallonsten 2020b). Moskovko, finally, concentrated on the legal, organisational and science policy perspectives. Moskovko has undertaken in-depth research on the CERIC-ERIC⁴⁷ and the European Spallation Source (ESS-ERIC)⁴⁸ (Moskovko, Astvaldsson, and Hallonsten 2019). ESS is active in the field of neutron science, while CERIC-ERIC is an umbrella ERIC providing training and support on topics related to Open Science.

Of the aforementioned authors, only two - Lindstrøm and Kropp – have to my knowledge investigated research policy in Social Science and Humanities (SSH) ERICs. Even so, the European Social Survey (ESS), the object of study of Lindstrøm and Kropp, can probably best be described as a Research Infrastructure for the quantitative social sciences, as it collects survey data on European citizens “attitude and behaviour” and delivers the technological infrastructure to do so⁴⁹ (Lindstrøm and Kropp 2017).

⁴⁷ <https://www.ceric-eric.eu/>, accessed on 17.04.2023.

⁴⁸ <https://europeanspallationsource.se/>, accessed on 17.04.2023.

⁴⁹ <https://www.europeansocialsurvey.org/about/faq.html>, accessed on 17.04.2023.

Besides, extensive research on Research Infrastructures in the social sciences has been conducted by Kleiner and collaborators (Kleiner et al. 2013). Kleiner's study, on the other hand, focuses on aspects of Research Infrastructures such as data documentation, processing, protocols, and methodology, whereas this research focuses on the social, epistemic, and political dynamics of ERICs.

3.2.4 Collaboration among researchers

In the previous sub-sections I already mentioned how my research draws on from two large distinct bodies of work: that concentrating on Research Infrastructures (more specifically, the ERICs) and that concentrating on the actors and processes inside Research Infrastructures.

In particular, the second body of knowledge has been crucial to investigating the social dynamics between researchers in the DARIAH Working Groups (see Fig. 3-1). While the ERIC Research Infrastructures provide the institutional framework, the scaffolding, on which interpersonal relations occur, the focus in this section zooms-in on the *why* and *how* researchers collaborate in Research Infrastructures.

If the reflection on infrastructure is already scattered, the same holds for interaction between researchers. Social interactions between researchers and other actors relevant in the academic system have been widely studied, by sociology of Science, Philosophy of Science, Communication Studies and Science and Technology Studies, to name a few.

My own starting point at this early phase have been studies such as the ones performed by Latour and Knorr-Cetina (Karin Knorr-Cetina 1981; Latour and Woolgar 1986; Latour 1987), as well as more contemporary ethnographic studies conducted as those conducted by Leonelli, Wagenknecht, Hesjedal, Antonijević and Pawlicka-Deger (Leonelli 2007; Antonijević 2015; Wagenknecht 2016; Pawlicka-Deger 2020; Hesjedal 2022). These examples have in common that they study researchers at work, in the process of creating knowledge.

Within this approach, the object of study are interpersonal relationships: interactions during meetings or workshops, as well as within email exchanges. The aim is to identify how interactions between researchers influence the processes of creation of knowledge.

Noticeably, most ethnographic studies investigating interactions between researchers have examined mainly scientific (STEM – Science, Technology, Engineering and Medicine) subjects.

In contrast, I am interested in investigating research conducted in the fields of digital arts and humanities Research. For this domain, Antonijević and Pawlicka-Deger can be considered pioneers in this regard (Antonijević 2015; Pawlicka-Deger 2020; 2022). These authors have showed that arts and humanities researchers at work are interesting to study mainly because they establish interactions with both technology and the infrastructure supporting them, by giving rise to new research practices and methods.

3.3 Synthesis and Research Design

After briefly presenting the literature that shaped my investigation, I will now introduce a newly developed conceptual synthesis, which provides a base for the theoretical framework that I will present in the following chapters.

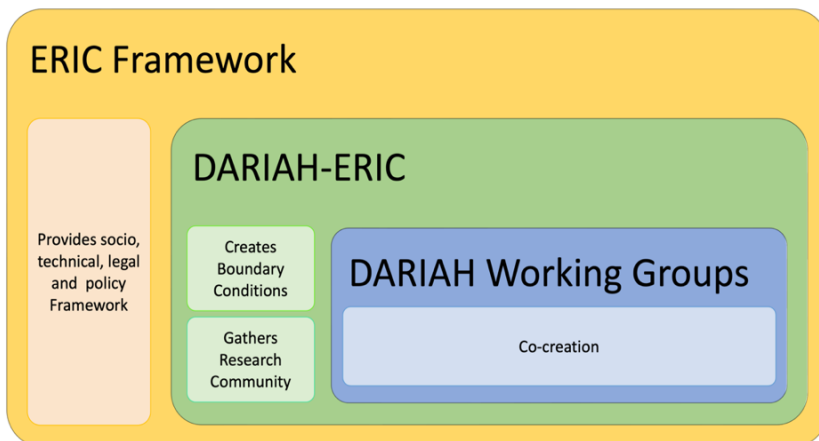


Figure 3-2. Research design adopted- these are the findings.

Looking at the research questions (Chapter One), the DARIAH Working Groups and their research practices are the core of my investigation (blue box in Figure 3-2). However, I contend that the organizational and policy framework established by the

ERICs (green box in Figure 3-2) is essential to the existence of research practices and the knowledge generated (See Chapters 5 and 6). Through its governance model, an ERIC (yellow box in Figure 3-2) provides the rules and the boundary conditions by which participants, such as the Working Groups in the case of the DARIAH ERIC, can operate and create new knowledge. Two dynamics (social and epistemic) can thus be identified: the first one concerning the ERIC framework itself, which with its governance, provides the limits and boundaries for the Working Groups to operate (Busse, Kach, and Wagner 2017). The second dynamic concerns the proper DARIAH Working Groups themselves but is in turn shaped by the ERIC's structures and governance.

I suggest that the dynamics resulting from this interaction (between the ERIC as a system and the Working Groups as actors inside the ERIC) takes the form of *co-creation*. I will come back to the concept of co-creation in Chapter 6.

3.4 A reflexive perspective of the (Digital) Humanities

One may notice that the existing literature examining case studies in the digital humanities is rapidly increasing. It is worth noticing that such case studies and ethnographic researches contribute to a reflexive and critical understanding of the humanities as a discipline, and its evolution toward a digital-based discipline.

To present, one of the well-known ethnographic contributions about humanist researchers at work is the research by Antonijević (Antonijević 2015). In the digital humanities, the issue of defining new research workflows is of particular interest to Antonijević. As the digital humanities are still a relatively recent evolution of their non-digital counterpart, this means that novel research workflows have to be redefined by researchers.

Another seminal work that investigates the ethnographic aspect of DH researchers and practitioners at work is the research of Julianne Nyhan on the work of Father Busa and his *Index Thomisticus*⁵⁰. Father Busa is considered by many the founder of the digital humanities discipline. In 1949 he began a collaboration with IBM to index the 56 printed volumes of Thomas Aquinas. The project lasted around 20

⁵⁰ <http://www.corpusthomicum.org/it/index.age>, accessed on 18.04.2023.

years, then 30 years later, in 1989, a CD-ROM version was produced. One may imagine this decades-long work of Father Busa as a solitary one, but Nyhann's research highlighted a very different process (Terras and Nyhan 2016; Nyhan and Passarotti 2019; Jones 2016). Nyhann discovered that 65 punched card operators - all women - collaborated at the project⁵¹. In 2014 Nyhann identified and interviewed three of them, and brought to light a very complex project, where managers and punched card operators followed a long training and many tests before being admitted to do the actual job (Terras and Nyhan 2016; Nyhan and Passarotti 2019). Antonjevic's and Nyhann's projects have greatly contributed to the historical and methodological reflection on the digital humanities and, perhaps indirectly, also to the History and Philosophy of digital humanities.

Other important reflexive contributions on the work of Digital Humanists have come from within, by humanities scholars (Liu 2012b; 2017; Svensson 2012; Anderson 2013; Anderson and Blanke 2015; Svensson 2016a; Edmond 2015; van Zundert 2012) and from Science and technology studies (STS) (Kaltenbrunner 2015a; Pawlicka-Deger 2020; 2022).

The themes emerging from the contributions of these authors can be roughly connected to a few dominant themes.

The identity of Digital humanities is one of the most pressing issues (Liu 2012a; Svensson 2012; 2016a). Liu adopts a critical lens and criticises digital humanities' practitioners for being scarcely involved in cultural and societal challenges, where instead arts and new media scholars have had a prominent position: "While digital humanists develop tools, data, and metadata critically, (...) rarely do they extend their critique to the full register of society, economics, politics, or culture".

Liu's worries are ultimately connected to the future of the discipline, which is in his words at a "threshold point" and risks being blocked from further growth if it fails to connect with the societal dimension (Liu 2017).

Different is the position of Svensson, who has a more hands-on approach to the discipline and defines the digital humanities as "making". "I use making in the chapter title to accentuate the idea that implementing the digital humanities must be

⁵¹ The text of the *Index Thomisticus* had to be encoded into IBM punched cards.

grounded in down-to-earth practice, material intellectual engagement, and institutional strategy" (Svensson 2012; 2016a).

Similarly to Liu, also Svensson underlines the dimension of the societal link between digital humanities and society, "Another, more general concern is broader than just the digital humanities or this particular moment in time: the role of the humanities and arts in our society, and making in the sense of innovation and building our future".

But the concern and urgency of his arguments differ from those of Liu, who is much more concerned about the critical presence of DH in the humanities. Svensson suggests that society should incorporate more art and DH research, but he doesn't mention how this should be done (Svensson 2012; 2016a).

Another stream of reflexivity from humanities scholars is less concerned about the nature and the future of the (digital) humanities, but mainly with its socio-technical character. This view originates in Anderson and Blanke, who consider the digital humanities as crucial in their relational aspect, as a trading zone, or better, as a marketplace of services and practices. In this space both researchers and technology influence each other (Anderson and Blanke 2015).

Such a socio-technical perspective brings me to consider another stream of literature, coming from the Science and Technology (STS) theoretical framework.

One of the first STS studies reflecting systematically about innovation in the Humanities, is the collaborative work of Wouters, Beaulieu, Scharnhorst and Wyatt, *Virtual Knowledge. Experimenting in the Humanities and the Social Science* (Wouters et al. 2013). "This work starts from the observation that the Social Sciences and Humanities (SSH) are undergoing profound changes that bring to the fore the notion of knowledge. [...] Given that society and the products of human creativity and interactions are the main objects of study of SSH, the implications of changing the modes governance and organizations are likely to be different than for natural sciences and engineering" (Wouters et al. 2013).

In his PhD Dissertation, Kaltenbrunner analysed the field of the digital humanities and digital scholarship. His research question focussed on whether the adoption of digital techniques has modified the object and the organisation of the enquiry. In

particular, Kaltenbrunner analyses the development of DH scholarship and focuses on what he names "Inertia" in the DH infrastructure. This shouldn't be confused with immobilism or refraining from changing, but as a mechanism through which the scholarly DH investigation has stabilized by connecting with the existing body of knowledge (Kaltenbrunner 2015a).

Finally, another important body of work on digital humanities from a STS framework can be identified in the work of Pawlicka-Deger (Pawlicka-Deger 2020). This author has looked at the digital humanities from different angles (e.g., hers is the ethnographic investigation on digital humanities laboratories), but for the purpose of this reflection I would like to mention one of her most recent work on infrastructures for digital humanities. In her article "Infrastructuring digital humanities", Pawlicka-Deger analyses the emergence of DH infrastructures and identifies three characters of DH Infrastructures: connection, standardization and access. This view of Infrastructure, Pawlica-Deger states, "is an attempt to examine the system upon which digital practices and the DH community run and which constrains the development of the field" (Pawlicka-Deger 2020).

All these reflections on the changing landscape of the digital humanities show that reflection on the digital Arts and humanities field is growing. Besides, such reflection doesn't originate only within the domain of the Humanities, but disciplines such as STS have been interested to examine modes of knowledge creation and dissemination in the humanities as well.

In such intellectual context, where the arts and humanities are increasingly the object of study of other research fields (such as STS and Philosophy, in addition to the humanities themselves), my investigation aims to provide insights on an additional perspective through which the arts and humanities can be studied: that studying collaboration among researchers within ERIC Research Infrastructures.

3.5 Data Collection

The following section presents the data collected for this study and introduces their analysis. The methods I apply can be best described as a mix of qualitative social sciences methods: participatory observation, analysis of textual resources and

ethnographic approach. Ten interviews with the DARIAH WG members form the core of my empirical study.

3.6 Interviews

Since I have been part of the DARIAH Coordination Office (DCO) (from 2016) coordinating the DARIAH Working Groups, I had a facilitated access to the interviewees. Therefore, the identification of the candidates for my research was relatively easy.

From the initial design of the study onwards, I had an idea of the people I wanted to interview. During the preparation of the questions (see Interview Protocol in Annex, section 10.3) I was also facilitated by the fact that I already had some knowledge about the career, the field of expertise and the seniority level of the people I was about to meet. This knowledge helped me to adapt the questions or to focus on specific aspects rather than others.

While this pre-existing knowledge has been of great help in the preparation of the research, it is also true that with such an insight knowledge comes the risk of biases and, consequently, distortion of the data. I tried to prevent and overcome such biases by developing a few mitigation strategies, which I will describe in Section 3.11.

3.6.1 Preparing the interviews

The interviews lasted around 60 minutes each. In all cases, a Zoom link and a copy of the *Interview Consent Form* (see Annex, section 10.2) were sent in advance. This document explained to the interviewees the background and the purpose of the research, the collection of the data and the duration of their retention. This consent form is based on work done by one of the DARIAH Working Groups⁵², whose coordinator has also been interviewed in the context of this research.

3.6.2 Conducting the interviews - the process

In 2016, before beginning the present research, I ran 18 interviews with the DARIAH Working Groups. At that time the purpose was not to collect information for this

⁵² The Consent Form Wizard was developed by the Legal and Legality DARIAH Working Group (ELDAH) <https://eldah.hypotheses.org/>, accessed on 12.03.2023.

research but rather to familiarise myself with the community of DARIAH Working Groups, before starting to work with them. Up to that time, the DARIAH ERIC knew very little about the kind of practices taking place in them. The outcome of these interviews was recorded in text files and used as evidence for an internal report (see Annex, section 10.1) that served the ERIC organisation to become acquainted with the internal dynamics of the Working Groups. The 2016 report was the first systematic study to map the WG dynamics in DARIAH. In turn, the report's content has also been used as additional "data" for this research.

The preparation for the interviews done for this PhD study began in early 2020 with the outline of an *Interview Protocol* (Jiménez and Orozco 2021). The interview protocol I created comprises 5 sections: 1. Introduction of the research project, 2. background of the interviewee, 3. relation with the infrastructure and the Working Groups, 3. integration of activities, 4. Collaboration and 5. Innovation.

Except for the first section, where I introduced myself and my research objectives, the other five areas aimed to gain information on the interviewees and their relationship with the DARIAH infrastructure.

The interviews were set up as semi-structured interviews (Bryman 2012; 2015). The interviews with the 10 selected interviewees were conducted between December 2020 and July 2021.

3.6.3 Online versus in-person interviews

The interviews took place exclusively online; this was planned already in the original research design. As the DARIAH WGs are international and based in many different European countries, it was easier to speak online with them. However, in addition, I had also previously planned to interview the researchers and attend a few WG meetings during the DARIAH Annual events in 2020⁵³ and 2021⁵⁴. Unfortunately, I

⁵³ <https://annualevent.dariah.eu/documents/2020-scholarly-primitives/>, accessed on 17.9.2023.

⁵⁴ <https://annualevent.dariah.eu/documents/2021-interfaces/>, accessed on 17.04.2023.

had to renounce to these moments of data collection due to the COVID pandemic and the DARIAH annual conference being moved entirely online.

All in all, the repurposing of the interviews online didn't affect the general planning, and I am confident that this change didn't have any repercussion on the outcomes of the interviews. As for the interviewees, they are acquainted with online meetings and remote exchanges in general. Having stated this, finally, what I most likely missed in the online interactions were the interviewees' personal, informal, nonverbal exchanges. In any case, the online medium did not significantly affect the outcome of the interviews.

3.6.4 Selection of the interviewees

A total of 10 people were interviewed. The interviews lasted around 60 minutes each, and the videoconferencing tool *Zoom* was used for all of them. The interviews took the form of semi-structured interviews: the previously introduced protocol provided a guide for the discussion with the interviewees. However, the questions were adapted to each person, depending on how the conversation evolved.

The interviewees were selected among the pool of the DRAIAH Working Group members, according to the following criteria:

- **Academic seniority and roles within their research institutes:** the selected interviewees reflect a good balance between early career researchers (3 interviewees) and senior academics/ Associate Professors (2 interviewees). Interestingly, four interviewees are researchers within their Research Institute, and their positions also integrate project and research management functions (4 interviewees). In addition, one of the interviewed researchers (and a member of a DARIAH WG) is the Chief Technology Officer (CTO) of a research institute in a DARIAH member country. The table below (Table 3-1) shows the Institutional roles and the career stage of the interviewed researchers and members of the DARIAH Working Groups.

| Role and seniority | Quantity |
|---|----------|
| Early Career researchers (including assistant professor) | 3 |
| Senior academic/ professor | 2 |
| Research coordinator/ project Manager (medior-senior) | 4 |
| Senior Researcher in Research Institute | 1 |

Table 3-1. Institutional roles of the WGs members

- **Participation in other DARIAH strategic bodies.** The interviewed researchers are all part of the DARIAH Working Groups. Some of them, however, participate also in other strategic and coordination bodies of the ERIC, namely the National Coordinators (NC), the Joint Research Committee (JRC) and the DARIAH Coordination Office (DCO) (see Chapter 2). This co-participation in different strategic and coordination bodies is an essential element and an indicator of the interconnectedness of the roles and people inside this ERIC.

The following table shows the participation of the DARIAH Working Group coordinators in other DARIAH strategic bodies.

| Roles in DARIAH-ERIC | Quantity |
|-----------------------------|-----------------|
| Working Group coordinator | 10 (all) |
| DARIAH National Coordinator | 3 |
| Joint Research Committee | 1 |
| DARIAH Coordination Office | 1 |

Table 3-2. Participation of the interviewed WGs members in other DARIAH coordination bodies

- **Country of provenance.** One of the criteria to select the interviewees was their country of provenance, with the goal of having a good representation of the European countries participating in DARIAH. The table below shows the distribution of the research participants among the countries of provenance (the institution hosting the researcher).

| Country | Quantity |
|----------------|-----------------|
| Germany | 2 |
| Croatia | 1 |
| Greece | 1 |
| Cyprus | 1 |
| UK | 1 |
| Belgium | 1 |
| Poland | 1 |
| Austria | 1 |
| Netherlands | 1 |

Table 3-3. Country distribution of interviewed WGs members

- **Successful and unsuccessful experiences in the DARIAH Working Groups.** Another criteria employed during the selection of the interviewees was that having a good representation of good and negative experiences in the DARIAH Working Groups. In this way I tried to have a good balance of positive and negative point of views for my analysis.

3.7 Methods for the analysis of the collected data

3.7.1 Thematic Analysis

For the analysis of the collected data, I applied a method called *thematic analysis*. Thematic analysis is a method for identifying, analysing, and reporting patterns (or themes) within data. Thematic analysis can be considered a "data-driven" method (Braun and Clarke 2006) in the sense that the themes emerging from the interviews "guide" the interviewer, by making significant patterns or gaps appear that require further analysis.

Despite being widely used, Braun and Clarke argued that thematic analysis still needs to be acknowledged as a data analysis method in its own right and should be granted more consideration among other qualitative methods such as content, discourse or narrative analysis.

Among the downsides of thematic analysis is the hermeneutic risk of considering the emerging themes as if the data were magically disclosing them for us. The risk is that the researcher working on the data (in this case, me, the author) will lose the agency, as a result of an interpretative oversight. In reality, the themes emerge from the researcher's interaction with the data: "If themes reside anywhere, they reside in our heads from our thinking about our data and creating links as we understand them" (Ely et al. 1997).

As described by Braun and Clarke, the thematic analysis reflects both a contextualised method - something in between a realist methodology (which reports the experience of the participants) - and a constructionist approach (which considers how events and realities are constructed by language and society). Another way to look at thematic analysis is through the lens of "critical realism" (Sims-Schouten, Riley, and Willig 2007), which acknowledges how individuals create meanings of

their experiences and how in turn, the social context impacts on those. Thematic analysis is a method that reflects reality through language and, at the same time, reveals reality by overcoming the interpretative limitations of language.

I chose thematic analysis because the flexibility of this method allowed me to "play" with the transcriptions and to work with larger units of text, compared to the procedures of content analysis (Bengtsson 2016).

The first draft of the thematic units was sketched on paper. I first analysed the transcriptions of the interviews multiple times by identifying macro areas of (consistent) meaning through the texts. The following step was that of determining whether the themes already identified matched the full text of the interviews or whether a new theme had to be created instead.

Following this iterative phase, and once I had an almost stable version of the macro-themes, I drafted a conceptual map where I connected the macro-themes with excerpts of the interviews, using the interviewees' own words to support the association with the given labels.

This phase, including the graph's design, took place in *Miro*⁵⁵, a tool for graphic representations.

The image below shows a portion of the conceptual map I developed, which includes the macro-themes as labels identified in the interviews. The screenshot below highlights the macro-theme "Collaboration in the Working Groups". In connection to it, the excerpts from the interviews belonging to this macro theme are visible (see Fig. 3-3).

⁵⁵ <https://miro.com/>, accessed on 18.04.2023.

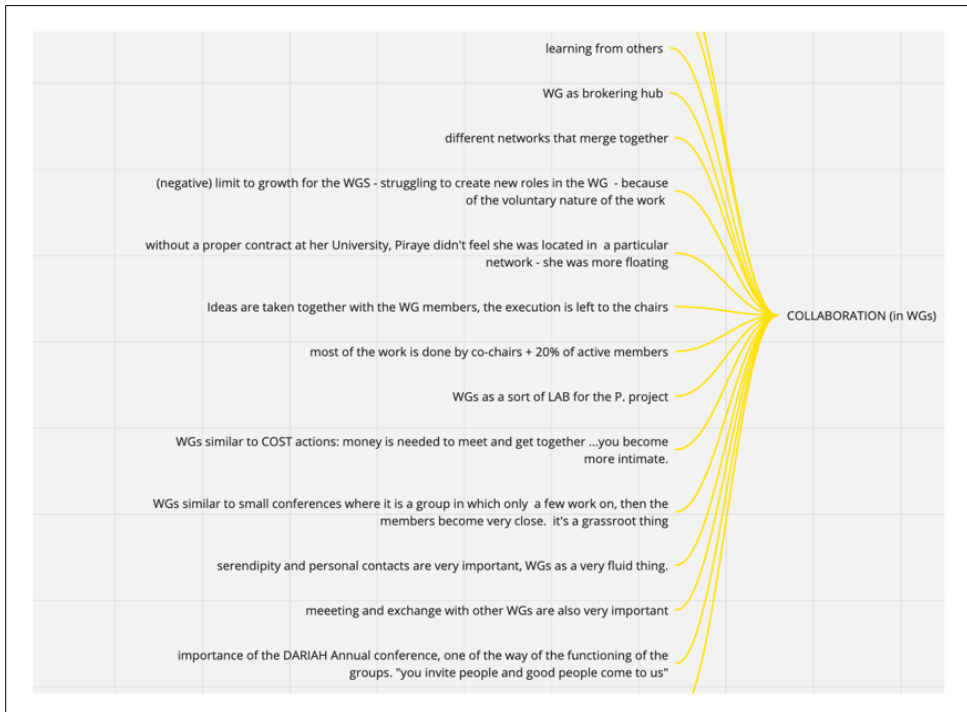


Figure 3-3. Conceptual map of the thematic themes in Miro

3.8 The hermeneutic dimension

After having identified the themes emerging from the interviews, I moved on to question them from the perspective of my research questions: which epistemic patterns emerge from the interviews? Is it possible to identify frictions between the researchers' collaborative perspective in the WGs and the normative, policy aspects of the DARIAH ERIC? This last aspect - the tension between the social and the policy dimensions - is a relevant hermeneutic lens I will elaborate on further in the following chapters.

For the moment, I wish to introduce two main analytical readings that I will apply to the data collected; these will serve as an interpretative compass in the analysis of the interviews.

First, I apply a distinction between *micro and macro dimensions*. These refer to the "lenses" through which the interviewees narrate their lived experiences: in some of their narrations, the interviewees focussed on the aspects of their participation in the ERICs. They highlighted the "big picture" of the ERIC framework, reporting on what they experienced as advantages and disadvantages in its governance, the most salient aspects, and what they found helpful for their academic development. I named this the *macro dimension*.

In other cases, the interviewees focused "inward" by reflecting on their own experiences as researchers, operating as a member of a WGs within an ERIC Research Infrastructure.

The second interpretative dimension distinguishes between *epistemic and socio-political dynamics*. Among the epistemic dynamics, I recognise those elements in the interviews that identify, describe or lead to the process of knowledge creation in the DARIAH Working Groups. Consequently, by social and political dynamics, I identify those elements connected with the social and strategic dimension of the ERICs and the Working Groups that emerged from the interviews.

These two interpretative axes, the 1. micro-macro lenses and the 2. epistemic and socio-political dynamics form the basis for the analytical framework of this research. These will be employed in Chapter 5 and 6, where I will connect the empirical data with the existing literature and the existing theoretical frameworks.

It is also worth noting that the deductive methodology I used - from empirical data of the interviews to theory generalisation - is reflected in the design of a conceptual pyramid chart. This graphical representation ultimately aided the iterative generalisation process required to move from interview data to theoretical framework.

Besides, this visualisation allowed the identification of patterns and relationships within the data, which informed the development of a more refined and comprehensive theoretical framework. This approach facilitated a more systematic and rigorous analysis of the interview data.

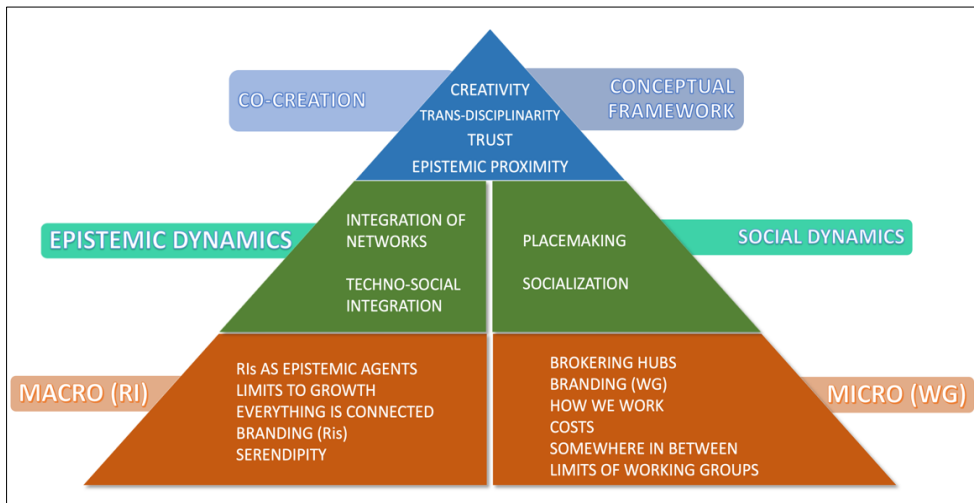


Figure 3-4. Proposed research' conceptual framework.

3.9 Reflecting on research limitations and biases

In the introduction to this Chapter I stated that as author of this dissertation, I have had an advantaged access to the interviewees. I am the researcher conducting the investigation and, at the same time, I actively participate in the daily management of the DARIAH Working Groups, as I have been working for the DARIAH-ERIC since 2016.

Undoubtedly, the fact that I am an "insider" in the DARIAH community is ambivalent regarding the accessibility to the data and the interviewees. On the one hand, the selection of the interviewees was facilitated by the existing knowledge of the case study and the community from within. Nonetheless, it raises ethical considerations as to whether the interviewer independently approaches the research question and is unbiased in interpreting the data collected.

Moreover, by having such a privileged observation point made it more challenging to observe the Working Groups "objectively".

Some of these difficulties were expected, while others were unforeseen. Following is a list of the methodological biases (Bryman 2012) I have encountered during the different phases of this research:

- **Selection bias:** by knowing the members of the Working Groups before the beginning of the research, I may have unconsciously selected the interviewees according to a personal inclination toward those people, to the detriment of others.
- **Interpretation bias:** the interpretation of the data collected through the interviews may be unintentionally biased by previous knowledge and experience with the DARIAH Working Groups members.
- **Difficulty in selecting the documentation** collected during the years: the abundance of documents to analyse for the research (meetings' minutes, meetings' recordings, history of the Working Groups retractable in various official documents, a web wiki) is undoubtedly a very positive element for one's research. However, the abundance of relevant material may represent an obstacle to selecting what is relevant for this research and what is not.

During my research, I have implemented the following **mitigation strategies** to avoid methodological biases.

In the first place, I selected and invited to the interviews those members of the Working Groups that are more engaged in the DARIAH landscape and that actively attend DARIAH initiatives, like the DARIAH Annual Event. Secondly, through the selection of the interviewees, I aimed at having a good representation of European countries, as well as different levels of academic seniority (from post-doc to Associate Professor).

Last, I aimed to interview several research support specialists, such as archivists and librarians, as these constitute a relevant community in DARIAH too.

To prevent the risk of interpretation biases, I also put into practice a few preventive measures. First, my supervisors validated and reviewed the data analysis. Second, I compared my findings with finding from literature in the same or neighbouring research fields. Last, and perhaps most importantly, in my research, I always linked the theoretical generalisations with extracts from the interviews, therefore supporting

the theory with real case studies. I here draw on Chang's understanding that case study and philosophical generalisation must support each other (Chang 2007).

The last bias described above is related to the selection of data and information. In the years I have worked at DARIAH, a considerable quantity of documentation has been produced, including material that potentially could have been relevant to my research. This includes notes or recordings of DARIAH Working Group meetings. Despite the abundance of material, I decided to use the interviews I conducted in 2020 and 2021 as primary resources for my investigation. For the sake of clarity, I should add, that all the Working Groups meetings I attended in the last six years have informally but undoubtedly informed my research

4 Results. Presentation of the themes emerging from the interview analysis

4.1 Overview of the themes

Following on the previous chapter, where I introduced the methodology to analyse the interviews' transcriptions, I present here the themes that emerged from their analysis. This chapter is mainly descriptive and provides an overview of the themes that emerged from the exchanges with the interviewees (see Interview protocol for complete list of question in Annex, section 10.3).

The presentation of the themes is organised according to the structure presented in the previous chapter, namely around the two interpretative axes: ***micro/macro*** and ***epistemic/ socio-political dynamics***. First, I will proceed to analyse the themes using a *macro lens*, focusing on reflections on the ERICs and their internal dynamics. In this section, I collect those statement in which the interviewees often engaged in reflections on the ERICs as policy-driven instruments, as well as on their epistemic role as enablers of new knowledge. I will then move on to other themes where the ERICs emerge mainly as enablers of socio-political relationships.

In the second part of the chapter, I will move on to analyse the *micro* level of analysis. Again, I will present how epistemic ad socio-political dynamics appear when looking at the interviews through the micro level lens. Naturally, through the micro-level reading, the granularity of the dynamics observed is much refined and mainly based on statements about interpersonal relations.

MACRO interpretative lens

| | |
|----------------------------------|---|
| | Where is knowledge created in the ERICS |
| | “We are the big screen for the indie productions” |
| | Limits to epistemic growth |
| | Everything is connected - Connectedness of research communities |
| | Branding |
| | Limits of the socio-political dimension |
| | Serendipity |
| MICRO interpretative lens | |
| | Brokering Hub |
| | Branding and Prestige |
| | How we work |
| | The role of size |
| | Costs |
| | “I am somewhere in between” |
| | Limits of the Working Groups |

Table 4. List of themes as emerged from the interviews.

4.2 The Macro interpretative lens

4.2.1 Where is knowledge created in the ERIC?

As noted in previous chapters, the ERIC Research Infrastructures are complex organizations, with embedded social, technological and political features (Lindstrøm and Kropp 2017; Moskovko, Astvaldsson, and Hallonsten 2019; Cramer et al. 2020; Hallonsten 2020a) (see Chapter 1 and 2). However, in the interviews I was interested to learn how the interviewees experience Research Infrastructures, and in this case study, the DARIAH-ERIC.

What emerged from the interviews is that researchers consider the technical aspects, such as databases to host researcher's data or research software, as the *sine-qua-none* of Research Infrastructures. However, they also acknowledge the crucial role of Research Communities as decisive for the maintenance of the technical infrastructure.

This view is shared by most interviewees who recognise the importance of both aspects - the technological and the social - in the making of an ERIC. As stated by one of the interviewees:

[research] infrastructure really is like... the technical infrastructure is very important. But the human infrastructure that is keeping the technical infrastructure running is just as important, if not more important.

(Interviewee #WG6)

In the next extract, and similarly to what was expressed by the researcher above, Research Infrastructures as hardware, need the support of the community of researchers to survive and thrive:

For me, it was very difficult at first to understand DARIAH as an infrastructure of people. And I said that, no, it's super important, but this is not infrastructure, sorry. The infrastructure is hosting services, it's data services, it's research support services, it's computers, it's storage services, it's standards, it's interoperability pipeline. It's, uh, it's a directory of vocabularies. It's everything like that.

(Interviewee #WG4)

Then, in a second moment, the interviewee adds:

I think it's primarily the community uptake... having community support, having communities around the infrastructure, is the single most important thing that makes infrastructure work. So

infrastructure for me is the hardware and the IT. But it's primarily dependent on the people. And I think the same is true for DARIAH.

(Interviewee #WG4)

This connection of the ERIC with technology and research communities is so strong that one of the interviewees perceives the term "infrastructure" as not representative of what the ERICs are:

The term infrastructure is dangerous because it separates the technology from the people.

(Interviewee #WG6)

These excerpts show that researchers of the DARIAH Working Groups perceive Research Infrastructure crucial both for their technical characters (and therefore the technical support they provide) and for the opportunity they offer to meet other researchers and initiate new collaborations. Research Infrastructures comprise both technology and research community ("people"); furthermore, the supposed separation between technology and community is seen as detrimental to the process of knowledge creation, for it downplays the influence of one on the other element, when in reality these are tightly connected.

4.2.2 “We are the big screen for the indie productions”

Research Infrastructures emerge in the interviews not only as “enablers” of research processes. They are considered as active agents in the research process.

In the following excerpt, for example, one interviewee highlights one of the main responsibilities of Research Infrastructures: to provide a standardised understanding of the research process and research workflows to ultimately allowing exchange and collaboration.

So [Research Infrastructures] have to, you know, to sort of balance this kind of interplay between enough commonality and enough standardization at a certain level in order to allow, for instance, the findability of resources to allow scholars to talk to

each other and communicate with one another. You need a certain level of standardization for that. But, uh, there should always be a balance with the ability to be able to work outside of the box and to be able to develop new things.

(Interviewee #WG5)

Here the interviewee explains how difficult it is for humanities scholars to reach uniformity in standards and workflows: the disciplines that are part of the humanities are too different to achieve a standardised workflow. The role of a Research Infrastructure in the arts and humanities is therefore, the interviewee suggests, to allow, to offer a space to exchange and learn new methodologies.

Similarly, another interviewee indicates that RIs are part of the research process because they allow the dissemination of the research outputs.

The main responsibility of Research Infrastructures is to enable work and to perpetuate the results of it, through organisational or technical means.

Infrastructures are part of the research process; you need them to make your research valuable, in a sense, because research - well, it's a philosophical question, and probably also political one...- But if I do research and I don't have any place where I can show this research to someone else, what's the point? and that's what I think is the trend in infrastructures as well: Yeah, like we are the big screen for the indie productions out there.

(Interviewee #WG6)

These interventions suggests that the dissemination practices performed by the ERICs are not simply communications to the "outside": they rather amplify the research work and outputs performed by communities inside the ERIC to the research communities outside the ERIC. The aim of these communication actions is twofold: on the one hand, it allows other researchers to recognise, re-use and cite the work done inside DARIAH. On the other hand, it communicates the type of research performed and attracts other researchers who might want to get involved.

4.2.3 Limits to epistemic growth

Despite the positive voices raised by researchers about DARIAH ERIC, there are also aspects less positive that emerged in the interviews that highlight the tension in their epistemic dimension.

In the following excerpt, for example, one of the interviewed researchers points out how the ERICs, despite their impact on research practices, have difficulties in "reaching out" to multiple research communities:

The aim and the goal is very, very necessary. But I don't know if you are reaching that goal in, you know, internalizing those Research Infrastructures in our everyday research, and I think that is not a problem of DARIAH only, I mean, I'm a digital humanities scholar. I have been involved with different type of, you know, people with different backgrounds. So I do interdisciplinary research, as I said, and it is never easy to find a platform that agrees with everyone. Everyone has, you know, different disciplinary kinds of inclinations and habits. And it's that, you know, that platform that crosses over to everything doesn't exist. That's only in the ideal world of what we are dreaming about. And I don't know if there is a way out of this chaos and reaching that dreamy state.

(Interviewee #WG2)

What emerges here is that researchers might experience difficulties in the co-presence of multiple Research Infrastructures, each with its expertise and research agenda. Consequently, the choice of which Research Infrastructure to collaborate with, is perceived stressful and counterproductive for two main reasons. On the one hand, it is time intensive to familiarise with the existing ERICs and understand which is closer to one's research topic; secondly, as this interviewee describes, research interests are broad, overlapping, changing, or merging with other themes. Therefore, it is difficult to find a Research Infrastructure "that crosses over to everything".

4.2.4 Everything is connected - Connectedness of research communities.

A social dynamic occurring in Research Infrastructures is, unsurprisingly, socialisation. By socialization, or social interaction, I refer to that human activity taking place between individuals, in which each contributions acquires specific meaning only when referred to the contributions of other individuals (Rusbult and Van Lange 1996). The human and social aspects became already visible in the previous section when Research Infrastructures were introduced as linked both to the technology and the community dimensions.

The interviews showed that socialisation plays an essential role in DARIAH.

First, researchers' participation in Research Infrastructures occurs at the National Research Institutes they are affiliated with. Such institutes/ universities often participate in more than one Research Infrastructure, as explained in the following interview:

What I found quite exciting and nice, was how different infrastructures are [connected]. So it's not only, for example, networking within CLARIN [ERIC] or networking within CESSDA [ERIC], but it's also, um, cooperating with each other. So well, let's give the example of the [...] project. We are participating in it. And it gave us a chance. For example, when I say "we" I mean my research institute. It also provides us with an opportunity to work closer with people from CLARIN, from CESSDA, and people from DARIAH. So it's all interconnected.

(Interviewee #WG1)

To confirm the interconnectedness between different ERICs, projects and researchers, another interviewee, a senior researcher with a relevant management role in his institute, says:

So I think the critical part is the information brokering, or information flow. To ensure that when something's happened, that the relevant parts are communicated and then taken up, for example, from the international, EU level to the national level;

[for example] the definition of some guidelines or technologies. [...] I'm not sure how good I'm at it, but it feels quite intuitive to see [...] [I think:] OK, this is relevant for these people, and this actually is [...], yeah, so kind of it.

(Interviewee #WG7, see Annex p. 270)

The interviewees underline that socialisation among researchers in the ERICs is facilitated or refrained by their home institutions. In this context, socialisation is shaped by strategic relationships between ERICs and research institutions, and between the ERICs themselves.

4.2.5 Branding

The name of the ERIC and the prestige that comes with it plays a vital role in the social and political dimension of Research Infrastructures, as emerged from the interview of two researchers.

The colleagues from the [name National Institution] decided to pay from their overheads from other projects a software engineer, 15 k, to help us develop the DARIAH app. What I was referring to last week in my presentation, I thought this was amazing. And I strongly believe that they did it because they see value in the DARIAH name. [...] But it is, it seems so attractive for, um, communities or for researchers outside the network to invest their money to pay for work, to support, to provide services to a Working Group. I think this is very important.

(Interviewee #WG3)

What emerges from this interview is that Research Infrastructures not only attract researchers because of the services offered; the name itself of the Research Infrastructure is also a strong incentive for national research institutes to seek collaboration.

A similar dynamic related to the prestige of the DARIAH Working Groups will emerge in the next section.

4.2.6 Limits of the socio-political dimension

Similar to the epistemic dimensions highlighted above, also for the social and political dimension, concerns have been raised about the governance of the ERICs. One aspect, in particular, is perceived as problematic:

Speaking of which, funding, um, made me think of a weak point that I forgot to mention, uh, on Research Infrastructure and their dependability on funding coming from the member countries [...] the fact that because every country that contributes to the budget has different agendas. But these agendas come from people and specific people. And if these specific people are not well informed or if they have their own agendas, then they promote specific topics. And the Research Infrastructure has to comply with the will of the specific country and therefore to announce a call that is relevant to this research agenda [...] I think that in some cases it's a bit problematic.
(Interviewee #WG3)

As reported by this interviewee, the reported risk is that the ERIC's research agenda might be influenced by the representatives of the member countries (which are often staff from ministries or national funding agencies), instead of being informed by the researchers themselves - who are ultimately - the main "users" of a Research Infrastructure. What emerges through this excerpt is part of the complex mechanism and the consequent tension between the ERIC's governance and the dynamic of knowledge created by research communities. What is considered important for a Research Infrastructure by policymakers, might not be perceived as important by the research communities involved in first person in the ERICs.

4.2.7 Serendipity

As introduced above, socialisation (and dynamics related to it) emerged very often during the interviews. One aspect that stands out as a red thread in all the exchanges is *serendipity*.

One of the interviewees reports:

I think there are lots of accidents [meeting people, creating collaborations: note of the author], and I think it's really hard to control under which circumstances those accidents do happen. But I think Research Infrastructures are part of the answer, so I don't think you can control when it's going to happen. But I think you can build the right environment [...] for them to happen.
(Interviewee #WG10)

Another interviewee focuses on a specific event, a spontaneous meeting, that gave rise to one of the active Working Groups:

I approached him and, uh well, yeah, it was [in] Berlin because we were not scheduled to meet. But actually, we found a group of people who were interested in this topic, and we just sat down. It was in a lobby or something, you know.... And there are some armchairs, and there are 10 or 12 people who have joined together and started talking, discussing, and, uh, I ask, OK, who wants to be the chair of this future Working Group?
(Interviewee #WG7)

A relation emerges between serendipitous socialisation and the physical presence of the researchers in the same place while exchanging in person. Although researchers are used to working in an international environment, mainly online, meeting and exchanging in person is considered a highly enriching experience, as emerges in the following extract:

The main reason and function of an annual DARIAH meeting for [name of the DARIAH Working Group] has been to allow us to go and recruit, to go out to the world to say what we do, show what we do and invite and involve good people to come and join us. And, uh, so this has been the case, you know, and you just talk, and you explain the work on the side. And then, you know, there's more people involved in, uh so that's one thing. And in this, I think each of us has also brought into the group people

from their own networks.

(Interviewee #WG5)

4.3 The Micro interpretative lens

The following sections focus on the *micro* level that emerged from the interviews: here, the interviewees describe the collaborative experiences inside the DARIAH Working Groups.

4.3.1 Brokering Hub

The interviews show that the researchers perceive the DARIAH Working Groups as brokering hubs: these are seen as a "protected" spaces for humanities researchers, where representatives of the "strategic and policy dimension" are not "allowed to enter". One of the WG coordinators highlights this aspect:

I found it super important to open up the Working Group to them [the researchers] to build a brokering hub for these people. And I think, with the researchers, and them, and not further compromises to infrastructure people.

(Interviewee #WG4)

By "infrastructure people", the interviewees indicate strategic and policy representatives of the ERICs, or other research institutes that are considered as a "threat" to the epistemic freedom and experimentation within the Working Groups. The interviewed researcher refers to the exchange with them as a "compromise", where the researchers have to renounce to part of their scientific freedom. Another element emerging from the interviews is that of the Working Groups as a loose coalition, a "broad church" where experimenting and networking are welcomed and released from institutional ties.

As reported by one of the senior academics interviewed:

[...] Freedom to experiment and freedom for bringing people together so that these people can work together in different

projects. So we were very much welcome to the Working Group's idea when it was first introduced, but then also welcomed this possibility of, uh, providing this freedom in the knowledge also that for most people, this is free work. So that's, uh, the thing. So I think this kind of loose coalition, this broad church, this big tent, uh, an idea that, uh, I personally believe is appropriate.

[Interviewee #WG5]

Another critical aspect of the DARIAH Working Groups for the research community is that of representing a bridge to establish new or maintain existing contacts with external activities or projects.

In the following excerpt, a senior researcher and coordinator of a DARIAH Working Group, refers to how he shaped a DARIAH Working Group as a *parallel project* for the activities performed in the European-funded project he also coordinates.

I think it was [name anonymized] idea to have some sort of, um some sort of initiative to make sure that we would make the products and the outputs of the project widely available and communicate them to the relevant communities and all that. And I think perhaps this was one of these points that the [European] commission makes very clear in the [funding] calls that, you know, you need to have something in place for this. And I guess the easy solution is just: Yeah, okay, we'll organise a workshop or, uh, you know, uh, we'll do this. We'll do that. Um, but I can't recall whose idea it was to connect it with [...] DARIAH. [...] So I think it's just also a little bit of a coincidence. [...] Um, and the rest was more or less done because the Working Group is fantastic. I think that it has a great job of giving visibility to all these Working Groups and connecting you to communities that otherwise you would never, uh, meet... In the last Working Group meeting that we had, this was really the case. We met,

like, 30 new people interested in our research topic.
(Interviewee #WG10)

4.3.2 Branding and Prestige

Participation in the DARIAH Working Groups isn't only connected to casualty and serendipity. As emerged from the interviews, branding (of the Research Infrastructure, of the Working Groups) plays a critical role in attracting new members:

I think branding is a crucial element here, and I'm saying this also, as the Editor in chief of [online community journal]-anonymized by author]⁵⁶. [journal name] would not work if it would not be a somewhat stronger DH brand in the many DH brands...the same [is] for the Working Groups. And I think maybe, like I saw it in a way that in the DARIAH Working Groups, it's a bit more complex because I saw that sometimes it's up to the general assigned value and strength of the brand of DARIAH. So the people, the way people contribute to Working Groups, is dependent on how strong the general brand is to them.

[Interviewee #WG4]

This passage may suggest that the knowledge creation dynamics taking place in the DARIAH Working Groups are connected to the prestige of the ERIC: the stronger the ERIC's "brand", the more desirable and rewarding it is perceived to be part of it.

4.3.3 How we work

In Chapter 2 I presented the WGs' lifecycle, from proposal to their dissolution. I will now analyse the WG work practices, as emerged from the interviews, as this may shed light on their internal social and epistemic dynamics.

In all the interviews, the role of the WGs coordinators stands out as the pillar of the DARIAH Working Groups:

⁵⁶ Open Methods. Highlighting Digital Methods and Tools. Accessed on 03.08.2022 <<https://openmethods.dariah.eu/>>

the most intensive work is actually done by the Working Group chairs, you know. And thankfully, there are three of us. So we are already a team. Yeah, we're communicating very often via email, regularly have meetings, and we are brainstorming our ideas. Um, so I think it's great to have, actually in the chair position, more than one [person] because this way we complement each other's work. Uh, so to say, um, if I'm too busy to prepare a newsletter, for example, another co-chair will jump in and do that work instead of me, you know? And if somebody makes a draft proposal for participation in the conference or for a project, they are discussing this in our meetings. You know, the other two co-chairs edited and helped to finalise this proposal. Um, we all three, feel responsible for the functioning of the Working Group. Also, we give our best. And if you're alone as a chair, then you often have to make some moves and the decisions on your own. I think that this way we can motivate each other better.

(Interviewee #WG7)

When asked about the division of work inside the Working Group, one of the interviewees, coordinator of a DARIAH Working Group, revealed:

When I think about the members [of the Working Group] there may be 20% of really active members. I think the rest of the members are here for us. Definitely they are. But if we directly involve them in something, you know, we have to ask and push them to do something to give their feedback. For example, when we decided to develop this tool, um you know, the three of us arranged all things, you know, prepared it and everything. But, you know, then we have the testing workshops, and we invite the members to help us and find the bugs and some problematic issues there, for example.

(Interviewee #WG6)

Although hierarchy in the Working Groups can be defined as informal and their leadership as "loose", the WG coordinators have nonetheless a central role. All the coordinators of the WGs have different leadership styles and consequently organise the collaborative work differently.

The following excerpt shows how one of the Working Groups works collaboratively on the agenda of its monthly meeting:

At the beginning of each meeting everyone is typing what they think is interesting to the group. So this doesn't have to be in their national context, but could be in some projects that they're involved in, etcetera. Anything related to research data management either happening now or it has happened, but it's important to report on, or something that others could participate in, for example, and then we do a bit of voting, so you just write plus one next to the initiatives that you find interesting and the top two of the winners explain a bit more about those things that they wrote about. Even [for] the ones that didn't win you still have a link or some kind of information, you can still ask someone about it. So, I found that super useful. So even if you don't want to sign up for something, it's super important to know that, for example, there are some workshops going on to, for instance, at the next meeting.

(Interviewee #WG4)

4.3.4 The role of size

The limited number of participants in the DARIAH Working Groups (10 to 20 people) is also an important element in the group's internal dynamics. We may think, for example, that the small number of participants facilitates personal relationships and direct exchanges. The small group is considered much more flexible and effective in capturing interesting research developments outside the group.

I mean, we're very flexible. This gives us a great advantage. And if someone has an idea, then they can go and do it. On the other

hand, this only works because our community is a small community. We are a manageable size. Yeah, and so you could not do this across a broader field like archaeology. Yeah, um, this sort of approach will only really work for smaller communities or subsections of a community. Anything else will need people to guide and govern it, I think.

(Interviewee #WG9)

4.3.5 Costs

As mentioned earlier in this chapter, the DARIAH WGs are voluntarily run, and members that participate in them don't receive any monetary compensation - except for the funding of the bi-annual DARIAH WG call for project.

The interviews reveal that some WG members merge their WG activities with their daily tasks (at their Universities or Research Institutes). In contrast, other members dedicate extra unpaid time to the WGs.

Well, in my free time, actually. I mean, [...] DARIAH takes extra work. Actually, I'm doing well if I have some free time here [at work, author's note]. If not, then it's in my free time, you know, afternoons, weekends or something like that. So my institute is not suffering because I'm having to work for free. So they just let me do whatever I want, you know? So we put all this work, all these projects, the Working Group ELDAH project for example, the consent form wizard... I put everything, actually, in my report, the institute's report, you know? So, they have a lot of benefits from my work anyway. And yes, I don't ask for money for that kind of work, so it's not a problem.

(Interviewee #WG7)

In some cases, however, not only is the work for the DARIAH WGs free, but it overlaps seamlessly with the work done for their home institutes. It is even difficult to differentiate between time spent for one or the other, as another interviewee highlights.

So actually, when I work every day, 13 and 14 hours and even on the weekends, obviously even not in my mind, I can differentiate and have a clear idea of when I do what and how many hours I invest in every single project.

(Interviewee #WG3)

Despite the overwork, the same interviewee, in return, is also able to reuse some of the outputs from the Working Group in his institutional activities and other projects:

The only thing that saves me, if I could say so, is that as in most of the activities that I'm engaged with, the work that we're doing in our Working Group is very well integrated and linked to other projects that I have and that I'm contributing to and therefore it's for me, It's not like time specifically dedicated to the DARIAH Working Group: [it] is time dedicated to my business, because all the outputs of my Working Group, I also reuse and present in other projects and vice versa. Output of other projects I can present as a result of the Working Group. So I think that this is the best way for one to be really active all the time in such voluntarily non funded activities.

(Interviewee #WG3)

The DARIAH Working Groups emerge as flexible research nodes in a multitude of existing research networks. Information, research outputs and researchers seem to gravitate around different networks while having (almost all the interviewees) stable employment at Research Institutes and Universities.

I will further elaborate on this point in the next chapter.

4.3.6 “I am somewhere in between”

To reinforce the idea that the Working Groups are flexible networks, and connect existing research communities and institutional stakeholders (e.g. researchers, chief technology officers, archivists, research ministries etc...), the next excerpt reports

the testimonials of WG coordinators about their self-perception in the DARIAH Working Groups and in the research networks they operate in:

I think I'm able to connect all these things, you know, to collect the needs and ideas from the researcher's level and prepare the proposal for the Research Infrastructure that will benefit these researchers and archives institutions and GLAM institutions, and I can present them to the ministries, maybe in a way that they can understand. You know, maybe I can hope that I will be able to explain to them why this is very important, why this is something that our research community needs.
(Interviewee #WG7)

Finally, another researcher sees himself as an *enabler*:

I think I would see myself as, I don't know, as a political officer of digital humanities, maybe an enabler of DH digital humanities [...] because some people have to do the admin and structure and policy work so that researchers can focus on research.

The main job also of infrastructures is to enable work and to perpetuate the results of it, whether it's done through organizational or technical means. [...] I guess that would be my take on my position within it [the infrastructure n.d.r.] because I wouldn't consider myself a researcher.

(Interviewee #WG6)

It is remarkable that even though these interviewees don't have research positions at their institutes, they see themselves as "proxies", as "somewhere in between" or as "enablers" of research. They consider themselves translators of the researchers' needs or facilitators of the communication between the research communities and the ERICs.

4.3.7 Limits of the Working Groups

As highlighted for the macro perspective in the previous section, also at this level of (micro) granularity, limitations of the Working Groups emerge directly from the experience of their members.

The criticism coming from the coordinator of a Working Group is, not surprisingly, the lack of funding:

It's always nice, of course, to have a wider network so that we just generate, you know, we share more information, and we find, you know, more common interest and build upon that and move to the next stage. But then again, I think in everyday life as researchers, we are already overloaded to save the day. [...] So I'm just like Monday is the next lecture, the weekend I'm going to prepare the lecture and if I don't have any other incentive, it is always easier to work with the colleagues that are at "home" because that happens more or less naturally.

[Interviewee #WG2]

The next interviewee focuses instead on a problematic phase that succeeded a successful period for her Working Group:

Given the voluntary nature of the WGs it is difficult to evolve further, there is no established path. OK, we met, we are working, and now? What is next? [...] Yeah. So I feel like we're a big island now, But we are also still a bit of an island that we are finding it hard to pull other people into DARIAH [WG], and make them connect in a meaningful way.

(Interviewee #WG8)

Both these extracts highlight the less positive aspects of WGs governance: the organisational flexibility described above can both facilitate or refrain knowledge creation in the Working Groups. Secondly, loose leadership - also described above

as a positive element and sign of equality among the members - can represent a limitation to the optimal organisation of the Working Group. These reflections will be further analysed in the next chapter.

4.4 Additional data from field notes and documentation of an early study

The insights from the interviews confirm the impressions about the DARIAH Working Groups that was already analysed in the 2016 report (See document in Annex p. 169). This report had, at that time, mainly an informative role, as I was interested in getting to know the WG members and their research focus. However, more recently, this document became beneficial in confirming my most recent findings.

This also indicates that the role and function of DARIAH Working Groups remained stable between 2016 and 2020/21.

In the earlier report, the following aspects have emerged as playing a crucial role in the success of the DARIAH Working Groups. I list them here again as these aspects partly support and complement the findings from the interviews during the course of this PhD.

Leadership: leadership in the Working Groups emerges as a crucial element in the life of the Working Groups. The most active Working Groups are in fact those where the leadership is solid. They have a clear vision for the Working Group and maintain an amicable yet productive atmosphere.

Rich Network: members of the Working Groups are part of and have an extensive research network before joining the DARIAH Working Group.

Involvement in the DARIAH network. What emerged from the 2016 report is that there is a direct relationship between participation in the overall DARIAH activities and the success of a Working Group. The DARIAH Working Group coordinators that take part in other DARIAH activities (meetings, workshops) or have official tasks at the national level (e.g. country representative) have a higher degree of engagement with the infrastructure and tend to lead the Working Groups with more interest and

efficacy.

Socialisation: Having informal meetings and socialising with other people in the DARIAH network is also a factor in the success and duration of the Working Groups. In the 2016 report, I recorded that informal exchanges often impact the number of formal collaborations that take place in the Research Infrastructure: for example, meeting colleagues in informal settings (social events connected to conferences) often result in research or professional collaboration.

Budget and Integration of activities

Another critical element that emerged from the interviews in 2016 - and in one case from the 2022 interviews as well - is the topic of the budget available for the DARIAH Working Groups. However, some of the Working Groups deal with this problem better than other Working Groups: this is the case when the members of the Working Groups can integrate their daily research (at their own Institution), or research outputs, into the Working Group's activities.

Collaboration (and integration of activities) represents a strategy for the survival of the Working Group: if the lack of resources is a limiting factor, the collaboration and integration with other activities allows the Working Group to maximise their activities by minimising the internal effort (2016 report).

As one can see the themes emerged during the interviews in 2016, and reported in this report, confirm the topics emerged in the round of interviews completed for this research, in 2020 and 2021. While the main themes are the same, the empirical analysis conducted in the course of this PhD research produced much richer information and context. The next chapters (Chapter 5, 6, 7) will present in greater details the findings and the reflection that stems from them. These reflections will bring the reader through progressive generalizations, finally leading to the presentation of the conceptual framework in Chapter 6.

5 Discussion. The epistemic and socio-political dimensions

5.1 Introduction

The previous chapter (Chapter 4) outlined the themes emerging from the interviews. The themes were primarily classified according to the micro or macro dimension (or lens) they represented (according to whether the reflection focussed on the Research Infrastructures as such or on the internal dynamics of the Working Groups).

Drawing from it and recognising the importance of such distinction, the current chapter further investigates those themes emerged by primarily focussing on the **epistemic** and on the **socio/ political** features in the DARIAH ERIC and the Working Groups. The micro and macro lenses, introduced in the previous chapters, are still highly relevant and will be incorporated into the discussion, but without isolating them from the context, however.

This chapter has a bridging function. In fact, it connects the previous chapter (Chapter 4, *Results*), where the themes emerging from the interviews are described, with the next chapter (Chapter 6, *Synthesis*) where the final conceptual and theoretical framework, shaped by the empirical study, is laid out in further detail. Chapter 5 represents an in-depth discussion of the interview findings and refers selectively to relevant literature when interpreting them.

Ultimately, this chapter aims to identify emerging patterns from the interviews' themes and, as said, re-connects them with the existing literature which has already been identified and consulted in the making of the Research Design (see Chapter 3).

5.2 Epistemic and socio-political dynamics – overview

Through the analysis of the themes identified in the Chapter 4 it is possible to summarize four specific social and epistemic dynamics occurring both in the ERIC

Research Infrastructure and in the Working Groups. I am now describing the middle layer of the conceptual pyramid (see Figure 5.1, p. 88). These are:

1. Integration of networks and activities
2. Integration of social and technical layers
3. ERIC governance: from tight to loose
4. Placemaking: a safe space to experiment

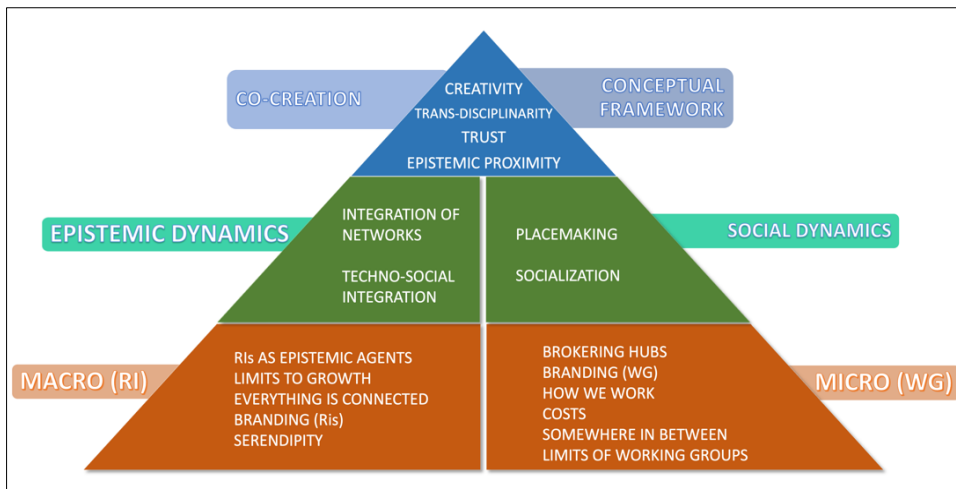


Figure 5-1 Proposed conceptual framework

These four aspects represent an ordering of the "raw" themes described in the previous chapter. This procedure should be viewed as the result of a deductive process that began from inspecting the raw data and consequently working towards the identification of general concepts and ideas of this research, useful to answer the research questions (see Chapter 1).

I will now further elaborate on the social and epistemic dynamics by, at first, identifying and critically exploring their distinctive characters, and secondly, by identifying points of mutual influence and dependency, or rather frictions, in the way they materialize and shape collaborative processes in the ERICs. This analysis will ultimately support me in determining when, under which conditions and how the

ERICs facilitate collaborative practices among its researchers and what characteristics this collaboration assumes.

5.3 Epistemic Dynamics

5.3.1 Integrating activities. Integrating networks.

The interviews in the previous chapter reveal that the most prolific Working Groups in DARIAH are those whose members integrate the Working Groups' activities with their daily job. Presenting the results of Working Group activities to an institutional meeting is an example of such integration.

While Working Group members indeed integrate their activities with those from their daily work, they also exchange and connect with other activities they are involved in, for example with external funded or smaller side projects. This connectedness of activities leads up to a point where it is impossible to distinguish between institutional and side projects, as highlighted by one of the interviewees:

Even not in my mind, I can differentiate and, uh, have a clear idea of when I do what and how many hours I invest in every single project.

(Interviewee #WG3, see Annex p. 214)

This intrinsic integration of activities and projects in the daily work of a researcher, already emerged in the aforementioned 2016 report (see Annex, section 10.1):

In general, collaboration with researchers and communities outside DARIAH has emerged as an essential part of the life of the Working Groups.

On the one hand, it [collaboration] allows the [DARIAH] Working Groups to be updated on the developments in their research fields: external collaborations bring in new ideas and enable exchange with other research fields. On the other hand, collaboration represents a strategy for the survival of the Working Groups. If the lack of [financial] resources is a limiting

factor, collaborating with external projects and researchers allows the Working Group to maximise their activities by minimising the internal effort (2016 report. See Annex, section 10.1).

The coexistence of multiple networks and connections of the DARIAH Working Groups with structures outside of DARIAH is something which per se has not been envisioned nor regulated in the DARIAH statutes and somehow escapes the governance of the ERIC. However, this dynamic is tolerated by the ERIC's management and is relatively undisturbed as it does not affect the regular activities nor require extra budget. On the contrary, the *tolerance* of the DARIAH-ERIC toward such (external) networking practices can be explained by the fact that cross-domain, cross-organisation exchange of practices and methodologies among those research communities is a prevailing dynamic to create innovation in the digital Arts and humanities. Finally, an unexpected benefit of this mingling, is that the "brand" of the DARIAH ERIC may become even more popular among new research communities, not strongly connected to DARIAH yet.

There has been, however, among the management of the ERIC, a growing need to have more control over the membership of the Working Groups⁵⁷ and that they should be more accountable for the activities performed. The tension here lies in the fact that in practice having a consistent composition of the membership - apart from the core members and the coordinators of the WG, which are stable - is impossible. The connections between Working Group members are too *fluid* to be portrayed and fixed. One of the interviewees confirms this fluidity as a feature of her research networks, of which DARIAH is part.

The interviewee I will introduce in the next quote, is an Assistant Professor and at the same time, is part of multiple international research networks. Some of these networks are part of her institutional research activities and projects (described in network theory as "strong ties" by Granovetter (Granovetter 1973); others are

⁵⁷ Personal communication, as documented in the notes of DARIAH's internal meetings.

informal collaborations or simply acquaintances acquired via social media, like Twitter (these have been described as weak ties, (Granovetter 1973). At a "resting" phase, these networks remain mostly inactive; however, the interviewee reports that these networks, from time to time, awaken and start working on common projects. Such transformation of networks (formal and informal) into concrete collaborative projects often goes hand in hand with the availability of funding and, consequently, with the stipulation of a "contract" with a funding body. In that case, the network moves from an informal, sometimes "dormant" state and becomes formal, "official" or "active" and, therefore, accountable for the running of a specific project. Sometimes the opposite happens, and a terminated (funded) project leaves space and brings the need to continue the collaboration in a less formalised "unofficial" network (representing an emerging community). In this case, the opposite dynamic occurs, as pointed out by an interviewee:

It was a [...] network, and it was supported by [name funder] for, I don't know, [for] 10 years. And then now it became a community.

(Interviewee #WG8)

Similarly to what described above, DARIAH Working Groups emerge from the interviews as nodes in a wider research network and acting as being part of so-called *epistemic communities* (Haas 1992; Cross 2013). These epistemic communities connect to other research networks that in turn can be "active" or "dormant". Based on the interviews' findings, it seems that the level of integration of the DARIAH Working Groups with other networks depends on several factors. Among them are the availability of funding, the number of connections with other research networks and the leadership style of the WG coordinators. Concluding, funding opportunities don't simply finance projects but create formal and informal networks between various epistemic communities and funding institutions.

Which connection exists between the integration of research networks and the epistemic dynamics of the DARIAH Working Groups?

Here I would like to draw on the definition of provided by Renn, namely that epistemic networks are social networks involving the transmission and transformation of knowledge (Renn 2020). The DARIAH Working Groups may be regarded as *epistemic networks* in this sense. They also can be considered social networks developed within and *outside* the ERIC's institutional regulations. As explained above, the DARIAH Working Groups are grounded in the ERIC but reach out to other external existing networks. Both links, the one to the ERIC Research Infrastructure and the one to other external networks, have a crucial role in the knowledge-creation process of the Working Groups.

Renn describes how one of the conditions facilitating the success of an epistemic network is the involvement of an institution in the network itself (Renn 2020). He presents the example of prominent institutions such as the Library of Alexandria (at the time of its foundation, 280-245 BC approximately), whose primary task was to accumulate knowledge by collecting scrolls directly from other countries or ships transiting through Egypt. Without this enterprise, the "long-term accumulation of knowledge would have remained fragile as long as no institutions were dedicated to its preservation" (Renn 2020).

Similarly, in the middle ages, religious centres acted as important hubs, where knowledge was received, enriched and re-distributed by manuscripts and monks travelling through a network of monasteries (Renn 2020).

Likewise, we may think of DARIAH-ERIC as having a similar function to that of the library of Alexandria or the monasteries from the middle age: by receiving, preserving, creating and re-distributing knowledge, the DARIAH-ERIC becomes a hub where stakeholders converge, together with their respective existing networks.

5.3.2 Integration of social and technical layers – the case of digital humanities

One of the most debated questions during the interviews concerned the interviewees' vision of Research Infrastructures. At the question - what is a Research Infrastructure? - I experienced many different answers: from those researchers who perceived technology as the *bricks*, the building unit of Research Infrastructure, to those who regarded the social aspect as the *sine-qua-non*. Finally, most of the

answers were more conciliating, and the interviewees thought that technology and community are equally important. Interpreting Research Infrastructures as both *technology* and *community* may tell us how stakeholders perceive knowledge creation in the same RIs.

To further analyse the relationship between knowledge creation, technology, and community, I will first reflect on the field of the digital humanities - that in which the DARIAH ERIC operates - and its relation to technology. Understanding this relationship makes it possible to better grasp the dynamics between technology and the research community as visible in the ERIC and the Working Groups. In a second move, I will return to the original question posed at the beginning of this section, namely how the social and technological dimensions in knowledge creation are integrated.

The DARIAH ERIC operates among researchers in the digital humanities. On its website, DARIAH addresses the whole arts and humanities field, and it aims to support scholars that wish to apply digital methods in their research. To confirm this, both the interviews and previous conversations with the Working Groups, confirm that researchers in DARIAH identify themselves with the field of the digital humanities (see also Chapter 3).

The relationship between humanists and digital technologies is still the cause of internal friction in a continuously evolving discipline such as the digital humanities (Antonijević 2015).

Digital humanities and technology

Technology adoption emerges in the digital humanities as a precondition for doing Digital humanities. However, it also creates an obstacle in defining the field itself, as confirmed by academic discussions (Liu 2017; Svensson 2012; 2016b) as of what degree of tech savviness is necessary to call oneself a "digital humanist".

Antonijević (Antonijević 2015) argues that digital humanities have become, in the last decades, an "overreaching designator of humanists' engagement with digital

technologies" (Antonijević 2015). She identifies, however, this generalisation as counterproductive in the definition of the field and as having two root causes: on the one hand, the "lethargic" response of the broader humanities community to the adoption of digital technologies. Besides, the effort of digital humanists to become the "leaders" of digital knowledge production in the humanities has also been detrimental to establishing a dialogue with other domains that also "went digital". Chun defines this self-appointed role of "saviour of the humanities" as one of the "dark side" of the humanities. Having embraced uncritical positions of techno-optimism created a distorted vision of the future role of the humanities as if the adoption of digital technologies would allow researchers in the humanities to "thrive", despite the precarious academic world (Chun et al. 2016).

Technology cannot be seen only in its negative connotation, and many authors have encouraged researchers to adopt an increasingly hands-on approach in DH. In this vision, technology would be able to help perform an actual mind shift in the humanities, where the "making" and the "doing" would overcome the dichotomy theory/ practice and move toward a synthesis of "doing as thinking" (Drucker 2012). The challenge is to shift the humanities from the study of the impact of technology (e.g. social media, games, narrative, personae, digital texts, images, environments) to a humanistically-informed reflection of the making of technology (e.g. humanistic computing at the level of design, modelling of information architecture, data types, interfaces, and protocols)" (Drucker 2012).

Similarly, Ramsay insists on the need for digital humanists to get their hands "dirty" with technology and comments: "Over the last year or so, I've heard lots of discussions — both on and offline — about who's in and who's out. For the most part, people agree that having a blog does not make you a digital humanist. But beyond that, things are a bit fuzzy. Do you have to know how to code? Does it have to be about text? Can you be a digital humanist if you've never been to a THATCamp? "No, no, no," we all say. But we go further and say that it doesn't really matter. Everyone is included. It's all about community and comity, collaboration, and cooperation. But this, of course, is complete nonsense. Community and collaboration are undoubtedly signs of the spirit, but to say that disciplinary definition

doesn't really matter is to eschew the hard reality of life in the modern academy." (Ramsay 2011)

This statement is significant in this context, as it does not focus exclusively on the technical skills of digital humanists but introduces another aspect related to the research community, which I analyse in the next section.

Digital humanities as community and practice

Despite the centrality of technology in the definition of the field of digital humanities, there is another crucial aspect to consider: the social and community element.

Svensson and Kemman have particularly focused on this aspect (Svensson 2012; Kemman 2021). Drawing on from the concept developed by Galison and Collins, they argue that digital humanities can be considered as a *trading zone* connecting disciplinary communities (Galison 1997; Collins, Evans, and Gorman 2007; Peter Galison 2010). According to them, the concept of trading zone is a space where two or more cultures (in this case, academic cultures) meet while maintaining their original character. Nevertheless, by merging with another culture, the outcome is always a new starting point. The concept of trading zones applies well to the field of digital humanities: on the one hand, it "demonstrates the possibility of maintaining disciplinary depth and focus". On the other hand, it allows for "meaningfully engaging in intersectional work".

I now return to the question posed at the beginning of this section. Where does the epistemic dynamic in the DARIAH Working Groups lie? How can the concept of trading zones come to help?

I previously introduced the idea of an epistemic continuum between community and technology and reported that the interviewees had different views of where knowledge creation occurs: some saw the community, others the technology, as the heart of the epistemic momentum.

I suggest that the concept of a trading zone can help identify a trading zone not only between disciplinary research communities inside the field of digital humanities (as suggested by Svensson and Kemman). Identifying another trading zone related to

the ERIC's epistemic dimension is possible: one between the research community and the technology. This is a trading zone where, as it emerged from the interviews, the implicit *contract* between community and technology is negotiated continuously. Digital humanities projects display different degrees of interaction between technology and users. In a project, the underlying technology might be a database to host research data, retrieved from archives and libraries, and supporting certain workflows. Here, the community accesses such databases and uses the available data. In other projects, the underlying technology may be a citizen science app where users upload content themselves. In other cases, the technology can be software which runs over text corpora to extract results that the researcher will then interpret. The agency and the relationship between technology and researchers are continuously redefined in these cases. It is during this negotiation, I suggest, that the epistemic momentum takes place. Furthermore, it always happens in practice, as mentioned by Drucker (Drucker 2012). We may say that knowledge is created inside the trading zone between community and technology and that the epistemic process is mutually constructed by technology and the research community. This reflection will be further continued in the next chapter (Chapter 6), providing further theoretical analysis.

5.4 Socio-political dynamics

In the previous section, I analysed the epistemic dynamics emerged during the interviews and connected them with the current scholarly discourse about epistemic aspects in research structured and their dynamics. In this section, I look at another relevant dynamic in the DARIAH ERIC that affects how the Working Groups create knowledge: the socio-political dynamics.

5.4.1 The ERICs governance: from tight to loose

I focus here on aspects of the ERIC's governance model. The term "governance" is chosen purposefully. Unlike management, "governance refers to the structures and values that shape an organisation's work, including the accountability and oversight of structures and values" (Moore 2021). The governance of each organisation, including the ERICs, inevitably influences the way the stakeholders act in such a

community; the same happens in the ERICs, where their governance model influences, directly and indirectly, internal social dynamics and knowledge production.

I'd like to highlight that the governance of the ERICs has never been mentioned directly by the interviewees: it is, however, always in the background of their argumentations, whether as a consequence or as a precondition of many of the topics discussed.

The interviews show that a governance model that is too *tight* or too *loose* toward the DARIAH Working Groups is detrimental to their own epistemic process.

How can this be explained? The ERIC provides a structure, a scaffolding, a boundary condition, to the epistemic process of the research communities that are part of it. However, when this structure is too tight, it leaves little space for experimenting and collaborating among the researchers: this emerged in the interview with one of the interviewees who stated that "the epistemic process *escapes* the governance model of the ERICs". The ERICs seem too "slow" and too compartmentalised to "catch" the flexibility at which research networks collaborate and move.

Organisation studies scholars have referred to the success with which people collaborate as *network effectiveness*. Network effectiveness can be described as "the attainment of positive network-level outcomes that could normally not be achieved by individual participants acting independently" (Provan and Kenis 2008).

A DARIAH Working Group with a leadership that is too "weak" or too "loose", will also experience a similar fate, as the "scaffolding" in such a case might be experienced as too weak. This aspect emerged in another interview when a researcher described the situation where she expected all members of a certain Working Group to be equally in charge and participating of the running of the meeting. However, to her surprise, the group remained silent and expected her to organise and direct the meeting instead.

In this example, the perceived *weak* leadership (caused by other commitments of the coordinator and different expectations of the Working Group) led to a slow

disintegration of the relations inside the Working Group and, consequently, its productivity.

At the beginning of this section, I described the tension between the structuredness of the ERICs and the flexibility of the DARIAH Working Groups. In the following, I refer to these two different features approaches as *bottom-up* and *top-down*. *Top-down* refers to the ERIC's governance model, which derives in good part from the guidelines of the European Commission and provides a basis for the communities of practice that need to implement those guidelines. On the other hand, the bottom-up approach refers to the research practices that occur among research communities, which the Research Infrastructure needs to take in consideration.

Organisation studies have described similar governance mechanisms and defined them as *tight (or crisp) governance* and *loose (or fuzzy) governance* (Butler et al. 1998; Neelis 2020).

Where tight governance stimulates more structure and clarity in the network, loose governance stimulates flexibility and active participation of the agents. Both governance types influence network effectiveness differently: tight governance provides efficiency but can also be a constraint in a dynamic environment.

Contrarily, loose governance stimulates flexibility, although a lack of guidance can create confusion among agents (Butler et al. 1998; Neelis 2020).

This distinction between two types of governance is reflected in the dynamics in the DARIAH ERIC and the DARIAH Working Groups. The ERIC comprises official strategic and elected bodies (general assembly, national coordinators, coordinating partners, scientific committee, senior management team – and the coordination offices, see Chapter 2). Besides, a statute regulates the relationship between them. Therefore, the overall governance around these procedures, regulations and relations can be identified as *tight governance*.

On the other hand, the DARIAH Working Groups, representing a non-mediated (in the sense that the researchers take part in the Working Groups without any

institutional mediation) network of researchers that are part of the DARIAH ERIC, can be identified as *loose governance*.

The first - tight governance - ensures that the relation with the different stakeholders (including the European Commission and the member countries to whom the ERICs report) (Moskovko, Astvaldsson, and Hallonsten 2019) are well regulated and maintained. We should remember that the ERICs are set up as a legal framework and are legal persons themselves; as such, a statute regulates all the ERIC's activities and operations (European Commission 2009). The advantage of tight governance is efficiency and rigour. The DARIAH ERIC has an appointed person - the secretary-general - who ensures that the statute and its regulations are followed (Butler et al. 1998)

As pointed out by Butler, the disadvantage is that tight governance is not flexible enough to follow the dynamics of research networks, which, as pointed out above, are continuously changing.

The second type of governance, identified here in the DARIAH Working Groups, is looser. The DARIAH Working Groups present a relatively stable core membership (the coordinators of the Working Groups) and an outer membership (occasional collaborators) that changes according to research trends or emergent projects in nearby networks. The advantage of such a governance type is flexibility and adaptability to research environments; the risks relate to lack of structure and guidance, which, as stated by Neelis, "can bring confusion among the stakeholder" (Neelis 2020).

Despite the tension between the two types of governance, Butler argues that such a contrast between "crispiness" and "fuzziness", and most importantly, the ability to manage the contradiction between these two modes, is essential for the effectiveness of an organisation (Butler et al. 1998).

In the next chapter (Chapter 6), I will further reflect on the tension between tight and loose governance.

5.4.2 Placemaking: A safe space to experiment

Place is a condition for collaboration. The interviews showed that DARIAH represents an ideal place to meet new researchers and start new collaborations. In

this section I will further discuss which understanding of “place” I adopt here. Often during the interviews, the terms “(meeting) circumstances” and “serendipity” emerged, as well as expressions such as “broad church”, to indicate the variety of research backgrounds that DARIAH gathers.

[...] so I don't think you can control when [socialisation] it's going to just happen. But I think you can build the right environment, uh, for it to happen.

(Interviewee #WG10)

Another WG member adds:

I think this kind of loose coalition, this broad church, this big tent, uh, it is an idea that, uh, I personally believe is appropriate.

(Interviewee #WG5)

In these two excerpts, DARIAH emerges as a place that gathers researchers and skills under its *tent*, creating the conditions to meet and exchange. However, we know that DARIAH is not a physical place, as it is set up as a virtual infrastructure. We may think of it as a symbolic space inhabiting different places: sometimes physical, most often online, and finally connected through digital technologies.

Hesjedal has recently investigated on the role of place and placemaking in interdisciplinary research collaborations and provides interesting insights for this research. *Physical proximity* increases the chance of face-to-face exchange between collaborators; it is also regarded as fundamental for creating trust and reducing the “communication costs” of exchanges (Rekers and Hansen 2015; Hesjedal 2022). Besides, Hesjedal suggests that physical proximity is not the only factor influencing collaboration (Hesjedal 2022).

Physical proximity is challenging to reach in DARIAH because it is in first place, a virtual Research Infrastructure. DARIAH's directors, the scientific and the coordination teams are distributed in different units in different countries (See Chapter 2). The same applies to the DARIAH Working Groups that rely often on email exchanges, zoom calls, and shared management tools such as Basecamp.

Occasions for face-to-face meetings represent more the exception than the rule and occur every few months when informal gatherings are organised, or yearly, during the DARIAH annual conference.

Despite meeting rarely in person, the interviewed members of the DARIAH Working Groups report a high degree of collaboration with the other Working Group members: Working Groups are experienced as a *space* where the members can meet like-minded people and share a safe place for experimentation.

This tension between *physical distance* and *epistemic closeness* makes this case worth researching. What makes these networks emerge and persist? What is the role of spatiality in their relations? Moreover, how does space support or hinder the epistemic dynamics of the DARIAH Working Groups?

Let me first focus more on the concepts of place and space. Urban geographers generally differentiate between place and space. Space is thought of through concepts related to geometry, volume, and dimension; it is an abstract form that includes no social presence or relation. Conversely, place is a form of space filled in with people, practices and representations (Harvey 1995; Gieryn 2000b).

In social sciences, space is generally studied for its capacity to provide a ground for socialisation among people. Despite its interest in space and place, the social sciences have long debated whether online spaces should be considered as part of a theory on social spaces. In this respect, Berger argued that "sociological theories of space need to deal with online space. Online spaces, as understood here, are constituted when two or more people interact with each other using ICTs, providing access to the internet. This is a purely formal definition – what matters, I suggest, is that the internet creates interactions between people who are not close to each other physically" (Berger 2020).

In turn, Berger recalls Martina Löw's work on relational theories of space, where she defined space as a "relational arrangement of living beings and social goods" rather than geometry and volume. This definition of space may include online space too, and acknowledges the presence of non-continuous spaces created when digital

technologies bring together people and material goods (L w 2016; Berger 2020). However, Berger advances Low's definition of *non-continuous place*. He argues that "as long as a space is created by the interaction of human beings and objects, it does not matter whether this interaction space is physical or online". What matters, Berger argues, is "how the actors construct their spaces" (Berger 2020).

Placemaking – a Working Group example

The capacity to construct a space for face-to-face and online interaction described by L w and Berger above can be exemplified in an event organised by one of the DARIAH Working Groups.

The Research Data Management Working Group organised a two-day writing sprint in June 2022. This was organised as a face-to-face event at the Institute where one of the members is based. However, some of the participants could only attend online. A writing sprint is a short period of time (one to a few days) where a group of researchers meet to write a collaborative, such as a paper or a document. Within the DARIAH Working Groups, this is not piece the first time a writing sprint has taken place, and it is a form of collective work where the members share the same physical space by focussing on the writing task for a few intense days.

On this occasion, however, the two Working Group leaders allowed members to participate remotely, which resulted in a hybrid event. The event was set up thoroughly: an instruction email was sent in advance with a list of all the collaborative documents, the schedule, and a zoom link for the online participants. My participation as an observer was also announced in this email to the group.

During my attendance, I experienced a high degree of integration between the in-person and online participants. During this event, characterised by a "divergent space" and a "convergent" time, the participants *inhabited* a space which was set up in advance by the two Working Group coordinators. The two coordinators also adopted several tools - such as a shared agenda (that every participant could consult) and a shared writing document (Google docs) - to support collaborative

writing. These tools were both available for the people at the meeting and for those attending remotely.

Remarkably, the collaborative tools (especially the collaborative Text editor) were not only used to support the running of the sessions. Instead, they constituted a space where the two groups could expose the outcome of their collaboration.

Despite the hybrid form of the event - the group that met in person could access socialisation moments that the remote participants missed. The people at the Institute had coffee breaks, lunches and dinners together, shared insights about their work and even personal reports about family or travel plans.

This example shows how the coordinators of this Working Group, during the hybrid meeting, successfully created a space for both the face-to-face participants and those connecting from remote. Quoting Berger once more, what mattered in this meeting, was how the actors built the shared space and how they populated it (Berger 2020).

Placemaking – an example from the whole ERIC

Let me now take another example which shows similar characters. The DARIAH Annual Event, which takes place once a year, is still one of the most awaited events for the DARIAH research community: at this event converge most of the Working Groups, the DARIAH official bodies, the coordination teams, and scholars that present their research during the various thematic sessions.

The last DARIAH annual event took place in 2022⁵⁸ (May, June 2022) after two years of online conferences (due to the Covid Pandemic). Members of the Working Groups and those of the different DARIAH organisation bodies could not meet in person for two years. Therefore, the chance to meet in person and exchange both scholarly and mundane topics during coffee breaks and dinners significantly impacted the community. I identified several informal talks during the lunch and coffee breaks: brainstorming, informal meetings, or simply bonding exchanges about family or holiday plans.

⁵⁸ <https://annualevent.dariah.eu/documents/storytelling/>, accessed on 20.04.2023.

In conclusion to this section, I suggest that space and its construction play a crucial role in the epistemic dynamics of the DARIAH Working Group and the ERIC.

The fact that the Working Group participants seldom share the same physical space while collaborating through co-constructed online spaces makes it a fascinating case study. The collaboration and knowledge creation processes, it may be thought, occupy a liminal space between the face-to-face and the online space, where the in-person encounter reinforces socialisation.

The Covid pandemic has undoubtedly increased online collaboration among members of the Working Groups. However, it has not introduced a new working mode as remote collaboration was already the standard work modality in DARIAH.

5.5 Conclusion

This Chapter (Chapter 5) has taken further the analysis of the themes emerging from the interviews. While Chapter 4 organized the themes according to micro and macro dimensions, I have now introduced two new analytical “axes” to interpret the content of the interviews, namely *epistemic* and *socio-political dynamics*. These categories derive also from the interviews’ data. Along these two analytical axes I recognise four dimensions, which I have further analysed: 1. Integration of activities and networks; 2. integration of social and technical layers; 3. Governance and finally 4. Placemaking.

I contend that these four dynamics, as a middle interpretative layer, create the basis for the development of a conceptual framework around collaboration practices in the DARIAH-ERIC. In the next Chapter, Chapter 6, I will further explore and outline the foundations of such framework.

6 Synthesis. The role of co-creation

6.1 Introduction

In the previous chapter (Chapter 5) I investigated the epistemic and social dynamics originating from the interviews' themes:

1. Integration of social networks
2. Integration of social and technical layers
3. Governance and
4. Placemaking

Based on the result presented in Chapter 4, further analysed in Chapter 5, the current chapter sets the basis to develop a conceptual framework which takes shape around the concept of *co-creation*. Co-creation, I will further suggest, connects the epistemic and social dynamics taking place in the DARIAH Working Groups.

In this chapter I will “unpack” components and dynamics which have been discussed using the concept of co-creation. I will focus on notions of creativity, trans-disciplinarity, trust and proximity, which are all relevant for the concept of co-creation. Finally, I will turn my attention to the governance aspects and further reflect on the organisational implications of co-creation. However, before engaging deeper with the concept of co-creation, I would like to summarise the approach and findings so far and argue how and why co-creation becomes relevant.

6.2 A note on the reflexive journey so far

The indication that co-creation processes might indeed be relevant to understand the dynamics of communities in an ERIC, as they materialise in the DARIAH Working Groups, emerged from the empirical data. Those hints can be related to the themes described in Chapter 4 and 5.

As previously introduced (see Chapter 3), I have analysed the interviews with an approach which can be summarized in a pyramid chart. At the bottom of this pyramid, I refer to the "raw" data from the interviews. At this layer, the interviews

have been organized according to whether they reflected *micro* (related to the internal functioning of the Working Groups) or *macro* (related to the functioning of Research Infrastructure) dynamics. I called those two distinctions also “lenses”. The distinction between micro and macro “lens” that assisted me in the first layer of data analysis has, however, been dropped in the next (middle) layer (see Figure 6-1).

The main reason for this decision was that the analysis of the epistemic and social dynamics proved more effective in answering the research questions (See Chapter 1).

Finally, the vertex (see Figure 6.1), the top layer of the pyramid, represents the central point of my analysis: the new conceptual framework which I will shortly introduce.

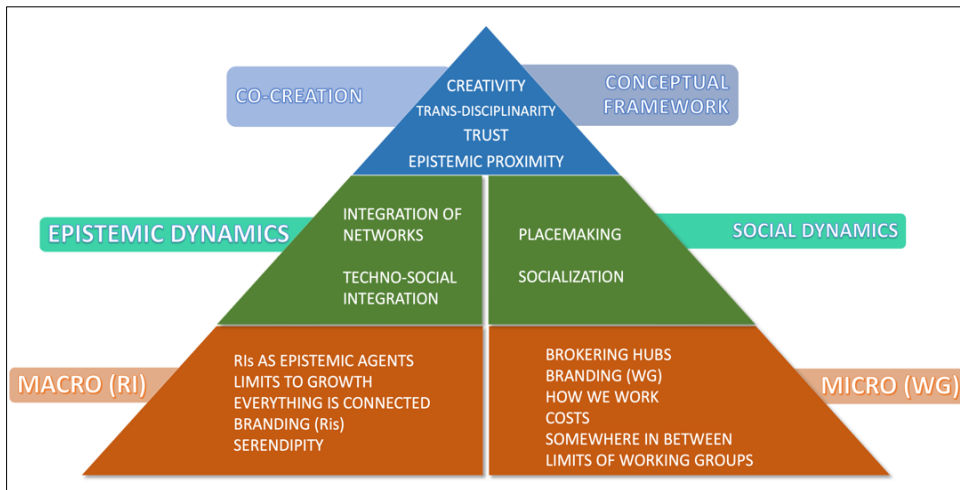


Figure 6-1. The proposed research' conceptual framework

6.3 Which collaboration concept for the DARIAH Working Groups?

6.3.1 The specific nature of the DARIAH Working Groups

The interviews in the previous chapters revealed that the relationships researchers establish have repercussions on their collaborative practices in Research Infrastructures (ERICs).

The literature on social and affective aspects of scientific practice has grown in the last decades (Parker and Hackett 2014; Wagenknecht 2016; Hesjedal 2022) and the scientific community now generally agrees that the “making of” science is not exclusively founded on data collection, data modelling, and publication. Instead, interpersonal relations are the sine qua non for the functioning of science and, ultimately, knowledge creation (Merton 1938; Karin Knorr-Cetina 1981; K. Knorr-Cetina and Mulkay 1983; Latour 1987; Wagenknecht 2016; Hesjedal 2022). Emotions and affectivity have finally been recognized for tightening the bonds between researchers and increasing creativity (Hesjedal 2022).

This investigation supposes that researchers in the DARIAH Working Groups collaborate, and that such collaboration results in research outputs⁵⁹. However, in my study I do not focus on a specific type of knowledge that is created, but rather on the collaborative processes itself.

Collaboration among scientists has been the focus of publications in the last decades, and the focus of well-established research methods such as anthropology and Science and technology studies (STS, through scholars such as Latour and Jasanoff), and Philosophy of Science and Social Epistemology (see the works of Leonelli, Wagenknecht, and Hesjedal).

To re-inspect these bodies of literature is particularly interesting for the reason that the knowledge created by the DARIAH Working Groups is often empirical and is oriented to find immediate application. This is no coincidence, as it is influenced by

⁵⁹ DARIAH Working Groups, as part of their activities, organize workshops, hands-on meetings where new research guidelines are drafted; training materials are designed, or solutions to specific challenges, such as managing theatre collections, are developed.

the WG policy of the ERIC: in fact, one of the evaluation criteria for the accreditation of new Working Groups, is the proposal of concrete solutions to existing challenges among the Arts and humanities research communities⁶⁰.

For example, the DARIAH Working Group *Thesaurus Maintenance*⁶¹ aims to collect information on existing thesauri in the arts and humanities and to design a "backbone thesauri" to connect different vocabularies, hence, to make research more interoperable. Another example is offered by the Working Group *Digital Urban Heritage*⁶², whose aim is to improve the participation of citizens in activities developed around unlisted heritage. In the last years, this Working Group has established workshops connecting various stakeholders (citizens, public administrations, urbanists and architects) to study the architectural and human dimensions of urban areas that have been subject to conflicts or have been abandoned. Ultimately, the scope of this specific Working Group is to propose innovative solutions to revitalise these areas by leveraging on citizens' involvement. The collaboration between researchers in the DARIAH Working Groups aims to answer scholarly and societal needs emerging among the Arts and humanities community. Besides, such solutions must meet criteria of applicability and implementation: they should not only be confined to a theoretical reflection about a scholarly research question but propose concrete solution to a real need. Because this goal-oriented collaboration in the DARIAH Working Group provides an answer to a real research community need, and is collectively developed, I suggest referring further to it as *co-creation*.

6.3.2 Notions from the literature: Co-creation, Co-production, co-design

There is an increasing amount of literature around terms such as *collaboration*, *co-creation*, *co-production* and *co-design*. These terms or concepts have been used sometimes differently, sometimes interchangeably, other times as context and

⁶⁰ https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 01.04.2023.

⁶¹ <https://www.dariah.eu/activities/working-groups/thesaurus-maintenance/>, accessed on 24/11/2022

⁶² <https://www.dariah.eu/activities/working-groups/digital-practices-for-the-study-of-urban-heritage/>, accessed on 24.11.2022.

discipline dependent.

The term *co-production* refers to the collective production of services or products by several stakeholders who may benefit from it. This term has often been adopted by disciplines such as economics (Ostrom 1996; von Hippel 2005; Filipe, Renedo, and Marston 2017) and environmental studies (Miller and Wyborn 2020). The terms co-production was first adopted by scholar Elinor Ostrom regarding the co-production of public infrastructures in developing countries (Ostrom 1996). In her example, one of the city engineers realised that the regular industrial pipelines were often not maintained and finally abandoned, therefore failing to provide clean water. Ostrom noticed, instead, that the application of a novel engineering model, based on the employment of smaller pipelines, in combination with the active role of citizens, who could intervene in the process of repairing broken feeders, represented a solution to the degradation of urban areas. This case exemplifies how public administration, engineers and citizens could all participate in the *co-production* of adequate water provision (Ostrom 1996).

Co-design has been adopted, among others, by fields such as computer-supported cooperative work (CSCW) (Pipek and Wulf 2009; Karasti and Blomberg 2018; Simonsen, Karasti, and Hertzum 2020). This term is often also referred to as *participatory design* too. An example of this approach can be found in the analysis performed by Simonsen in hospitals where medical staff collaborated to re-design the fasting protocol before surgery. Simonsen and colleagues noticed that the fasting protocols resulted from long-standing decision interdependencies based on different understandings of fasting, at the local, regional and national levels. Participatory and co-design practices supported the stakeholders in successfully completing the project and reducing fasting time before surgery (Simonsen, Karasti, and Hertzum 2020).

Urban design and urban development are also fields where the term co-creation has gained traction in the last decades. The idea that cities or metropolitan areas are the results of a collective effort which involves citizens directly, is not a new one. The concept originates from the understanding that cities are social organisms created

from the interaction of people and space, and finds its roots in the literature on social innovation (Moulaert et al. 2007; 2015; Lund 2018). Social innovation has become a crucial aspect of urban governance, as it contributes to solving problems related to social exclusion and segregation. One way to counterbalance social exclusion - Moulaert argues - is through bottom-up processes such as self-organisation or co-creation - states Moulaert, "whereas public institutions enable citizens to actively engage in social policy making and service provision". (Moulaert et al. 2007; 2015)

Collaboration in various forms has been widely discussed in science and technology studies (STS). Here, I would like to refer to Bandola-Gill's taxonomy on co-production terminology, shaped as a meta-analysis research and based on a systematic literature study (Bandola-Gill, Arthur, and Leng 2022). In this research, co-production is contextualised around the concept of evidence-based policy. Evidence-based policy is a concept developed in the field of Public Policy. At the core, it proposes that decisions should be informed by objective evidence. In general, Bandola-Gill identifies five clusters of meaning developing around the concept of co-production.

1. Science Policy relationship: this cluster is based on the work of Sheila Jasanoff and understands co-production as science and policy tightly connected and mutually constitutive (Jasanoff 1998; 2010). *Science is inseparable from society as they draw on the same cultural, ethical and institutional canons* (Jasanoff 1998; 2010)
2. Knowledge Democracy: co-production is a mutual and collaborative knowledge generation with a strong emphasis on the integration of local knowledge to improve governance and management (Cornell et al. 2013; Jasanoff 2004).
3. Transdisciplinary Research: this cluster is underpinned by the assumption that monodisciplinary knowledge is not sufficient to solve increasingly complex problems (Mobjörk 2010). As I will discuss later, my theoretical reflection has been mainly influenced by work from this cluster (see Section 6.4.1).

4. Boundary Management: focus is on the structures supporting the use of scientific knowledge in policy setting (Kirchhoff, Carmen Lemos, and Dessai 2013).
5. Evidence used intervention: focuses on the concept of evidence in public policy discourse (Weiss 1979; Ostrom 1996).

As indicated above, the concept of co-creation, together with a set of related concepts, seems to be the most appropriate to analyse and understand the epistemic and socio-political dynamics in the DARIAH Working Groups. The following sections support the choice for such a framework with evidence from the empirical study.

6.4 Co-creation in DARIAH-ERIC Working Groups

6.4.1 Creativity and Trans-disciplinarity

As seen in the previous sections, co-creation appears as a flexible concept that can be applied to many contexts and fields of research. In my own research I identify two kinds of co-creation that are particularly interesting and applicable to this context. The first feature focuses on co-creation as a creative process aiming to creating new ideas, products, and services. The second feature highlights the trans-disciplinarity of the stakeholders as one of the crucial characteristics of co-creation in the DARIAH Working Groups.

Co-creation as creativity

This first understanding of co-creation draws on the reflection of Sanders and Stappers, who interpreted co-creation as associated with creative processes and creating thinking (Sanders and Stappers 2008). This understanding derives from the field of participatory design. In their view, co-creation aims to generate new ideas, products and content, and according to the authors: “Co-creative activities combine the efforts of different actors, i.e. two or more people, in the process of collective creativity” (Sanders and Stappers 2008). The authors have described co-creation as a circularly recurring activity which doesn't have - strictly speaking -

a beginning or an end. Therefore, the research outputs can be considered inputs for further development and co-creation processes.

A recent output of one of the DARIAH Working Groups can illustrate co-creative processes in action. It is the case of the design and realization of the *ELDAH Consent Form Wizard*⁶³. This form was created by a group of researchers working with qualitative data in the humanities and social sciences (mainly from interviews) who reportedly noticed the difficulty researchers experience with sharing their data. The consent form guides the researchers through the creation of a consent form to distribute to the interviewees before the interview.

The following interview excerpt with one of its members highlights the iterative, collective, and creative character of the process that brought the ELDAH Working Group members to the development of the consent form wizard:

Many, many people were asking for a consent form as a means of conducting their work without having to worry too much about data protection. I think that even before the first meeting [...] we decided that we would come up with a consent form wizard out of the Working Group discussions in Paris. And in the Zagreb meeting we discussed which scenarios are the most likely. And then we tried to identify what would make sense, and also what is possible to create as a tool, which is standalone without moderators. Because, for example, with certain archival questions, um, since archival laws are different in every single country, and also sometimes even whether it's the national archive or a regional archive or whatever. Um, we had to discard some of the things as well because we said we can, you know, we want to do a tool that everyone within the GDPR area effect can use. But that also means that our scenarios can't be too specific. And of course, it's also like I mean, we say it's for research purposes, but it's not for medical research, for example.

⁶³ <https://consent.dariah.eu/node/2>, accessed on 23.04.2023.

Obviously, it's a tool for humanities and social sciences. So that was the process that we made through the Working Group meetings. Basically we sorted through suggestions together and evaluated what would make sense to actually, um, realised afterwards.

(Interviewee #WG7)

The design of the ELDAH Consent Form Wizard is a very good example of what Sanders defines as *collective creativity*. According to this perspective every person is, in its own way, creative, and every person when properly supported can express creativity at its best. Let's remember that the understanding of creativity is not tied to artistic application: it is rather the ability to find solution to an emerging challenge or question (Mumford 2003). The author depicts four creativity types in co-creation and co-design: *doing, adapting, making, creating*. Different types of creativity can be applied to different situations, according to one's attitudes and journey to become "experts of their own experiences" (Fisher, 2002). In the development of the ELDAH Consent Form, for example, various members of the Working Group have taken different roles according to their own expertise.

Well, I think these connections with other people who can help you in some part, you know, if you're dealing with [...] metadata or legal issues, you know [...] You know whom you need to approach to two [...] to resolve some problem. And it's probably the most benefits for those people who are dealing with these things, you know, if somebody is working on, uh, metadata, uh, in the scope of his work, you know, whether if I'm in archive or somebody from the library, and you have to develop some set of metadata then it's great if you have a group of people who are dealing with the same thing so you can follow the right directions, make consultations and, you know, not working on your own. You always have somebody that you can consult, and you work better because you're collaborating in such a group, where more people with more knowledge, maybe, or some other knowledge,

other experience will open your eyes, or you can see some things that you would not you couldn't see on your own.

(Interviewee #WG7)

Such a co-design approach effectively frames the case study of the DARIAH Working Groups because creative and collaborative processes are at the heart of their activities and strategies.

It is worth noticing that in their article, Sanders and Stappers (Sanders and Stappers 2008), highlight the crucial role of an institutional system able to support creative thinking, by providing the scaffolding and the opportunity for creativity to emerge. Similarly, in the conclusions of this chapter, I will also argue that similarly to creativity, also co-creation needs to be supported and that certain conditions for co-creation take place, need to be met.

Co-creation as trans-disciplinarity

The second understanding that supports the definition of co-creation in the DARIAH Working Groups draws upon the concept of trans-disciplinarity.

This understanding of co-creation draws on the aforementioned work of Bandola-Gill and colleagues, specifically that looking at co-creation as trans-disciplinarity. It should be noted that Bandola-Gill and collaborators refer to *co-production* rather than *co-creation*: however, as explained by the authors themselves, in their research, they have used the two terms interchangeably (Bandola-Gill, Arthur, and Leng 2022).

Trans-disciplinarity should not be confused with *interdisciplinarity*, however.

Interdisciplinarity, which literally translates as "between disciplines," generally refers to cooperation between representatives of various disciplines. Differently, trans-disciplinarity involves the collaboration of both academic and non-academic partners, typically citizens. However, it can be very restrictive to define trans-disciplinarity solely in terms of who has access to it (the participants in a transdisciplinary process) and their backgrounds. Beyond terminology, there are other differences between the two terms, as I will now discuss.

Authors like Mobjork have framed trans-disciplinarity as an *extended knowledge production process* that includes a variety of actors, who in turn have an open perception of the relevance of different forms of information produced by the scientific and lay communities" (Mobjörk, 2010). Similarly, Klein describes trans-disciplinarity as an overarching conceptual framework that "transcends the narrow scope of a disciplinary worldview" (Klein 2010). This vision of trans-disciplinarity proposes to reorganise the structure of knowledge and to encompass the different parts of study that the disciplines handle separately. In this sense, a new scientific approach called "transdisciplinary science" proposes to look at societal problems from an economic, social, environmental, and institutional perspective in terms of health and wellbeing. Finally, another way in which Klein investigates trans-disciplinarity is as a "way to produce interlanguages". These inter-languages are necessary to build bridges between different stakeholders and disciplines, including the sharing of values, knowledge, know-how, and expertise from non-academic sources. I state that in order to understand the dynamics of co-creation within the DARIAH Working Groups, the concept of trans-disciplinarity is required to be taken into account.

The following example explains how trans-disciplinarity is shaped in the DARIAH Working Groups. The Working Group *Digital Practices for the Study of Urban Heritage*⁶⁴ is one of the best examples of transdisciplinary work in the DARIAH Working Groups, both in terms of objectives and methodology. In the first place, this Working Group aims to study how urban heritage, and the abundance of culturally valuable buildings across Europe, can contribute to reflective processes and, finally, the creation of open and accessible cities. The topic itself calls for a transdisciplinary approach, including the collaboration between academic disciplines (social scientists, architects, social geographers, humanists), municipalities and local institutions, and finally, citizens. The research method employed by this Working Group implements trans-disciplinarity too. A workshop organised by the Working Group in October 2022 took place in Cordoba (Spain), intending to study the built

⁶⁴ <https://www.dariah.eu/activities/working-groups/digital-practices-for-the-study-of-urban-heritage/>, accessed on 26.04.2023.

heritage of patio houses, which faced many challenges in the last years due to the expansion of the city, abandonment of old buildings and gentrifications. The Working Group, together with a local association dedicated to the architectural and social preservation of the patio houses of Cordoba, organised a workshop to collect information, stories, and experiences about the patio houses directly from citizens. The Working Group also developed a mobile application (based on *Wikar*⁶⁵) on which citizens could provide their inputs and geolocation. The overall scope of the workshop was to create a communication channel between local institutions, citizens, and researchers (in this case, represented both by the local organisation and the DARIAH Working Group members) and to finally support the local citizens to re-appropriate the architectural and social spaces of the patio-houses.

6.5 Dynamics

While the previous section focused on features of co-creation, such as creativity and trans-disciplinarity, the current section proceeds with the analysis of the social and epistemic dynamics of co-creation.

This section ultimately aims to answer the following questions, that relate to the research questions presented in Chapter 1: what dynamics allow the members of the DARIAH Working Groups to collaborate and co-create? Why do the researchers participate in the Working Groups, despite not being remunerated? What are, finally, the reasons for them to join a Working Group? What are the social and cognitive needs that are met in a DARIAH Working Group?

The dynamics examined here are both of a social and epistemic nature: they are, therefore, both relevant for the creation and maintenance of social relations among researchers, as well as for the creation of knowledge. It's also interesting to consider whether these dynamics are individual or collective. However, separating collective from personal dynamics in this situation is challenging because the two are frequently entwined, and occasionally what begins as an individual motivation develops into a group dynamic.

⁶⁵ <https://wikar.co/>, accessed on 26.04.2023.

As an example, some of the social dynamics in the DARIAH Working Groups are initially related to the individual researchers: often, the motivation to take part in a DARIAH Working Group, for example, is personal and responds to needs of personal growth or reward (e.g. taking part in a prestigious research community). However, at other times, group dynamics prevail, and the scope of the individual becomes that of the group. I will later illustrate this by using the example of a collaborative writing session where this dynamic is evident. From the analysis of the interviews with the Working Group members, two dynamics of knowledge co-creation have emerged: *epistemic proximity* and *trust*.

6.6 The social and epistemic dynamics of co-creation processes

6.6.1 Trust

In Hesjedal's article, and similarly in the interviews I conducted, emotions and affection toward fellow Working Group members are never explicitly mentioned (Hesjedal 2022). Nonetheless, the affective elements emerge strongly in the relations between Working Group members since they collaborate for years and in many research activities. Moreover, even if not mentioned directly, I regard that there is evidence of the existence of a social bond between the researchers, especially those in the same DARIAH Working Group. Such social "glue" within the DARIAH Working Groups is nourished by professional esteem and trust in each other's work, and trust that the colleagues will be sympathetic and complete their work too: these are crucial elements for a research group.

But that was actually inviting [names of two WG coordinators] to become co-chairs to the [name of the Working Group] Working Group was a very intentional network move from my side. I took into consideration that they were women. [...] I could feel that they would get things done. [...] They were very good in what they're doing, as far as I could see. So, I just, without knowing them, I just invited them. [...] Basically, I asked them, and they

were OK with it, and I just invited them. And it was a great choice, actually. No regrets.

(Interviewee #WG8)

In her ethnographic study on lab researchers, Susan Wagenknecht (Wagenknecht 2016) reflects on such dynamics of trust. Wagenknecht, in turn, draws on authors such as Hardwig, who first approached the concept of trust from the angle of (social) epistemology, the idea that trust can result in justified belief (Hardwig 1991). According to Hardwig, a person's trustworthiness concerns both moral and epistemic characters: the moral character encompasses dedication and honesty; the epistemic character includes expertise. Hardwig, therefore, considers a trustworthy person as someone who is together honest and makes as few mistakes as possible.

Another relevant feature of trust in the relationship between researchers is the temporality of trust. Focussing on the process with which trust is created (rather than on the outcome of trusting someone), Wagenknecht states that trust, whenever directed toward scientific collaborators, assumes the character of a hypothetical projection and can be reflected in the statement: "I think I can trust this person". Trust is ubiquitous and inevitable in scientific collaborations. However, trust is also tentative and fragile in that it must be re-evaluated over time and re-adapted according to experience. For example, a collaborator is trusted by their group because of their positive input and reliable conduct, but they can be dis-trusted after a negative experience. Trust is, therefore, reversible; it is not a status.

Another feature of trust that emerged from the interviews is the *size or scale of the entrusted "subject"*. The literature mentioned until now refers to trust as something with which a person endorses another person. From my interviews, however, trust emerges as a phenomenon inscribed within the group, what in literature is defined as collective trust. In this sense, the "cognitive unit is a larger social aggregate, defined and bounded by common membership in the organisation" (Kramer 2010). This sense of membership and trust toward the group, emerges from the interview of one of the coordinators of a DARIAH Working Group:

We all three [coordinators of the WGs] feel responsible for the functioning of the Working Group. Also, we give our best. And if you're alone as a chair, then you often have to make some moves and the decisions on your own. I think, and this way we can motivate each other better.

(Interviewee #WG7)

It is interesting to notice that "trust" (understood here as shared responsibility and reciprocal motivation) is not directed equally to everyone in the group: it is mainly directed to the core group of coordinators, in this case, three people. They represent the decisional core, the most active part of the Working Group. The trust emerging from the three coordinators differs significantly from the trust with the "outer" circle members. Kramer, citing Bernard Williams, labels this as "thick trust": a trust created from deep and meaningful relations among a group of individuals (Kramer 2010). In this context, "thick trust" is not to be understood as an abstract feeling; it is on the contrary connected to the act of doing: like "taking decisions" or "motivating each other better", as expressed by the interviewee.

In his work, Putnam already observed the circular relation between trust and the act of engaging in trust-relating behaviours: "the greater the trust in a community, the greater the likelihood of cooperation. And cooperation itself breeds trust" (Putnam 1994). In other words, positive expectations about someone we interact with, facilitate positive behaviours; in turn, those positive behaviours strengthen positive expectations, creating a virtuous cycle.

In DARIAH Working Groups we find an inner circle of the Working Group' coordinators, surrounded by the "outer members". Those are not coordinators but nonetheless regularly attend meetings and participate in activities. Trust dynamics are very different for those different subgroups, as it emerges from the interviews. On the one hand, the interviewed coordinators express gratitude and surprise when experiencing engagement and positive collaboration dynamics inside the Working Group.

If I'm proud of anything, I'm proud of this one because it means that it really works as a community. And people are not just surviving in this lazy consensus that I see many times in such communities, but they are really engaged, and they take the courage of saying No, we are not going to do this, not because your idea is terrible but because it's just not good enough.

(Interviewee #WG4)

However, experienced Working Group coordinators know that not every member engages in collaborative behaviours all the time. This is understood and, in some way, tolerated by the coordinators, especially because membership in the Working Group is voluntary. For example, this emerged during one of the interviews:

So, if you are there [in the Working Group], you can only have benefits. I think because nobody is forcing, you know, there are a lot of people, those 80% who are not so active members, you know. I mean, they don't have to pay to be a member. We don't force them to do some things if they don't want to, or they don't have the time to deal with it. So you know, nobody is hurt.

(Interviewee #WG7)

The Working Groups' "outer" members are treated differently than the "inner" members and coordinators in terms of trust (and expectations). Kramer uses the word "thin trust" to describe a "more impersonal or indirect form of trust," mirroring Putnam's definition of "thick trust" (Putnam 1994; Kramer 2010). According to Kramer, such *thin trust* can be understood as generalised trust and expectations conferred to a collective, which is based on a diffuse cognitive expectation which comes into action with the shared membership of an organisation.

According to this reading, the membership in a DARIAH (Working Group) marks the beginning of the "expectation" of trustworthy behaviours. If membership represents the "border" between expectation/non-expectation, then it also needs to be acknowledged that there are rules inside the organisation to which the members must comply. Rules, therefore, provide a set of institutionalised (March and Olsen

1989; Kramer 2010) expectations regarding acceptable behaviours. Nonetheless, Kramer explains, rule-based trust should not be strictly understood as the series of rules to which everyone adapts their behaviour. Instead, such rules give the members of an organisation a framework for socialisation; trust - Kramer suggests - is seen as deriving more from socialising behaviours than from the pressure of attaining oneself to the rules. In other words, when confidence in socialisation is high, and when such socialisation is inscribed in a normative system, mutual trust acquires a taken-for-granted character.

The same trust dynamic built around rules and socialisation can be observed in the DARIAH Working Groups. Following, I provide two examples showing these dynamics as they emerged from the interviews.

In the first example (a workshop I attended myself), a dynamic manifests itself for which trust and group socialisation are high. The second example (a report given in one of the interviews), on the contrary, presents an event where both socialisation and trust were absent. It is interesting how the different emotional and cognitive dynamics give rise to different collaborative outcomes.

During the recent hybrid workshop organised by the Research Data Management Working Group, which I attended as an observer, both the interaction dynamics of the in-person and remote participants (online) led me to interpret the socialisation as well rooted in the exchanges. I felt that, as Kramer expresses, *trust had a taken-for-granted character*. Exchanges, collaborative writing, and solitary writing seemed so seamlessly integrated that I wondered, as an observer, what made such a successful event possible. First of all, I thought that such a successful event was possible thanks to the excellent organisation of the event. The two Working Group coordinators had prepared every aspect of the event so well that it made everything run perfectly: the agenda was prepared well in advance, as well as the working document (on Google docs) that served as a common writing pad. The chapters of the shared document were already set, and each section was assigned to the participant before the start of the event. What also surprised me as an observer was the apparent seamless interaction and collaboration between the in-person and

remote participants. The remote participants were already familiar with the rest of the team on the location, and actively participated in the discussion. For work and family reasons, they could not be online or actively writing as much as the in-person participants. But this was not perceived as detrimental to the collaboration: they left earlier or could only attend one of the two days.

This example confirms what has been described above: namely, when the dynamics of socialisation are strong (as happened in this workshop) and when such socialisation is inscribed in a normative system (the implicit rules of this workshop, those of the Working Group and finally the membership for being part of the DARIAH ERIC), then trust takes an *almost taken for granted* character (Kramer 2010). In this context, *taken for granted* means a trust which is not in discussion and on which the members can count on.

The second example, where (collective) trust was actually lacking, may help to further clarify the interplay between trust, norms and socialisation dynamics. During the interview, a Working Group coordinator, which had taken over this function in an existing Working Group, narrated of one episode where she felt that group dynamics and collaboration was not supportive. She was joining the (already existing) Working Group for the first time, and she expected that the rest of the members would welcome and support her while settling into the new role of coordinator. It didn't go according to plans, however. Differently from her expectations, the members of the Working Groups, in turn, also expected that the new coordinator would take the lead and guide them through the meeting. They entrusted her with the agency proper of an experienced Working Group coordinator. As a result, the meeting was unsatisfying and led further on to a slow fragmentation of the Working Group.

What was the cause of the unsuccess of the second example? In the second case, the Working Group participants had a low level of socialisation: the members didn't know each other very well, and the coordinator was new. Moreover, the old coordinator, who could have acted as a bridge between the members and the new coordinator, was absent.

From these observations, can I conclude that socialisation is a requisite of trust in the DARIAH Working Groups? Partially yes. We see in fact what the absence of socialisation caused in the second example: the disintegration of the group's own internal ties. In addition, as highlighted before, trust nurtures collaboration in the DARIAH Working Groups: this emerged in the first example of the offline/ online workshop. However, more than consecutively connected (if socialisation, then trust; if trust, then collaboration), we can think of a triangulation between trust, socialisation, and collaboration where each influences the other. If it is true that having good cooperation with another WG member generates a relationship based on trust, and that trust leads to collaborative dynamics, then it is also true that collaboration reinforces trust and socialisation ties among the members of the Working Groups.

6.6.2 Epistemic proximity

Concepts such as place, placemaking and space have already been introduced in the Chapter 5. There, I referred to authors as Berger who contributed a specific definition of space, namely one as one created by the interaction between humans and objects, with no distinction between the in-person or online environments. (Berger 2020).

The concept of place is also a central element in Nowotny's and Gibbon's work. In the sociology of sciences, under the label of "Mode 2 Knowledge", the authors argue, previously known spatial and temporal categories are reshaped by new ways of online communication (Gibbons et al. 1995).

Even by considering the online environment as a space for researchers to exchange and produce knowledge, spatial vicinity alone (physical or virtual) doesn't fully explain how researchers in the DARIAH Working Groups get closer to one another and create new knowledge. This consideration is shared by Hesjedal too (Hesjedal 2022).

In her article while investigating interdisciplinary collaboration, Hesjedal focused on the affective character of place and placemaking (this aspect has already been

discussed in the Chapter 5): “the affective aspect of placemaking dominated in the accounts and must be considered an important reason for the research school's success in creating a community of early-career scientists across disciplines”. (Hesjedal 2022).

In short, placemaking and affectivity facilitate community ties. In this light, the decision of the WG members to collaborate (or rather not) and the fact that they keep choosing each other for further collaborations, makes me reflect over the role of affection in the functioning of the DARIAH Working Groups. The question arises therefore, whether affection (or the lack of it) influences (or rather refrains) collaboration in a scientific and academic environment.

Roots of the study of affection as a sociological phenomenon - and not only psychological – go back to Robert Merton's contributions, in which emotions are described as one of the main factors contributing to the success of science. In this work, Merton described for the first time how cultural factors (such as value and emotions) and material factors (economic, demographic) interact to catalyse the rise of science as a social institution (Merton 1938) cited also in (Parker and Hackett 2014). Drawing on Merton's work, Parker and Hackett also recognize the centrality of emotions and propose epistemic and emotional elements as inseparable.

In the context of my own research, the question arises whether placemaking and its affective dimension, alone, contribute to explaining the dynamics of co-creation in the DARIAH Working Groups?

An interesting study that can help to shed further light on this reflection was conducted by Bahlmann, Huysman and Elfring (Bahlmann et al. 2016)

They investigated the networking capabilities of IT entrepreneurs in the Amsterdam Region in the Netherlands. The authors were interested to study what makes one entrepreneur interesting to the eye of another, and therefore worth being approached to extend one's network or professional relationships (Bahlmann et al. 2016). The authors, in turn, have built on the scholarly work around the concept of *proximity* as introduced by Boschma (Boschma 2005).

Proximity is a complex, thick concept, that has been studied extensively since the 1990s by a research group called the "Proximity Group" (Rallet and Torre 1999): the aim of this group was that of developing an analytical framework to study interaction processes between individuals, whenever these are in a spatial relationship (Filippi et al. 2022).

Introduced in the context of economic studies, industrial and spatial economics (Torre 2013), in the last decade proximity has shown its potential in fields such as innovation study. Many authors have recognised the importance of proximity in the formation of networks (Boschma and Frenken 2009), and its consequences in innovation processes (W. M. Powell 1990; Freeman 1991; W. W. Powell, Koput, and Smith-Doerr 1996).

In the creation of professional networks, Bahlmann and collaborators have found that knowledge exchanges and knowledge creation take place along the lines of epistemic "congruence" or "proximity", together with other forms of proximity, namely geographic, relational and cognitive proximity (Bahlmann et al. 2016)⁶⁶. Based on this specific research, I would like to apply the concept of proximity to the DARIAH Working Groups, as a specific type of research group.

Drawing on Boschma, Bahlmann and collaborators introduce and define *epistemic proximity* as the extent by which two or more actors share a similar worldview, enhanced by shared meanings and language. According to the author, the epistemic account of proximity bridges the contextual and cultural gaps associated with interaction (Bahlmann et al. 2016), which can't be addressed by any of the other forms of proximity (such as organizational proximity or social proximity).

Concluding, epistemic proximity can be considered as collocated between the social and epistemic domains, where feelings of closeness and general affection for

⁶⁶ Boschma defined five types of proximity (Boschma 2005): Cognitive proximity is the extent by which two organisations/ networks share the same knowledge; organisational proximity is the extent by which two organisations are under the same hierarchy; social proximity is the grade by which members of two organisations have friendly relationships; institutional proximity is the grade by which two organisations collaborate with each other; geographic proximity which is the distance between two organisations.

research fellows are reinforced by a similar understanding of the reality that shapes how they behave.

The concept of epistemic proximity can be instrumental in unveiling an underlying dynamic by which members of the DARIAH Working Groups establish relations with each other. As emerged from the interviews and already highlighted in Chapter 4, the researchers joining the DARIAH Working Groups are rewarded for their participation. Most often, they acquire prestige in their own institution for collaborating with a European infrastructure or receive research updates within their field of research by exchanging with other European researchers). However, given the social character of science, it is plausible to think that there might be other motivations, other than a reward mechanism, to demonstrate why these researchers participate in the DARIAH Working Groups.

What emerged from the interviews and the observation of the WG members is that there are (at least) two ways in which researchers take part in the DARIAH Working Groups. After introducing these scenarios, I will consequently analyse how epistemic proximity frames these participatory dynamics.

In the first scenario, a researcher contacts a DARIAH Working Group in order to connect with new research networks, present the work performed at their home institution, and, ultimately, have access to new funding possibilities. However, if the first reason to be part of a WG is to satisfy a personal or institutional motivation (career advancement, academic reward, or institutional recognition), in a second moment, and once the initial contact has been established, another dynamic takes form. At this point, socialisation among the participants starts developing by participating in shared activities or exchanging during Working Group meetings. In this sense, socialisation among participants to the WGs is possible when there is also epistemic proximity. In such a social and cognitive state, fellow researchers can base their collaboration on similar world vision, similar language, and similar values. In other words, their respective ways of producing knowledge are similar and compatible.

Uh, [name of coordinator] and I need to intervene to, you know, when this side collaboration start... We always say them that it's super nice. Please do the collaboration. But if you could just find another time to discuss the details... we need to be strict in order to benefit all members of the Working Group equally. But honestly, I really love that such things are happening all the time. So people just, you know, start talking to each other and during the meetings, and they just like there are already a handful of spin-off projects that started that are not part of our shared Generic agenda.

(Interviewee #WG4)

A second example of how epistemic proximity may play a role when accessing a DARIAH Working Group is through (or thanks to) social contacts to someone that is already a member of the WGs. From the interviews, this dynamic emerged a few times and takes place when an established member of the Working Group meets another researcher with an interesting profile (at conferences or other live or online event, via social media) and invite them to be part of the Working Group.

The main reason and the main function of an annual DARIAH event for [name of Working Group] has been really to allow us to go out to the world to say what we do, show what we do and invite and involve good people to come and join us. So this has been the case, you know, and you just talk and you explain the work on the side. And then, you know, there's more people involved in, uh so that's one thing. And in this, I think each of us has also brought into the group people from their own networks.

(Interviewee #WG5)

You "catch" the people at the right time if there is a common, uh, common sort of core of gravity.

(Interviewee #WG5)

In these two excerpts, one of the interviewees - a senior researcher - explains how he and other members of the same Working Group met and invited new researchers to take part in the established group. In the first excerpt, the interviewee mentions how he would attend the conference with the hope of meeting "good" (interesting) researchers. "Good" indicates that the researchers identified as interesting might integrate well into the group, both for their research topic and personal traits.

This impression of connectedness is even more evident in the second excerpt, where the interviewee explains the ability to connect to researchers with a similar approach only when they can both count on the same "core gravity". This is an interesting choice of words as "core" and "gravity" semantically lead to the core values and interests that researchers in the same Working Group share.

Epistemic proximity in the DARIAH Working Groups emerges both in the form of a social and an epistemic dynamic. This is visible in the two examples provided above. In the first example, epistemic proximity may reinforce or diminish the chance of establishing a social and research relationship with aspiring members to the Working Groups. In the second example, epistemic proximity allows established Working Groups to attract aspiring WG participants that are epistemically close to the "core" of the Working Group, including intellectual values and a similar scientific attitude.

6.7 Managing co-creation

Next to the social and epistemic dynamics generating co-creation in the DARIAH Working Groups, I suggest examining another dynamic that can be best described as epistemic and organisational.

In Chapter 5, I analysed the governance models of both the DARIAH-ERIC and the Working Groups as inseparable components of the DARIAH Research Infrastructure. These two governance models, in fact, shape the activities of the Research Infrastructure itself: on the one hand, the governance model of the ERIC

provides the structure and framework for the overall functioning⁶⁷; on the other hand, the governance of the DARIAH Working Groups, with fewer restrictions, stimulates creativity and adaptability in the activities of the Working Groups⁶⁸.

Co-creation inside Working Groups has a considerable innovative potential, thanks to its characteristics of creativity, trans-disciplinarity, trust and problem-solving, occurring right when and where a research community needs for it. However, co-creation also needs to be managed. Let me further elaborate on this idea.

While the concept of co-creation has been explored from various perspectives and disciplines (See Chapter 6, from section 6.3.2) its implementation (how to implement a co-creative process in institutional settings?) and management (how to regulate co-creation?) aspects are still uncharted. There is still indeed an "aura" of fortuity surrounding co-creation as if this could magically occur among stakeholders (with different expertise) when working together: to confirm this, episodes of serendipitous character have emerged clearly from the interviews with the WGs members. However, I state that processes of co-creation can also be encouraged and managed, and that Research Infrastructures are an ideal stakeholder and can provide a good environment for this.

In Chapter 5, I already referred to the field of organisation studies, which describes two governance models defining them as *tight governance (or crisp)* and *loose governance (or fuzzy)* (Butler et al. 1998; Neelis 2020). I linked tight governance to that of Research Infrastructures (what I referred to as top-down) and loose governance to that of the DARIAH Working Groups (bottom-up). Where tight governance stimulates structure and clarity of tasks division in the network, loose governance stimulates flexibility and active participation of the agents.

⁶⁷ See DARIAH-ERIC Statutes, https://www.dariah.eu/wp-content/uploads/2023/05/DARIAH-ERIC_Statutes_April-2023.pdf, accessed on 3.05.2023.

⁶⁸ See DARIAH Working Group Policy Document, https://www.dariah.eu/wp-content/uploads/2019/09/DARIAH-Working-Groups-Policy-Statement_v5.pdf, accessed on 03.05.2023.

I also showed that both types of governance bring advantages and disadvantages to the Research Infrastructure's dynamics: tight governance provides efficiency but can also be a constraint in a dynamic environment. Contrarily, loose governance stimulates flexibility, although a lack of guidance can create confusion among agents (Butler et al. 1998; Neelis 2020).

Now, I suggest that the dynamics created between the two types of governance (the top-down and the bottom-up, the tight and the loose) originates a new dynamic in which co-creation is possible. In other words, it is the tension, the friction between tight and loose governance which seems to be an important component for co-creation. On the one hand, dynamics of "loose governance" of the Working Groups give shape to innovative ideas, by experimenting with new research outputs and methods. On the other hand, the dynamics of "tight governance" of the ERIC, provide a format, a framework, for the Working Groups to co-create. Part of this latter format of framework is making (modest) project funding available, but also setting conditions (e.g. requiring a collaboration between different Working Groups) or implementing restrictions (e.g. the envisioned life cycle of a Working Groups, which determines time and type of partnership).

To give an example, in the last funding scheme for the DARIAH Working Groups (WG funding 2021-23) it was decided to explicitly encourage the collaboration between Working Groups. It was thought that further supporting the collaboration and cross-pollination between Working Groups would result in an even higher degree of innovation and interesting outcome. As an incentive, the Working Group that decided to collaborate with another WG could apply for twice the budget available (10000€) than if they applied for a "solo" project (5000€).

In light of what presented above, the condition of a joint partnership and the incentive of a larger budget, constituted the boundary conditions for the Working Groups to explore, with very few additional restrictions, spaces of experimentation and co-creation with another Working Group. In the case of this funding call, two Working Groups applied in a joint application, in which they will develop an online training focussing on social justice in digital scholarship. One Working Group will contribute

to the online training format, and the second will provide specific expertise on the ethics and legality in digital scholarship.

The point of encounter between the two types of governance in the DARIAH ERIC (top-down and bottom-up), makes collaboration and co-creation possible: in the example given, without the boundary conditions provided by the Research Infrastructure (the duration, the budget available, the type of collaboration possible), the collaboration between the two Working Groups would have been shapeless; similarly, without the creative, experimenting potential of the Working Group, there would be no innovative outcome.

As a result, the point of encounter between strict and loose governance makes co-creation also manageable, because the unlimited possibilities of collaboration are given a framework. This boundary condition is provided by the (tight) governance of the ERIC.

Although co-creation management, as a topic, is still unexplored, it can be traced back to some existing literature. Once again, I turn to Gibbons, Nowotny and Scott, who, in an article (and consequently book) following the first publication on Mode 2 Knowledge, addressed the criticism moved to them for not having further expanded on the issue of knowledge management (H. Nowotny, Scott, and Gibbons 2003). Since knowledge produced in Mode 2 science comes from a distributed network and it's transdisciplinary by nature, the authors ask, how can such heterogeneous knowledge be managed? And ultimately, how can its quality be evaluated and consequently guaranteed? (since Mode 2 knowledge is heterogeneous, different standards will need to be adopted, so also a certain flexibility).

Another critique emerged about the difficulty to implement Mode 2 science at the institutional level: on the one hand, the policy drive behind Mode 2 science creates breath for transdisciplinary science to flourish (among universities, industry and society); on the other hand, the difficulty to manage both these new relationships, including finance, leadership and the knowledge created by it (Jacob 2001) makes it even harder to implement Mode 2 science. Recognising the limits of their first

publication, Nowotny and colleagues underline however that the paradigm of Mode 2 wasn't initially developed as a process to be implemented but rather as a generalized scientific observation on the current development of science (Helga Nowotny, Scott, and Gibbons 2003).

I believe that Research Infrastructures (ERICs) are scientific and policy infrastructures that are suitable for the management of Mode 2 Knowledge creation, as well as for co-created knowledge, as emerged in the case of the DARIAH Working Groups.

7 Conclusion

7.1 Introduction

In the final chapter, I review the main findings of this study together with the critical concepts presented in the previous chapters. I draw on the research questions raised in the opening and reflect on the answers this research has provided. I am equally interested in finding the gaps or the open questions that my investigation has raised, and to reflect on how they can be best addressed in future works.

In this chapter, I also link the theoretical framework developed around co-creation (as presented in Chapter 6) to a broader societal reflection on the role of the ERIC Research Infrastructures for research communities and, ultimately, for society at large.

I will try to answer the question on whether the ERICs, besides providing researchers with invaluable technical, social and epistemic assets, are ultimately innovative. And if so, I ask, how are they innovative? What is their impact on research and society?

7.2 The ERICs as a research object: overview of previous chapters

This dissertation is dedicated to the ERIC Research Infrastructures. While the ERICs in the last decade have become the object of increasing scholarly research, especially from research policy and organisation studies, (Lindstrøm and Kropp 2017; Moskovko, Astvaldsson, and Hallonsten 2019; Hallonsten 2020a) in this research, I study them from within. The perspective I have chosen is that of the researchers participating in the ERICs and to this end, I have been guided by the following research questions.

- What kind of collaboration takes place in the DARIAH Working Groups?
- What social and epistemic dynamics occur inside the Working Groups?
- How do researchers collaborate inside Research Infrastructures?

- Finally, do Research Infrastructures encourage collaboration among researchers?

In this research, I focussed on the case study of the DARIAH ERIC, a Research Infrastructure in the digital arts and humanities. While examining a RI in the field of the arts and humanities encompassed several challenges (e.g., its services are much less defined than a RI comprising a telescope, for example), on the other hand, it allowed me to focus on a research domain - the arts and humanities - which often escapes the reflections on infrastructure provision and design. Besides, the DARIAH ERIC presents an additional fascinating research aspect: a robust community of researchers, which doesn't only adopt the services provided by the RI but that is simultaneously the creator of the same services and resources. This double role researchers have, as producers and consumers (Borgman 2007), is something we can observe in the case of the DARIAH Working Groups, which I have described in detail in Chapter 2. The Working Groups are a structural component of the DARIAH ERIC governance model. However, despite being a top-down creation of the Research Infrastructure, these Working Groups are subject to a minimal degree of control. They are otherwise free to organise their research according to their own agenda and at their rhythm. This represented a very interesting model to investigate because it presents characters of *top-down* (the infrastructure creating the conditions for these Working Groups to exist) and *bottom-up governance* as well. In this research, I was very interested in examining the point of encounter between the top-down and the bottom-up governances and how Research Infrastructures encourage or refrain collaboration inside these Working Groups.

I decided to answer the research questions above by interviewing the researchers of the Working Groups. The interviews took place in 2020 and 2021, and due to the covid19 pandemic, they were all conducted online. I decided to analyse the information from the interviews by applying a thematic analysis method (Bryman 2012; 2015). This method has revealed a more flexible and comprehensive approach than other methods adopted in qualitative analysis, such as discourse analysis. I was not interested in the emergence of speech patterns but rather in

larger discursive units and emerging thematic entities. This methodological phase is described in detail in Chapter 3.

In the same chapter, I also referenced to a significant methodological challenge I encountered, related to the fact that I, the author of this dissertation, am directly involved in the organization and operations of the DARIAH-ERIC and its Working Groups. In Chapter 3 I have identified the risks of biases and possible solutions to mitigate them, such as selecting interviewees who answered a certain number of requirements (i.e., diversity in countries representativeness or diversity in career seniority, for example).

Chapter 4, 5 and 6 are dedicated to the analysis and interpretation of the data.

In Chapter 4 I introduced the themes that emerged from the interviews. In this phase the themes are described with a direct reference and quote from the interviews where such reflection appears. In this chapter, the themes are organised according to the lens adopted by the researcher when “observing” the described event or situation. I used the term “macro” to describe the themes where the researchers reflected on the characteristics of the Research Infrastructures. I used the term “micro” to refer to those themes where the researchers reflected on the internal Working Groups dynamics and on the relationships between researchers.

Chapter 5 is a transition chapter, but not for this less relevant. On the contrary, this chapter has the crucial task of connecting the themes emerged from the analysis of the empirical case study to the latter discussed and developed concepts of the theoretical reflection in Chapter 6. Viewed from another angle, Chapter 5 represents an intermediate step between the data of the case study and the generalization and theoretical insights which takes place in Chapter 6. In Chapter 5 I abandoned the macro and micro perspectives and focused further on the epistemic and social dynamics occurring in the DARIAH Working Groups. I believe in fact, that through the epistemic and social dynamics, I can answer the research questions posed in Chapter 1. First, as part of the *epistemic dynamics*, I focused on the integration of social networks, and, secondly, on the integration of social and technical layers. Both these dynamics directly relate to the epistemic dimension in the Working Groups.

Moving on further to the *social dynamics*, I focused on the two types of governance models proper of the Research Infrastructure and of the DARIAH Working Groups. In the first case, I described a tight, or crisp, governance – that of the ERIC - while the Working Groups represent a governance model that is much looser, or fuzzy (Butler et al. 1998; Neelis 2020). In Chapter 5, I described how these two governance models are complementary to each other: while the governance model of the ERIC ensures stability through the establishment of a legal, organisational and policy framework (or scaffolding), the governance of the Working Groups is much more flexible and enables the Working Groups to develop creative solutions, both in terms of scholarly content and organization-wise. Eventually, the tension between the two governance models is reflected and impacts the social ties in the ERICs and the Working Groups.

As part of the social dynamics theme that emerged from the interviews, in Chapter 5, I introduce the notion of *placemaking* as a crucial component in the socialisation practices within the DARIAH Working Groups. Through this reading, *place* should not be understood as a physical space (Hesjedal 2022). Instead, place is a space filled with people, practices, and representations (Harvey 1995; Gieryn 2000a), and embraces the definition of online spaces, too. According to this understanding, it is possible to consider an online writing session (a common practice within the DARIAH community) as a place where people, objects, and practices interact, despite the physical distance between its participants.

Chapter 6 identifies the concept of the concept of *co-creation* and its specific role for Research Infrastructures as the central theoretical contribution of my study. Co-creation summarises epistemic and social dynamics inside the DARIAH Working Groups and, consequently, in the DARIAH Research Infrastructure. In Chapter 6, co-creation is studied through its characters and its inner dynamics.

First, I describe co-creation as defined by characteristics of *creativity* and *trans-disciplinarity*. I draw the idea that co-creation relates to creative thinking, as perceived from the field of participatory design. Secondly, I focus on trans-disciplinarity as another crucial element of co-creation. Trans-disciplinarity refers to the participation of stakeholders from different backgrounds collaborating on the same project. The term doesn't refer only to the actors involved in co-creation but

also to the knowledge process created, which is seen as an *extended knowledge production process* (Mobjörk 2010) which transcends the narrow scope of a disciplinary worldview (Klein 2010).

In the second part of Chapter 6, I turn my attention to the social and epistemic dynamics that distinguish co-creation. Here, I identify the concepts of *trust* and *epistemic proximity* as central to determining the essence of co-creation.

Already recognised by Wagenknecht as a leading social dynamic shaping relationships in a research group, I also describe *trust* for characterising co-creative relationships in the DARIAH Working Groups. Here I distinguish between a type of trust between the coordinators of the Working Groups, which is more robust and described as “thick trust”, and an impersonal and indirect form of trust, or *thin* trust (Putnam 1994; Kramer 2010). In both cases, the fact of belonging to the Working Group marks the expectation that the members will have trustworthy behaviour by being diligent in their work and keeping an amicable relationship with the other members. In this sense, the governance model provides a set of institutionalised rules to which the members of the Working Groups must comply (March and Olsen 1989).

Epistemic proximity is the second dynamic related to co-creation, which I describe in Chapter 6. Epistemic proximity can be collocated between the social and epistemic domains, where feelings of closeness and general affection for research fellows are reinforced by a similar understanding of the reality that shapes how they behave (Boschma 2005; Bahlmann et al. 2016). In Chapter 6, I introduced two examples of how epistemic proximity plays a role in how researchers become members of a DARIAH Working Group.

Finally, I close Chapter 6 with a reflection on *co-creation management*. The assumption behind co-creation is often that it may spontaneously happen when actors with different expertise or backgrounds collaborate. I suggest that this assumption may be incorrect. I have described in the previous chapters how unstructured exchanges with no clearly defined roles and tasks have led to the dissolution of some of the DARIAH Working Groups. On the other hand, interactions

characterised by a governance model that is too tight will miss the creative, generative aspect necessary for co-creation to emerge.

Summarizing, both loose and tight governance models are therefore necessary to support co-creative collaborations: the first allows more creative solutions and exchanges to emerge, while the second provides the scaffold, the boundary conditions, on which these exchanges occur.

Looking back at the research questions (as introduced in Chapter 1), I can summarise different characteristics of co-creation occurring in the DARIAH Working Groups. The type of co-creation that arises in the DARIAH WGs is:

- **Transdisciplinary.** This aspect concerns the members of the Working Groups coming from different disciplinary backgrounds.
- **Involves creative thinking.** As a precondition or a consequence of trans-disciplinarity, bringing together a variety of expertise from the WG members allows bringing new solutions to common challenges. This emerged from the interviews when one of the interviewees recognised the *space* created by the WGs as a space for experimentation for researchers where “*infrastructure*” people are not *authorised*.
- Finds in **epistemic proximity** one of the founding dynamics through which the WG members attract new members. Epistemic proximity does not refer to sharing the same interests among researchers. Instead, it is collocated between the social and epistemic domains, where feelings of closeness and general affection for research fellows are reinforced by a similar understanding of the reality that shapes how they behave (Bahlmann et al. 2016).
- Builds on **trust dynamics** between the WG members: members of the Working Groups establish trust relationships that reinforce the group's internal cohesion. From the interviews, it has emerged that the coordinators of the Working Groups show tighter trust relationships. In comparison, the other Working Group members present a lighter and generalised trust relationship (Kramer 2010; Wagenknecht 2016; Hesjedal 2022).

7.3 Liminal spaces, trading zones and marketplaces

The aspects summarised above represent crucial features to understand collaboration dynamics within the DARIAH Working Groups and, simultaneously, to analyse how the DARIAH ERIC (and possibly the ERICs in general) facilitate or refrain collaborative practices among their stakeholders.

Even though the ERIC Research Infrastructures are not, strictly speaking, the main focus of this study, their existence is nonetheless necessary for the DARIAH Working Groups to exist. First, the Working Groups, as research entities, are envisioned in the statute of the DARIAH ERIC. From this perspective, the DARIAH Working Groups are only partially the result of bottom-up and grassroots movements. Besides, the rules for their functioning (e.g., the submission of the WG proposal, the yearly reporting, and the conditions for the dissolution of the WG) are described in the *Working Group Policy Document*, introduced in Chapter 2. Finally, as described in Chapter 6, the ERIC is functional to the “management” of co-creation by providing an organisational and legal framework for the potentially infinite opportunities among collaborating actors.

Notwithstanding the connections with the ERIC, the DARIAH Working Groups count on a certain independence, especially concerning their internal division of work, the mode and frequency of their meetings, and the methods they employ to pursue their research objectives. Besides, the members of the Working Groups are recruited independently by the coordinators following a spontaneous expression of interest.

Given the mix of restrictions and freedom, my exploration reached out to the socio-epistemic practices occurring in (what can be defined as) a *liminal space between the governance model of the ERIC and that of the Working Groups*. In such context, the concept of *liminality* can be instrumental in comprehending how these spaces, with two distinct sets of goals and practices, converge. First adopted to describe rites of passage, the concept has evolved to signify transitions throughout different social structures (Gennep 1960; Horvath, Thomassen, and Wydra 2015).

From this concept, I draw that such liminal space separates two ways of producing knowledge. While the ERIC has a normative and authoritative role, by managing procedures, financial reports and research policies, the DARIAH Working Groups are directly connected with research tasks and establish research relations.

However, as this case study shows, the liminal space is often trespassed from the moment that DARIAH's directors are (senior) researchers themselves and often are members of Working Groups. Similarly, some Working Group coordinators have applied to chair positions in DARIAH bodies, such as the Virtual Competence Centres (VCCs). The trespassing of the liminal space between these stakeholders and governance systems is also confirmed by two interviewees when they affirmed: "I am somewhere in between".

The question of what kind of epistemic and social dynamic exists at the intersection of these separate, but sometimes overlapping, spaces becomes relevant. From the moment that there is an in-between area connecting the epistemic and social dynamics of the two spaces (the ERIC and the community-based exchange), this newly emerging zone carries characteristics of both. One might wonder if this shared space qualifies as a *trading zone*.

Historian Peter Galison first introduced the concept of *trading zone* by building on the work of the philosopher of science Thomas Kuhn (Kuhn 1962; Galison 1997; Peter Galison 2010). Galison described a trading zone as a space where the languages spoken in two separated social systems may develop over time into a new language: first, a pidgin and consequently a *creole*. A creole, differently from a pidgin (which mainly serves the purpose of facilitating an exchange), is an inter-language which has become complex enough to allow a wide variety of practices beyond simple exchange. Galison first observed these dynamics in the interactions between experimental and theoretical physicists, who are part of the same discipline despite adopting different research methods (Galison 1997).

Similarly, in the case study I present, co-creation doesn't only take place among researchers in the DARIAH Working Groups but also in the shared space between

the two systems described: its strategic and policy-oriented aspect, dominated by the statute, norms and European directives, and the collaborative, research-oriented aspect of the Working Groups. The question arises if it is possible to speak about trading zones (Galison 1997).

This hypothesis may be confirmed by the interviews conducted with the Working Group coordinators. One of the interviewees states:

I think I'm able to connect all these things, you know, to collect the needs and ideas from the researcher's level and prepare the proposal for the Research Infrastructure [...] and I can present them to the ministries, maybe in a way that they can understand.

(Interviewee #WG7)

This ability to connect the research community with the ERIC's strategic and policy aspects was introduced earlier in Chapter 3 when I presented the discipline of digital humanities. Since its establishment, digital humanities has been characterized for its connecting capabilities: between humanist research questions and computational techniques and between diverse stakeholders. As a result, the concept of digital humanities as a *marketplace* (Anderson 2013; Anderson and Blanke 2015; Edmond 2015), refers not only to the exchange of scholarly resources, software, or know-how, but also to the ability of actors to "move" between organizationally and socially defined spaces.

Can such a digital humanities marketplace also be described as a trading zone? Even with a few points in common and resemblances with the concept of a trading zone, I suggest that the actors moving from one system to the other in the DARIAH Research Infrastructure maintain, however, their own language and value system. The interviews didn't highlight the creation of new languages or new working modes between the two systems, which are typical traits of trading zones. Instead, the actors in one system have a certain degree of knowledge of the languages, the social and epistemic dynamics of the other system. Therefore, the actors move from one system to another, wearing different *hats* depending on where they are situated:

when in a collaborative research environment, they may wear the hat of the researchers. On the contrary, in a policy and strategic environment, they may adopt the language and the values of a strategic discussion.

The benefit of moving from one environment to the other is that of being able to translate strategic visions into research actions and, vice versa, to refer the needs and challenges of the research community to the policy and strategic stakeholders.

The data from the interviews also confirm this. The fact that many Working Group coordinators perceive themselves as in-between, proxies, or enablers confirms the hypothesis that, rather than a trading zone, this may be identified as a *crossing point* between different social and governance systems, where the actors assume various identities.

There are intrinsic risks, however, to this trespassing of systems. First, while ensuring collaboration and exchange between the strategic and the research-based aspects of the Research Infrastructure, there is a risk that the DARIAH Working Groups may not be independent in setting their research agenda (for example, because guided by the strategic agenda of the ERIC). Conversely, having a view of the strategic discourses in the strategic layers of the infrastructure may give an idea of the directions the Working Groups can take.

Other risks of the operating mode of the DARIAH ERIC and its Working Groups have emerged during the interviews. For example, one of the interviewees highlighted the risks of the “islandification” of research. While Research Infrastructures converge and integrate research resources, instruments, and practices to control the dispersion of budget and expertise, on the other hand, they enhance the risk of leaving out those actors that don’t fully embrace the research topics addressed in the Research Infrastructure in question.

One of the interviewees expresses this limit:

The aim and the goal [of the Research Infrastructure] is very, very necessary. But I don't know if you are reaching that goal in,

you know, internalizing those Research Infrastructures in our everyday research, [...] Everyone has, you know, different disciplinary kinds of inclinations and habits. And it's that, you know, that platform that crosses over to everything doesn't exist.

[Interviewee #WG2]

7.4 The impact of Research Infrastructures: 5 propositions

From the considerations in the previous section, Research Infrastructures emerge as a suitable place where co-creation may occur, not only between researchers and the infrastructure supporting research, but through the participation of external stakeholders too (such as civil society and industry).

Research Infrastructures in the social science, arts and humanities are an ideal place for co-creation to emerge because the nature of infrastructure facilitates the opening to external actors. In the case of DARIAH, for example, the network and community aspects have been crucial since DARIAH's preparatory phase (see Chapter 2).

Following, I will present six *propositions*, or statements, representing the conclusions and the take-away messages of this research. They focus on the contribution to the scholarly discussion as well as on the impact on research policy and society. From a methodological perspective, I borrow the concept of propositions from the Dutch academic tradition ("stellingen", in Dutch)⁶⁹. In the Netherlands, PhD candidates enclose up to ten propositions to their dissertation book, summing up the main findings of their research. I think this is a valuable tool to conclude the thesis and present the main findings in a clear and accessible manner. For each proposition, I will provide an explanation of the statement and the context from which it draws on.

The propositions I will present in the next sections are the following:

⁶⁹ <https://veronikach.com/phd-advice/defending-propositions-with-your-phd-introduction/>, accessed on 06.10.2023.

1. The arts and humanities provide an interesting case study for the study of science dynamics
2. Research Communities co-create Research Infrastructures
3. The DARIAH Working Groups embody a new type of institutional freedom
4. Co-creation needs to be managed
5. This research contributes to the theoretical discussion on how to study Research Infrastructures

7.4.1 The Arts and humanities are interesting case studies for the study of science dynamics

The Arts and humanities domain represents a fascinating case study and an opportunity to study humanities researchers at work. Examples of social investigations around humanist researchers exist, and authors such as Antonijević and Pawlicka-Deger (Antonijević 2015; Pawlicka-Deger 2020) (see Chapter 3) have showed the complexity and variety of research practices among digital humanists. Notwithstanding these important works and a growing literature examining infrastructural and social aspects of the digital humanities (including this research, too), these studies have so far originated within the arts and humanities (except for a few examples from science and technology studies (Wouters et al. 2013; Kaltenbrunner 2015a). To my knowledge philosophy and sociology of science haven't widely investigated knowledge and science production among humanists, yet. By opening to the arts and humanities domains, these disciplines could significantly enrich and extend the understanding we currently have of scientific collaborations. In fact, I suggest that the scarcity of literature on knowledge creation processes in the arts and humanities leaves a gap in the scientific literature. Consequently, this knowledge gap could potentially reflect negatively on the perceived importance of investigating knowledge creation primarily in STEM disciplines, as these were the only fields worth investigating.

This lack of reflexivity of the arts and humanities has already emerged from within the humanities, in Chapter Three. Furthermore, as research assessment (both at the local and national level) has become so central to access research support and

fundings, all research fields are increasingly asked to demonstrate their values and impact on society. Due to the humanities own missing reflexivity – or rather, the missing interest by other disciplines to investigate the humanities' knowledge creation processes – it is difficult for the humanities to manifest their societal impact and relevance.

On the contrary, in my research, I documented a great variety of research topics, research profiles and research methods that may benefit different areas of study of human expression, such as history (through the study of ancient texts, coins, maps), language, architecture, ethics and AI, just to name a few. Furthermore, the diversity, and the deriving complexity of studying the humanities, can be seen as a signal that this field is still largely unexplored and a place where interesting scientific dynamics take place.

I hope that this research has demonstrated how the arts and humanities can provide interesting examples of new forms of knowledge creation that are worth investigating by philosophers and sociologists of science.

7.4.2 Research Communities co-create Research Infrastructures

One of this investigation's main takeaways concerns the inclusion of research community needs and practices in the design of Research Infrastructures. According to the description on the ERIC's website⁷⁰, this is already the case. However, what has emerged from my research of DARIAH-ERIC, is that research communities don't simply participate in Research Infrastructures, but they actively shape them. First, as emerged earlier in this research, participants in the DARIAH Working Groups are often involved in the strategic decision of the ERIC, mainly because their participants also have strategic roles in the ERIC. As emerged earlier, this gives rise to a liminal space resulting from the moving of its actors from one (governance) area to another (e.g., a Working Group member that is also director of DARIAH). This enables research communities to be included in the decision-making phase and to act as "proxies" for the research community.

⁷⁰ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/european-research-infrastructures/eric_en, accessed on 05.05.2023.

Such an organisational and governance setup allows the DARIAH ERIC to balance community-driven research and experimentation (bottom-up) with strategic/policy-driven decision-making (top-down). This dynamic between research community and strategic components of a Research Infrastructure integrates the perspective of both stakeholders in the ERICs: this allows research communities to “own” the Research Infrastructures by providing timely feedback on own needs and research trends in their research fields.

One must note, however, that such governance model between DARIAH’s strategic layers and the research communities was not planned from the beginning; it rather emerged spontaneously as the need for more interaction with the researchers emerged. Furthermore, the fact that the DARIAH Statutes⁷¹ allowed it, gave such collaboration model an official status.

From the moment that DARIAH is a community-driven Research Infrastructure, its inner knowledge-creation dynamics will certainly keep changing, as much as research focus and methods will also evolve. The researchers themselves will change, too: some Working Groups will stop, and new ones will arise. As a consequence of these changes, also the interaction between research communities and coordination of the Research Infrastructures may change with the time, according to emerging contingencies.

Concluding, the relation between the research community and the coordination of the ERIC is a very interesting example of governance of Research Infrastructures, and one that is not only worth investigating from the perspective of knowledge creation dynamics, but from the perspective research policy too.

7.4.3 The DARIAH Working Groups embody a new type of institutional freedom

Drawing on from the previous points, DARIAH is an interesting case study to observe how research communities have shaped their own research conditions and by doing so, created a new type of *institutional freedom*. In fact, we have seen how the DARIAH Working Groups are composed of researchers, professionals and experts

⁷¹ <https://www.dariah.eu/wp-content/uploads/2023/09/DARIAH-ERIC-Statutes-September-2023-1-1.pdf> [accessed on 08.10.2023]

having their own specific affiliation. In the space offered by the DARIAH ERIC the WG members bring with them their own expertise and knowledge, which meets that of the rest of the group. The contractual ties that DARIAH makes with each of the Working Groups participants are extremely light, and formally there is no set obligation from their side. However, by accessing this network, the WG members have also access to the latest developments in the arts and humanities; they have the possibility to establish new relations with European researchers and to expand their networks; they also potentially access new funding and career development opportunities.

One may argue that the work performed by the members of the DARIAH Working Groups is voluntary and not retributed, if not for the small financial contribution as part of a bi-annual call for funding. This is a good consideration, in fact, and given the recent discourse on *reward and recognition*, as part of the responsible research assessment discourse (Curry et al. 2020; Tatum 2022), I suggest that the Working Group participants should be given a structural fair recognition for their strategic work in DARIAH. This need emerged also from the interviews with the Working Group members. It is also true, however, that by accessing the Working Groups and the DARIAH infrastructure, the participants have access to several resources, as tangible as tools and trainings, and intangible as expertise and networking possibilities. Furthermore, being part of a DARIAH Working Group has shown to reflect positively on the CV of many participants. In this sense, the activities that take place in such interdisciplinary, international, and inter-institutional network have a positive effect on the researchers' careers.

Concluding, the DARIAH Working Groups are expanding the knowledge we have of collaboration, interdisciplinary work and the consideration of institutional boundaries. Yet, the DARIAH Working Groups are not the only example of such collaboration. On the one hand one may think that scientific articles, books and experiments are conducted by author from different institutions, and scientific collaborations across institutions are the norm rather than the exception in the creation of scientific knowledge. Yet, I argue, the peculiarity of the DARIAH Working Groups is that the space, the tools provided by the infrastructure, the access to an existing scientific network, and the possibility to create concrete solutions to specific scholarly

challenges, make the DARIAH Working Groups a unique example that is worth investigating.

7.4.4 Co-creation needs to be supported and managed

As presented in Chapters 6, co-creation dynamics bring research communities and policy makers together, with the goal of finding creative solutions to pressing scholarly challenges. As aforementioned, co-creation presents characters of casualty and spontaneity, as it mainly occurs in the relation between research actors. Often during the interviews, the term serendipity emerged. For this reasons, the term co-creation might erroneously lead to the assumption that it can magically sparkle as soon as different stakeholders agree collaborating toward a common goal.

However, my research showed that co-creation, to deliver positive effects, demands a certain *vision*, *strategy* and *coordination*. This was experienced empirically in my time at DARIAH.

First of all, the *vision* provided by the Research Infrastructure has proved necessary to give the Working Groups a clear understanding of the research possibilities: both in terms of the type of research outcomes (a workshop rather than a publication, software or training) and the scholarly challenges that could be addressed (the bi-annual funding call for projects put as central the four topics/ pillars on which DARIAH strategy is built: research communities, Open Science, training and education, marketplace. See Chapter 2).

Secondly, the *strategy* in managing the decisions related to the DARIAH Working Groups involved stakeholders from different DARIAH bodies: the Directors, the Joint Research Committee and the Working Groups themselves. This included many discussions and meetings on how better organizing the Working Groups.

Last, the *management* of the Working Groups involved a consistent coordination effort. This was done by a dedicated officer, both via email (one-on-one exchanges) and Basecamp (group exchanges). Working Groups community calls were also organized in order to increase the connections and inclusions between the members.

Concluding, the effort to create and implement a strategy, coordinate the Working Groups and consequently the co-creation that we wanted to see emerging through their collaboration, was very consistent.

I hope this research has showed and contributed to the existing literature on co-creation, by highlighting a yet unexplored aspect of co-creation: that of its management and coordination. Research Infrastructures are a suitable place where co-creation among different stakeholders can take place, not just because of their interdisciplinary and networking nature, but also because they include management and coordination know-how, which is necessary to make co-creation possible.

7.4.5 This research contributes to the theoretical discussion on how to study Research Infrastructures

I would like to conclude the propositions' overview with a reflection on the contribution this research brings to the study of the ERICs, and more in general, of Research Infrastructures. As emerged from the literature, there is a growing scholarly interest around Research Infrastructures. The ERICs, especially, have raised the interest of researchers in the research policy field (see Chapter 1). These are guided by questions related to the ERICs governance models, their relations with the research communities and the strategic, decision-making stakeholders.

Little attention has so far been given to the ERICs as *research ecosystems* that - not only organize and make knowledge creation possible – but that realize new avenues for knowledge creation to take place, for example through the DARIAH Working Groups.

My approach has contributed to the existing literature by providing an ethnographic perspective and by studying the Research Infrastructure from the perspective of their participants. Without such understanding, I argue, it's not possible to study Research Infrastructures in their complexity.

I hope that the examples and the theory-led discussion that followed will contribute to a new understanding of Research Infrastructures, and consequently a new way to study them.

7.5 Final considerations and further developments

7.5.1 Limitations and Future Research

Following on from the propositions presented above, one may ask to what extent is it possible to extend these conclusions to other ERICs or Research Infrastructures. The case study described is that of the DARIAH-ERIC and its Working Groups, and as such, the findings cannot be generalised *in-toto* to other ERICs. Besides, every ERIC is different. In chapter One I described the taxonomy study by Hallosten, where he concluded that “the 60 RIs in the sample do not constitute an organizational field, and given the variety in sizes, reach, purposes, and governance structures that they represent, it is reasonable to assume that RIs generally is a category just as amorphous. Also, the 60 RIs in the sample do not constitute a coherent set of resources for science” (Hallonsten 2020a).

Despite the difficulty in generalising this research's finding to other ERIC Research Infrastructures, this research highlighted social and epistemic dynamics in research groups that can be generalised to other research organisations, not only ERICs. Dynamics of trust and epistemic proximity can in fact be retraced in every research group, whereas creativity and trans-disciplinarity may be retraced in interdisciplinary research environment. Perhaps, the closest example to the DARIAH Working Groups I am aware of, is the Research Data Alliance (RDA) and its Working Groups⁷². The RDA Working Groups are proposed by the research community through an initial proposal, that undergoes a revision and ultimately the approval of the Technical Advisory Board (TAB). Probably the main difference with the DARIAH Working Groups lies in their limited duration: in fact, the RDA Working Groups last between 12 and 18 months only. In that period, they will work on “*Harvestable*” efforts for which roughly 12-18 months of work can eliminate a roadblock for a substantial community focused on innovation⁷³.

⁷² <https://www.rd-alliance.org/groups/working-groups>, accessed on 24.04.2023.

⁷³ <https://www.rd-alliance.org/groups/creating-and-managing-rda-groups/creating-or-joining-rda-working-group.html>, accessed on 24.04.2023.

Differently, the DARIAH Working Groups don't have any time limitations, but their motivations and "productivity" are assessed yearly, through an annual report. Undoubtedly, the fact of not having a fixed duration leads to certain challenges, as lack of motivations and decreasing interest during the years. On the other hand, however, the indefinite duration of the DARIAH Working Groups allowed the members to experiment for longer time and deliver more creative solutions.

Because this research focuses exclusively on the DARIAH Working Groups, I suggest that an interesting continuation could be that of investigating other research environments that presents similar traits and research communities to the DARIAH-ERIC. The RDA, with its Working Groups, could be a very interesting starting point.

Another way to further continue this research, is to extend its methodology from mainly ethnographic and qualitative to a quantitative methods. In particular, the exchanges between the researchers within the DARIAH community may highlight network of researchers forming between already existing institutional networks. So far, this quantitative aspect hasn't been explored yet, but the data available (both from the interviews and project management history) could provide a new development highlighting research networks within and outside the DARIAH-ERIC. The study and method developed by Rodighiero in a recent publication on "mapping affinities", could offer a valuable methodological support and example to structure such a study (Rodighiero 2021). In this work, Rodighiero created networks based upon affinities, rather than "objectives" data from Scientometric and Bibliometric investigation (Garfield 2009; Leydesdorff and Milojević 2013).

7.5.2 Closing thoughts: Research Infrastructures, co-creation and innovation

This dissertation has shown evidence that Research Infrastructures have a role in encouraging new knowledge creation practices, and, as I demonstrated in the case study of the DARIAH ERIC, to facilitate co-creation of knowledge.

I would like to conclude this dissertation with a remark looking at the innovative potential of Research Infrastructures and co-creation, both for the scholarly practices and for society at large.

The concept of co-creation (see Chapter 6) is informed by practices involving “multi-stakeholder partnerships”. In turn, these have been influenced by the realisation that single stakeholders can’t answer complex scholarly and societal challenges from a single discipline (Gray and Purdy 2018). This is also described in a statement of the EU Directorate General for Research and Innovation, indicating that innovation cannot be the result of the work of a single actor: “a specific innovation can no longer be seen as the result of pre- defined and isolated innovation activities but rather as the out- come of a complex co-creation process involving knowledge flows across the entire economic and social environment” (DG- RTD 2016).

Pozzo has extensively described DARIAH’s innovative approach (Pozzo and Virgili 2017; Pozzo et al. 2020; Pozzo 2021). In particular, he elaborated on the concepts of *social* and *cultural innovation*. While the concept of *social innovation* has been discussed extensively (Moulaert et al. 2007), Pozzo argues that *cultural innovation*, on the other hand, is far less defined. Besides, the lack of conceptualisation of cultural innovation prevents the development of indicators that can measure and monitor it (Pozzo et al. 2020). Pozzo suggests that cultural innovation derives from co-creation processes occurring between various stakeholders. Although co-creation is described in several passages as involving civil society, and not specifically research groups (as for the DARIAH’s Working Groups), Pozzo proposes DARIAH as a key example of co-creation and cultural innovation: “for DARIAH fosters innovative forms of collaboration among scientists and helps humanities researchers to produce excellent, digitally-enabled open-data scholarship that is reusable, visible, and sustainable, thus contributing to the understanding of the cultural, economic, social and political life in Europe and beyond. The mix of scientific cultures fostered at DARIAH, and the mix of cultures in society are strongly connected” (Pozzo et al. 2020; Pozzo 2021).

From this perspective, co-creation becomes societally and culturally relevant because of its crucial role in knowledge and technology transfer between stakeholders (see Chapter 6): the DARIAH Working Groups connect several actors, such as researchers, research managers, policymakers or citizens, from different

disciplines and background, to provide an answer to concrete social or scholarly challenge. Consequently, Pozzo adds, it is fundamental to measure the impact of co-creation: “to improve the social [and cultural, my addition] acceptance of public investments as it provides a basis for aligning Research and Development with values, needs and expectations of society” (Mejlgaard, Bloch, and Madsen 2019).

8 References

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10 Annex

10.1 Report of the interviews with the DARIAH Working Groups (2016)

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Revision: Henk Harmsen, Lisa De Leeuw, Mike Mertens

Collaborators: all the DARIAH Working Groups chairs

Introduction

This document aims to report on the series of interviews that Francesca Morselli, member of the CIO team, has undertaken with the chairs of the DARIAH Working Groups between April and June 2016.

In DARIAH the Working Groups represent the bottom-up approach of the Research Infrastructure. The Working Groups link the Virtual Competence Centers (VCC) and the Chief Integration Officer (CIO) to the research community: this allows DARIAH to be connected and updated on the latest development in the arts and humanities. On the other hand, as stated in the recent publication “Data Fluidity. Pushing the agenda forward”⁷⁴, the Working Groups will constitute the community of experts that “will be instrumental in making the 'DARIAH Seal of Approval'. In fact the Working Groups - experts in their own field of research - will be actively involved in the peer review process of the in kind contributions submitted by the DARIAH member countries.”⁷⁵

Methodology and questions of the interview

After a first contact and introduction via email, Francesca scheduled a series of interviews with the chairs of the Working Groups. The interviews took place between April and June 2016.

⁷⁴ <https://hal.inria.fr/hal-01285917>

⁷⁵ This procedure (among others) will be introduced in DARIAH in 2018 and is part of the ongoing work in the project *Humanities At Scale*.

All the 18 existing Working Groups⁷⁶ have been interviewed: the chairs of the Working Groups were sent the agenda at the moment of the creation of the meeting itself. The interviews took place via Skype and had an average duration of 45 minutes.

The interview was set up as an informal conversation, in order to create a friendly and positive atmosphere; therefore, the discussion points were followed in no particular order and the interviewees were able to freely introduce their Working Group.

The agenda was jointly created by the CIO and DCO:

| |
|--|
| Updated list of people in the WG (is there any change?) |
| Activities in the last months – also in connection with the DARIAH VCCs. |
| Activities planned for 2016 |
| Strategic view and development of the WG in 2017 |
| Any support needed from the VCCs heads and DARIAH CIO/ DCO office |
| Any suggestion for the DARIAH CIO/DCO teams, in relation to the structure and activities of the WGs? |

The current DARIAH Working Groups

As of today there are 18 active Working Groups. Five Working Groups are associated with VCC1; 8 Working Groups are associated with VCC2; 4 Working Groups are associated with VCC3 and 1 is associated with VCC4.

⁷⁶ 18 Working Groups have been approved as of April 2016.

The table below⁷⁷ shows the current division of Working Groups, according to their affiliation per VCC.

| WORKING GROUPS | MAIN VCC |
|--|-----------------|
| Text and Data Analytics | 1&2 |
| WG Meta-Registry - An Integrated Registry Service | 1 |
| Visual Media for Digital humanities | 1 |
| Defining Cloud Infrastructure Services for DH | 1 |
| WG FIM4D (Federated Identity Management for DARIAH) | 1 |
| Training and Education | 2 |
| WG Digital Methods and Practices Observatory (DiMPO) | 2 |
| WG Analyzing and linking biographical data | 2 |
| Lexical Resources | 2 |
| WG Community Engagement | 2 |
| Digital Annotation | 2 |
| WG Image Science and Media Art Research | 2 |
| WG CENDARI Sustain | 2 |
| Thesaurus maintenance | 3 |

⁷⁷ The table doesn't include two newly proposed WGs: [Women Writers in History](#), proposed by Suzan Van Dijk (Huygens Instituut, NL) - connected to VCC3. The second [Sustainable Publishing of Archival Catalogue](#), proposed by Veerle Vanden Daelen (Kazerne Dossin, BE) - connected to VCC3.

| | |
|--|---|
| MESO, Medievalist's Sources | 3 |
| Guidelines and Standards | 3 |
| WG Certification and Trustworthiness of Repositories | 3 |
| Impact factors and success criteria | 4 |

There are four more Working Groups, but they haven't submitted a proposal yet. The CIO will need to get in touch with them to assess the feasibility of the proposed Working Groups.

Findings from the interviews

Activities and Work Plan for 2016-2017

In general, the interviews with the Working Group chairs have highlighted a wealth of resources and activities, some of which haven't been communicated yet to the DARIAH CIO and DCO, as well as to the research communities outside DARIAH.

| Type of Activity | Phases (in which the WGs are involved) | How many WGs are working on these activities ? |
|---------------------------------------|---|---|
| Proof of Concepts, Tools and Thesauri | Programming, Release | 7 |
| Workshops | Ideation; concrete planning | 6 |
| Registries, Inventories | Ideation; Enrichment; sustainability | 5 |
| Recommendation Papers/ | Gathering Ideas; writing | 4 |

| | | |
|--|---|---|
| Guidelines/ Best Practices | | |
| Paper Proposals at Conferences | Gathering ideas; writing | 3 |
| Liaison with other projects and Research Infrastructures | Networking | 4 |
| No activities at all; they will start now | No activities; planning some activities | 2 |
| Blog, Social media | Writing, publishing | 2 |
| Survey | Drafting, sending; collecting data | 1 |

The table below shows the kind of activities that have started or are planned for the second half of 2016.

Update of the DARIAH Wiki and quarterly reports

The DARIAH wiki (Confluence) is a platform shared among members of the Working Groups, the VCCs and the DARIAH coordination team. In the wiki each Working Group has a dedicated page, where they can add updates as well as create subpages, in case more “items” are available. However, in general the Working Groups don’t update their pages very often, resulting in outdated information. This creates a communication gap between the Working Groups and the CIO and DCO, as well as between the Working Groups themselves. As for the quarterly report that has been introduced by the CIO in 2015, only four groups have uploaded their report in the wiki page.

Why Working Groups don’t update their wiki page on a regular base? It is difficult to find a reason valid for all the groups; however, in general, the Working Groups chairs refer to the lack of time that they can dedicate to this administrative task. The lack of time is generally seen directly or indirectly related to the lack of resources that can be dedicated to the Working Groups.

Activities - no activities, why?

Most of the Working Groups are very active, have a plan for the current year and are involved in many [endeavours](#). Other Working Groups never started nor planned any activity at all. In the middle, is a number of Working Groups that have done and planned some activities, but they have been slow and intermittent.

How can such difference be explained? From the interviews it has emerged that the most active Working Groups are the ones that can perform and integrate their planned activities with other projects in which they are already involved in.

A good example is represented by groups like [Guidelines and Standards](#). The group is currently working on a brochure entitled “Why standards”, in the context of the Parthenos Project⁷⁸: as the same people are involved both in the project and in the Working Group, their activities can be supported via this kind of collaboration.

Another good example is the Working Group [Visual Media and Interactivity](#), that has created synergies with other projects (Parthenos and Ariadne) as well as with other Working Groups in VCC2.

The Working Group [Training and Education](#) is also a very interesting example. The scope of the Working Group in fact overlaps with that of the project DariahTeach⁷⁹, funded via the ErasmusPlus grant schema. For the current year the Working Group plans to focus on activities such as the expansion of the DariahTeach portal as well as its sustainability; another focus of the Working Group is the DH course registry⁸⁰.

The second category includes Working Groups that have planned and done some activities, but with some minor or major impediments.

As an example, the Working Group [Impact Factors and Success Criteria](#) is experiencing problems with the participation of its members, as they are all senior researchers, and therefore with very little available time.

⁷⁸ <http://www.parthenos-project.eu/>

⁷⁹ <http://dariah.eu/teach/>

⁸⁰ <https://dh-registry.de.dariah.eu/>

The Working Group [Community Engagement](#) experienced some problems with finding the content for its blog⁸¹, as the Working Group has only focused on the outcomes and activities of VCC2; therefore, the blog entries have been quite limited. As a possible solution, the Working Group chair has proposed to enlarge its focus on the outcomes of all VCCs.

Of the third group are part those Working Groups that never performed any of the activities planned in the proposal.

The coordinator of the Working Group [Image Science and Media Art Research](#) reports difficulties to relate to DARIAH, mainly because of the lacking of a funding scheme.

The Working Group [Certification and Trustworthiness of Repositories](#) has never started its activities as its founder has left his home institution soon after the Working Group was accepted. However, a new coordinator has now been appointed and the Working Group aims to have a skype call during the summer.

Collaboration with other projects and Research Infrastructures

For DARIAH the Working Groups represent the entities where the actual research activities take place. As research is collaborative by definition, Working Groups are difficult to circumscribe. The borders of the Working Groups are in fact fluid (in certain groups more than others) and collaboration with the world outside DARIAH takes place at different levels:

Collaboration with researchers in other research institutes (both member and not member of DARIAH)

An example is represented by the Working Group [Analyzing and linking biographical data](#), where the coordinators have found a fertile collaboration with Finnish and British researchers. This is perceived by the Working Group as a temporary collaboration, limited to the activity of writing a paper and a project proposal.

⁸¹ <http://dariahre.hypotheses.org/>

Collaboration with researchers in other Research Infrastructures (e.g., EUROPEANA, CLARIN)

The chair of the Working Group [Community Engagement](#) is also part of the Europeana Research scientific committee, therefore some of the blog entries have focused on activities of Europeana Research⁸² and other Europeana initiatives.

Also, the chairs of the Working Group [Text and Data Analytics](#) are currently planning joint research tasks with some CLARIN researchers.

Participation of members of the Working Group in other Projects/ Research Infrastructures.

The coordinator of the WG [Digital methods and Practice Observatory](#) has been part of the NEDIMAH COST Action, and has been directly involved in the creation of the NEMO ontology⁸³. Consequently, the enrichment and dissemination of this ontology is part of the activities of the Working Group as well.

An interesting case is represented by the Working Group [Meta-Registry: an integrated registry service](#), where collaboration with the Parthenos project has been identified but not yet established. One of the coordinators is also an active member in Parthenos, and the Working Group will soon investigate how to best collaborate and integrate research methods.

A different case is the Working Group [Defining Cloud Infrastructure Services for DH](#): the Working Group is deeply connected with the EGI “DARIAH Competence Centre”. The latter is actually a project with its own deliverables, and aims to build three cloud-based demonstrators for DARIAH. DARIAH will therefore need to reflect on how to best integrate the outputs of this project into its infrastructure.

A different case is represented by the Working Group [CENDARI SUSTAIN](#), which was born from the necessity to guarantee a certain level of technical maintenance to the infrastructure developed during the project CENDARI⁸⁴. The aim of the Working Group is also that of seeking further development opportunities both for the

⁸² <http://research.europeana.eu/>

⁸³ <http://www.nedimah.eu/content/nedimah-methods-ontology-nemo>

⁸⁴ <http://www.cendari.eu/>

infrastructure as well as for the tacit knowledge created during the four years of the project. As sustainability has become now a urgent topic, it is likely that the request to form Working Groups as CENDARI SUSTAIN will increase in the upcoming years.

In general, it has emerged that the collaboration with researchers and communities outside DARIAH is an important part of the life of the Working Groups.

On the one hand, it allows the Working Groups to be updated on the developments in their research fields: external collaborations bring in new ideas and enable exchange with other research fields. On the other hand, collaboration represents a strategy for the survival of the Working Groups: if lack of resources is a limiting factor, the collaboration with external projects and researchers allows the Working Group to maximize their activities, by minimizing the internal effort.

From a different perspective, the fluidity and openness of the Working Groups can raise questions as of who is actually part of the Working Groups and therefore part of DARIAH. The DARIAH coordination team has indeed received requests of access to the internal wiki by people who are not officially part of the Working Groups.

I think that the DARIAH coordination will need to think of the Working Groups as both open and close systems: systems that actually interact with the outside, but that should somehow guarantee a central nucleus of people and participation.

Budget and familiarity with DARIAH

From the interviews it has emerged that the lack of budget or funding scheme for the Working Groups represent the main obstacle to the successful realization of the planned activities of the Working Groups.

However, some of the Working Groups deal with this problem better than other Working Groups: this is the case when the members of the Working Groups are able to integrate their daily research in DARIAH related projects (e.g., Parthenos) into the activities of the Working Group.

Generally speaking, the vicinity and familiarity of the members of the Working Groups (as well as their home institutions) with DARIAH (both at National and

European level) guarantees a higher level of involvement and of integration of activities in the Working Group.

On the contrary, when the members of the Working Groups operate outside or with no connection to DARIAH, the commitment of its members tends to loosen and dissipate.

Communication

Communication from and to the Working Groups is also an important point that has emerged during the interviews. These series of consultations have been welcomed by the Working Groups and have given them a sense of recognition and interest from the DARIAH coordination team.

At a content level, the Working Groups should be in contact with the VCC to which they belong: in some cases, this communication has been successful (as in the case of most of the Working Groups in VCC2). In other cases, the Working Groups have lacked communication with their VCCs as well.

At an organisational level, the communication between the Working Groups and the DARIAH administrative layer has until now also been quite poor: on the one hand – as the number of Working Groups is increasing – it is difficult to keep an efficient communication with all of them. On the other hand, the DARIAH wiki has proven to be not efficient in sharing activities, updates and resources.

As a first step the CIO team has introduced a Basecamp Group shared by the DCO and the WG chairs: this new communication has proven a successful replacement of email exchanges, as it provides a simple but effective channel for communication between Working Groups and the DARIAH administrative layer. Moreover, Basecamp stores previous communications and provides a platform for uploading and sharing document.

The DCO and CIO teams are currently investigating novel ways to establish an efficient and sustainable activity report mechanism for the Working Groups. A new strategy will be developed and communicated by the DARIAH Communication Officer and CIO as soon as possible.

Strategic and Innovative Working Groups

During the JRC meeting in May in Gottingen, the idea was proposed to arrange the existing and new Working Groups in “innovative” and “strategic”.

The strategic Working Groups are connected to the strategic plan and will serve the development of DARIAH, as it will be envisioned in the strategic plan. On the other hand, innovative Working Groups will be less connected to the future strategies of DARIAH and freer to experiment with new trends and developments in the digital arts and humanities.

It is yet to be decided how the two typologies of Working Groups will be developed and divided among the existing Working Groups. This discussion will be scheduled for one of the upcoming JRC meetings.

Suggested follow-up Actions

CIO's new vision to improve the organization of VCCs and WGs.

The DARIAH WGs were in the past distributed among four virtual competency centers.

The VCCs not only represented competence centers, but they embodied both research and practice communities, in which the Working Groups identify themselves: VCC1 represented the infrastructure and architectural expertise, VCC2 represented the liaison between researchers and educators in the humanities, VCC3 represented the collection holding institutions and data archives while VCC4 represented the DH strategic community.

The ‘old’ division of Working Groups in four VCCs was created at the very beginning of DARIAH in order to address the DARIAH community toward four main research areas: e-infrastructures, education and training, scholarly content management and advocacy/ outreach. However one can not disagree with the observation that the DARIAH ecosystem has dramatically changed in the last years. The number of Working Groups has rapidly increased, as well as the number of participating countries to DARIAH ERIC; finally the research areas are becoming increasingly interdisciplinary and sometimes cover two or more VCCs.

The CIO therefore argues that a change is necessary in order to have a better representation of the current DARIAH research landscape, as well as to empower

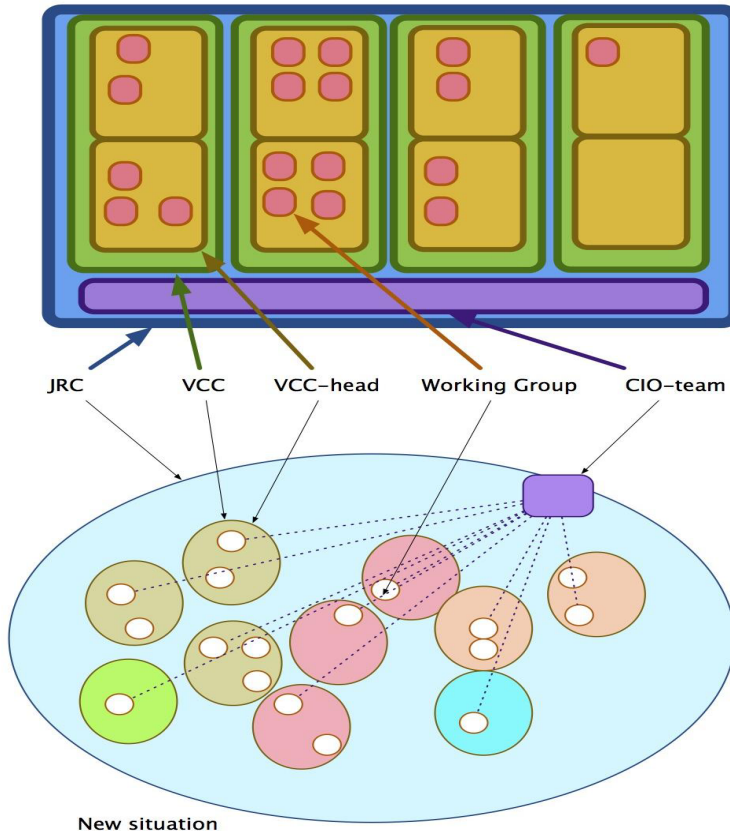
the Working Groups even more, by enabling collaboration and cross-fertilization with other Working Groups.

In 2015 and 2016 the JRC discussed future solutions for the renewal of the VCCs/WGs structure. During the June 2016 JRC meeting, the JRC agreed upon a new structure for the VCCs and WGs. The new vision doesn't rely so heavily on the old vision of the VCCs, but rather on the VCC heads: they become coordination and reference points for the Working Groups, both content and organizational wise.

The graph below shows the new structure, which involves CIO, VCC heads and Working Groups. It shows how the "old situation" structured in silos both the VCCs and the Working Group, by making communication and collaboration more difficult.

(Old) situation

21-6-2016



In the new situation, the current VCC heads have been assigned a maximum of three Working Groups each, according to their expertise and/or field of research. The current division of Working Groups has been agreed upon by the JRC, however, the structure should stay open to modifications, due to future developments.

As a next step, the CIO suggests to assign names to these newly formed “research-hubs” represented by the VCC heads.

10.2 Information on Data Processing and Declaration of Consent

Interview in the context of the PhD project of Francesca Morselli, entitled: *Institutional Dynamics in Research. Processes of Collaboration in Research Infrastructures.*

Introduction

Institutional Dynamics in Research. Processes of Collaboration in Research Infrastructures. values your privacy and processes your personal data in compliance with the EU General Data Protection Regulation (GDPR).

Your "Personal Data" is any information related to you. "Processing" is any operation performed on the data.

According to the Transparency Principle, this document will provide you with information about the processing of your personal data as required by Art. 12, 13, and 14 of the GDPR.

Who am I and how can you contact me?

Name: Francesca Morselli

E-mail: francesca.morselli@dans.knaw.nl

acting as the data controller within the meaning of the GDPR.

For what purpose do I process your data?

Your data will be processed within the Institutional Dynamics in Research. Processes of Collaboration in Research Infrastructures. project (hereinafter: the project).

Project description:

How do Research Infrastructures support collaboration among researchers?

Title of the research project: Institutional Dynamics in Research. Processes of Collaboration in Research Infrastructures.

Please be informed that your data may also be used in different research projects in the domain of Social Science; Philosophy of Science in accordance with the GDPR.

What information about you do I collect and process?

The following types of information about you are collected and processed within the project:

Educational background / title

Affiliation / professional situation / occupation

Furthermore, the following special categories of personal data related to you are also processed:

The data are collected directly from you through.

Video interview

Legal basis for the processing of your data

Your data is processed on the basis of your consent (Art. 6.1(a) of the GDPR) which you give by accepting this notice.

Exceptionally, where consent is not an appropriate legal basis, your personal data can also be processed on the basis of our legitimate interest in carrying out the project, or further research in the field of Social Science; Philosophy of Science. Then, the processing is based on Art. 6.1(f) of the GDPR.

For how long do we keep your data?

Your data will be stored for as long as necessary for the fulfillment of the defined research purposes.

Will your data be shared with anyone?

Your personal data will not be shared with or disclosed to anyone

Will your data be transferred outside the European Economic Area (EEA)?

Your data will not be transferred outside the European Economic Area.

No profiling or automated decision-making

Your data will not be used for profiling or automated decision-making purposes.

Your rights with regards to the processing of your data

The GDPR grants you certain rights with regards to the processing of your personal data. These rights include:

Access (Art. 15 of the GDPR): you have the right to obtain confirmation as to whether I have your personal data, as well as information about how I process it. You can also request a copy of your personal data, for which I may charge you a reasonable fee based on administrative costs. In order to exercise your right of access, contact me at francesca.morselli@dans.knaw.nl;

Rectification (Art. 16 of the GDPR): if your personal data that I process are incomplete or inaccurate, you have the right to request rectification of such data without undue delay. In order to exercise your right to rectification, contact me at francesca.morselli@dans.knaw.nl;

Erasure ("right to be forgotten" – Art. 17 of the GDPR): in certain circumstances (e.g. if your data are processed unlawfully or unnecessarily) you may request erasure of your personal data.

Restriction of processing (Art. 18 of the GDPR): in certain circumstances (e.g. if you contest accuracy of your data that we process or lawfulness of the processing) you may request restriction of processing of your data. Such data will not be erased, but in principle can only be processed with your consent;

Data portability (Art. 20 of the GDPR): in certain circumstances, you may request transmission of your data to another controller in a structured, commonly used and machine-readable format;

Right to object (Art. 21 of the GDPR): if you did not consent to the processing, or if it is not necessary to comply with a legal obligation, you may always object to it, in which case I shall no longer process your data.

Moreover, you have the right to:

withdraw your consent to the processing of your personal data at any time (Art. 7(3) of the GDPR) by contacting us at francesca.morselli@dans.knaw.nl. The withdrawal of consent will not affect the lawfulness of processing based on consent before its withdrawal; lodge a complaint with a supervisory authority.

For every doubt or question you can contact Prof. Dr. Margherita Pasini, president of the Ethical Committee of the Human Science Department at the University of Verona at the following phone number +39 0458208558 or by email margherita.pasini@univr.it

10.3 Interview Protocol

Introduction/General:

Thank you for taking the time to participate.

Project

- The project looks at collaboration practices inside Research Infrastructures. It investigates if and how Research Infrastructures encourage co-creation among researchers

Interview

- Approximately 1 hour

Explain informed consent – answers recorded, anonymized, recordings deleted after analysis; stop at anytime

- **Conversation** focus on **three main areas** : what a Research Infrastructure is to you; how you collaborate inside your Working Group, how do you collaborate in the context of the Research Infrastructure
- **Any questions for me? Feel free to ask at any time.**

START RECORDING

General

Confirm demographics

- **Discipline**
- **University**
- **Professional rank/job, academic age (year of PhD), years of work experience**
- **Professional responsibilities: Role that play in most projects (PI, co-PI)**

Background

1. Could you broadly describe (current) area of research?
2. Since when are you a researcher? What is your research path/ research history?

| Relation with Infrastructure | Integration of Activities | Collaboration | Innovation |
|--|---|--|---|
| <ul style="list-style-type: none">• How and when did you discover DARIAH-EU? | <ul style="list-style-type: none">• How do you integrate the work of the WG with your daily work at your institution, since the WG are voluntary? | <p>How would you describe the collaboration inside the Working Group? Are your fellow WG members part of your institutional network?</p> | <ul style="list-style-type: none">• Do you participate in other similar initiatives to the WGs?• If so, which one? |

| | | | |
|---|--|--|---|
| | <ul style="list-style-type: none"> ● Is it time consuming? ● Is it beneficial? | | |
| <ul style="list-style-type: none"> ● What do you consider as an infrastructure? What does this mean to you? ● Are you familiar with what an ERIC is, or other infra development of the EU commission? | <ul style="list-style-type: none"> ● Can you describe a project you work on in the WG and that requires collaboration? ● What is the workflow/ how do you share the work with other researchers? | <p>How would you describe the collaboration with the people in the management of DARIAH? Do you have any contact with them? How would you define it?</p> | <ul style="list-style-type: none"> ● How do you consider the work setting of the Working Groups (division of work, collaboration between different countries)? ● Do you reach your research objectives? |
| <p>When and how did you first start to collaborate with a DARIAH WG?</p> | | <p>Do you have any possibility to involve the civil society in your research, is there any benefit for them?</p> | <p>How does the specific format of a Working Group can help you reach your research goals?</p> |
| <ul style="list-style-type: none"> ● Are WG useful for your research activities? ● Does it contribute to your research activities inside your institute? | | | <p>Would you like to give any suggestion on how to change the structure/ governance of the Working Groups?</p> |

| | | | |
|--|--|--|--|
| <ul style="list-style-type: none">• What are your thoughts about the management of the WG by the DARIAH central office?• Is it efficient? Should there be more control? Less control? | | | |
|--|--|--|--|

10.4 Transcription of the interviews

10.4.1 Interviewee #WG1 – 06.11.2020

Francesca [00:00:02]: Before we start. Well, so you know, like, I'm doing this research project in the in the context of DARIAH-EU. This research looks at how collaborative practises in Research Infrastructures are taking place and how the Research Infrastructure enable these collaborative practises. It is quite clear that Research Infrastructure are a bit of an instrument of the European Commission. An instrument of the European Commission too, um to optimise research, the research outputs and research and creation of knowledge from research and to diminish the fragmentation. At the same time, Research Infrastructures are strategic instruments. The research question is: how are researchers creating and taking their own space, let's say inside this top-down approach. This is a bit the big picture, and I'm doing this research as you know while I'm employed at DANS-KNAW, but the university is the University of Verona. So, it's a bit of a triangulation between institutes.

Francesca [00:02:07]: This interview takes about an hour. So I think 11 will be done more or less. The conversation focuses on three main areas. First, I would like to know what is a Research Infrastructure to you. What does it mean? Secondly, about your experience, how do you collaborate inside the Working Group and finally, how this collaboration takes place?. Just feel free to ask any question at any point of this interview. This is a bit of the context. So, um, so this is a semi structured interview. I don't have a lot of questions, but it will be more like a conversation.

So, I would like to start by asking you, what is your discipline? Can you tell me a bit about yourself?

Interviewee #WG1 [00:03:43]: yeah, sure. So I would say most broadly, you could classify me as a social scientist, but, I have a bit of a specific situation, although now that I meet a lot of others and you see that it's maybe not so specific at all. But I started doing my PhD in 2015. Now I'm nearly finished, and it's in, well, let's say fingers crossed. Um, it's I would say it's in sociology. I mean, I focus on the narratives on the Internet, connect them, analyse them, um, and the main topic is how Jews

are being represented in Poland, on the Polish Internet. And I started doing that. I had some other jobs, often outside of academia. And then, 1.5 years ago at an institute of the [anonymized name of Institution], Um, there was an opening for an [name of the Job Position].

Interviewee #WG1 [00:04:48]: So it's [name of Research Institute] so more into humanities. And I took part in the recruitment procedure. I got the job. And since then, I've been developing more into the Digital humanities, I would say, because even though my PhD is more Internet-based, it was more into, I would say discourse analysis, you know, more into sociology. So two hats, maybe. Yeah,

Francesca [00:05:19]: OK, interesting. So you also have, like, different hats.

Interviewee #WG1 [00:05:23]: Yeah.

Francesca [00:05:24]: So, now that you're saying that, I also forgot to say that this research, the approach and the disciplinary is mainly it is, uh, social science and philosophy of science as well.

Interviewee #WG1 [00:06:03]: Before my PhD, I was doing philosophy and at the same time, journalism and social communication. So again, a bit of a mix between humanities and social science, I would say,

Francesca [00:06:19]: Right. Yeah, we have quite a similar background.

Interviewee #WG1 [00:06:56]: yeah was similar for me. A lot of it was political science, in fact, because it used to be a masters, it used to just be a specialisation of political science, you know, because you can specialise in something. And then a lot of people were taking this journalism and communication specialisation. So they opened the new masters. But I was the first year to try it out, so they haven't completely changed the format. It was kind of blended with the political science.

Francesca [00:07:28]: Interesting. So as I said, like, I'm interested in in these, um, structures that are Research Infrastructures. And so, I would like to start asking you how and when did you got in touch first with with DARIAH. When did you hear from about it for the first time.

Interviewee #WG1 [00:08:12]: So surprisingly only when I started this job. So it was I can tell you exactly when. It was probably I heard about it around March April of 2019. Okay, So quite recently, I would say relatively recently, and it was in the context of the new job. I was becoming the [name of job position] at the [name of research institute], and, um, the DARIAH annual event was going to take place in [name of city]. Yeah. Okay. So even before I started, um, I was talking to my new boss. And he told me that, you know, one of I think it was my first or second week at my work would be to attend the DARIAH annual events, to get to know people to see what was happening there. So it was all very new at the time. And I would say before coming, I didn't fully understand what DARIAH was because I don't think I understood properly the concept of, uh, infrastructure. But yeah, it was very interesting and an opportunity to meet a lot of people also during coffee breaks and to participate in the panels, but it was passive. I mean, of course, if there was discussion, I would take part, but I wasn't involved in the organisation or anything.

Francesca [00:09:50]: And what is your idea now? I guess like you also now you're you're familiar with DARIAH. A bit more because you're part of it. But maybe you also heard about other Research Infrastructure, like, CLARIN. What is your idea now? What is an infrastructure?

Interviewee #WG1 [00:10:24]: I mean, clear is a strong word, but I would say that I see it in terms of on two levels. So one level is the people level. So a Research Infrastructure would bring in people from slightly different backgrounds, different places who have something in common. So, for example, interests in humanities, art, et cetera. So give them a space, um, to exchange knowledge to talk about what they're doing, which could be done through the work of Working Groups, but also for meetings through exchange of reports, some funding opportunities, um, networking opportunities. And I would say at the moment, I value it's the most this level of being able to meet exciting people and sometimes even hearing what they're doing, which can be inspiring for your own solutions in your research. And then there's the second level, which is more of a level for ready solutions, ready tools, um, different options, which you can either help to build, or you can just use because they've been developed by some others. You can test them. So, um, this is also very important.

Francesca [00:12:06]: Interesting. Yeah. And it's also interesting to see how the two levels are sometimes work together.

Interviewee #WG1 [00:12:54]: And what I also found quite exciting and nice was how different infrastructures.... So it's not only, for example, networking within CLARIN or networking within CESSDA, but it's also, um, cooperating with each other. So well, let's give the example of the [name of the project], which is this platform that is being developed by [name of the project]. And we are participating in it. And, um also, it gave us a chance. For example, when I say we I mean the Digital humanities centre at the [name of the institute]. So, uh, the institution where I'm working at and...it also gives us an opportunity to work closer with people from CLARIN people from CESSDA, people from DARIAH. So it's all interconnected, which I find nice that it's not...Of course, there are certain things which are different, which infrastructure... But there's also a lot of kind of intertwining them together. Okay,

Francesca [00:13:59]: Interesting. Yeah. And when was your first contact with the Working Group you are part of?

Interviewee #WG1 [00:14:22]: Yes. So I joined later than [name of other WG coordinator]. But of course, because she came up with the initiative. So, the context was [name event], which was um, [name event] in last December 2019. It was in [name city of the event] and it was about research data management. Uh huh. And I would say so, thinking now from the pandemic perspective, I think it was kind of crucial that I met some people in person. So I found that extremely useful. And there were I can't remember four or five days which were completely packed with activities because we had the classes, discussions. And then each afternoon, there was some kind of activity like going to an, um, archive for going to a library, etcetera. And, um, I knew [name of the second WG coordinator] a bit before because we collaborate on some projects within [name of project]. But she was also a speaker there, and we had a chance to talk more. And afterwards I think about February time. Actually, [name of the second WG coordinator] reached out to me and asked if I wanted to work with her. And I think it's a pretty nice idea to have two chairs because of, you know, organisational work clothes, but also of exchanging some ideas. Um, she said

that she was also excited by the fact that I had this more kind of. Well, I'm not really a data officer, but this slightly more Open Science officer hat, um, at that point, but also understand the point of view of researchers. I mean, from the PhD candidate perspective, of course, not from a very experienced one, but this is how it started. I mean, because I think before that I told that that I was interested in joining the group, so there was some kind of meeting that I attended, but this was still before the group was officially created. This was still this kind of shaping phase. And then she offered and, um But I would say I didn't participate in most of the pre-preparatory activities, but from the time it was really officially created, um, I was there.

Francesca [00:16:57]: Yeah, interesting. And I was wondering, so the activities of the Working Groups are quite peculiar because there are voluntarily voluntary, right? You're not paid to be part of this working (group). So, in a way you're working in parallel: you're working on the Working Groups and on your daily job. Let's say so. Like, do you find - I'm interesting to know. How do you on a practical level, you integrate these activities in your normal work? Is there some overlapping? So yeah, if you can think about how the integration of the activities, how does it happen?

Interviewee #WG1 [00:17:59]: So, I think the biggest incentive for me to first attended the [name of the event], then to join the Working Group and then to agree to be a co-chair was that research data management is becoming a bigger topic in [country of origin of the interviewee] as in the whole of Europe. But one of the biggest reasons for that, I would say within our institute, for example, would be that the National Centre of [name of the country] has now created a data management plan template that has to be filled out at the point when you already apply for a grant. So, we have an office, um, which is devoted to like research support. It's separate to me completely. So, it's a couple of persons who are helping out with financial aspects, etcetera. And they have reached out to me if I could help to shape the template, if I could help a couple of people with some given questions about digitalisation, etcetera, which, of course, came out from my role as the [name of the role of the interviewee] and, um and this was very challenging. I mean, I didn't have a lot of experience. And also, I'm not a [...] scholar, which meant that it was harder for me, I think, to understand certain projects, to understand what they're really doing, and,

um and yeah, so in that sense, I really value what we're doing within focusing on different disciplines within the Working Groups. Because I it allows me to understand people with different backgrounds more, and I can bring it back to the institute. And, um, I can give a very recent example. So, we had conversation at one of our Working Groups (meeting) about how it is very important. This is more of a philosophical level. Let's say that it's very important to show people not only that this is a requirement that you came up with something, and now people need to think of data that they're creating, but that it is useful to do your own data management plan. And in that meeting, it was me and also one of our other participating in that Working Group meeting who is also involved in our work. And then we came up with an idea for doing a workshop series. It's going to be free workshops for literary scholars in [came of the country]. Yeah, and they will be online. So it will be for the whole of for the whole of [name of the country] let's say about 90 people signed up. We'll see.... Well, thanks. Let's see how many come. But it's looking quite hopeful, and it's focused on [...] data. So it's for [...] scholars just to show, um, on quite a basic level, I would say, but just so the introduction would be, you know, what this data in [...] studies and then we will go on with a second one giving an example from some projects in our institute, and then the third one would be a very practical one on data management plan. But this was inspired by the work done with the Working Group and we also saw how much different insights people are providing. So we don't want just It's going to be a full workshop because we also want to hear from people what they think and they then write a paper on it because it's not a very explored topic at all. I mean, I try to combine things, which are I'm involved in as much as I can, but it is an extra workload. I'm not going to lie. It's not like you know what I'm doing in the institute. I can directly transfer to the Working Group, and that's it. So I have to do some extra work, but it's very worth it from the perspective of what I'm doing in the institute.

Francesca [00:22:35]: Okay, so if I understand correctly, it is extra work for you. But it is gratifying in a way.

Interviewee #WG1 [00:22:51]: Yes. And also make you mentioned (?) the people more. So if I have an issue or question, I can reach out more easily to someone who

has had a similar experience, for example. And in a way, not just in terms of prestige. You know, someone from the institute is involved in the area, but also in terms of, um, learning from others. So I think those workshops wouldn't have been, um, set up if it wasn't for the Working Group. Just for the ideas, you know, and for thinking, um, slightly differently about this.

Francesca [00:23:36]: That's very nice to hear. It's a nice exchange. Yeah. Interesting.. Um mm. I'm also thinking like, so now we're looking at the Working Group and the relation with your institution. So that's what we just discussed. We shift the attention a little bit inside. We look now at the at the Working Group itself. How the work happens, or the collaboration happens inside the Working Group. Um, how would you describe it? How do you work together with the other people? And if you can make me an example of a small, I wouldn't say project, but like, yeah, a small thing. A small outcome that you did together with the other people.

Interviewee #WG1 [00:24:41]: huh. All right, so probably because we're quite a new Working Group. So probably those disciplinary workflows would be the best example. So just to set up the context, we... this... Well, this was done before I joined the Working Group. So this was done based on discussions within the Working Group. Preliminarily, let's say so. People who are interested in creating it, um, based on those preliminary discussions and certain task forces were created. And we don't focus on all of those task forces at the same time, because, like you rightly mentioned, this is volunteer work. So there's there are not enough time and resources to focus on everything. So one of the main first goals was to work on those disciplinary workflows which, um, kind of would be like a map for setting out how data was handled in a specific project in a specific discipline. Right? And initially we were thinking about setting up a template which our So when I say we this time, it's [name of the other coordinator] and myself. So the cultures, well, we have, um, meetings in between the Working Group meetings So the Working Group meetings are more or less monthly. We don't have a set date. We usually do a doodle because we've asked people. And it was hard for them to say that they are available, for example, every first Monday of demands, et cetera. So it's not a regular one. And between those meetings there is a bit. And I have, um, well, unstructured, Let's say

catch up from time to time, sometimes in a written form, and sometimes we Skype for a bit and we discuss it. It means meaning work within the Working Group, whatever needs to be done. So coordinating the next meeting agenda, and so initially we were thinking about this template so people would have a template where it would say, for example, what type of data did you generate in the project, and then they would write it down. And we asked people also to comment. We've had several discussions on this. I would say so. Of course, there were some of our colleagues who are commenting on the goal basis, but more. It was more successful to speak about things in the meetings because people are very busy. So if they're there in the meeting, they contribute more than in between. Which is completely understandable, of course. And, um so that was the initial plan. But then it was reshaped slightly because I think it was, um, [name of a WG participant], who said to [name of the other WG coordinator] that it might be easier to interview people and based on what they say and write those workflows for them because, I don't know, maybe for people it would be the same amount of time, but it just feels less responsibility than you know. We asked the group, and the feedback was that it's a good idea, but they would prefer to do it in groups so they would find it more useful to hear what others are saying and to kind of contribute to that. Okay,

Francesca [00:28:50]: interviews in group you mean

Interviewee #WG1 [00:28:52]: yes, which was interesting because they're not working on the same project, of course. So, it's not like they're adding to each other. It's more like they would each talk about their own project and then they would, um, kind of interact anyway, So we've done the first group so well, First of all, we've reshaped this and asked for feedback again. And then we kind of had a final template. And, we've done the first interview, group interview, with three colleagues, and it wasn't well, I mean, it was a test. So, you know, we still saw some things which we could improve, but it was a very good experience, and right now it's, um, we've recorded this and it's [name of the other WG coordinator] who is going to do the transcript. We don't need to do an exact transcript, but kind of divided into the workflows. So for each of the interview with there will be a separate workflow. And then we will ask them to have a look at it to add certain information because we

asked them not to be...Of course, we had one hour or 1.5 hour. Or maybe it was 1.5 hour or two. Well, it was more than one hour, probably slightly less than two, but not enough time to go into full detail with every single thing. So sometimes we ask them to just, you know, move on and then add something to the document later.

Francesca [00:30:37]: I think I didn't understand if the people you're interviewing are the Working Group participants or other researchers?

Interviewee #WG1 [00:30:46]: So they are the Working Group participants, and we call them disciplinary champions so they can show some examples from their own discipline of how this was done, and also kind of dis-enchanting. Maybe because we want people to be honest about how they handle the data. So, if they didn't know what to do at some point, this is super useful, I think because, um from the outside perspective. You know, if you're not so knowledgeable about data and you see this Working Group, it might be reassuring to know that people still change their plans or make different decisions or are unsure what to do at a certain stage.

Francesca [00:31:34]: It's interesting because these people are part of the Working Group.

Interviewee #WG1 [00:31:59]: Yeah, it's interesting because also, they know exactly what the questions will be during the interview, of course, because they helped shaping it, and we also send it out before. But I think in this type of interview, it is useful because it allows them to kind of think about it. In certain interviews, I would think this would be a disadvantage because it would take away the spontaneous answer. And maybe people would over think beforehand. But because we are asking strictly about what were the data practises within a project, Sometimes it's good to refresh their memory. Okay, this was the repository I was using. For example, this is how I handled this.

Francesca [00:32:51]: I was wondering: how would you described the other people in the Working Groups? Are they experts in their own, uh, for example, in research, data management? Are there like, um, young scholars, more experts? Scholars of what is their kind of level of, um, of expertise in a way. And also like, do you think

they all participate with the same enthusiasm? Or do you see that some are more prominent? do you see this kind of mechanism?

Interviewee #WG1 [00:33:52]: Yeah. So, to answer the first part of your question, I would say it's a fair mix. So and I'm wondering to what extent, so for sure, this is an interesting topic. And like I mentioned in different countries, it becomes a bigger topic. Research data management. Um, so this is one part. But also, I would think that probably the fact that [name of the other coordinator] was a very prominent Open Science activist before could benefit us because people knew her and they trusted her. So I think some of our colleagues have joined because she was involved already or she invited them, for example. But we got a lot of, um, interest from different groups, and some of them were more of data officers. You know, Open Science officers crowd. Some are more into cultural heritage data, and some are researchers. And I would say it's on different levels. There are maybe a couple of early career researchers, a couple of more experienced ones. It's very varied. And I don't think I could make a distinction that some group is more active than another. But some members are more active than others, and mm, I can give an example. For example, one of my colleagues at [name of the institute], um, is also involved in, he's co-chairing the [name of other DARIAH Working Group]. He is very busy with his own stuff, so he wants to know what's going on, but he often doesn't attend the meetings, for example. So we have this kind of informal agreements, he told me. You know, just let me know when you need something from me, which would probably be this interview, you know, because we wanted him to be one of the disciplinary champions. So at that point he will become active. I wouldn't say is he's an inactive member because he knows more or less what's going on, but just not as involved...

Francesca [00:36:16]: It's very nice that you actually managed to have this kind of internal agreement with your colleague and, yeah, on the other hand, active in the other Working Groups. So it's a nice compromise, I think.

Interviewee #WG1 [00:37:15]: Yeah, I would say so. Sure. And I'm still impressed by you know, the fact that we have those meetings monthly and people really come

and they really engaged. And if they have time in between, they also do some work. So it's impressive, I would say

Francesca [00:37:35]: Wow. Yeah, I'm also impressed. I mean, it's very interesting and yeah, maybe like the fact also, that this topic is very relevant at the moment.

Francesca [00:38:08]: the next question...So now we looked at the Working Group from inside, how it works, and so if we kind of zoom out a little bit and, um and, uh, look again at the relation between the Working Group and the infrastructure, so DARIAH. First of all, how is the interaction between DARIAH and the Working Group? So how do you see this relation between the, um, the structure and the Working Group, which is more collaborative? Do you see?

Interviewee #WG1 [00:39:18]: I understand the question. I'm wondering about my answer, you know, because mm, it's interesting. I mean, we do have a specific situation because [name of the other WG coordinator] often she has more insight knowledge than I do. Well, always, she has more knowledge when it comes to DARIAH than I do. From my personal perspective, what I have seen so far, um, it works out well. I mean, I don't feel I haven't felt too constrained by DARIAH. And also at the same time, I felt there was interaction because we were invited to do that presentation for the other Working Group, which I thought was very nice, um, to kind of share. what's going on? You know that this has just started, but again, I would like to stress that we are quite new. So, for example, I wasn't really participating in some kind of deep reporting. Maybe then I would have some more feedback.

Francesca [00:40:30]: Yeah. What we do is once a year. So the beginning of next year, I will ask you to do a small report on the activities that you did in the previous year. Yeah, And I was wondering, after that community call that you had, did you have any Working Group contacting you because they were interested or any contact with other Working Groups?

Marta [00:41:15]: Uh, so I would say that the [name of other Working Group] has been interested, but it's also because we work together with [name of other WG coordinator]. But, um I guess, um, this is something that he also remembered after. I don't think he was in the community call. But I told him, you know, that we'll be

presenting and it's something that keeps reappearing, and we keep coming back to the idea. So I wouldn't say. Well, no one, I think, contacted me. Mm. And [name of other WG coordinator] usually, um, puts me in CC if someone contacts her. So, I don't think a separate Working Group has contacted us afterwards. There were some ideas being exchanged during the community call. And also there is that synergy session with the geo humanities WG, which was planned beforehand. So I'm not raising it as a result of this community call. So no, I don't think so, But I might be wrong.

Francesca [00:42:28]: Are in touch with other Working Groups apart from these communities calls?

Interviewee #WG1 [00:42:33]: Yes, I would say we are, um, on my level, like I mentioned, it's more if I know someone who is in another Working Group, but yes, the [name of other Working Group] the [name of other Working Group]. Um, I was at a meeting of [name of other Working Group]. I think they're less active at the moment because they did that report a couple of years back. So but yeah. Okay.

Francesca [00:43:03]: And so going toward the conclusion of this interview and also, like, zooming out more again. What I see in other projects or the other infrastructures, um, initiatives is that, like, the name Working Groups is more and more present, like LIBER has Working Groups, RDA has Working Groups. But what I see in DARIAH, it's kind of a different governance, a different way of working. What I've seen other infrastructure is [that] the Working Group are more like told what they have to work toward, You (as a DARIAH WG) have a bit more of freedom and how to organise their work, like, do you think? And since, like, you're also involved in other initiative in your country, but also, like at the European level, do you think like this kind of setting this way of working, can it you bring like new, um, innovative outputs? Uh, it's a bit difficult to explain, but can you bring innovation?

Interviewee #WG1 [00:44:50]: Yeah, I hope I understand the question correctly. But, um, if I understand, then you're asking if this Working Group and also the particular setting which is within DARIAH, which allows people to do more or less something according to their interests, if it can bring innovation. Okay, Yes, I think so. Especially in the setting. Um, here where people are volunteering, I think there's much more

chance for something exciting to come out from the group activities if it aligns with what they want to do rather than what they are told to do. And, um, of course, we have certain structures such as this disciplinary workflow that we want to work towards, but this is something that's been agreed within the Working Group. So I would say it's not only DARIAH and not telling us what to do, but also us not telling our colleagues within the Working Group what to do so I would say yes. And, um, I can give an example from [name of other project]. I am in a special interest group, it's called. It used to be called Working Group. Now it's special interest groups, and it's devoted to business models in scholarly publishing. And what I also saw was that initially there was a plan that each group would produce a white paper within a, well, a certain period of time. And it's still a plan, but we got more flexibility. So there was a longer deadline. And because of this, for example, our special interest group will be leading a survey which will be sent to academic publishers. So I think if there was a very rigid structure, this wouldn't have happened, you know, because we wouldn't have enough time and there would be a certain goal, which would be the white paper, which, of course, we planned to base it now on the survey results and to describe them. But if it was a very quick deadline and something else we wouldn't have come up with this idea, I think.

Francesca [00:47:19]: Yeah, that's, uh that's interesting

Interviewee #WG1 [00:49:27]: Um, I don't know if this is so much interest to your research, but maybe yes. Um, with, um, we've created this new feature of our into our agenda, which is the news and Newsworthy, Which was, uh, [name of the other Working Group coordinator] brought it from some, um, some of her Dutch colleagues from some other research data management group. And, um, this is really nice. So at the beginning of each meeting, uh, everyone is typing, um, what they think is interesting to the group. So this doesn't have to be in their national context, but could be in some projects that they're involved in etcetera. Anything related to research data management either happening now or it has happened, but it's important to report on or something that others could participate in, for example, and then we do a bit of voting, so you just write plus one next to the initiatives that you find interesting and the top two also explain a bit more about. The top two of the winners explain a

bit more about those things that they wrote about, but even the ones that didn't win you still have a link or some kind of information you can still ask someone about it. So I found that super useful. So even if you don't want to sign up for something, it's, um, super important to know that, for example, there are some workshops going on to, for instance, at the next meeting, I'll be able to tell the group about the workshops for the literary scholars in [name of the country]. So if someone wanted to do something similar, let's say in half a year, one year in their country, they could go through the agenda, which we have. And it's rolling minutes. So it's the same document and find it. And, for example, ask a question or ask for some feedback what we would have done differently.

Francesca [00:51:46]: Wow, that's very interesting. So you're not, like, just a in a way, you're not just exchanging content or knowledge, but also methodologies of work, right?

Interviewee #WG1 [00:51:55]: Yeah, I totally could be. I mean, because it's quite new, so I I wouldn't say. Oh, so many exciting things have come out of it already because we've done it. Maybe for three months now, But I see a lot of potential. Yes. Interesting.

Francesca [00:52:14]: Okay, so thanks, [name interviewee]. You already said a lot of very interesting things. So I'll be taking some notes now and some thoughts, and all is very interesting food for thoughts. Um, so if you don't have any question, I think we can stop here. But of course, like you have my contact and anything you want to ask or or yeah, curiosity or things you want to ask. Just feel free to drop. Just feel free to write me and otherwise.

Interviewee #WG1 [00:53:17]: Please do. And good luck. And if you needed anything, if you needed anything, just let me know. Because maybe I didn't explain something Well, or you need some follow up. Just

Francesca [00:53:29]: okay. No, everything was very clear. And thanks for sharing your background and a little bit of your story. It was also nice to hear.

Interviewee #WG1 [00:53:40]: Okay, great. Thanks a lot. And best of luck.

Francesca [00:53:43]: Thanks

Francesca [00:53:44]: Speaks soon. Bye bye.

10.4.2 Interviewee #WG2 – 27.11.2020

Francesca [00:00:05]: First of all, maybe you can tell me a little bit about your background, your field of interest, your discipline.

Interviewee #WG2 [00:00:31]: Okay I'm kind of too interdisciplinary. So, uh, and at the moment, I joined the Department of Information and Computing Sciences. There are a few people like me who comes from a different background, but mostly it's computer science or most physic or math background people. I'm coming from a humanities background. And for them, my academic age is quite young because I'm new to the field, so to speak. On the other hand, um, I have been working as a digital humanities scholar for some quite time now I think I did. Yeah, I did get my PhD in 2008, so that's uh, quite some time, and I have been working with physicists and computer scientists since I graduated, So I'm familiar with the approaches or computational approaches, but I do have less experience in applying them as such. So, for example, at [name university], I started as an associate professor working there, and before coming to [name of city] I was in [name of city] at the university where I was part of the humanities faculty, and there I was already an associate professor.

Francesca [00:02:21]: Can you describe your background and what you do. What are your interests? Okay. And your research is interdisciplinary, you mentioned it.

Interviewee #WG2 [00:02:30]: So, the research is interdisciplinary, but I do come, I do come from humanities more specifically from art history. And when I moved to digital humanities, I was very much interested in computer vision. And if you can just use it to analyse thousands of our art pieces, that one goal and but with time, I also moved to two different topics. For example, at the moment, um, I'm kind of trying to start up in new project idea, and that is about oral history archives. So can we look, can we use the data in oral history archives to study trauma, looking at breathing patterns of trauma, survivors narrating their pain, actually, and this is quite further away for me from home than I have ever been. So I'm trying to learn how to work the audio files, how to analyse speech and how to analyse para linguistics. So everything that we just used to express our emotions while speaking like, for example, silences breathing, um, size and you know, cries and etcetera, etcetera.

So it's quite a new topic for me, and it's a challenge as well, because moving from art history to computer vision was a lot easier than this. I think, um, everything that computer vision is doing, it was also quite related to how are, or you can see the similarities in how our brain functions. And that was that. That was something that was of interest for me as well while doing art history. So I was very much interested in that as well, so the transition was easier. Now Yeah. Now it's It's, uh I'm kind of lost.

Interviewee #WG2: [00:04:44]: I think that there are also, like, disciplines, like psychology or, um, yeah, cognitive psychology and neuroscience is something that I was interested in. And I did read a lot while doing my Ph. D as well, because, like, at least the recent kind of, um, discussions around aesthetics and how we like something and especially visually visual information. It is very much tied to that as well. So I that was something, you know, a topic that was more or less familiar with, but with audio. Yeah, okay. And yeah, interestingly enough, I think with DARIAH, I'm part of the group of, uh, [name of Working Group]. So it's a that's still more home for me than okay, then this new topic? Definitely. Yeah.

Interviewee #WG2 [00:06:29]: it's very broad. But since the focus is more or less in trauma, we are really hunting for traumatic stories. For example, I did get in touch with the group in Japan. They did like around 100 interviews with tsunami survivors.

Interviewee #WG2 [00:06:50]: it's that that data is quite valuable. And then they gave the green light to share the data. They found the project very interesting because the idea is also what has the culture or the language has an effect on how we process trauma. And then we are looking at breathing because breathing is something we don't we're not conscious of. So we don't control. We do control our thoughts, how we express them, and then also, you know, that culture has a huge effect on how we you know, uh, process what we lived through. But when it comes to something so painful. Maybe there are kind of points that that that runs similarly in every human being, regardless of the culture. For example, when you listen to those survivor stories you hear, I mean, it's a survivor. Guilt is quite common, and it goes through everyone who goes through something like that. But in Japanese stories, you hear always the expression of Yeah, I'm not myself back again. And I'm

not contributing to the society as I shouldn't have. So it's not only surviving the thing but not being able to survive the pain, and they expect to do that on their own. I mean, um, it's they never even think of kind of going to a therapist or getting help, or it's It's everything is on their shoulder because that's the way the society work more or less, so it's very interesting.

Francesca [00:08:40]: Wow.

Interviewee #WG2 [00:08:49]: Yeah, and also quite unexpected. For example, [name of person], the professor that we are working with, uh, he's also teaching on trauma as well and uses different archives and materials. And she said that in one class. He was showing recordings with people who survived Chernobil. And then people are crying because this is these are the interviews that are done right immediately, right after what happened. So they were in shock and everything as well. And then one of the students couldn't hold it any longer, He said. He and the student was like, Aren't they ashamed of themselves, Kind of expressing themselves so openly and crying and screaming?

Interviewee #WG2 [00:09:41]: It was, You know, usually when you watch something like this, you immediately feel that connection and you feel you feel sorry for them and what that student was feeling, or probably the whole class. They were just ashamed on their name in their name because they couldn't hold it.

Interviewee #WG2 [00:10:10]: okay, let's move forward. Otherwise, I'm afraid we'll talk about this project and not about ...

Francesca [00:10:28]: it's fine. It's part of the interview, so it's It's okay. But going back to the so the reason why we know each other, which is basically through [person name] and DARIAH. I was wondering: When did you first got in contact with DARIAH ERIC?

Interviewee #WG2 [00:10:59]: It was the first time I heard about it. I didn't know about it before. But I am really from afar. Just hearing it's really hard to see difference, For example, between DARIAH and CLARIN.

Francesca [00:11:12]: I know. Yeah,

Interviewee #WG2 [00:11:14]: I'm still not very sure I tried to go there (to the DARIAH wiki), and I know that there are so many things that I can go and read to understand better. But I think that's part of the problem. There are too many things to read, so I I'm not very sure that that's why I wanted to study before the interview. But I kind of vaguely remember [person name]. Sending me like documents about explaining that and opening 100 page document is really kind of a no go. I don't have that much impetus to invest, so to say.

Francesca [00:11:48]: I know, I know.

Interviewee #WG2 [00:11:50]: Uh, so I know now more about their differences, and I see why they're both helpful and useful to have a different type of infrastructures. But, um, yeah, before coming to the I think we have met in Warsaw...

Francesca [00:12:13]: Yeah, yeah,

Interviewee #WG2 [00:12:15]: yeah, Yeah. So before coming to that meeting. Yeah, I I already knew about [DARIAH]. Yeah, but it's been around since quite a while as well, right?

Francesca [00:12:28]: Definitely. And I was wondering, because now you also mentioned CLARIN. Or maybe you're also part of other so-called infrastructures apart from University of [name University]. Uh, so what do you think? So you're a bit familiar with the concept? What do you think that can be recognised as a Research Infrastructure? What do you think they are and how they can help researchers and also how they can support you, Actually, in your work?

Interviewee #WG2 [00:13:01]: Yeah, That's I think that's a tough question, I think. What? I mean, that's feeling with especially also, um, accessing information or doing stuff. with DARIAH, what I experience is...actually it's really nice. For example, where many services that we get for free think about. I don't know Google docs, for example. You know, other services are generated and kind of, uh, at least within the infrastructure. People try to follow those more than the regular ones. But I think it's, um I'm not sure if that's the way to go, because I don't see it happening in my everyday life.

Interviewee #WG2 [00:13:48] So I mean the aim and the goal is really very, very necessary. But I don't know if you are reaching that goal in, you know, internalising, those Research Infrastructures in our everyday research, and I think that that is not a problem of DARIAH, only I mean, I'm a digital humanities scholar, and I have been involved with different type of, you know, people with different backgrounds. So, I do interdisciplinary research, as I said, and it is never easy to find a platform that agrees with everyone. Everyone has, you know, different disciplinary kind of inclinations habits. And it's that, you know, um, that that, you know, platform that crossing over to everything doesn't exist. That's only in the ideal world of what we are dreaming about. And I don't know if there is a way out of, uh out of this chaos and reaching that dreamy state.

Francesca [00:15:39]: yeah, well, yeah,

Interviewee #WG2 [00:16:13]: of course, they can't be universal or their community base, and they are made by the people that work in it. So they can be, as you say, like they can't fit all the research, needs all the researchers. But what I think is like it's a well, it's a nice way to go, I think,

Interviewee #WG2 [00:17:14]: Yeah, I think in the sense that I mean based on the community's needs, and if you just move forward with the idea of yeah, let's go agile and do something that is really nice enough for everyone involved in the community. And then and we'll just see what's going to happen next because the next is happening too fast as well. So it's investing too much for now is it's kind of getting in the way of what could be done next. Like I was, I was writing a review paper on oral history, archives and their needs and how, how much? Um, it could be improved with new technologies of, for example, emotion, recognition, etcetera, with all the AI research. And then I I've seen quite a few survey papers. For example, where, um I mean people in the field archivist working and trying to regulate all the data. They really don't like to move to the next step because the next step is always there, and it's quite a bother to you invest so much and then the next year it's like, Okay, now here's this one. And then the new technologies are never trouble-free as well. Um, so, for example yeah, Ai is very nice and it it does emotion recognition, but it does it. I don't know to maybe 80% of the time and then next year they will come another

thing that that does it for 90% of the time. The thing is to, um, to evaluate the system, you also need to invest a lot of time and manpower. So, um yeah, I think if you just let the community be involved more and if you think there is also maybe the needs to put something more than just, you know, research interest to get people together, you know, to make them work together... It's always nice, of course, to have a wider network so that we just generate, um, you know, we share more information and we find, you know, more common interest and built upon on that, and move to the next stage. But then again, I think in everyday life as researchers, we are already overloaded to save the day. I don't know with this spirit I'm sure, for example, and that's the only thing that I can do at the moment. So, I'm just like Monday is the next lecture, weekend I'm going to prepare the lecture, so it's, um, and if I don't have any other incentive, it is always easier to work with the colleagues that that are at home (same institute) because that happens more or less naturally. Uh, you know, talking more with colleagues who are, you know, in another country or in another continent. Even so, yeah, it's always I mean, if you have a very specific research interests like, for example, working with people from Japan because it's mutually very beneficial. But it's something like this is never going to be a bigger community than that. And then if it's a bigger community, you do have too many kind of clashing interests. So I'm kind of thinking again, uh, through DARIAH and for example, um, we sit down and proposed a workshop because there was a a little tiny bit of money and we thought that we can do something and something that that would be of interest of the community. But if there wouldn't have been that little thing, probably people don't really spare the little time that we invested in that.

Francesca [00:21:33]: Sure,

Interviewee #WG2 [00:21:33]: you see what I mean? I mean, everybody wants to do, wants to contribute to community in a sense, but to make that time somehow like... yeah, last year happened, and I don't know what I did for DARIAH, for example. Kind of, um, So I think that maybe that that is also quite on my side, not personal. But I think for us, for [name of other coordinator] and me, we are quite different than the other groups. Because, like, we are kind of inserted into the group, as the leaders. And we are not the original leaders who just get all the...

Interviewee #WG2 [00:22:15]: Yeah, so it's, um I don't know them personally yet. And there there wasn't much of a time to meet and bingo, uh, covid happened as well that that's also not nice, but, um. But there was also the reason why the, you know, initial leaders did leave. I mean, the groups get stagnated on its own as well. I think it's a lot harder to get them together. And I mean, we didn't also invest much time to be frank. Both [name other WG coordinator] and me are I think, um, we're at a stage with our careers. Maybe, um, we just need to put a lot more time on other things than just but also there's almost no personal touch that that that will just feed us back if you see what I mean. Uh, if I had known personally some of the researchers, then I would have already a better idea of what they do for their research and what would be more of interest and how it can get different groups together, etcetera. But I don't have that type of information as well. So it is. It is a lot harder. We are kind of groping in the dark, and I'm picking off other groups that that I know of where there was already a common interest and then a very active get together. But maybe they are running out of money because they started with money, for example, for somewhere else. And then now they just want to officially continue, and they become part of DARIAH. And then DARIAH is a kind of a really a perfect fit, uh, to just keep a kind of a casual, uh, you know, get together. Kind of a feeling.

Interviewee #WG2 [00:24:09]: but I think for our group, that's not there, uh. And I don't know how to reignite that, or we start or start in. You may be... that's what I Why I said Maybe I should have prepared better for

Francesca [00:24:28]: that's totally fine. But, you know, like also like, I see, um, well, these Working Groups are voluntarily, so they have voluntarily participation, so you cannot oblige people to work on it. If there's no incentive or there's no word, let's say so. That's also it's totally normal that, um what we see sometimes is that, for example, there is a project running or the Working Groups receive some funding for a project that there are more active. And then there is a period where they're quieter or working on other things. So that's totally, uh, it's totally normal and understandable. Yeah. I also understand what you say. That Yeah, maybe it's a bit frustrating because you just took over over from [name of previous coordinator], if I remember.

Interviewee #WG2 [00:25:19]: Well, yeah,

Francesca [00:25:20]: and, uh, maybe you feel that he created this Working Group. So maybe you feel a bit less kind of the owner of, um or integrated. Let's say in this...

Interviewee #WG2 [00:25:33]: I think integrated is the right word, but I also had the feeling like we had only one place to face, um, you know, get together for during the last, uh, DARIAH meeting with our group. And I also had the feeling that people were also not very much, much more. Let me put it that way...Much more knowledgeable about what's going on in the group.

Francesca [00:25:59]: Okay, but your group the one that [name of person] started, you mean

Interviewee #WG2 [00:26:03]: yes. So, of course, there are also other people. It's not an inclusive. It wasn't an inclusive meeting. So, for example, [name of person] was also there, which was really nice. But I mean, I didn't have the feeling when I entered the room like people were not chatting. They were rather waiting for [name of old coordinator], for example, if it had been a more tightly knit group that, you know, already worked together through other means as well. And or even, you know, if they didn't say hi in a year, then the atmosphere would have been really different. So it was kind of, um as I said, like, kind of a stagnated group. Or maybe there were more people from outside who just showed up because the topic is because they were not part of the initial group um, so and it's hard for me to tell the difference.

Francesca [00:27:00]: I mean, you're not obliged to stay in a Working Group, you know, like, it's also part of the nature of this Working Group. Sometimes they dissolve. Sometimes they restart under a different name, different natures. So that's totally fine.

Interviewee #WG2 [00:27:30]: Yeah, yeah, I know. I just feel that I personally didn't put enough energy and wish and, you know, thinking into how to reignite the whole thing. So, I think I should at least give that a chance. But I have been, as I said, career wise kind of too busy. Um, first for finding a place in in in Holland, as, you know, going back to the academy again because, I mean, I did move back to Holland

because my husband did get a contract here. So, for a while I was just working as a as a part time lecturers and I was searching for a permanent position

Interviewee #WG2 [00:28:13]: that that takes time. That also kind of, um enables you to think about how you're going to invest in what? Because coming from an interdisciplinary background you are? Yeah. I mean, it looks like a freedom you can apply to quite different,

Interviewee #WG2 [00:28:33]: So, yeah, this could be also it. But then in the future, you're going to shape accordingly. You know, you're going to move into, uh, so without knowing that I you also don't know in what to invest more. So I was in that period, and now the new contract and new classes, you know, new colleagues and I have to write these proposals, etcetera. So I think it's still, um, unnecessarily busy for me. But after that, I hope that I'll have settled down and then I can really give more. Yeah, I and I like the idea, actually.

Francesca [00:29:20]: And, maybe one last question. Do you know other people in other Working Groups in the area apart from [name person]?

Interviewee #WG2 [00:29:34]: Yes, yes, actually. I mean but I might not remember the names.... Um, there's the work group of, uh, [name of person] ...What's her name was working on the on the [name Working Group].

Francesca [00:29:57]: Yeah.

Interviewee #WG2 [00:29:58]: So I have met her earlier because on another time, I was working on gender, and I'm still doing that by the side. So, I had this really, really interesting project, and she was very supportive. The idea was to have a different view or get a closer view on the 19th century and where this break has happened in 19th century, where the representation of sex has changed from depicting male and female bodies as essentially coming from the same mould in 19th century. There's this kind of interesting transition where yeah, we find ourselves in today's world to you where yeah, females are coming from Venus and men are coming from Mars or something, so they're totally different. And until the end of 19th century, um, they were much more described as being the same rather than, so I was researching that and that's why I got connected with them very shortly. Uh and then I was very happy

to see her in the [?] meeting. And I thought that I can reconnect with that group as well. And then, uh, yeah, that that didn't happen before. But during the [?] meeting, I have also met quite an interesting lady. And I have to just check her name again. And because we have also, uh, did write a project and she was actually working on, um, on museum and library collections. And then how we can just decolonise them, Um,

Interviewee #WG2 [00:32:21]: and I think there was another group that that was also very strikingly interesting for me. They were working on art and the representation of art. And that was also nice. So I I actually really would like to be, um, involved more with DARIAH and with other groups as well. Um, but as I said, it didn't happen naturally yet.

Francesca [00:32:45]: Sure. But did you have a chance to see or to experience also from other Working Groups to see how they work? And if so, like, if you do, you think like this way of working is sort of, like, these small groups is like a valuable thing? Um, did you already work in a manner like this in a way like this?

Interviewee #WG2 [00:33:47]: Um, now I'm thinking, and I think I have to think hard. I guess I was part of a cost action, and then and that's a similar actually set up where the nice thing is. Money flows freely and just for everyone to meet up and get together. And I have seen that in a short amount of time, even meeting once a year just makes people to kind of get more, much more intimate. You know that that physical space that you share together, that you travel and get together and spend, you know, sometimes to go out eating et cetera. You know, it's not only the time that you spent during the, um, conference hours, so to speak, and that that makes quite a big difference. There have been, um, not initiatives like this, but I'm kind of I'll take deliberately to make the, um to make them maybe a reference to a really small sized conferences where it is a group that only a small number of people are working on, and then it becomes a very tight group. For example, I don't know why that one pops up directly, but my husband was working on bio semiotics, so it's a very small community, and they meet only once a year and they don't have outside fundings, et cetera. It's just common interest and for many of them. It's not there, you know, the number one expertise area. It's like a hobby, something. But since it is like that,

it is also very close to heart. And since they meet regularly just once a year, maybe, but it's they know each other very well. After a few year's time, then they kind of become friends.

Interviewee #WG2 [00:35:52]: And I'm thinking, for example, I have been part of digital art community like that. That that was very, very, very small when it started. I feel like digital humanities was like that when it started. So, uh, then then you just, you know, feel those kinds of bridges. And I think Working Groups, uh, feeling is kind of the same or I was kind of something the same. But to be frank, I really didn't involve with the other Working Groups, and I don't know how they work on a regular basis, and I think that's a good idea for me. I can check out that, and I think talking to you, I also realised, I mean, the few things that we tried to do was to generate interest within the within the Working Group itself. But maybe we should have also spent some time to reach out to our own networks and then just generate interest so that we'll just have some new blood within coming into the and that might maybe ignite the others as well. Uh, you know, start a new phase in there, and we really didn't think of doing that, but

Speaker 1 [00:37:08]: It is also interesting that you say there is. It looks like there are similarity with the small group interest or small size conferences or cost action. And I wonder like what happens? How do they evolve these, uh, small size conferences Or, like the community of your husband of the bio semiotics? What happened to them, like, how do they evolve? Are they incubated or incorporated in other, bigger communities or they kind of they're cut alive? Uh,

Interviewee #WG2 [00:37:51]: I think I think the bio semiotics community he did fell out of it. I don't know how they're doing at the moment, but I think those you know small, Uh, the grassroots is a really nice way of describing them. I think, in bigger conferences, uh, they're kind of lost, and they are very happy to find each other. That's at least my experience, you know, because, like, I was following a really nice set of conferences on cognitive sciences in [country] and there were people coming from quite different backgrounds, and there were many people who are interested in that. So that was also kind of a small group, and probably yeah, depending on the availability. In that case, there was a lot of money also available because main

initiator was coming from the medical field, and it is really easier for them to raise money to get funding for such places. But I'm thinking, you know, with people that I have met there, some of them are still colleagues that I reached out to start, you know, um, kind of projects, for example, or I'm very consciously aware of what they're doing at the moment. And what kind of research There. Uh, so even in that group, there are, you know, smaller kind of get together and you make it kind of a click, and then it just grows a little, but not too much. So it becomes a kind of a quite an unofficial way of meeting, in a sense, So it's not like that. You, you know, you send a paper, there isn't a review pro process necessarily, or you just review among each other so that you just give feedback instead of evaluating the quality of the world.

Interviewee #WG2 [00:40:04]: Um and then I and I like that in itself. I think that's very satisfying, actually. Yeah,

Francesca [00:40:14]: it's like a work of a group

Interviewee #WG2 [00:40:24]: Yeah, exactly. And I think COST action was similar in the sense that, like we had yearly conferences, for example, But we really didn't go out of our way to find outside reviewers. So, we reviewed each other's activities more or less. It was a, you know, kind of a moment in time where we took a break from the academia. And still we are in the academia. We are sharing interesting things that we did, uh, that that we know that would be of common interest to a larger uh... So I think that that's really um I think personally, I really like to have those type of atmospheres that that deviates from the norm because, I mean, it is a prestigious conference. I have to send something. I have to get it published there. I then you know, presenting is another source of anxiety. So it's not It's very much business. Yeah, but when you go to COST, it's very much like, yeah, you have missed those people. You know, that together kind of, You know, it's it has so many other layers that that makes it a lot more fun. And then you really want to do research together? Just because you know that you are having fun to hang up with those people? Yeah. Yeah, And then I think Yeah, sometimes you work with people who are not that fun, so maybe we can just cross this out from there before. But,

Interviewee #WG2 [00:43:05]: Yeah. Sorry. I just had this idea in the back of my mind. I was trying to let it out.

Francesca [00:43:22]: Yeah, sure. Definitely. Yeah. Um, so I mean, I think I had a few questions here, and I think we discussed quite nicely. So, I don't have anything else to ask. And would like to add anything or you also have something to ask me?

Interviewee #WG2 [00:43:40]: I'm looking forward reading your thesis.

Francesca [00:45:36]: Okay. So, I wish you a nice weekend.

Interviewee #WG2 [00:45:38]: Yeah. Thank you.

10.4.3 Interviewee #WG3 – 08.12.2020

Francesca [00:00:03]: Okay, so I just started. Maybe you can tell me a bit more about your research interest and your position at [name institution]

Interviewee #WG3 [00:00:32]: yes. Just for the record, I'm assistant professor here at the [name institute], which is a research centre. So we are mostly conducting externally funded research. Uh, the main funding boards are the European Commission and the research framework of the country here in [name of country]. Um, and my my interests and area of, uh, of research is in the visualisation, the spatial data visualisation for the study of cities, and specifically I am mostly trying to work with historic cities around the Mediterranean. Because I firmly believe that there are some, um, similarities, but also said challenges for for those cities and in particular, I'm interested in the the big challenges and pressing needs of, uh, the contemporary not, you know, high, highly regarded and very popular cities, but the middle population in terms of population, mid size (cities) therefore those that in terms of resources, we call, like second or third tier cities around the Mediterranean. They are like in a separate group in as if they are trying to survive in through specific challenges and precious both economic but also environmental in a totally different league and reality from the very rich, You know, prime cities that we have in Europe fighting depopulation, neglect, etcetera. So I have discovered through the years and through several research activities that these cities, um, have specific needs that, uh, need probably, uh, that the methodologies that I'm interested in applying and developing seemed to be fitting very well. And they fit very well, I believe, because of the whole narrative of the smart city and how the very rich big cities have been embracing the concepts of and the technology of the smart city, which is, um, it's only recently that they have started thinking about the social capital and the human capital and the social groups in this whole cloud of activities that we that fall under the umbrella of the of the smart city.

Interviewee #WG3 [00:03:46]: whereas I see the big potential, like the entry point or the Trojan horse to enter this discussion about technology for those cities through the value of, you know, the bottom-up grassroots co-creation and participatory activities of the people and the social groups, the inhabitants of these spaces that

appropriate these spaces. And in this regard, the whole, aspect of history, historical narratives and cultural heritage, I think fits very well and, you know, helps bringing, bringing some convergence. It helps bringing these things together. So, um, in these, among these players and these agencies, I see, like a very clear thread and road. Or if you, if you wish a narrative or an argument that that says that using technology to support, um, the the activities, the the everyday activities of social groups in those cities could potentially lead to, you know, a new, more sustainable future for them. Uh, my background is in architecture. Um, I'm mostly doing yes, uh, research, But as as I just mentioned before you start recording, we recently started also having, uh, offering a Masters course here. We only had a PhD course and I'm supervising three PhD students, and their topics are again very relevant to what I described. One of them is using a virtual reality to study Alexandria, the cosmopolitan built heritage of Alexandria and how this could be reused and re approached today from the contemporary users of the city of Alexandria. The other one is using ICT and virtual reality for co creation in in urban environments in cities. And the third one is, uh, somewhere in between, most more focusing on the tools themselves and the politics behind the use of these tools. Mhm. Am I forgetting anything? I've moved to [name of country] back in 2012 from yes, from the [name of country] I'm from [name of city]. Have I answered?

Francesca [00:06:23]: Yeah, of course. Of course. Yeah, there's no right answer. But I think it's a good picture of yourself, I think, and it portrays, but well, your interdisciplinary approach also, right?

Interviewee #WG3 1 [00:06:41]: I believe so. Yeah. I'm mostly working here with software engineers, computer scientists, historians, archaeologists.

Francesca [00:06:55]: Yeah. Interesting. Are you also working with social scientists?

Interviewee #WG3 [00:07:01]: Unfortunately, no, I'm trying through activities such as the DARIAH Working Group and before that, through a COST action that I was participating because we don't have any group of social scientists or researchers doing, you know, conducting research in social sciences here at the Institute. This is why I'm not. But of course, I'd love to, you know, have, uh, an even, you know, broader interaction with social scientists. But it's, uh yeah, it's kind of difficult,.... I

mean, I could do whatever I would like to if I had the time. But since I'm so occupied with the activities that I have already established through collaboration with the groups that are around me here at the {name of institute}, I haven't had the opportunity to build up new collaborations with, you know, recent scientists coming from social.

Francesca [00:08:04]: Yeah, I didn't mention it before. I should have mentioned, but so my this research basically is rooted more in the in the social sciences that humanities and in particular is this kind of a well newish field is called STS, which means science and technology studies. So it looks at the collaboration between the the social sciences and advances in technology. Basically, so it's quite a new. Not really new, but not old at all.

Interviewee #WG3 [00:08:41]: sounds very interesting.

Francesca [00:08:42]: Yeah,

Interviewee #WG3 [00:08:44]: In the context of this COST action that I was participating which finished last year, I was collaborating very closely with some social scientists from the [name of city].

Francesca [00:08:56]: Okay,

Interviewee #WG3 [00:08:57]: we were working together on the, uh, for the study of the technological media and ICT for the reactivation of open spaces in cities.

Francesca [00:09:14]: Interesting. Yeah. Yeah. Okay. So my first question would be how and when did you hear about DARIAH? Or if not DARIAH, about Research Infrastructures in general?

Interviewee #WG3 [00:09:33]: Um, I believe as soon as I started interacting with the environment of the research centre that I'm affiliated with today. So it was back in 2013. When, when I first arrived here and I had back at the time the acting director of the centre, of our centre. Here was someone who might know, You know, [name of person]. And through him, of course, I I got to know [name of project] and all these activities. And then I started understanding. You know how these Research

Infrastructures have been, you know...or help people, groups and consortia and partnerships were trying at the time to establish their projects as as infrastructures.

Francesca [00:10:38]: Mm. And for you, as a researcher, what is it? What is your understanding, really? Of our Research Infrastructure? And because, the more I talk to people and the more I see there are different understanding of different interpretation, let's say so. Um, what is your Yeah, what is your understanding of what do you think are the strong points of or the weak points of research of infrastructure and Research Infrastructures?

Interviewee #WG3 [00:11:09]: Okay, this I find this to two separate questions, but let me start from the first one. My understanding of Research Infrastructure is, um, established a set of, um activities and together with the the related thinking methodologies, tools, et cetera of a consortium of, uh, mhm of a big consortium of groups of research is that they became so they managed to communicate what they are doing in their contribution to the society, uh, in in such a way that they have and established collaboration that can survive through the contribution of, uh, country's at European level of course. Now, if we're going to talk about, you know, other countries and what I mean, like the U. S. Or in China, things are Mm. We could again find what we call what we define as a Research Infrastructures. But I think it will be easier if we limit ourselves now to the European context and talk about these recent infrastructure in europe. Okay, so for for me, this is a Research Infrastructure like, uh, a cloud of activities that is self sustained in the long term, through the participation of by having achieved, to convince countries to onboard and chipping in and contributing every every year. So that this is like a long term activity. And it it doesn't have a start and an end, as it is in, you know, the typical funded research process. And, of course, the scope.... Uh, I know that it sounds a little bit, uh, cheesy how I presented, but, uh, of course, it's not that they were very good in persuading people that they achieved this. It's because there was a clear value for for the communities, the same communities. Okay, so everybody both in Brussels and all the representatives of the countries that they contribute for the survival of these partnership. Let's use another word instead of infrastructure. Since we are trying to define what the infrastructure is, um, they see the value and the contribution of these,

cloud of activities set of tools and, uh, etcetera for their own communities of scientists. Okay. And therefore there is a mutual, uh, it's a win win situation. There is a mutual beneficial relationship that helps in total, when one sees it from the outside in total race, the quality, uh, of the European research output.

Interviewee #WG3 [00:14:44]: And I think this is the also the whole purpose behind the use of the European Open Science Cloud and projects like the [name of project], the other one that I'm contributing to, which I mentioned before, which again, it's point. The whole point of [name of project] is to build the capacity in the Eastern European countries to be able and to have the tools and all the necessary know-how to develop their research in such a way and produce their data in such a way and their services that they could be on board, then on the on the EOSC. Okay, So bring them up to the level and in part with the Central European research communities.

Francesca [00:15:33]: Yeah, that's interesting.

Interviewee #WG3 [00:15:35]: So in this respect, I see very, very high value in Research Infrastructures. I think they are highly important. Now. That said, your second question was on advantages and disadvantages.

Francesca [00:15:52]: Well, it was really I didn't mean it as a question in itself. I thought I was a hint for you to include in your answer. But of course, like if you have, uh um if you would like to say something about this, like if you have a clear idea of what you see are stronger points or weak points of the infrastructures. Please, go ahead. It's very interesting what you're saying.

Interviewee #WG3 [00:16:22]: Yes, I wanted to communicate the strong points, which I'm very excited I about which is I think this, um um, continuity of a framework within which someone can start a collaboration. Uh, researcher can start a collaboration with someone else. Uh, from, you know, across Europe without having to go through the process of, uh um, you know, investing so much time in writing a proposal to get funded and then failing and then having to do it again and again until one succeeds, and then having to keep up with all the meeting of the deadlines for deliverables. OK, which is very bureaucratic in the way it is happening in at the

moment. In all, the European funded the EU funded research, I think it's extremely beneficial to vote for, you know, visitors from different countries to collaborate. I underline this because I know that in countries like Germany and in the good old times in Italy as well or in in France okay, there is a very strong tradition of the country providing, uh, ample funding to researchers to establish long term projects like seven years long projects, the research projects. Okay, but in terms of the geographical composition, naturally, it's a little bit limited. So for all of us who believe in a truly unified Europe, okay, and we we see the value of collaborating with, you know, people from all around Europe, I think the benefits of Research Infrastructures are second to none. There is no competition to any other type of, you know, research framework.

Francesca [00:18:39]: Yeah, I like this. And to a certain extent, it relates also to the, um to the yeah, to the political aspect and the policy aspect also of Research Infrastructures. So not only the collaborative aspect among researchers, but also, like how basically it is, um, frameworks can help different countries that have, like, different strenght points to get more or less at the same, uh, to have similar opportunity as well. Yeah, it's true.

Interviewee #WG3 [00:22:55]: But your questions are I find very, very exciting and interesting because we also had like, ah, when was it... A couple of weeks ago our meeting, uh, the [name of research network], which is this organisation. It's again, like a smaller Research Infrastructure. They have their own, uh, open calls that focused on urban regeneration. Urban living labs, uh, innovation in the context of the urban environment, etcetera. Okay. And it's one of the [name network] you know, there is a [name network] in cultural heritage. It's also in urban environments, so about the environment. So we had this conversation there as well with the colleagues, uh of the board of the scientific advisory Board of the [name network]. Okay. And it was It's everywhere. You see the same thing. Okay. We were discussing again how difficult it is for real, Uh, really impactful, uh, research to come out of, uh, of the highly bureaucratic way that the calls and the whole research funded research operation has been developed through the decades in Europe. And again, the whole point was around, you know, the safe environment that Research Infrastructure can

provide to different groups, uh, of researchers to innovate because also, through the typical the existing process of funded research now ...[telephone rings]

Interviewee #WG3 [00:25:00]: what I was saying is that the by the time in the way that the calls are coming out through this lobbying process, Okay, um, any type of a current issue. Contemporary challenge or innovation. Okay, that can be filtered and be captured by a call for research is, by definition, already 5 to 6 years old. Okay, so it's practically impossible for Brussels to facilitate and to help the research communities of Europe to, you know, go beyond the state of the art. It's logically impossible for this to happen in the way that the calls are announced.

Francesca [00:26:27]: Okay, I always thought the same.

Interviewee #WG3 [00:26:31]: This is what we were discussing with the colleagues at the JPI about Europe and what we we agree that, you know, activities or frameworks like now, in our case, DARIAH. Okay, Research Infrastructures. Maybe it's They are, like, a very good way, you know to reach the transition. Okay, it seems that obviously now there are, like for horizon Europe. There are these very big projects of seven year old projects. So it seems that it's by coincidence that again, in the typical big research projects in Germany, they are 7 years. Their duration is 7 years. Okay, But still, in that case, it seems to me that they are. We are going towards that direction so that everything will be... all research activities would be handled through this logic of the infrastructures, even if we're talking about big projects of seven years old projects of 30 millions. Which means that we're not talking about 10 partners. What we're talking about 30 partners. It's in a way, a model that has a lot of similarities to what we have seen up until now. You know, like a Research Infrastructure. Because even these Research Infrastructures, they are like... DARIAH is seven years old, so one could see it, Uh, from as a seven years old project.

Francesca [00:28:19]: Yeah, in a way, it reminds me this discussion more like... Do you know Italo American economist Mariana Mazzucato?

Interviewee #WG3 [00:28:33]: No, no,

Francesca [00:28:34]:. Now she's quite a famous economist because while she basically her, her main thesis is that of that against privatisation. So the state should centralise a bit more research and fund the innovative research and the other.... The other pillar in her thesis, in her books. Are that ...Innovation should be more mission oriented so not like huge mastodontic project like the This Frameworks project, but more like missions or small kind of milestones. Think of them like milestones. Um, so where all the innovation, the research and the efforts are kind of, um, directly toward a simple, clear defined mission. So that's what she she mentioned. I can send you some of the links. She's pretty good. I really like her. Um, and

Interviewee #WG3 [00:29:38]: Exactly what we are doing in the [name of network], Okay, They manage every every four or five years to get this chunk of money from from EU, where the countries contributing okay, also their part. And then they have projects of, uh, to 200 K or 100 k. Okay. And these projects can be one year, two years. So in this in this way, you can and the amount of deliverables. Of course, it's minimal. It's not like in the horizon projects. All right, so you're not drown in just producing documents, and this is like a very good model to facilitate innovation. Otherwise, it's too lengthy and too long to enable innovation. It's almost impossible.

Francesca [00:30:29]: Now that we are talking about innovation and frameworks and logic of infrastructure, I think like I want to skip a couple of questions and maybe go directly, um, to the Working Groups, basically, which is the core of what I want to investigate in this research. And since you're talking about model of innovation, how to reach real innovation, how do you think, um, these the Working Groups in the Research Infrastructure work in DARIAH? I'm talking about the DARIAH example now because I know that Working Groups at the moment there are popping up everywhere so that it's a it's a pretty um, it's not a new name anymore. So there are Working Groups everywhere in every infrastructure or projects. So how do you think that they are placed in DARIAH? How do you see that they work. Do you see innovation of them? Or do you think, like maybe there should be developed in other ways?

Interviewee #WG3 [00:31:59]: This is a very interesting question. Um, I don't think I have a very clear answer.

Speaker 2 [00:32:05]: Okay,

Interviewee #WG3 [00:32:06]: I see in the context of DARIAH, I can see, um, Working Groups that are really very active in a sense of producing new knowledge, and therefore I could see them as very successful in what they're doing. But then I also see some Working Groups that they join DARIAH or they they their initiators were motivated to establish and form these Working Groups. Uh, only with the cause of, um using, exploiting and exploring some of the tools, for example, okay of the platform in order for them to do something that otherwise, probably it would be very difficult for them to find the resources to do to succeed, which, I again, I can I totally respect that, and I can see value in that as well, but I think that they it's a different function, and maybe eventually there could be like, different types of Working Group. If I could call it or the second one. The latter could be called a service, and the first one would remain as a Working Group. And because I see that within the Working Group you have to have the capacity to pursue what you described in the beginning. Alright. Or at least what you wanted to achieve when you when you formed the Working Group. Um, if you don't have the capacity to do it yourself and you have to rely on others, then maybe we should call it a service. And maybe DARIAH themselves as an infrastructure could have open calls for providing services. So I'm not saying that the the initiators of the Working Group should find the money to pay DARIAH to get the service. This could be also a very good option and very sustainable for DARIAH. Alright. But maybe there would be also like, I don't know, a couple of open calls per year for those Working Groups that they need services. And DARIAH could pay this amount of money to other Working Groups or those Working Groups who developed the tools or the services that the the former Working Groups are in need in order to support them. So this could create a very interesting dynamic between the within, even within the the infrastructure. But of course, this could be like a transitional stage where different models could be tested until we would open it up to research groups, even outside the infrastructure. So I feel like these different speeds. If I could call it between Working Groups. for me, I I think that specifically for my Working Group, and I see a great value in stating that so that you recorded and hopefully it will be some somewhere written. Okay, I thought that it was it was a great, It was to my great surprise, uh, when the colleagues from the [name institution]

decided to pay from their overheads from other projects a software engineer, 15 k, okay, to help us develop the DARIAH. What I was referring to last week in my presentation, I thought this was amazing. Okay? And and I strongly believe that they did it because they they see value in the DARIAH name. Okay, so this is important for DARIAH, as an infrastructure could capitalise on such cases. But it is, it seems so attractive for, um, communities or for researchers outside the network to invest their money to pay for work, to support, to provide services to a Working Group. Okay, I think this is very important.

Francesca [00:37:02]: I was not I didn't miss anything where I was not aware of these Georgios.

Interviewee #WG3 [00:37:29]: This is why I wanted to mention. Because I thought that I found it very, very big success for ...

Interviewee #WG3 [00:38:07]: Yeah. And There is, uh there's a continuity in that because it's very interesting again. this what I'm going to say now, I haven't told you before. All right. So don't feel that you you didn't remember. Um, now that we have this app, we we started attracting other people's interest in using this app because this app, I think it's currently I mean, okay, we could keep on investing a few months of work more, but even in its current current state, it could be it is perfectly usable. Alright, It's just a matter of, uh, deciding where this the server that runs the APP, could be installed because otherwise, if we would like, you know, promoted I across the DARIAH infrastructure, for example, and everybody would start using it. Then we would, would, put all our data on [name institute] tech server. Which, of course, we don't want , because we we don't have an agreement with them. Okay, So we could move the servers, say to our servers here, the [name institute] Institute, and then we could open it up and advertise it widely. But the interesting thing is that what I mentioned I believe in in our last JRC meeting through this artist who who was interested in using the other half of the app, which is for the augmented reality interaction. Uh, the one of my Working Group, uh, partners members has started promoting the app in in Austria and he has already found a couple of museums and cultural organisations who would be willing to pay for using the app. So we are now in the process of discussing between 3, 4 parties who were involved in the creation

of the APP the IPs and we we we should be deciding and agreeing on the copyrights in the next few months. And then it seems that we will be possibly creating, like a service, like a package of the two apps, the ER and the DARIAH, uh, that people could use for for their own exhibitions or their own workshops. And since we have already found, organisations that they are willing to pay for this, it's a very good sign.

Francesca [00:42:08]: yeah, yeah.

Francesca [00:42:11]: So, um, we have a few minutes 10 minutes left, Um, about this thing about the distinction of the Working Groups, I think in a few JRC meeting, we already I think it's going on. This thing of giving a label to the Working Groups is going on like we started to discuss it years ago. In the end, we also decided not to do that because, like giving a label to the Working Groups is basically it's like, you know, and in our head, they have a label, uh, in our internal circle. But we try not to get assigned labels because he's it would create a sort of Group A and Group B like

Francesca [00:43:04]: and yeah, we want to give that possibility also to change, you know, like also, like, you see, like [name of Working Group], for example, last year, so [name of WG coordinator]. Um, last year it was very silent. Basically, we never heard from so [name of WG coordinator]. uh, this year they're coming back. So that's but I mean for this. Like, I think it's totally normal for, um, in a, in the framework of the Working Group. Like we we generally really understand that sometimes, like Working Groups are busy with other things even because, you know, there is this structure.

Francesca [00:44:02]: But I wanted to ask you may be one, um, last thing and is: how do you manage? Um, so the work you do, let's say for the Working Group? first of all does it have a value for your institute? Is it appreciated by your institution? Um, and secondly, how do you manage to, um two to find the time for the Working Group and inside your institutional, um, working time? Do you do, like, extra work or some of the work you do for the Working Group can be re used for...

Interviewee #WG3 [00:44:46]: Mm. Um, yes, there is an institutional value attributed to DARIAH. And therefore, whatever I'm doing for the Working Group, so long as it's

under the, uh, tag of DARIAH under the umbrella of DARIAH, it's yes, of course. They they are happy for me to do it. Uh, but not because of the Working Group, because of DARIAH.

Interviewee #WG3 [00:45:19]: Um Then regarding time, I know that this will sound a little bit. No, no, you won't be able to take nothing out of it. But it's the... Although there is a very strict procedure and policy regarding the monitoring of time, of all the the research assistance and the administration of the organisation. The faculty, they are trying to impose some kind of monitoring, but it's it's impossible. And already they haven't done it yet. So actually, yeah, well, when I I when I work every day, 13 and 14 hours and even in the weekends, obviously even not in my mind, I can differentiate and, uh, has a have a clear idea of when I do what and how many hours and invest in every every single project. The only thing that saves me if I could say so, is that as in most of the activities that I'm engaged with, uh, the work that we're doing in our Working Group is very well integrated and linked to other projects that I have okay and that I'm contributing to and therefore it's for me. It's not like time specifically dedicated to the DARIAH Working Group is time dedicated to my business is because all the the output of my Working Group, I also reuse and present in other projects and vice versa. Output of other projects I can present as a result of the Working Group. Okay, so I think that this is the best way for for one to be really active all the time in such voluntarily non funded activities. Otherwise, I can totally see the point that you know, people disappearing for two years and then re emerging again for short periods of time.

Francesca [00:48:28]: We covered all the points I have here, and and I think, uh, we are quite on time. Would you like maybe to add anything or you have any questions or angels?

Interviewee #WG3 [00:48:45]: I don't have any questions. I maybe I, uh, listening to you when you were trying to communicate to me how you you went along and restructured the the questions made me think that I appreciate, uh, the value and how interesting would be to see the results of your PhD and if one would be able to pull all this together and have, like, a very nice, uh, monitoring of the Working Groups in terms of, uh, their activities, their their outputs, their links with with other Working

Group, they their size in terms of, uh, members engaged through the years, I would find it very interesting. A very interesting mapping.

Francesca [00:49:40]: Yeah, it would be very interesting. I've tried in the last years to do that. It's very difficult, though, Um, that's why we started to ask every year to the Working Group to do a report, a short report, because otherwise, in the years before, we had it very, very difficult to know what the Working Groups were busy with and what the people were busy with. So, uh, this report, actually that we asked at the beginning of each year helps us to do some tracking of the activities, the members, the coverage so we can do some kind of basic visualisation so that we can do, but otherwise it's always a bit difficult.

Interviewee #WG3 [00:51:39]: Speaking of which, made me think of a weak point that I forgot to mention, uh, on Research Infrastructure. their dependability on funding coming from countries sometimes means that they are very well engaged or try to avoid even trying to avoid engagement is still a position all right with the politics within the country, and this sometimes is, um, it's I think I find it as a disadvantage or at least as as a challenge, that, uh, as an as an issue that challenges the full capacity, Uh, the very since infrastructure or the opportunities that otherwise might have been, you know, offered by the Research Infrastructure to give you a couple of examples in the case of a [name research network] is the fact that because every country that contributes to the budget has different agendas. But these agendas come from people and specific people. And if these specific people are not well informed or they have their own agendas and then they promote specific topics. And the the Research Infrastructure has to comply with the will of the specific country and therefore to announce a call that is relevant to this research agenda and for the case of DARIAH, this whole issue, which I'm sure you have very well aware of. The country representative. I think that in some cases it's a bit problematic.

Francesca [00:53:48]: Okay,

Interviewee #WG3 [00:54:56]: okay. Maybe you can tell me things about also how we can deepen this part. But, you know, this a lot of, these ones that we touch today, I think, and also be the base for a discussion. You know, I think other JRC members

would like to Yeah, to discuss about this. Yeah, yeah. So as you saw also from my email yesterday, probably we will postpone the meeting. Is it fine for you?

Francesca [00:55:28]: Of course.

Interviewee #WG3 [00:55:46]: Yeah, Okay, So thanks a lot for your time. It was a very nice talk and recover a lot of topics outside of the PhD inside. So it was very interesting. And, uh, well, I would like I will keep you posted and you keep me posted about the thing in [place where WG meeting took place].

Interviewee #WG3 [00:56:29]: Yeah, have a nice day. don't work too much. It sounds like you're super busy.

Francesca [00:56:35]: Thanks. No, I really enjoyed our talk.

Interviewee #WG3 [00:56:39]: Great. So have a nice, uh,

Francesca [00:56:50]: okay. And let's, you know, keep you posted on the development.

Interviewee #WG3 [00:56:53]: Great. Great. OK, bye.

Francesca [00:56:55]: Bye Bye.

10.4.4 Interviewee #WG4 – 08.12.2020

Francesca [00:00:00]: Okay, um, so I would like to ask you first of all...well, I know you a little bit, but maybe you would like to get a bit of introduction of yourself, your discipline and research. Well, the research you did before joining DARIAH, your work experience also your professional responsibilities in DARIAH, but also other communities if you participate in other groups. So it's really like the question, a bit of yourself.

Interviewee #WG4 [00:00:35]: Okay, Okay. It's quite a crucial question to start it. Like whether I consider myself as a researcher or not or not anymore, having been working for [name institution] for more than two years now, um, I find it honestly, just to start with a problem, it's a bit problematic. I should do much more research on the side because in many cases, I feel that I just simply don't stay grounded enough in my own research field or former research field to remain credible in a position of advocacy or training for Open Science practices. So somebody who is out from research for years now, I feel that it can be problematic, like preaching about how people should do their research, right? So I'm a linguist by profession. I did my PhD in [name discipline]. I kind of imagine of these two disciplines. Um, I've been working with because you are also curious about, like, the digital stuff. Like, I've been working with corpus data. Um, it was a big cultural change back then. And I was lucky because this was the moment when, uh, the infrastructure in [country of origin of the interviewee], uh, that enables this data driven kind of research has just been kind of finalised, so I couldn't have done this work even two years earlier. So I was super lucky to be the first among the first ones to do this. And it took me a lot of negotiation in my department and stuff, but solving mystics and then, um uh, partially the data driven mess that we can ask a whole different questions from, uh, from this representative, big corporate big data if you like, um, led me to experiment with fields that are like a on the merger of linguistics and information technology and so and also Open Science. And so it led me to spend a year working for a [company name], actually, before starting at [name institution].

Interviewee #WG4 [00:02:54]: we've been building a research platform called [name platform]. Uh, and there I learned everything that I know, uh, about Open Science

and stuff, how it works. What's the technology behind? And what's the role of standards? What's the role of PIDs and most importantly, how the humanities fit or doesn't fit or under which conditions It fits the big picture. And it fascinated me really a lot. So by the time I got really frustrated in this workplace during that one year regarding how my own research is to this paradigm fits into this technology la, la, la, um, I got a job offer from [name institution], so I was given the chance to spend much more time exploring these questions. So, [name institution], you know what I do, more or less, Um, I'm doing [naming details of the activities] I would say, which is, let's be honest, not a difficult thing to do, because people are really curious about how humanities fits in and how What's the connection between Open Science and DH. I'm doing through projects to [name funding scheme] projects a little bit of an infrastructure building as well. So those are the main pillars. Um, but like the social side of my work, I would say, like, uh, keeping ourselves connected and well, align and synchronised with the rest of the Open Science landscape beyond and like in and beyond Europe also takes quite a time.

Interviewee #WG4 [00:05:02]: Um, and the important thing in this, like you've been thinking, you've been talking about top down and bottom up, and I went like, I really try to keep those angles symmetric the top down like communicating of the rest of the big European players in Open Science, happening mainly through projects and like a community practise groups and a large part through policy making. So, this is the upwards direction. I would say downwards direction happens through bottom-up initiatives like I'm still in touch. I resigned from the steering committee a couple of months ago, but I'm still in touch with a new generation of the [name initiative], which is a truly bottom up, I think a famous one, um, a member of Open Science [name initiative] across Europe really to, like, connect with researchers. A member of way too much Open Science initiatives, like [name network], um, like open book networks. Like whatever. Um, sometimes it's a little bit too much to oversee. But it's a dynamic moving landscape, so we need to keep our eyes open.

Francesca [00:06:36]: Yeah. Thanks a lot. There's been and well, you have quite a interdisciplinary...not your background, because you graduated in [name discipline] then it's quite interesting how you're evolved after your the graduate studies. And

you mentioned actually infrastructure a few times in your introduction. And, well, we all know that infrastructure today is a kind of very fluid term. It has a lot of meaning can be assigned, a lot of different meanings. And it's also one of one of the things I'm also analysing in the literature, how infrastructures is defined. How do you How do you define so far? So how would you define that from your experience?

Interviewee #WG4 [00:07:49]: Okay, this is a super complex question, my views on it, and it's a tricky one. And I will tell you why it's a tricky one. But as a kind of, uh, like, uh, can we had to start with? My views may not represent the views of the [name institution]. So what I think is that is that like and I know I'm a bit radical, uh, in this part, but then I will explain the controversies as well. I'm afraid I have to agree with those who restrict...because notion of infrastructure, very abstract one infrastructure can be anything and everything. And this is exactly why the concept is really dangerous. And I tend, and especially earlier, I even more tended to agree with those. Also those voices from among [name network] who restrict the notion of infrastructure to the hardware and the wires and the services. And like IT in general and storing. And so, uh, I had difficulties, especially at the beginning, Like I remember when I started my job. For me, it was very difficult at first to swallow the like, the [name institution] self-branding as we are an infrastructure of people. And I said that, No, it's super important, but this is not an infrastructure, sorry. The infrastructure is hosting services. Its data services, its research support services, its computers, it's storage services, its standards, its interoperability pipeline. It's, uh, it's a directory of vocabularies. It's everything like that. And this is how I still tend to define the notion of infrastructure, however, and here comes to be [?], Um, especially in my field and Open Science. It's a recurrent question. You know, uh, the whole discussion is summed up with the quote of "If I build it, will you come", which has to do with infrastructure building and community have taken the dynamics between infrastructure and community. And when I give a talk, I usually received a question of what's the more important the services that is the infrastructure in my narrow sense or the people. And I always answered that in my views this is no question. In an ecosystem, in a publishing ecosystem, in a data sharing ecosystem, in a research ecosystem. Whatever this is, it is the communities. It is the people who makes it running in the history of Open Science in Europe but outside of Europe, we see

beautiful examples of how extremely flexibly infrastructure, in a strict sense, can take all kinds of shape and all kinds of twists and can flourish and can go totally wrong because of the communities who are behind or who are not behind them. So, I think it's primarily like having community uptake, having community support, having communities around infrastructure is the single most important thing that makes infrastructure work. And I think this is the important thing to highlight whether we call infrastructure. We include the people into infrastructure or not. For me. It's not that important question. Then see this thing that infrastructure primarily depend on the people. Primarily all kinds of infrastructure can go wrong if it's not community supported. The most challenging infrastructure can be put on a very sustainable track if the people want it. This happened to arXiv, this happened to unpaid wall. This happened to open knowledge maps. This happened to ORCID. This happened to many now super, uh, central and non-negotiable element of the Open Science landscape. So far, this happened to journalists and the like. So infrastructure for me is the hardware and the IT. But it's primarily dependent on the people.

Francesca [00:13:03]: Yeah, I think It's an interesting definition, and also the literature around infrastructure and Research Infrastructures doesn't really, um, well is aligned also with what you just said that. Infrastructure is a continuous process of relations between technology and people in the community. Um, so in that sense, like, I recognise quite a lot of the literature that I read. It's not really radical, your definition. I so don't worry. It's not

Interviewee #WG4 [00:13:42]: uh, it makes me think to case studies from Open Science like how, uh, communities gave rise to, like, sustainability plans to certain infrastructure that became super important to them, and it was impossible to save it. But they still managed because they wanted that much. I think I can feed you with a couple of like examples.

Interviewee #WG4 [00:14:24]: Actually for Zotero. The funny thing is that, you know the founder of the Zotero. And this is the story I used to tell everybody that, like the founder of Zotero, had been assessed for tenure for his work on French enlightenment. Like in the whole thing, you know, uh, documentation of tenure dossiers. There was a footnote somewhere that, by the way, this person, uh, created,

uh, Zotero. But it had never taken into account when decision was made about whether these people should be given salary from academia or not.

Francesca [00:15:42]: Yeah. Interesting. Yeah, well, yeah, I really like Zotero, and it's really community driven, and I think, and it's like ORCID. Also, Zenodo is the same, I think. Well, you know, many more examples. It's just not a couple, but, uh, yeah,

Interviewee #WG4 [00:16:04]: I think the same for standards like a TEI could have never been such a thing to be flexible. Basically to any digital humanities workflow. If there is not a solid community basis behind it. I really hate when people, you know, point scholars: "This is a list of standards". Uh, pick once that fits your data. No, this is not the way we think about standards. It's about who is behind it. Who is maintaining it. And of course, I'm not saying that people should be aware of all the personal dramas and wars and whatever that is happening in the TEI consortium and the lower rank and our long rant about. But at least like the trustability of such instruments depends on whether there are people who are actually continuously contributing to it. Whether there are our packages coming out that are DH want continuously by the community. Whether the TEI kept curated by the community, safe for Zotero. I'm not sure about ZENODO. But like, yeah, there are certain shades of community curation for sure.

Francesca [00:17:26]: definitely. So now I would like to go, like to the second part of the well, the central part of this conversation with you and it's about the Working Group. More precisely. Uh, so I think now you can put your Working Group chair head on. Um, well, of course, your two identities can't be tell apart. So of course, it's very nice that they also influence each other. So you're institutional role and your work as WG coordinator. Um, but yeah, I was wondering like, um, um, how do you manage to, first of all, like, how do you manage to divide the work between [name of the institution] and the Working Group and also the work that you do in the group and it can be divided, can you can you feed back to [name of the institution]? The work that you do with the Working Group and yeah, and how how do you manage to balance the work or the activities that you do with [name of co-coordinator] on the Working Group's?

Interviewee #WG4 [00:18:37]: Yeah, that's a super important question. And I try to give you the best answers. But first of all, it is not easy. I think it's like one practical thing to remark before I forget. Like one way to keep the two things apart in terms of, you know, like ethical and and other and independence and other aspects. I try to do my best. To do the work on the Working Group only in my free time. So this is important that, like it makes also easier for me not to, um, take official [name of the institute] working hours for this purpose because then, like, it helps me to keep the two things apart in terms of, like, actual labour and all the implications that are ethical implications that are coming from this. I think it would be hypocrisy on the one hand and impossible on the other to fully divide conceptually the two kinds of work. And I tell you why. Because it's the DNA of the Working Group. I will be like, I will tell you honestly how the idea had been conceived. Um, when I started at [name institute], um, our focus was on open access. This is what we discussed with [name of person]. And this is like what this was, but I actually was competent in, to be honest, I had a lot of still have a lot of knowledge about open access publishing metadata, aggregation standards, XML standards, um, publishing infrastructure, PIDs and that kind of stuff. So this is what we did at the beginning, If you remember. And then what I saw is that, uh, it's becoming luckily, even more important to shift from publishing practises to the whole research workflows and in the commission, it's called Research Data management. But in my own practise for me, it's very difficult to dismantle research data management from the whole scholarly workflows. And what I realised honestly, is that I'm a [name discipline] by profession, which means that I have some perspective on certain areas of [name discipline]. But I don't even have the full picture in my own discipline, let alone history, let alone musicology, let alone numismatics. And my idea was that in order to do this advocacy work effectively, we really need to ground these practises and translate and grounded it to the disciplinary realities, which disciplinary realities I need to gain a perspective. And so my idea was that OK, if I surround myself with disciplinary champions from all the major humanities disciplines, then uh, they field be able to validate my work on the first place, and they can tell me that I know what you are saying is stupid, because in our discipline it would never work, and they can also inform my work, Uh, like what's happening in their discipline. And for this I saw that have maintaining a

Working Group could be a wonderful idea. And [name person] also loved the idea and [name person] and [name person] and everybody else as well. So it's not a classic bottom-up of Working Group in this respect, and but this is not reflected in the internal dynamics of the Working Group. So for me, it was super important not to impose anything the Working Group, but make it work as any other Working Group like bottom up like, uh, with good, very good dynamics of collaboration. Because, believe me, even in Open Science stuff, I say I saw very, very bad dynamics of collaboration. But so that's said to answer to your question. It's not really. By definition, it's not really possible to keep the two things that part apart from the working hours, but also because I have one head and, of course, the inspiration that comes from the Working Group or the inspiration that comes from the policy making kind of meet halfway so and cross fertilising each other, so it's not easy to keep them apart. But that's a different dynamics once you are in the Working Group, because then it's I really try to move myself in the background. When it comes to ideas and design and agendas. I just really try to listen. And, of course, if they ask me on certain topics or ask my advice or asked me to talk them about [name project] or first for or whatever, Uh, of course it's like thinking together. But it's really thinking together and not something else. Yeah,

Francesca [00:24:30]: I think it's nice. And also the thing that you have these kind of, um, global perspective, These two perspectives on your work is definitely a value. I mean, it's an added value in both situations, you know. You mentioned now how did this the disciplinary champions, um which are basically if I'm not wrong? The disciplinary champions are also the the members of the Working Groups are

Francesca [00:25:08]: I think they are the members of the Working Group, right?

Interviewee #WG4 [00:25:13]: Exactly. They are from the Working Groups. So this was the first. This was the first think that I had in mind, and [name person] and [name person] were very supportive of this and both of them told me independently from each other that please keep an eye on the researchers on the first place because this discussion of research data management can be hijacked by higher level European. You know these organisations, whatever very easily and this is not what we want. And I fully agreed with them however, uh, soon after launching the Working

Group and nothing very beneficiary group appeared whom I actually wanted to serve and work together with. And these are you know, this You may know these people from around [name institute] as well. This new data support roles in research institutions. people who are granted in universities and academia and research institutions but are doing, uh, data support rules for humanists. So, they are having this double experience of data management or data science and discipline. And I wanted to collect these people because earlier in the [name project], I met some of them across Europe who are involved in the humanities, and I saw that they are super hungry for sharing experiences with each other because they are embedded in a national and strong institutional context. But on the other hand, they are working domain specifically for humanists, and they were super eager to learn from each other. Because these are new emerging professions. Nobody knows how to do this. Right. And I found it super important to open up the Working Group also to them to build a brokering hub to these people. And I think, with the researchers and them and not further compromises to infrastructure people. Uh, it works really well, but sometimes I need to ...We need to take efforts to keep the Working Group as it is and not to open it up too much for the infrastructure. People who want to pick our brain and but are working in very generic not discipline specific context. So this is where I would draw the line. Yeah,

Francesca [00:28:10]: And how would you describe actually the collaboration? So we're zooming in now to describe the collaboration inside the member between the members of this Working Group. Like both in what you are doing together, but also in the way you collaborate.

Interviewee #WG4 [00:28:30]: Okay, Um uh, what occurred to me is that like, uh... I will tell you how it looks like, but it would be also interesting... but we won't have the time for this to review this or raise this, to go through this in the context of [name project] that is even more interesting in this respect, like collaboration and experts.

Interviewee #WG4 [00:28:55]: But anyway, with the Working Group, uh, like, uh, some of the people are primarily from around [name institution]. So in many cases, they know each other already, and, uh, they liked being the members of the Working Group also, like, uh, like, uh, encourages them to reach out to each other as well on

specific issues, in many cases, chairing the meetings. Uh, [name person] and I need to intervene to, you know, when this side collaboration starting, we always say them that it's super nice. Please do the collaboration. But if you could just find another time to discuss the details...but on and we need to be strict in order to benefit all members of the Working Group equally. But honestly, Francesca, I really love that such things are happening all the time. So people just, you know, start talking to each other and during the meetings, and they just like there are already a handful of spin-off projects that started that are not part of our shared Generic agenda. They really love this. Um, a second thing that I think it's indicative of collaboration is that I realised, especially during Covid, because the whole Working Group had been launched during covid. We never saw each other in person, and this gives an extra covid charm to the whole thing. And what I think it works is that we all have this meeting fatigue, online my meeting fatigue, during these months.

Interviewee #WG4 [00:30:29]: Um, but the way we want to engage people and arrive to the online meetings right away is that, maybe [name person] mentioned this is already so you can tell me and then I won't elaborate. Um, we kick off all meetings with around called news and newsworthy, in which we don't do anything, but first, the people to type in the most important updates of their work or their discovery or whatever they came across to find important regarding RDM in the humanities and they give the input. And it's a very efficient, also time efficient way to update each (other). And they vote to the small news items in the meantime, and the three most popular can get a couple of minutes to elaborate the news item in question. But all the useful links, all the useful rest of the useful updates are there in the minutes. In many cases, they tell me that it's super nice that they can come back to that and cherry peak and like get news and get information, because I think this is also part of the Working Group's function to, you know, like it's an added value to go there and give a perspective of what's going on in this emerging field. And so I really like it. And it also introduces this bottom of dynamics that it's really it's really up to the members what they share. It's really up to the members. So this is one thing... Collaboration like we....like it's interesting because, like the Working Group is still very new, still very young and, like recently, [name person] asked me how to set up a Working Group. And they thought I had no idea. But what I saw at the beginning

is that there is this kind of this erratic, iterative kind of dynamics, like a snail house that first I put some ideas on paper like how this Working Group should look like. And then I sent it out to people I had in mind whom I knew that they might be interested. And they told me whether they're interested or not. And those who are interested could also add their ideas how the Working Group should take shape. So they added a second layer or merged it. And then we reached out to yet a broader, uh, community of people. And they could also add their, uh, inputs. So, like the second curve on the snail house. And, uh, there was a critical point when the Working Group, let's say, officially launched and with the people who had been the members at that very point, we sat down and set an agenda to each other because also, this is the support and advice we received from the JRC that we need to have a really career and practical plan, how we're going to break down this huge topic of RDM uh, in a physical work plan of the Working Group. So we made the work plan with the people who were members at that time, and we had to do this because of practicalities, and then stick to that. And then, of course, the Working Group became known in other communities, and lots of people joined after, but they had less of a chance because of this timing to shape our work plan for the year because this is something we had to agreed on at certain point, but they can still like there are a couple of late comers who came since then, and they are They have lots of ideas, papers to publish, uh, annotations to make in our Zotero library and the like. And they are trying to fit their ideas, or at least bring them to the four major pillars of our work plan. So I think they do this brilliantly. Yeah,

Interviewee #WG4 [00:34:50]: And what is really important is that, uh, in the last Working Group meeting, uh, the members or some members have rejected one of my ideas and I think that it's an amazing... like if in terms of community dynamics, if I'm proud of anything, I'm proud of this one because it means that it really works as a community. And people are not just surviving in this lazy consensus that I see many times in such communities, but they are really engaged, and they take the courage of saying No, we are not going to do this, not because your idea is terrible but because it's just not good enough. So I really like the way it happened. So it was, of course, hurtful to my researcher's self or whatever. But as a Working Group culture, I felt super proud.

Francesca [00:35:51]: Nice. I really like this. Well, not because your idea was rejected, but happens. Yeah, and it's all very interesting.

Interviewee #WG4 [00:36:15]: Yeah,

Francesca [00:36:16]: your mindset, in a way, is so connected to the aspect of the community and to the community side of things. And also, like, my PhD is all about communities. Um, I think like you have you thought of these already? I would like to ask you why. There are a lot of Working Groups now, and a lot of infrastructures and projects like LIBER has Working Groups. The EOSC has Working Groups.... So it's not like DARIAH is not the only one Working Group. What do you think are kind of the potential of the DARIAH Working Groups in the way they are said and also like the weakness if you have some ideas, and where is their value, their potential, and how they are different from other, um, Working Groups that you've seen or attended meetings, et cetera.

Interviewee #WG4 [00:37:40]: Okay, I think branding is a crucial element here, and I'm saying this also, as the Editor in chief of [project]. This project would not work if it would not be a somewhat stronger DH brand in the many DH brands...the same for the Working Groups. And I think maybe, like I saw it in a way that in the Working Group DARIAH Working Groups, it's a bit more complex because I saw that sometimes it's up to the general assigned value and strength of brand of DARIAH. So the people, like the way people contribute to Working Groups is dependent on how strong the general brand is to them. But in many cases, and this was pointed out by [name person], and this is something I think, super interesting and super valuable. In many cases, it's much more practical than this. If people find like.... humanities, it's such a diverse umbrella of weird fields of inquiry, and there are not many people in certain institutions, for instance, in [name country] who are really into music and A.I. And if you find people who are fellow with fellow interests, you don't need to do any branding. Then this is just your personal or researcher curiosity. And I think many of the working DARIAH Working Groups operate like this. And for those people, it's totally [?] whether DARIAH is a strong brand or what is DARIAH, but not for all the people. For I don't say for at least half of the people, the DARIAH branding is just as important. Um, the rewards is, of course. And if you have a strong brand

like - see what's happening in publishing - if you if you build a strong brand, people will back to you to work for to you for free.

Interviewee #WG4 [00:39:43]: This is crazy. But this is how academia works, and this is how the work works. But on the other side, speaking of rewards, because if you don't manage to build such a stronger...you need to get rewards, we give rewards. Maybe you need to give rewards anyway. And the... this is tricky for the DARIAH Working Groups, because we give them, uh, by we I mean, like DARIAH, the DCO that side of the we. Uh, we give them a little bit of money and a little bit of a support and a little bit of an infrastructure support as well, which is super important, but not that much. So I think this is a challenge with the Working Groups that have expectations should be limited and aligned with the reports that we give them monetary infrastructure, prestige, whatever. And speaking of prestige, it's not like the monetary and the infrastructure is up to DARIAH for sure. But the really important reward, the most important reward, unfortunately, is out of our hands as an ERIC, because... and that's very dramatic. And when I came across it at the beginning of my DARIAH work, um, I found it very painful that people can build wonderful things in Working Groups and that mainly I'm speaking about the infrastructure contributions like the course registry, like the ELDAH wizard and the like, and people and we can sustain them, which is a reward in itself. But this work, the super valuable work that the Working Group members do to us remains totally invisible from the tenure promotion criteria they cannot claim the time money effort spent by very building these tools in their institutional academic evaluation framework.

Interviewee #WG4 [00:41:49]: Because that is so freaking narrow on publications, if you build it, you know, the DH, uh, the same story as the founder of the of the Zotero. Like if they build a DH course registry, they will be rewarded, uh, by the publication that they published out of building the DH course registry. This is Yeah, and this is disastrous for DARIAH and for, uh, scholar-led infrastructure building in general. And this is not DARIAH's fault. What we can do, what I can do personally, is to shout out loud the super discrepancy in each and every policy discussion. But this is, you know, one voice among the many. So this is a major issue regarding the rewards and incentives. Um, yeah, that's a type thing. Yeah.

Francesca [00:42:50]: Uh, yeah, Well, what I what I encounter in what I see in, well, the Working Groups and this round of interviews as well. What comes out, Is that a way to survive participation in a Working Group, And how to, um is also like to merge activities that you do for your project. For example,

Interviewee #WG4 [00:43:11]: exactly

Interviewee #WG4 [00:43:21]: but I find it a little bit problematic sometimes, Francesca, I don't want to name and shame Working Groups here, but I was thinking about like there are some DARIAH Working Groups and you know this much better than me who are basically doing nothing else. Just They sit together and promote their own projects. They are working on full time, mhm, and now I see much more the value in this, as I saw, let's say, a year ago. So I'm not saying that this is not valuable because it can be super valuable, just knowledge sharing on the project. You do any way it can be super valuable. But it still stretches me the notion of the Working Group in a way, because it means that the Working Groups per definition are not necessarily for create co-creating stuff, and I think it should be part of the definition of the Working Group's co-creation creates something that you don't do on the daily basis or create something on top of what you do on a daily basis. I know that speaking of the RDM from the main incentive for the people is not whether we receive funding or not, or whether we receive infrastructure support on it, because we are way too young to even dream of such things. Uh, the reason why people come to the work the [name WG] Working Group is that the co creation slash knowledge sharing that is going on their benefits, their own work, but it doesn't equal their own daily work. It's something added on the top of this, But there are still many elements of it that they can bring home bring back to their own, uh, daily work. I understand what you mean.

Francesca [00:45:21]: Yeah, it is right what you say. I agree. I am. It is also true, On the other hand, that put into many, put into many limitation? Yeah. Limitation or expectation and limitation. On the one hand, it can be detrimental to the, for the for the kind of innovative process

Interviewee #WG4 [00:45:47]: totally

Interviewee #WG4 [00:46:34]: Yes. And, Francesca, I wouldn't be in your place when, you know, like reviewing funding stuff and that kind of thing for the Working Groups, because any kinds of evaluation beat as a research evaluation or funders evaluation or whatever. It's super challenging because you are comparing different kinds of fruits. You're comparing elements of fruit basket to each other, and it must be incredibly difficult to evaluate the different Working Groups compared to each other. Yeah,

Francesca [00:47:51]: Um, so it's almost four. I think I covered all the aspects that I was curious about. Do you have any? Any question? Would you like to add anything the age bit?

Interviewee #WG4 [00:48:24]: Mm, No, I will. I will think about this evaluation thing. I'm super prime regarding this because I'm involved in the project in which, like we're doing landscape study on peer review practises. And what is out of the scope of the peer review? Uh, in academia and in infrastructures as well. So I will think about it. But not at the moment. No. Okay,

Francesca [00:48:54]: maybe in a second moment, I would be curious. Probably to hear Not now, to hear about what you mentioned. That you think it's an interesting case. The [name case study] case study

Interviewee #WG4 [00:49:06]: Yeah. Also, in the sense of infrastructure, how communities interact with infrastructure, [name project] is a different story in this respect. And also a different story in terms of building a community brand. So, yeah,

Francesca [00:49:24]: why not? Maybe next year.

Interviewee #WG4 [00:49:27]: Yeah,

Interviewee #WG4 [00:50:05]: Oh, yeah. Let's keep in touch and maybe we'll talk with each other on Thursday.

10.4.5 Interviewee #WG5 – 06.01.2021

Francesca [00:00:00]: I just want you to first to ask you about if you can tell me a little bit about yourself. And what are your research interests and what is your academic role? Uh, I know you're teaching in [name country] at the moment, but also in [name country]. So can you tell me a little bit about your research and teaching experience?

Interviewee #WG5 [00:00:30]: Yes, of course. I mean, it's of course. I mean, what I am now is part of a process. I reached a point in which I do certain things today. So to summarise where I am today, I am an associate professor at the [name university] in the faculty of Information, which I joined, uh, time uh, faculty associate professor, back in 2012. But I was also involved with them a few years before that, and in that I worked in the last, uh, let's say eight years in teaching. Most of my teaching is with the [name faculty] programme there because he's got an information master of information programme with many different concentrations, as we call them anything from information systems and designed to user experience designed to archives and records management. Different aspects... philosophy, information and etcetera, etcetera. But that mind my teaching has been in the [name faculty] programme, which is the other Masters level programme of the faculty, uh, of which I've been a director, also between from 2012 to 2016. So my research now which occupies a lot of my interest and some of my time a lot of my time goes into the teaching and uh, also other things is in the area of, uh, what it called practices in general. When I say practises, I mean information practises in the stricter sense, practises that involved communication and information but also practises that are mediated by devices, infrastructures, digital tools, which have a specific interest in my mind. Practises also that involved sometimes, uh, processes of, um, identity, processes of memory and processes of heritage and heritage construction. So the general envelope in which I'm working and within that I have

Interviewee #WG5 [00:02:46]: more specific interests. One interest is to understand engagement with the material cultural heritage, especially the archaeological heritage. I want to say engagements. I mean, both engagements of professionals or people who are academics and researchers are doing [name discipline] research is

one area of interest of mine. But also communities and other people who might be engaging with [name discipline] material for other purposes, for instance, for identity construction or in order to situate themselves as part of the community or, you know, these kinds of, uh, situations. So this is one area that, uh, [name discipline] practises of ideology related practises, as we call them. And, uh, in that one I've been involved with, a network of researchers called it is a COST action, uh, started a few years back. It's finishing this coming march, I think, or end of February. Uh, there's about archaeological practises and knowledge work in the digital environment. This is a community. I'm the vice chair of the COST action, and, uh, a lot of my network is, uh, in that area, comes really [?]. Uh, community in a broader sense, is very much interested in methods and methodologies as well, and the methodological and also epistemological issues that have to do with how we gain knowledge about practises. That's myself. And in this one, I've been working within DARIAH` for many years. That's true. I mean, I would tell you more. I guess there will be other questions about that. So come back to that later. That one continuing commitment for me is [name Working Group], where I'm still the chair of that Working Group. In the last year, we haven't done much have been pretty inactive in a sense. And this is you do the trajectories life trajectories of the main people in the group. I mean, some of us are doing things that really are pressing.

Interviewee #WG5 [00:05:00]: [name person], who is also, uh, co-chair of the groups for the last couple of years, is also, uh, now pretty busy developing things, closing his big network as well [name project], Uh, another cost action, which has been sort of direct hiding in spearheading. So anyway, I mean, there is another commitment that is a community of people that have this conversation about the question of meta research, as we call it, about sort of methodological foundations and that its technological foundations are looking at practises in the field of scholarship, especially in the field of digital humanities. But more generally, I think, also in scholarship in the humanities. So that's one area in another area, which I'm active is a grant that I started this year this April, Uh, this previous year, 2020. And this is, um, it's a scheme in the [name funder] called the Distinguished Professor Scheme or something like that, and they sort of practically work, and they invite people that they select people. So this is the kind of other area, so you see the kind

of range of things that I work on research. Now, how did I reach here? I was an [name discipline], started a historian. I finished my first degree in history in [name country]. And I did,

Interviewee #WG5 [00:07:02]: uh, then the Mphil then I finished a PhD in philosophy in the [name university] in [name discipline], which was computation. That was really very, very much computational. One of the early, you know, if you at the time, you know, classical [name discipline], we didn't do much of that. I mean, there was some people being big pioneers in that field. Of course, that I probably know about people like [name personality]. So that I guess this initial involvement with computational methods to be able to understand iconographic material at the time was very much in the roots of my initial interest in what you know then happened to me. Then I worked in museums in [name country] a few years I worked in cultural foundations. Uh, then I have a very much kind of diverse trajectory. I didn't do one thing and starting like something of I'm not very typical in that because I didn't come even, you know, seriously, In academia, I came pretty late in the process because, like I did, I had these studies. But then I had to work in museums, and I worked in policy. I was working for governments in the field of archives and libraries, pleading, you know, another secretary, the Ministry of Education on that. And I wasn't cultural diplomacy working on the (??) marbles and our bits for Greece to return the marvels things here and there. Right?

Interviewee #WG5 [00:08:50]: And so I worked in consulting as well for several years, mostly in the area of digital communication, but also cultural digital communications. So and then digital heritage became my field. And then I joined the [name institute]. Now, that's not my other attachments of this. I reach from the back end into the present, the game in back in 2007. Um, at the time, I was very, very much interested in how the digital affect the way in which we understand, we represent mostly, uh, the past, right? How do we construct databases? How do we construct good descriptions of objects? And this leads really into a you know, uh, common initiative at the time I joined other people, [name person], you probably know [name person], people something, you know, of course. And other people, initially two of us and then for some others. And we created the digital curation units

in [name country] as part of the [name institution] for innovation and for research and innovation. And, uh so this has happened in 2007, and then we'll be sort of working in that area with complementary trajectory side. So my role as somebody who would be able to somehow sort of inject perspectives from the humanities and social sciences into the work of the [name institution]. Because a lot of the work is really about digital preservation, and it's, like, pretty solid work that, uh, kind from my other colleagues there. And then we were joined by others that, you know, we sort of build the group. You know the group, Probably, you know, [name of person], [name of person] and others. You know, that's probably pretty. Just pretty, pretty sort of strong group now there. And so I've been working in the last 10 years in projects such as [name project], such as, um and, uh, such as [name project], uh, different projects, you know. And all of them, you know, had to do with

Interviewee #WG5 [00:10:53]: Typically the sort of the life cycle of information and the digital resources that are limited heritage, representational problems that have to do with how we represent these, and sort of work really good people there, [name person]. Of course, [name person] has been the soul of a lot of the, uh, in some of these projects and also a driving force for the work that we did on standards with the [name project] schema a standard that we worked at the time and sort of we developed and stuff like that. So this is more or less this describes where I am, and I probably I shouldn't miss, uh, mentioning my PhD students because I started pretty actively in [name city] especially. And I started to work with PhD students, so I've worked with people like actually [name person], for instance, who is now a professor in the art Uh, [name city]. Um, yeah. What's the name of the university now? Uh huh. Yeah, it's [name university]. Anyway, it's the university in [name city] where she she did the PhD on digital materiality in the work of contemporary artists, You know how they understand how they conceptualise the digital materiality and other people like us and even [name person] is, uh, also, uh, research fellow in, uh, the [name university] and, uh, ascended his dissertation on you probably know him from...he was in [name city], you know,

Speaker 2 [00:12:48]: But my four students, uh, are working. One of them is working on [name discipline] fieldwork, practises and what people do in the field and

especially how they deal with data work and how they think about reuse, etcetera, etcetera. But another PhD student, is working on, uh, the use of social media, but also the kinds of devices that people contemporary artists, uh, used now in China, especially, will have to negotiate political art and controversial art, et cetera. The third person is [name person]. [name person] is doing a dissertation starting now, actually, her actual work on museum exhibitions and the textile museum exhibitions and how what metaphors and figurative language is used in the textile Museum exhibitions, especially museums of diasporas and, uh, [name person] is looking at the experience of, uh, representation through instagram of people who in the in memorial of the murdered Jews in Berlin. So you see these things that you see that's very different topics. All of them are linked together and probably this is relevant because most of them would work in an orientation that is very much what I would call, uh, cognition and action kind of research framework. That really is, uh, influenced by all these theories of practise, especially activity theory, but others as well. So they would work within this framework and they would work with qualitative research methods, including qualitative interviewing that I'm using, a lot of which you're using as well as I said about other methods like that.

Interviewee #WG5 [00:15:03]: So this I think summarises and sorry I've been started taking too long

Francesca [00:15:10]: Yeah, of course. I knew already a few points but I didn't have the complete overview. And it's very interesting to see, like also, um, I think the especially the work on the [name project] that you also presented with the [name person] sometime ago last year. But it seems to me it has some common points that overlap with what I'm also doing, but from a different point of view. So you're looking at the information side of it as well. I'm looking more at the creation of knowledge side of the collaborative and in the process. So more like, Yeah, maybe from the social science perspective. More the Epistemological aspect. Well, both are looking at the epistemological aspect, but in two different manners, I think so.

Interviewee #WG5 [00:16:35]: that's work in progress very, very much because I mean what we did, we just completed one publication which would ready to send out now, too. Uh, yeah. So we're just looking at some aspects of that. You're right. I

mean, the specific things and what I was trying to do in the [name project] uh, sessions was really to show mostly the mechanics and the methods of you know what we sort of dealt with them, how we thought and what kinds of challenges we faced. These kinds of representations, you know, that to analyse our materials. But this this plenty of different topics there, Really? I mean, what we didn't do, for instance, in this study, although you probably saw this graph at the end with arrows, we didn't try to do a, to represent activities in the integrity in a way which is a major aspect of the method that has been developed with [name project] and with [name person] leading has been leading this kind of things. I think that we did in previous workshops. For instance, uh, [name project] was very, very much like that and try to identify specific activities and see how these activities are partitioned and who participates in which, and what happens next to the very details represent this computational and tired and to see if these computational representations this graph representations allow us to gain insights or to be able to summarise what is happening in, you know, more proficient ways. But we don't do that in this one, or in what we're interested mostly in, uh, collocation and relationships and reversals you know, sort of groupings. Let's say group structure between different notions that people are using and what we've concentrated in this first publication. Although we've got quite a lot of detail, material or photograph, for instance, and what people say about photographs represent.

Interviewee #WG5 [00:18:33]: process. There are two cases within the interview. Spend plenty of hours, something like 30 hours of interviews from these two case studies. We have got other case studies as well, but we sort of analysed about less than 20 hours. Actually, in this case and what we're interested in is willing to understand notions of what people themselves would call craft or DIY practise or slower theology that we use these terms and these other terms as well that we talk about the cobbling together things that we talk about tweeting. We talk about all the elements of, uh, messy practising away, as you know, [name person] my colleagues in a way. And, uh, so this is this is really the focus of this first publication that we did, which is very much also students publication. My students [name person], as I mentioned before, and two other master students a lot of masters and different term. So in many ways it's their work that we're trying to summarise. There's some

interesting things there on the association between, for instance, learning on the one hand, how they understand learning and expertise, the acquisition of expertise but also their accreditation or affirmation of expertise that say the validation of expertise on the one hand and what they actually do right and how they represent what they do in the field, etcetera. That idea. There are ideas about, you know, whether one can work in the field or whether one can learn things in the school, Whether a university programme is appropriate or is a good way of learning about what constitutes good learning. What constitutes knowledge is discussions like that in this particular publication. But that's what this wasn't something that they would bring in

Francesca [00:20:36]: that's extremely interesting and definitely to be explored. Um, I wanted to ask you, like looking at the infrastructures and DARIAH. So when it was the first time that you then you came in contact with DARIAH. Um and, and what was your experienced by then?

Interviewee #WG5 [00:21:03]: So, I mean, that was probably in 2008, I imagine, Or something like that. Were then invited by [name of person] to talk about a new initiative related to digital humanities. And she thought that it would be interesting for us to talk about these things and see who could work together. And, uh, this is effectively, what happened initially was always started having these, uh, these meetings then and there were people that we met at the time to discuss. Especially [name person] was there from the [name institute], and [name person] was there from [name institute]. You know, sort of the driving force, Let's say, rather than so there were other people like [name person] was there. There's also, you know, very, very much [name person] at some point of the process and the friend by the name of my friends from [name country] which escapes me at this moment. But you probably know who I'm talking about.

Interviewee #WG5 [00:22:30]: Not very good with names, anyway. I mean, that was what was the initial discussions, And it's always the idea was, what should we do? How should they do? There was every, uh, for the framework and sort of move on to be in the framework. We're going to be established this as one of the infrastructures. There were difficulties initially and that some of the difficulties were conceptual. And this shows also probably, I mean, this would give me also an

opportunity to tell you what I think about infrastructures because it was pretty clear that we're not really like, uh, like, uh, let's say high energy physics infrastructure, which what we want is a lot of money in order to build a place and build accelerator and, you know, just provide them just places where people who compared with the projects there, this this wasn't the case. And, uh, there's been ideas at the time, you know, coming in. How quickly the central roles in these first discussions [name person] was great Central. So anyway, there was, like a small number of people, not so many initially and then others were brought in, but more or less the crowd that I mentioned these four or five institutions. But what I was at the table at the time, and anyway, so the challenge was, how should we go? There were ideas about creating, uh, some more lightweight but still coherent, uh, information infrastructure. In a sense, the idea was there that we might, you know, for instance, to aggregate materials, and do large scale aggregation.

Interviewee #WG5 [00:24:22]: So the idea was that there would be a structure of national participants in this national participants then would be able to bring in the goodies. In a sense, you know, they would be able to provide the digitised resources. But, uh, a lot of the discussion at the time was really about reducing an infrastructure that will be based on digital resources rather than digital tools. Predominantly, at the time there was this self-realisation and appreciation of the fact that CLARIN was already a very strong infrastructure in a limited area was very, very much specific to linguistics and language based humanities, et cetera, and linguistic computing, but was super strong. And its strength was really in the capabilities of the tool kit. So the idea was okay. Could you go in the same direction? Maybe not. Right. So there was this kind of thing. So there were discussions about the scope of the infrastructure. I think it was easily agreed that it needs to be encompassing and broad, right? So cover the whole range of humanities, especially those humanities that are also media based. So material evidence in the humanities history of art, archaeology and some of us were advocating for it more than others. Still, it was accepted, and it was like it was this notion of broad kind of infrastructure at the time. So that was, uh, the thing. So, uh, initially there were ideas about creating a VRE.

Interviewee #WG5 [00:26:21]: You probably know that. I mean, because you look at the history of the Working Groups, you will know that the first studies and, uh so the idea of the VRE was there not all of us agree that it is even possible to behave the singular VRE idea as a let's say, uh, something that is configured around specific workflows and specific hierarchies of tools and connections between tools or something like that. Then I mean, it was people like, um colleagues like, um and I remember his first name. [name of person]. You know the guy who works with, uh, [name of person], now in in [name of city]. It was leading this story led this study on the VRE. And so what? What they discovered? I think that debate was involved in that study, actually, I mean, I wasn't, but anyway, what I concluded, this is something that is logical, that it's not really easy to agree. You need something and coherent, right? Because the humanities are broad. That's the other thing with very diverse patterns of work, etcetera, etcetera. Some of us, you know, had this idea also coming from, um, interests in epistemology and work in that area. We don't get the same kind of cohesion, so, uh, effectively, what happened? In the meantime, as you know, the history of this is like, uh, I was involved with [name Working Group]. I mean, we started initially. It wasn't called [name Working Group] at the time, so it was called. I can't remember the name now, but it was something about understanding and doing something with digital practises in In the humanities, it was about something like that. Anyway, so with the understanding practises kind of Working Group within the then established the VCC.

Interviewee #WG5 [00:28:36]: And we sort of started working to that end. [name of person] went and, uh then I was, uh, at some point, you know, So they had the trajectory. It was, uh I invited [name person], he agreed to join us co-chair as well. So we co-chaired this sometime, and, uh, and it started initially, I think, with the idea of, um, somehow looking specifically with empirical research at what humanists to do. That was the idea that, you know, it was a very different thing with what other Working Groups did. A lot of the Working Groups are pragmatic. That was like, you know, just, uh, they were interested in methods clearly, but they were interested, from the point of view of people who can be methodologists, right. They're interested in what is a good method. What's the better method, Which methods should be used. Or they were looking at methods from the point of view of pedagogy, you know? So

we had all these question groups that were established, and all of them at the centre have the practises and the methods clearly right and the tools, but from very different perspectives. And I think that in our case, what we developed is this interest, which was analytical, um, inside. And this led to involvement such as, for instance, the development of [name project], uh, the [name project], which, at some point, uh, than the [name project] chair at the time, Director [name person], uh, approached us in the [name institute] in [name city] and said, Guys, I see that you're working in this area in which model stuff and we had already produced some work on

Interviewee #WG5 [00:30:21]: that was derived from our involvement with DARIAH, the first preparing DARIAH project. And then, uh, the also the [name project] Project, which is already interviews to sort of, observed the studies and learned I said, OK, we're trying to do a methods ontology. Would you like to work with us on this one? So, uh so initially we started with empirical research, which was mostly interview based questionnaire and interview based in, uh in the Working Group. But then we expanded this with other initiatives, especially with [name project], which then took its own life, of course. And it's like, uh, takes its own trajectory. Now, this work on scholarly anthology and the [name project] that [name person] is, uh is working on. And the other thing is that we did this, uh, this questionnaire study which we try to understand more or less scoping elements of what humanities researchers work on. And, uh, I've got this, is a skeleton in the closet. I've got these big, big documents, which is, Well, it's almost ready, really, with many chapters which we never published, uh, fully and maybe now, because other things came in the way. So this is one thing, but it's a study in which, in several different countries, we looked at aspects of, uh, how people really, uh, if you're interested, I can send you the copy. So because it might be useful for you to give you context in, uh, not just for the work in [name Working Group], but also from some other dimensions that, uh, really referred to how humanists work with information. So this is the kind of situation is how I I was You know, my involvement with DARIAH was a bit like that. And at some point in one, [name person]

Interviewee #WG5 [00:32:25]: retired from the University of [name university], and, uh, he retired from everything, and then at that point, after a year. So at some point,

you know, I decided to invite [name person], to come and join us co-chair. And our idea was really at the time, and it still remains to do some case study work. So we do some case study research on what digital humanists or humanists who work with digital tools are working on. And, uh, we've developed this generic method a logical approach, which is not really a strict protocol. It also produced a little website with a living document that has not been updated much in the last, uh, year, that provides more like, let's say, instrumental, uh, presentation of... You know what you can do? What should you do If you want to do this kind of options you have, if you want to engage in this kind of research. And this paper that we've produced last year last year for the digital humanities quarterly, which is published a few months ago, you know, on digital humanities meta research. So, yeah, and in terms of the infrastructure to go back to the infrastructure, I'd say that so far we've seen and I think we were very much in favour of prioritising within DARIAH. Uh, not so much work on that is technical work. Not try to imitate CLARIN in that sense, but to prioritise work that really produced resources for humanists in order to be able to join the crowd and to understand and be able to use the tools effectively, etcetera, etcetera. So we're very much in favour of producing, uh,

Interviewee #WG5 [00:34:37]: the registry, or to be able to see how we can see how we can work with tools, produce registries in general in order to allow people to know where his stuff and where can they find stuff rather than necessarily go and say OK, we're going to be producing a large-scale corporate within diary. Uh, and we thought also that advocacy and engagement with the community is pretty important. And also our idea that, uh, it's an idea that, as you know, you probably know or you've heard enough of the politics of DARIAH. Figured you know what has been happening, Uh, in the last few years. But when you were there as part of that time, you know, that many within, uh our VCCs, I also felt that what we want is to provide more freedom for experimentation and for freedom for bringing people together so that these people can work together in different projects. So we are very much welcome to the Working Group's idea when it was first introduced, but then also welcomed very much this possibility of, uh, providing this freedom in the knowledge also that for most people, this is free work. If you ask all these people like giving time for free, they could give their time to something else. very clearly, and their

institutions don't pay them extra for DARIAH. So that's, uh, the thing. So I think this kind of loose coalition, this broad church, this big tent, uh, idea is an idea that, uh, I personally believe is appropriate.

Francesca [00:36:25]: Mhm. Yes.

Interviewee #WG5 [00:36:27]: one reason for this is the epistemological diversity of the humanities and also the fluidity and the way with different tools. And if different approaches can be somehow cobbled together on merits within the humanities in order to produce meaningful work, I think we're very, very far. And maybe we will always be far from a situation in which there would be a standard workflow and the standard set of tools in the standard method of representation. Uh, so, uh, so we have to, you know, to sort of balance this this kind of interplay between enough commonality and enough standardisation at a certain level in order to allow, for instance, the findability of resources to allow scholars to talk to each other and communicate with one another or not to allow the evolution of the body of professional knowledge or training about methods and about the use of methods, et cetera. That can be transferrable to many people. You need a certain level of standardisation for that. But, uh, there should be always a balance with the ability to be able to work outside of the box and to be able to develop new things. So we're not, myself and not very, very much in favour of too much standardisation as you probably gathered. So, this is a like I think that DARIAH, in terms of, uh, has worked in that direction in the last few years, and I'm happy with the direction of DARIAH has taken. But of course, I mean, like every infrastructure we depend very, very much with on funding with depend also on the, let's say, the impetus of policy and regulatory environments. And this is the kind of thing that,

Interviewee #WG5 [00:38:20]: uh, I hope that we will be able to be looking at in the future. Few people have this interest. I mean, people like, uh I mean [name person], for instance, among people that I've talked about because I've talked in the various meetings with different people, I know the [name person] has this kind of interest. Also, in some of these aspects of the macro aspects, you know, because we need to consider careers, we need to consider. You know what people do, you know, we need to consider that we've got PhD students that are joining the production for them

they take, and what they want to get out of it of their involvement is different, perhaps, than what might be the case with professors or tenured people who work in institutions, the several even many people who work in in memory institutions, in archives or in information management environments and foundations. That whole stuff as well within the area. And that's also this kind of interplay in this kind of inter relationship between the two crowds, the researchers on the one side and the information people on the other side has been very poorly explored so far, and one of the things that I know wasn't the case, for instance, within the scope of [name WG] is really this, you know, to look also at this kind of relationship between researchers on the one side and the information professionals on the other side. The information managers, curators. Uh, museum people archive people that all those people that are involved in on that side of the game And, uh, it's a problem that we know for several years I've had I know [name person] had a long, long discussion that [name person] was very, very much advocating.

Interviewee #WG5 [00:39:57]: that, and I know that we haven't done it yet, But, uh, it's one of the things that perhaps might need a different structure. I don't know somebody else to look at that or other people who would be able to lead on these kinds of research. But for me, this is an important question because how you link the two communities because in many ways, digital humanities are about these kinds of collaboration as, uh, any fair. And others also have said and written as well.

Francesca [00:40:26]: I'm also exploring in this research is really like how, basically these Working Groups as a in their fluid way of being as you describe them as well, they can connect different realities and different institutions. So how did how did it feel like that? This work way of working which, in a way, was maybe my perspective innovative at the time also now, probably these innovative. How did you feel like, did you feel like this was methodologically as you say? Was it a good way to go? It was an innovative way to go. Um, more like explorative way to do research in a way and not really about the constitution. Also, like a sort of cross institutional tie.

Interviewee #WG5 [00:42:06]: Yeah, so that there's different things. Because, I mean, some of the ideas and some of the questions obviously, was very much part of, uh, my interests, the interests of other people that I was working with, uh, in [name

institute]. Yeah, because I mean so we started working right from the start. I guess. One of the first things that we didn't started working on practises. We started working on our digital curation models. For instance, in 2000, already 2007. You know, at the time which we're making, we started working in that area, but also very, very soon afterwards, we started thinking about practises and how people work and okay, in order to be able to understand, given this situation, if we want to look at the whole process of information work within scholarship within research, because research obviously is a central pillar within digital curation and what people call data curation. So in order to do that, we need to understand what people do and what people need. And so what? This kind of situation. So some of it was really come from different angles really? For me personally, it was more, uh, an interest. That was a research interest. And a lot of it was related to not epistemology in the sense of a theory of, uh, knowledge, but a kind of practical epistemology, if you want, or an epistemology and empirical epistemology. If I want to sort of to coin a phrase, uh, like to talk about empirical philosophy, right in the sense of an epistemology and some knowledge about the production of knowledge that really stems from engagement to the world. Right. So it's a miracle I don't use it very, very narrowly. I mean, you could be phenomenal. Logical. I mean, empirical in the sense that it is the first of the world, and it's like it gathers.

Interviewee #WG5 [00:43:50]: from the world isn't really driven internally. Only so, anyway, I was It was such an interesting, I was interested to understand what is happening. What is the, what is the meaning and what is the effect of, uh, kind of interaction, some kind of formations kind of assemblages, or what have you figuration in, uh, over the lions sense that are created around digital apparatus apparatus around this kind of what are the assemblages of them being that was my interest. In many ways, uh, is knowledge changing our two exchanging other things that people do change? It was like an interest that I had for many years. I was interested very much in cognitive science, etcetera. So that was my main interest is in that for other people with different interests. I think [name person] comes from operations research has been involved with AI with knowledge representation for many years. So clearly for him, Uh, and also he's been involved with information systems in many, many years. He was, like, in [name institute]. He was the director

of the, uh, centre for information systems. Uh, institute there for years. So he was like information. So in that sense, it was, like, very much. Okay, what is the pragmatics here? What we need if we were to develop any kinds of infrastructures. Thank you. Digital. You know, every such as I mean, like, computing infrastructures, software. Uh, what? How should this shot? Do I look like what kinds of performances should it have? Uh, with these importance is be appropriate. And for this, the question is OK, let's look his interest, including at this angle and started working with these empirical studies that we did with [name project] and with preparing DARIAH. And they work with us from the scholarly research activity model that we produced back in 2010

Interviewee #WG5 [00:45:47]: you know, And then here we get some more work on that the idea that it's okay, we need that and we need the idea was we need a way to represent the world because I mean, any research, even our research is oriented. So the idea is that you can't really just go tabula rasa into the field, we're not very much this kind of grounded theory. Mhm, I think, my notes And I don't think that [name person] either. So the idea was really to, you know, have you know, have what is our notion? What is our model of the world in a way that we're exploring? So we needed to do the modelling, and we did in parallel, really? Because initially, at the time of extra and at least 2009, 2010, they were working and I worked up to 2012 13 in that field. What we were working on was like in parallel doing these studies and [name person] was involved in these studies and, uh, someone people, you know, there was a group of people that were involved in doing these interviews and collecting this information, trying to see what we did. So that's worked in parallel. We talked to people, and we have a simple information that we're just going to be doing that using questionnaires that were saved according to the questions in our model, I was also fascinated with activity or a cultural historical activity here at the time. So a lot of our ideas initial ideas were coming either from process modelling, where [name person] was bringing a lot of his knowledge on that field and from activity theory on the other side. And this was like the main ingredient for that. This is how we developed in that area. And then so then there's a lot of serendipity in the field as regards to who you need and why then you need those people, and then you sort of somehow come together. with [name person], And it's an interesting story

because, I mean, how did it happen? Uh, [name person], that was pretty early in the process, and I think we should

Interviewee #WG5 [00:47:38]: I can't remember how it was. Well, and [name person] was working in [name city] and they were starting [name project] at the time. And I think [name person] has invited me to London to come and talk about this initially. And that was before [name project] started. And I went there and then that's when I met [name person] for the first time. Uh, we sort of started talking, And, uh, so [name person] was saying is how we're going to be shaping the project that got this interesting ideas about time etcetera had an idea about maybe my weapon do the network right, etcetera. And they said they're interested and they were interested in the interest was very much to work in that area of formalisation modelling. You know, the whole field of, uh, research methods in the digital humanity in a way. But it's never materialised because you know that [name project] is a is a transnational project, so it needs national authorities to put up the money. But [name country] never came out, so it's just dropped out. And then it was [name person], as you know, generosity and, uh, foresight at some point, because she was saying these publications, and they probably met here or there, you know, a couple of times. And, uh, she at the time, you know, said, OK, guys, I want to talk to you about that. And [name project] was coming to an end. It was, like, one year before ending, and then and I had much work in that area because it was like something that was there was no partner, really, That was centrally, centrally involved with that. And at that point, she said, Why don't you work together? We started talking. And as you happen, you know, you're meeting a meeting on the side of the conference, etcetera. You said, you know, a cup of coffee to go for a meal, and we went there together.

Interviewee #WG5 [00:49:26]: I think we invited [name person] to [name city] or something. So we had, you know, these kinds of meetings, and this is how it, uh, develop that in many ways, this is a story also of, uh, the Working Group, in a way, because, uh, um What happens with the Working Group again? I mean, it's I guess how one gets involved with the community. [name person] was at the time you know, he was co-chairing the VCC at the time he was in, uh, in [name country] or who's with digital lab? Then they call their lab. And

Interviewee #WG5 [00:50:12]: Hum lab Yes, right? Yes. And anyway, I mean, it's like you meet people, you have a conversation and a lot of it. A lot of the work happens on the side of meetings, uh, work with expanding the group. The main reason and the main function of an annual DARIAH meetings for [name WG] has been really to allow us to go and recruit to go out with the world to say what we do, show what we do and invite and involve people that good people to come and join us. And, uh uh, So this is this has been the case, you know, and you just talk and you explain the work on the side. And then, you know, there's more people involved in, uh so that's one thing. And in this, I think each of us has also brought into the group people from their own networks as well, because other networks that we did things work that we did in other projects and these other people would be brought in. You know, for instance, we've got, uh, people like [name people] came to, you know, and, uh, became part of this because of her involvement, this map for dissent and through [name person]. And, uh, I guess, uh, [name person] that game because, I mean, we were working together in [name project] and we sort of knew each other, So it's not that sort of working together. Said she was thinking at the time of doing her doctor, it was like this kind of situation, I guess. And she was wanting to become a researcher, and that's why she also joined the group and the others. You know, we just, uh, just were brought in volunteered, You know, people like [name person], for instance, was super busy has always been super busy from the day I know him. But he was kind enough to say OK to set up a process so that they did this, uh, study they did. This questionnaire is quite a large number of them in [name country]. Somebody did that and it was like, you know,

Interviewee #WG5 [00:52:08]: and in [name person] was working with me then in [name city]. A lot of [name person] time was working with these people and, uh, supporting these people and sort of writing back and doing the studies, doing their analysis with PSS for them and send them back. And it was like this kind of situation in which a lot of a lot of work like that and we needed to support it logistically so that the [name institute] supported logistically the process by having a sort of work give a lot of her time in this. But then again, other people you don't have to give our own voluntary time. So many of these people sort of give their own voluntary time. So have these studies in different countries at the time. And then, um, yeah, so, yeah,

you're right. I mean, it's serendipity and personal contact is important. It's a fluid thing. You know, people have specific trajectories of lives that have specific things that they do with a certain part of part of their lives, and they then, at that uh, part of their life, they can contribute, you know, sort of we can have [name person], you know, doing work for us in [name country]. And then now she's pleading some kind of a big thing somewhere, you know, completely unrelated to the humanities because it involved with other things, right? But if you catch the people at the right time and if there is a common, uh, common sort of core of gravity and the gravity is, I think is that this produces produced the ideas and the and the interest in the methods sometimes and the kind of work that is being done, I think that

Interviewee #WG5 [00:53:50]: we nurtured an interest in qualitative research, especially in interviewing research. And also and we've seen them also, um, propagate to other words in groups. And that's a beautiful thing that we had another Working Group calling us.

Interviewee #WG5 [00:54:09]: So it is with this kind of thing, really. And, uh, so people are involved like that. So people contribute a lot. Our own knowledge is, and I think it's because I know that you talk to people that perhaps are chairing Working Groups. I'd say it's important that you talk also to other people that are involved and that are not chairing Working Groups because you'll get a different perspective.

Francesca [00:54:34]: very good suggestion. And so it's almost of five, I don't want to use too much of your time to take too much.

Interviewee #WG5 [00:54:48]: Probably have something like 10 minutes, so don't worry

Francesca [00:54:56]: good. That's good. So I, um So you were saying in the very beginning that with the [name Working Group] Working Group, But in the last year, you didn't have the time or you were focusing on other endeavours.

Francesca [00:55:44]: I would like to grasp a little bit of your, let's say, a self-reflection moment of how would if you think of the infrastructure, DARIAH and infrastructure, How Where would you place yourself Within the Working Group and within DARIAH. So would see yourself?

Interviewee #WG5 [00:56:20]: I think that was one of the things that I think some of us would with really welcome is, uh, more interactions if we have, for instance, processes by which we make decisions about the specification system, specifications of infrastructure or if there are areas in which we need to develop allocation of resources and planning, planning and specification is two areas in which, um okay, this research study that you're doing I'm gonna be honest. You know, we've been frustrated in the past by the fact that, of course I mean, we were, like, patted on the back. And we're like, Welcome to continue doing what we're doing. However, what we saw and this was like it's a structural problem, of course, because I mean the way that DARIAH works as separate groups of people that are doing their work, you can't really impose anything on them right and would have things like, uh, we weren't really even the work that we did, the insights that we had, even the results that we produced. It would be great if we saw a way. So that would be more articulated. Specification work. I mean, for instance, if we're asking people and try to understand the needs of people have and the requirements that might arise on these needs, obviously you can't say you know what? I'm going to specify this system, and then I would go and ask people what they need. There is no like, this kind of situation. So I think that in the future I mean because we don't know who is going to be right. But I think something like a function or facility and continue to investigate and conduct research.

Interviewee #WG5 [00:58:15]: on how researchers work and how others work on practises. These kinds of practises based research. I would see this as something that is for me. It's not just a matter of a Working Group, you know, when you look at the time in which we are because you're just experimenting and it's true, things work slowly. Yeah, you can experiment for some years, right? But then there should be a more... How should I say? A regular function in which people who work in that area can then provide, can be tasked and can be provided with resources in order to continue doing this kind of research so that this research can feed into specifications can feed into planning and policy planning can also feed into. And I'd like to, I mean myself. That's my idea. Many people stop at that right? Tell. Yeah, that's the reason. Yeah, of course. I mean, you need user research and user research. I wouldn't call it use a research myself because I believe that if one wants to be strategic and

transformational in the field of digital humanities, you don't do just instrumental research on requirements in order to produce good specifications. You need reflectivity as well. And you need the reflexive kind of attitude, this kind of double reflectivity so they can look at the processes and then move up one level and look even at your own ideas of how we configure how you understand the work so that we understand what kind of knowledge is generated so we can be critical as well. So critical, reflexive and also, you know, epistemically diverse. You know, you mentioned STS. I'm very, very much. See, a lot of my readings are in the area of social studies of science myself, as you probably gathered as well. So we have this in common.

Interviewee #WG5 [00:59:59]: Uh, I think that you need these perspectives together with that. So this is the thing that I'd like to see happening. I don't think that something. I don't think that this function is a function of being involved in developing the systems. That's a different thing, right, But to understand what is happening, you need a certain distance on the one side so that you have the ability to see things clearly if you're involved in doing the system. You can't I mean, if you evaluate the system, but it's a completely different thing. So I think this would be useful. But also it would be useful to be able to see this also as something that contributes to the theory. Because a lot of this, the findings that one finds as you are discovering with your own work as well has a footprint and theory and their construction. Well, you know, you can talk about the theory of digital humanities while the practise of digital humanities is absent. Quite the contrary. One can really create a theory of practise like that to understand what it is. Cool. So I think this is This is the thing that I'd like to say. And as for the for the how they can work, I mean, yeah, I think it's good to have it. You know, this broader. I didn't mention that. That's probably the last thing I want to say is really that [name Working Group] has also been different to other Working Groups in the following sense, but in other Working Groups, people played themselves. You know what they did in real life? They contributed and contributed direct interest as researchers in the humanities, right? Somebody might be a philologist. Somebody historians.

Interviewee #WG5 [01:01:43]: It was like moving on site and good and really quite encouraging. And, uh, holding, but also difficult. Many of the people you know just came and said Okay, Okay. What is this qualitative research? What does it mean to interview people? Humanist don't interview people. Humanist investigate the documents and traces, right? We don't talk to people. Typically, you know, social scientists interview with people, right? So it's like a kind of thing. Okay, let's Okay. And should we look at these people in my country? So it was like for many people who are involved, it was part of that notion of being involved in the policy, being involved in saving the field that they came in and with some interest in the methods. And this has been, so there was, like, almost like a learning component that was served by what we did because we had to sort of make people up to speed on how we do a good question. How this stupid question How do we analyse this kind of situation? So that was 1 dimension. And, uh, with case studies. Now what? We saw that several people that are being interested enough in order to start developing studies in that area and with all these case studies, my work in the last couple of years because of my grants. I mean, [name of project] is a grant and finishes in 2022. So I really need to hurry up. So a lot of my effort goes there, and also a lot of effort goes now into the connective. Granted. But both of them are case studies, he says, And in the case of uh, connective is not really about research practises in the case of, uh, [name project] is a lot of it is about research practise. I hope that some of this is going to be brought back, and I'm sure that others also will be bringing back the

Interviewee #WG5 [01:03:25]: They will go like that. As you say, up and down it has these periods of gestation in which people would work on their own work and then they would come back hopefully and contributes. So we'll meet in different steps in the trajectory. So that's what we hope, anyway.

Francesca [01:03:40]: Yeah, sure. So it is 1 15. I think I Yeah, we discuss a lot of interesting things, and I think I covered, like, all of the question that I wanted to ask you. Um, so I would like to thank you.

Interviewee #WG5 [01:03:58]: Thank you. Thank you for the opportunity. That's great. And I have another conversation. At some point, you tell me about your work because I'm very much interested to find out what you're doing and how, uh,

Francesca [01:04:09]: there's some very good tips, like interviewing also not only the chairs of the Working Group that also other people. So that's a very good tip that I honestly didn't think about. So that's, uh, thanks a lot for this.

Interviewee #WG5 [01:04:21]: Yes, because if you want to find out what people want to get out of it, you know, for instance, and you will get that you probably you can get that even if I don't say it in words. I think your questions are it's good to the studio to ask me if I may say something like that. General questions in a way you don't try to be. Because if you ask me the specific question, it's much easier for you to understand what makes me tick by asking what I did.

Interviewee #WG5 [01:04:45]: Like one of the one of the purchase of the licence studies. Uh, the interviewing approach or the episodic interviewing, you know? So that's a that's a That's a wise move. And if you ask others, you get different position.

Francesca [01:05:12]: Yeah, definitely

Interviewee #WG5 [01:05:27]: send me that link because, I mean, this is bugging me to write because we need to put this on right. So

Francesca [01:05:37]: Ok,

Interviewee #WG5 [01:05:38]: nothing. Okay. Again. All right. Thank you.

10.4.6 Interviewee #WG6 – 20.01.2021

Francesca [00:00:29]: Maybe you can start by focusing on your background and your Yeah, your well, your responsibilities in the at the university and other settings.

Interviewee #WG6 [00:00:42]: Uh, where to start? Yeah. So my name that's easy enough. I am [name] I'm working at the Centre for Information Modelling, which is the department for digital humanities. [name of university]. Uh, I've been there pretty much forever in various incarnations before. It became a centre and our department, um, mostly in an administrative and strategic role. Um, not so much a researcher. All really. I'm in theory, I'm a historian and cultural manager. So that's what I studied and what I have my degree in. But I really didn't work as a historian, but just basically that was my... I don't know... my entry tickets to computational methods more or less and applying those TEI encoding or whatever to historical documents. Um, yeah. The centre itself in [name city] has been around for quite a while now, And it's been, until very recently, the only place to offer a formal DH education. And I was also involved with doing the curriculum and deciding that, and stuff like that. Um, so that's kind of my major playgrounds. We're always on one hand. The curricula activity is not so much teaching. I'm also teaching but more the design process and what kind of content we can offer and want to offer, Um, and also how this content relates to what is done at other places. So I've been in lots of Working Groups in the last couple of years, and also in the [name network] pedagogy (...) and stuff like that so.... And the second playground was always or has been for the last 10, 12 years. Something like that, uh, legal issues, because we found out early on that, um, especially in terms of digital editions and research data in general there are certain legal issues that apply. And while we do have, uh, like a law school at the University of [name university] and also a legal department, that legal department is, um, not feeling responsible for basically helping other people dealing with legal issues, but more with contracts and curriculum and stuff like that. So it's, uh, you don't really get a lot of support in terms of copyright or licencing or protection and data protection. And that's why a couple of years back, we kind of decided that one of us needs to get in there. And that one was me. Uh and so that's what I've been, uh, doing over the last couple of years really...Um, apart from that, I'm the currently institute manager, used

to be assistant director, but that's no longer possible because of various, uh, structural issues. So now I'm institute manager, whatever that's supposed to be. What that means is that I'm more or less in charge of all the administrative issues at our centre. Um, so financial plans, personnel stuff, the curricula, etcetera. So all of these things hanging in project proposals and so on and so on. That's kind of my responsibility. And within that the legal issues are the strongest. Subset, basically, that I also get to work on in my in the in the available time.

Interviewee #WG6 [00:04:42]: Um, other than that, I'm, uh I've been around in DARIAH for a long time now, uh, in various different functions as Working Group participant for a long time. Also, Working Group head first of [name Working Group]. And then and then [name Working Group], of course. Obviously, um, I've been the national consortium speaker for the [name network] consortium for the last two years. Um, and we are re-instituting the international consortium in February, so I'm not sure if I'm going to be the national consortium speaker after that, but for the time being, I was.

Interviewee #WG6 [00:05:27]: And in our system, it works that basically, uh, there is a national coordinator, obviously who is appointed by the ministry. And then there is basically the spokesperson for the national consortium and have also been kind of, you know, doing the deputy stuff for [name person] that is the national coordinator, which in practice, worked out the way that he is primarily taking care of [name network] issues and taking care of DARIAH issues for the most part. Um, but that was kind of just a pragmatic approach. So maybe things are going to change a little bit, because now everything's a little bit more formalised and ah, probably also a little bit more sustainable, I hope. Let's see. Um, yeah, Other than that, but what else do I do? I'm also in the [name network]. Which is the [area network] Association for digital humanities. Um uh, co-opted director there. So I'm co-opted into the board of directors as the only [name area network] representative in the board, and I've been doing that for a while as well. And I'm also a couple of Working Groups there, so that's I'm kind of I'm keeping this kind of profile as well.

Francesca [00:06:52]: Interesting. And when is the first, um, time that you heard about DARIAH ?

Interviewee #WG6 [00:07:11]: Uh, it depends. And which is probably the always the thing on how to define infrastructure. Obviously. Uh, so in [name city] at our centre long before we started having an international profile some way in, I think 2003 or 2004, we started developing our own research repository, his asset management system, which is DARIAH contribution as well and has been around for a long time now. And we started developing that because we said that or we found early on that basically humanities research with computational methods of digital methods, whatever you want to call it. We didn't call it that back then. Obviously, um, always has to do with data and data considerations for the humanities are very different from natural sciences, social sciences. So we need some kind of strategy there, and we also need an infrastructure in terms of having a repository that is, you know, sustainable and open and blah. So all of these regular issues. So I think we started dealing with these issues in 2003 probably 2004, and I think we only became aware of well aware, kind of yeah, let's say, aware of them, of the broader scale of things some years after that, Um, but I'd say, around 2008, 2009, something like that. We started taking an interest in [name project]. That was kind of our start into the whole thing. Uh, so we were, um I don't remember the term anymore. We were not an aggregator, but just a content provider content provider for [name country]. And we were very closely in contact, and we still are with one of the [name project] local stakeholders in [name country]. Um, so that was kind of our first ticket into the international way of things, I think. And then early on, in the in the stage, when [name country] joined DARIAH, we were more or less approached right away by the [name institution] who are still providing the national coordinator and are kind of the institution that is the go-to institution for the [name country] ministry, um, for such purposes. And at that point, there was a very active but fairly small unit there, just as we were very small at that point. Uh, so they were desperately looking for other partners in crime, kind of, also to have a chance of providing the necessary in-kind contributions and so on and so on because there weren't really that many people doing DH at that point. And that's how our involvement with the [name institution] and also with DARIAH and a lot later, actually, just a couple of years ago now CLARIN got started. Yeah, we've been involved in DARIAH also actively, mostly through me and through to other colleagues [name] (?) and [name] (?) with VCC1

and VCC2 in DARIAH pretty much from the start. Um, and we weren't really that active in CLARIN because we have at our department a very well, that's it. Like in the formative years. Most of us were historians, so we didn't really have that much of a close connection to linguists or literary studies. Uh, some two literary studied very little to linguists, and that hasn't changed all that much. So we are still very much drawing people from historical departments and literary science departments and not so much linguist. So our let's say our engagement with DARIAH is a lot more intense and a lot more natural than the one of CLARIN. Having said that we do have language data, but now in several bigger projects. And we are now also a CLARIN B centre at this point. So we have actually kind of caught up with CLARIN involvement. But that hasn't really started before. I don't know. 2017, probably as late as that.

Francesca [00:12:43]: Okay. Yeah, we were talking about this thing about involvement in DARIAH and CLARIN. And you said something, it was quite, I'm kind of intrigued. You said before. It depends on what do you think of infrastructure where we started first. What did you mean there?

Interviewee #WG6 [00:13:11]: I think at that point, like when we when we were getting started with the whole thing. Um, we understood infrastructure primarily as technical infrastructure at that point, uh, and not even methods or tools, but really the infrastructure behind it. So the server environment to keep research data to access it to publish it, stuff like that and our repositories is built on fedora. It, uh, has been around for a while, so it addresses all of these things. And I think that that was our originally our infrastructure definition. Also, because we were very small at that point. So we were like five or six people, Uh, and all our projects were, like, centred on the repository. So that was kind of what we did. And we didn't really look beyond that scope. And then as we as we grew and as more people came in So now, like at this point, we have 37 people at our institute. Um, and, you know, we just changed playgrounds and basically our perspective and also our definition probably shifted alongside with that. And at this point, infrastructure, I mean, yes, everyone knows that infrastructure is hardware and tech, but it's, uh, very, very far beyond that. So for us, infrastructure is very much also personnel related or expertise related. Not

necessarily, not necessarily personnel related. However, um, there are no two, uh to similar to have a programme, for example. So it is actually a lot person related and not just expertise related, um, to a point also because people like, once they are, once they know their way around the system and also a way around their community and so on. Things are just quicker than someone else who has the same skills, but it's new to the club, so that's kind of that's obvious anyway. But I think for us we really learned that and in some cases, the hard way. Unfortunately, because we lost some people along the way, or, having people retire and so on. Um, that infrastructure really is like the technical infrastructure is very important. But the human infrastructure that is keeping the technical infrastructure running is just as important, if not more important. And that's the main issue I think that we have currently in with our funding agencies with our universities, et cetera. So we definitely have this issue of the university of [name university] that there is absolutely no appreciation or understanding for the personnel dealing with the infrastructure. So it's possible to get you know, God knows how much money for hardware, but it's virtually impossible to get even half of that money to hire a senior developer. For example, um So that's a major, major issue. Uh, and it's it goes way up into the national funding agencies and so on and so on. So there is no there is no research funding scheme for infrastructure in [name country], at least no regular one. Every once in a while, there are some, especially in the university context, and there are also big ones. But they are all and that's I mean, obviously it's about projects and project funding has this problem that it's time why is limited. So, uh, even if it's a lot of money, it has to be spent after five years and then the institutions. At least that's the way the funding scheme was envisioned. Um, and the idea behind this whole scheme, which has been running for us several times now was to basically that there are national big national projects that build up a national infrastructure, uh, in various areas. And then the national partners of these projects actually sustain these things because they keep them up and think they're worthwhile, and that has never really happened, Unfortunately. um, so that's kind of the main, the main issue that we found out with these things. So basically, whenever we want funding for infrastructure, we have to essentially find projects for it, where we either hide the infrastructure part or where

we get very lucky with actually finding a funding scheme where that's where that's allowed. But usually it isn't.

Francesca [00:18:44]: it's interesting that you that you stress so much, um, on the technical part of the infrastructure and how the technical part is very easy to show like, um, and to bring as a as a proof of work. The things are working like Oh, yeah, big database behind that.

Interviewee #WG6 [00:20:05]: Yeah, exactly. Yeah. Like to sell the technical side of things is easy by easy. But I mean, I always laugh when people tell me Oh, yeah, our infrastructure, like our platform, has such and such many tokens. Because that really doesn't tell you anything about the quality of the data or the usability. And so it's just a number. But as long as the number is big enough, uh, you know, directors and financial managers love it. Uh, same with page views, Page hits. I mean, of course, at this point, I think 70 80%. We we even made that for, what was it KPI statistics for DARIAH? Last year, we found out that we had some, I think, three million hits of individual page views. Um, and that was after subtracting about 80% of the hits we actually had because they were done by bots, most of them from China. Um, and that's a really good number. And that was even a number that was surprising to us because we kind of, you know, I mean, as humanists and we are all like, all of our people are actually humanists. We have We have no one with a computer science background originally, um, we kind of we do these projects because we think the material is really exciting. And also the methods are exciting and it has to be out there, but we don't really expect anyone to use it because it's kind of, I mean, humanity. Is this kind of nerdy, Really? I mean, it's and digital humanities even more so. It's a nerd subjects, you know, and you don't get a lot of exposure, usually especially for [name language] stuff. I mean, with English stuff It's different, but [name language] stuff, you know, you have a very, you have very limited exposure. So we were kind of yeah, kind of pleasantly surprised that so many people are actually using our stuff. Even if we subtract the bots. Uh, and that's like a really good number, but it's it's still it doesn't really tell you that much, either. But all of these numbers, they are fine. You know, they are great, uh, and you can sell it to people. And on the other hand, if I tell people that I need a senior developer for such and

such amount of hours to keep the system running, when there are 17 million Chinese bots trying to crack our system, it gets a lot more difficult to kind of put a price tag to it. And the major issue, of course, is that we do need people who are really good at what they do, and usually we can't afford them. Um, because with the same skills, you might as well go to a really big software company and just earn a fortune. Uh, that's really a major issue, that usually the people you end up with are.... and that which is also a good thing, in my opinion, are people who come from the humanity side of things and are genuinely interested in the content. Uh, and then the method, um so they come from the field and they want to work in the field and not earn a lot of money basically, because that's kind of not compatible. If you have a humanities degree and want to be rich, that's kind of not working. Um, so, uh, I mean, obviously that's a little bit simplistic now, but still, that's kind of the impression that we get from our people, like all, even our senior developers and our sys-admins, um, all of them have humanities degrees like the historians, translators, whatever. And they're also damn good programmers. But it's really hard to find such people unless they genuinely want to work for the very little amount of money that the university is prepared to pay for them.

Francesca [00:24:20]: So that's the point. But I would like to move now towards the infrastructure. It kind of goes deeper, a little bit, zoom in a little bit and focus on the Working Group, on the [name WG] Working Group. And how did it started? By the way, who started it? Was it you? Was it that you involved?

Interviewee #WG6 [00:24:50]: Yeah. I don't even remember anymore. I know. Hold on. How was the genesis of the whole thing? It all happened in [name city] at the DARIAH meeting in [name city].

Interviewee #WG6 [00:25:06]: Yeah. Um, And sometime before that, I think, uh, at that point my other Working Group, which was the one [name WG] with [name] and [name], uh, started to more or less fizzle out because of I don't know, because, like, [name project] at that point was in full flight. Um, we were doing things double, you know, So it was kind of but also responsibilities. We're kind of unclear. And so things got kind of mixed up. Um, And at that point, I was kind of... I was more involved in copyright stuff already, and we were working on some projects in the, um what was

that with cultural heritage institutions about copyright and licencing. And we found out that that was obviously a topic that really needs a lot of attention because many people have the same problem that we had when we started with the whole thing. Uh, and that's how the whole thing really got started. And I'm not even sure I think I had the idea first. And [name] was already, uh, doing workshops with me on these issues at that point. And I think it was more or less by chance that [name] picked up on it as well and said like, Oh, yeah, we are actually working on something like that as well. Um, and yes, so that's how this whole thing happened. I don't even know what the first incentive was if there was any practical thing. But it started in [name city]. Um and yeah, it's been it's been a pretty good right since, I think because, I mean, we had our first Working Group session or working meeting in [name city]. I remember down in the basement there,

Interviewee #WG6 [00:27:27]: um before we were even approved as a Working Group. So and we had, like, 20 people. So, uh, we were off to a really good start. Um, but it's I mean, uh, it's kind of a difficult thing, because the Working Group is pretty big, I guess. But It's usually like the Working Group involvement is mostly at the various meetings and there. It's actually like people actually show up and people are very, very active and really get involved and participate in, for example, when we were like drawing up the scenarios that we wanted to handle in the consent form wizard and stuff like that. So all of that was always very productive and very, very community driven. In the end, however, there are like three people who are doing the work, and that's [name], [name] and me, uh, so in in various Uh huh proportions, Um, but it's a very it's a very, uh, let's say, co-head driven Working Group in in practise, even though the input the original input is very community driven. Uh, the execution of the Working Group is mostly the three of us and sometimes we can get some other people, too, to help out with things like [name] or ..[name]. Um but yeah, so that's the That's the way the actual work in [name WG] works. So most of it is actually driven by the co-chairs

Interviewee #WG6 [00:29:20]: Um And so basically, it's Yeah, it's hard to explain, but it's like the input is taken from the community, and there's always a lot of discussion and they are very lively, and they're very dependable on actually showing

up for the Working Group meetings. But then the it's this thing of idea and the execution. So the idea is done together with all the Working Group members, and then the execution is basically left to the to the chairs.

Francesca [00:29:51]: Did you expect this or is it something that just happened and you adopted to this way of working? Would you like it to be different? Um,

Interviewee #WG6 [00:30:03]: up to a point. Like I'm very much a control freak myself. I'm not, You know, I'm kind of happy with the way it goes because it's just I mean, if you want to have something done right, you know you can do it yourself. Just, um, having said that, we would like and it's like all the material is there, and we are trying to encourage people also to do that every once in a while. But so far it has never happened. At least not that I would know of it that people, for example, do the same workshops and stuff like that. Um, so there is all the material for the workshops, is there? Uh, and everyone could do basically copyright and licencing workshop based on the material that we collected. As far as I know, no one ever did. Um, same for data protection and the [name project]. You know, all the material is their slides are there. Um, but there aren't really any people multiplying these things, which is a pity, in a sense, because I think there are several people who could Ah, and you know, we could just reach a larger audience. Also, the charm would actually be in having these materials and then getting them translated to national languages and have them, for example, a colleague from [country] or whatever, uh, do the workshop and basically take the main package and then think of okay. And now the specific national situation on top of that is XYZ, and then, um, it would be... I don't think it's that much work because there's a lot of stuff actually there and could be re used and improved in the national context. But having said that, I can't force people to do it. So we are offering it and suggesting it regularly. But I don't think it has really happened. Now we have... We want to translate it in various languages that have already been some offers made. I mean, [name country], obviously, we'll do it and we will do it in [name language]. Um, but there have been some other office as well.

Interviewee #WG6 [00:32:38]: Cool. Perfect. Yeah. So that's, uh that's that will be nice, actually. And I appreciate it because I think that, you know, I mean, all our material is reusable, so it would be nice to have it... Um, Then again, uh, as I said

like that.... I was kind of expecting it to end up that way because it usually ends up in most of my Working Groups that I'm working in. No matter which context that the work is usually staying with the Working Group head, um and it's not a bad thing because it's I mean, it's kind of a the responsibility...you get the glory. You get the responsibility. You know?

Francesca [00:33:26]: Can you make an example part of a project or, um, like you. You mentioned before when you did the workshop on the on the scenarios, right? Mhm on three scenarios. Um, can you make me Can you describe a little bit how, uh, the workshop was organised and how people were giving you inputs from the Working Group?

Interviewee #WG6 [00:33:55]: I mean, the first thing was basically, I mean at various conferences when we were talking about [name WG] that we started out with the with the copyright and licencing thing. Or like with these, um, what you call it recommendations for Open Science or for open licences. Uh, and that was very well received. And lots of people were very interested in it. And at that point, the GDPR kind of came in with a vengeance. And so it was. It became kind of obvious. I think that was at the [city name] meeting, because at the [name city] meeting we were doing a workshop on copyright and licencing, and there were a lot of discussions there, and I think at that point it was obvious that the next target has to be data protection, Uh, and the GDPR. And we were thinking about things that we could do as a Working Group or as Working Group heads. We suggested to do something about data protection. Um, and we had two workshops. I think we had one in [name city] as well. And then two workshops in Zagreb, one attached to a DARIAH meeting and the other one just for the Working Group, Um, for which we also got some of the Working Group funding and we said, OK, well, let's meet and let's discuss what we as a Working Group, especially as a Working Group that includes, but not necessarily relies on lawyers or legal experts can do to address the needs of the community. And basically, uh, what came out of that through the discussions was, on one hand, general information about terms and applicability and stuff like that. Uh, and on the other hand, very practical the consent forms. So we need, like because everyone and some people have better protection officers. Some don't.

Interviewee #WG6 [00:35:59]: Um, but many, many people were asking for, um for consent forms as a means of conducting their work without having to worry too much about data protection. Basically, um, and so that's kind of something. I think that even happened before the first meeting in [name city] that we decided that we would come up with a consent form wizard just out of the Working Group discussions at in [name city] and in a [name city] meeting with then discussed which scenarios are the most likely. And then also, like we had a group discussions about that. And then we try to identify what would make sense and also what is possible to create as a tool, um, as a tool, which is like, which is a standalone thing without moderators. Because, for example, like with certain archival questions, um, since archival laws are different in every single country, and also sometimes even whether it's the national archive or a regional archive or whatever. Um, we had to discard some of the things as well because we said we can, you know, we want to do a tool that everyone within the GDPR area effect can use. But that also means that our scenarios can't be too specific. Um, and of course, it's also like I mean, we say it's for research purposes, but it's not in mind, uh, for medical research, for example. Obviously, it's a tool for humanities and social sciences, more or less, um, and yeah, So that that was kind of the process that we made through the through the Working Group meetings that basically we sorted through suggestions together and evaluated what would make sense to actually, um, realised afterwards?

Francesca [00:38:23]: Yeah, that's clear thanks. And also I see, like it's almost three. So I'm trying to think we still need 5 10 minutes if it's OK for you

Francesca [00:38:35]: Um, I was thinking because, like, you were talking about all this work which seems like part of your main job, But I know it's not your main job.

Francesca [00:38:47]: Um, So, like usually when I when I talk to people, I ask them, like, how do you manage to integrate all this work inside your, um Well, inside your job is like, um, is it well accepted by your institution? Is it rewarded? Uh, do you find time or do you network extra long extra hours to, um to work on the Working Groups? So what is the What is your idea there. You're

Interviewee #WG6 [00:39:19]: it depends. I mean, I'm lucky in the sense that I get a lot of support from I wouldn't say my institution, because they probably don't even

know what I'm doing. But from my department, Uh, so I'm like... my department head... and all of these people, uh, they are avid supporters of this whole infrastructure idea and of the European Research Infrastructures and of my role in it. They are also terribly glad that they don't have to worry about it, but that I do all of these things, Um, so basically and it's true, like, it's that's really one of the one of the things. I mean, they realise that it's important, and they are really glad that I am taking care of it. And they don't have to, because otherwise they would have to. So that's kind of the deal. You know, I get to I get to spend my time on such things because,

Interviewee #WG6 [00:40:18]: I take responsibility for it. Um, and, uh, that works perfectly. Um, sometimes it's a little bit of a lonely existence in terms of, uh, there are so many of my colleagues who are actually actively involved in the whole process. But I tell them every once in a while what we're doing. You know, um, and there isn't really any institutional backing for it. Um mm. I mean, [name country] probably has. I think it's not an [name country] phenomenon. It's a It's a general academia phenomenon so far that I see

Francesca [00:41:03]: it. Yeah, uh, and also that there are like, for example, the director for [name department] speaks with the professor for digital humanities. She doesn't speak with the institute manager of the [name department]. So there are certain, you know, problems in communication channels. Also, it's kind of so basically because no one knows that. But I have an administrative contract, and not a research contract, and I don't even have a doctor's degree, let alone a professorship. But no one seems to bother, at least not any international context. And that's why it also works in the national context to a certain degree, because the ministry just expects me to have a doctorate and to be a researcher, and they don't check my contract. Um, but otherwise it would probably be problematic. Um, so there isn't that much of that much institutional backing. But there is departmental backing, Uh, and that makes it possible to do it. Uh, work wise. I think it's the same as with every other research project people are or any project related work to people involved. If there are spells where spells of time when it's urgent and when you work the weekends or when you work until two o'clock in the morning because the

presentation has to get finished or there is some glitch in the code or whatever. But for the most part I can. I can kind of, you know, fit the Working Group or the DARIAH work inside of my regular work because it's actually part of my regular work. Uh huh. Ever since I changed my job description last year, um, there's actually like it says that it's my duty to a certain percentage of my overall work, uh, to, uh, work on the international profile of our department in the European Research Infrastructure Consortium. So I'm perfectly set up to actually justify whatever work I do, um, inside of my regular working hours. So I'm lucky in that respect.

Francesca [00:43:20]: so last I think like we can start to wrap up. And so I was thinking that basically, you are in different places, right in the infrastructure. So you are like, uh, at your university, like you have an admin slash researcher position, project manager position, and then in DARIAH You are head of a Working Group. Um, but you also you're the national coordinator, right?

Interviewee #WG6 [00:43:54]: Kind of. I think. Officially, I'm the deputy national coordinator, But as far as DARIAH is concerned, I'm the one who is attending all the meetings. Yeah, well,

Francesca [00:44:02]: like you are in different positions, right? So you kind of have an overview of, uh, DARIAH of well, of this Research Infrastructure. So I was wondering what is your perspective? So it's a bit more like a reflexive question. What is your perspective? What do you see the most yourself in this Research Infrastructure.

Francesca [00:44:27]: Also, like before I told you that, um well, what I'm trying to to summarise in a sort of rough vision is like these 3-4 main stakeholders, like, um, layers of infrastructure. Like one more technical, one more policy admin, a more community driven. So, in this sense, where do you see more yourself?

Interviewee #WG6 [00:44:51]: Yeah, when you were pointing out these various stages of infrastructures earlier on, I was I was thinking about it. Basically, it's a little bit cynical, but still, uh, basically, first you have to build it. Then you have to sell it, and then you know whether you can actually keep it. Um, so that's kind of the free stages of infrastructure. And unless you manage to selling like in order to sell

something, you first have to build it. Unfortunately, they won't give you the money before that. And if you can sell it, then it's probably going to stay around. But that's a big risk that you're running. So that seems to be the three stages that we end up with. Um, and I think, um, like, I see my own role very much. It's kind of a very weird thing, because I'm I wouldn't consider myself really a digital humanist, because the time that I spent working on humanity's using digital methods is minimal. Um, so I think I would see myself as a I don't know, political officer of digital humanities of, uh, see my point in the and the whole hierarchy of things as maybe enabler of DH digital humanities because some people have to do the admin and structure and policy work so that researchers can focus on research. Um, and that doesn't really mingle too well. I think usually it doesn't. Sometimes it does. There are some people who are really very gifted in the sense to of combining these things. But I think it's part of the professionalisation in the age as it grows, Um, that we kind of need this this understanding also that there are some people who are doing the innovative stuff and developing stuff and thinking about stuff.

Interviewee #WG6 [00:46:48]: And there are others who make it possible that these people get to think about that and not have to worry about. But will I even get a server or will even have a place to put my research data? Um or, well, my research data still be here in 10 years. Um, and I think that's so, uh, [name person] at one point characterised himself as a research technologist. Uh, and I'd say I'm more of a research manager, probably mhm, in a sense, Uh, and I think that's a role that is necessary in terms of infrastructures. Really, you can work on a project, uh, without any kind of infrastructure. Perfectly just being. If you're just interested in content, that's possible. You might not even need a computer. Um, but in order to get your stuff out there and to have an impact and make it known and I'm not speaking about like, uh, impact in terms of impact factors of journals but like, society impact, uh, then you need infrastructure because you can't worry about whether it's going to stay. Um, so that's kind of the I think that's the main job also of infrastructures due to enable work and to perpetuate the results of it, whether it's done through organisational or technical means. So it's kind of Yeah, I guess that would be my take on also on my on my position within it because I wouldn't consider myself a researcher.

Francesca [00:48:49]: Now that's interesting. It's not in my model yet. It's very interesting. And yeah, probably. It's like in, uh and in between layer of all of these three stages or layers that I described before

Interviewee #WG6 [00:49:10]: you when we started with our with our formal training of digital humanity subject. Um, but we always said, was that basically we're we are building or were training facilitators. So not necessarily people who right all of their own code and stuff like that. But people who can also work as a as a translator between the hardcore analogue humanists and the computer scientists or developers who are who are doing the digital stuff. And we see we have a number of projects currently running where this is becoming very, very obvious, and I'm urging people to write papers about it. But they are kind of timid about doing it. That, uh, for example, we're working on with some data scientists on sentiment analysis and stuff like that, but in historical texts and their algorithms work. But they have no idea about the content, and they are not interested in the content either. And that's why sometimes the algorithms come up with results that any literary scientist wouldn't have needed an algorithm for, like if you look at the text once, you wouldn't need the computational method in the first place. And that's exactly the role I think for on one hand, digital humanists. Still, for the foreseeable future, there are, of course, also people who are really good programmers and can do their own stuff. But I think still that digital humanists and in my ideal world, that's why they are digital humanists and not computational humanists. Um, they are humanists first, and then they learn digital methods. Um, and that's why the other way around for me, it doesn't work like I can't give an answer to the question. If I don't know how to answer, ask the question first or if I don't know what the question is, I can't give a give a good answer.

Interviewee #WG6 [00:51:27]: And that's probably something that applies to big infrastructures as well. Um, like infrastructures are part of the research process, so you need them in order to make your research valuable, in a sense, because research well, that's it's a philosophical question, really, and probably also political one. But if I do research and I don't have any place where I can show this research to someone else, what's the point? Uh, and that's what I think is the trend in

infrastructures as well. But we are We are the Yeah, like we have the big screen for the indie productions that are out there. Um,

Francesca [00:52:28]: yeah, I agree. Yeah. Would you like to ask me anything, or have any questions?

Interviewee #WG6 [00:56:18]: Yeah, we are now in the process of, uh, getting closer in touch with [name network] a from the [name network] consortium because obviously research data, uh, that's kind of one of our main things, because we are We're in the process of drafting strategy paper for DH [name country]. Um, so, uh, we'll see. But what the findings will be there... and one of the main deliverables and what was what has been asked of us very specifically was to get a much closer connection going between the research institutions and universities and the glam sector. Um, which, of course, is something that we've been talking about for ever, Um and it makes a whole lot of sense because obviously they have all the all the stuff that we want to work on. Um, but yeah, so that's I think that's the probably the way to get it on the next level, because there seems to be more of a political value attached to cultural heritage. Um, so I think in order to reach this kind of next level of support in digital humanities, there has to be a much closer connection with cultural heritage because that seems to be still a selling argument.

Francesca [00:57:48]: Okay,

Interviewee #WG6 [00:57:50]: and we'll see if that happens. But in general, I think there should be a much closer connection between such DH groups, and that could also be something for DARIAH with God knows, [ICOM?], for example. You know, um, that's even if it's just getting to people in on the same conversation, um, and perhaps getting funders to kind of create funding schemes to facilitate this kind of interaction between research and cultural heritage because everyone says that it's a good idea and everyone says it should be done. But obviously, if there is no money coming around, then it's not going to happen. So I think that could be the improvement for the next couple of years to orient ourselves very much towards cultural heritage and to make our contribution to this to this field more visible and more politically active. In a sense,

Francesca [01:00:54]: So all right,

Interviewee #WG6 [01:03:01]: Interesting. Cool. Yeah. Looking forward to that

Francesca [01:03:08]: Yeah. I want to keep you informed, of course. And maybe if you're if you're willing also to have a look at it or review something, I will be happy to show it to you.

Interviewee #WG6 [01:03:17]: Sure. Of course.

Francesca [01:03:21]: Other than that, I think we can close here.

Interviewee #WG6 [01:03:27]: Okay. I hope. I hope some of the answers are useful for you.

Francesca [01:03:31]: Definitely. It's very interesting for me. There's no right or not useful or useful answer. Everything is so. Whatever you say, it's interesting

Interviewee #WG6 [01:03:41]: And yeah, thanks a lot. And, of course, like, I will keep you informed on the outcome. I think this is interesting for me with my research, but also for Daria.

Interviewee #WG6 [01:03:49]: So absolutely. Yeah. Yeah.

Francesca [01:03:52]: So I will. I will keep you informed.

Interviewee #WG6 [01:04:08]: Yeah, sure. Perfect. Okay. So best of luck with your work and talk to you soon. Bye.

10.4.7 Interviewee #WG7 – 20.01.2021

Francesca [00:00:01]: So now first, let me let, uh Well, it's a very, uh it's a semi structured interviews, so just feel free to expand and I won't make a lot of detailed question, but, like, just a couple of questions to directly interview. But maybe first you want to introduce yourself. So, like, um, where do you work? Where is your background? Are you a researcher or not? An archivist or librarian? So what is your professional profile? Uh, just give you the word to

Interviewee #WG7 [00:00:34]: you. So, um, I don't think that you need my name, but I will, Uh, [name] I work at the [name institute], uh, as a head of the archive primarily, But my background is actually in history. Technology, culture, anthropology and also musicology. Uh, yeah. So, um, my other functions are that I'm national representative and also national coordinator for DARIAH in [name country]. Um, and also, I'm one of the co-chairs of the Working Group of [name WG] with [name country] and [name country]. So is that enough information for you or you need more?

Francesca [00:01:26]: Yeah, sure. like your background. What? So you already said something about your background?

Interviewee #WG7 [00:01:34]: Uh, so I studied history, ethnology and musicology. And then I go to the master study from the field of technology culture, anthropology, and I also got my PhD in cultural anthropology. Um, but yes. So I am a researcher from a point of view, I still do some research works and publishing some papers from the field of culture anthropology. But also, since I'm working for 20 years in archive, I also, um, do, um, researchers in that field.

Francesca [00:02:14]: definitely. Yeah. Yeah. Thanks. That's great. I didn't know like that you were an anthropologist.

Interviewee #WG7 [00:02:21]: Yeah, Yeah, yeah, yeah.

Francesca [00:02:24]: Um, so then I would like to ask you what is? So how did you come to know? How did you When did you first hear about DARIAH?

Interviewee #WG7 [00:02:37]: Well, we got an invitation letter from our Ministry of Science and Education to show our interest, enjoy this infrastructure. And so, yes, it seems it seemed interesting then, but we didn't know anything about Research Infrastructures. Um, in such large, I mean uh, and European Research Infrastructures. We were not involved in any of them and especially, I mean, it was the first time I heard about DARIAH, you know, But a few weeks later, we got the letter that we have been chosen to represent DARIAH to coordinate this, uh, consortium in [name country]. So, yes. Then I started to investigate more about DARIAH and Research Infrastructures. And, yes, it became one of my main interest.

Francesca [00:03:38]: And which year was that?

Interviewee #WG7 [00:03:40]: It was 2013. It was autumn 2013. Yes. So, yes, we got into this first part. We were one of these, uh, countries who established area.

Francesca [00:03:58]: Yeah. And are you also in touch or do you also collaborate with other Research Infrastructures?

Francesca [00:04:07]: or national or international as well?

Interviewee #WG7 [00:04:11]: Actually, both. So, uh, in [name country] we are collaborating with Clarin. We have a CLARIN [name country], CESSDA in [name country]. It is a variation of the name, so it's [name project], you know, But social science, um, this is [name project]. Yeah, infrastructure. Uh, [name project], I think it's called and well, we have five or six. Uh, these Research Infrastructures that are from the field of social sciences and humanities. So we are all actually connected. We are collaborating, And, uh, we are trying to, you know, approach our ministry with our joint interest, but more, um and also, uh, [name network] is actually archival network.

Francesca [00:05:23]: Yeah, that's quite a lot well established, actually, in the European Research Infrastructure is also national. So since I was wondering since, like, your you're in Well, not you personally, but what you are involved in a few, I guess. Um, but I'm, like, also your countries involved in quite a few Research Infrastructure. So what is there? I don't want a definition, but like, what is your understanding at this point in time of a Research Infrastructure? So what does it

benefit? What does it do? Um, both the researcher and maybe like also because you're involved at Yes. As, um, as a national coordinator as well. So what is it? Where They're the pros and cons,

Interviewee #WG7 [00:06:21]: You know, Research Infrastructure is definitely a complex set of, uh, resources and the digital services that are used, like the scientific community. But it's also about the access to collections, archives, libraries. Uh, it's also about virtual communication. Uh, but actually, first of all, um, I think about a network of people who are actually working on connecting these sources and researchers through developing those digital technologies and communication technology, uh, enabling us to improve our research methods and make our research and work easier. Yeah, it's not only about the technology, but also about the communication and the people and researchers and developers. So, yeah, um I mean, it's very important to I mean, we are living in this, uh, area of digital, uh, networks, uh, network Centre Digital Technologies. So this Research Infrastructures are leading the researchers in some new directions. They are developing new methodologies and technologies for our work, and sometimes they may, uh, they could make the work easier. But for some people, it will be much harder. You know who are not fans of digital technologies. Mm. So yeah. Mm. Some people enjoy talking and thinking and, uh, having benefits from these digital infrastructures. But there is also a layer of researchers, uh, you know who are stuck in traditional research. Yeah. Uh huh. Yeah. I don't know whether I answer your question or of

Francesca [00:08:33]: of course, absolutely. And I was wondering also because you mentioned so many infrastructures in which [name country] is involved. Sorry. At a national level. Like, do you see any, um, sort of collaboration or in influencing that, that these infrastructures are influencing each other in a way. And I'm talking at the national level, not international. So at the [name country] level,

Interviewee #WG7 [00:09:07]: Uh, well, for a start, we are motivating each other. Uh, or consulting. Uh, they're brainstorming are already us. Uh oh. That's a benefit. Definitely. Um, I'm not sure what should be the level of this collaboration, because actually, we are all quite different. So maybe on some basic structural level, You know, when you talk about out or something like that, what is important for all of us?

And when we are talking about approaching to our ministry and ask them for funding or something like this? But actually, each of these consortium needs its own Research Infrastructure. which is, you know, um, well, which is a We're prepared for their needs because, for example, I don't know this name project uh. It's a social science, actually. I mean, it's something that we can use. But actually, as you know, DARIAH is something completely different. Yeah, so maybe we can involve their databases and project into our own, but, you know, they don't have so much benefits from our side. I mean,

Interviewee #WG7 [00:10:46]: And when it's about [name project], you know, they're focusing on these language technologies. Uh, it can also be part of our needs as researchers and humanities, of course, but they are too much focused on this one. I mean, one, uh, smaller circle of, uh, it's concrete things, um are definitely, you know, the same interest in some partially interests. But we cannot be one infrastructure. Definitely not. I mean, it's too. It's too complex to, you know, make it easier. And collaborators one group.

Francesca [00:11:31]: Yeah, sure. No, it's understandable. And so I would like to move now a little bit toward the Working Group that you're part of that you actually co-chair with [names] and yeah, maybe you can tell me, um, a little bit how you started with this working work. So how did they started? How did you Where did the idea come out?

Interviewee #WG7 [00:12:11]: Yeah. I mean, we recognised. Um, it's, um it was in the scope of the humanities at scale project when I have to organise a few, uh, a few workshops and conferences here. So one of the main issue that I recognise inside of these, uh, digital humanities community was the issue of copyright and open access. You know, this is a major problem in the scientific community, uh, as well as in a heritage sector, you know, for many years, For the last 20 years at least. Um so it's especially the thing when we talk about the digital humanities and Research Infrastructures. So, um, we will start started to talk about motivation, how to motivate people to publish material and make it available. Um, so we realised that we need to give them some guidelines, instructions how to do it in a way that they respect and ethical issues, ethical rights and also the laws. Um, so it was. I don't know

whether either in [name city] are some there. And I started to talk with some people from DARIAH, [name person], for example. Yes, And about these problems. And it popped up. You know, the question and the need to maybe established such a Working Group who would deal with those kinds of problems now and then, Uh, [name person], uh, mentioned [name person]. We saw his lecture on YouTube or something like that. So, yes, I approached to him and, uh Well, yeah, it was [name city] because we were not having, uh, scheduled meeting, you know? But actually, we found a group of people who are interested in this topic, and we just sat down. It was in a lobby or something, you know? And some are armchairs, and there are 10 or 12 people which has joined together and starts talking, discussing, and, uh, I ask, OK, who wants to be the chair of this future Working Group? Because I'm not the ethical or legal expert or anything. I just wanted to, you know, yeah, to solve some issues regarding this, but nobody wanted to, uh, you know, (to be in) charge. Yes. So far after some consultations. Yeah, [name person] and I, because [name person] didn't want He thought he has too many other obligations, and he didn't want to be the chair. I also didn't want to be the chair, because this is not my thing, actually, but yes, at the end, we agreed that the both of us well, actually try to prepare this proposal for the Working Group. And, yes, it was the kick-off meeting before we formally established. OK, interesting. 2017, I think.

Interviewee #WG7 [00:15:34]: Yeah, [name person] joined because, you know, [name person] was in [name country], uh, DARIAH Consortium, collaborating with her, and she joined a Working Group, and she was very active member. We have had a lot of benefits from her, so yes, we wanted to have her on board, you know, with us. Uh huh. Yeah. Yeah.

Francesca [00:15:59]: And then I was wondering also, how do you, um, how like being part of, uh, over Working Group or chairing a Working Group. It's, uh well, you know, it's a voluntary thing. Well, you're not paying for being part of this Working Group, right? So I was wondering, how does your institute, um, consider this, do they know that you're leading a Working Group and the time that you're using to work on the issues related to the Working Groups. Like, are they part of your working time? Are they part of your extra time, Um,

Interviewee #WG7 [00:16:38]: another person for you to ask this question? Because I work? Uh, well, in my free time, actually. I mean, I do all my work that I need here from the for the institutions living the archive, you know? So all DARIAH thinks extra, uh, work. Actually, I'm doing well, if I have some free time here. If not, then it's in my free time, you know, afternoons, weekends or something like that. So my institute is not suffering because I'm having to work free or I don't know how many jobs. So they just let me to do whatever I want, you know? Yeah. So we, uh, we put all this, um, work all these projects and, uh, Working Group, [name WG] project for example, this [name output project] I put everything, actually, in my report, you know, it's part of the institute's report, you know? So they have a lot of benefits from my work anyway. And yes, I don't ask money for that kind of work, so yeah, it's not a problem.

Francesca [00:17:47]: Yeah, but I guess they're proud of the work you're doing and that they're in in this international environment, right? Yeah,

Interviewee #WG7 [00:17:57]: maybe. Yeah. Yeah. So yeah, I see

Francesca [00:18:03]: so zooming in inside the Working Group, the [name WG] Working Group I was wondering, um, maybe if you could describe. So I'm interested to look at how the Working Group inside collaborates. Right. So I'm wondering if you could describe, um, a project or something in which you collaborated together. So you created something together with the Working Group. So how does it work? Like, for example, you propose an activity and then the members fulfil their activity. Or do you do something together in designated times or times lots, for example? Yes.

Interviewee #WG7 [00:18:53]: Well, uh, the most intensive communication collaboration work is actually done by the Working Group co-chairs, you know. And thankfully, there are three of us. So we are already a team. Yeah, we're communicating very often via email, regularly have meetings, and we are brainstorming our ideas. Um, so I think it's a great to have, actually in chair position. More than one. You know, man, because this way we complemented each other work. Uh, so to say, um, if I'm too busy to prepare newsletter, for example, other co-chair will jump in and do that work instead of me, you know? And if somebody makes draft proposal for participation in the conference or for a project, they are discussing this on our meetings. You know, the other two co-chairs edited and helped to finalise

this proposal. Um, we all three, uh, feel responsibility for the functioning of the Working Group. Also, we give our best. And if you're alone as a chair, then you often has to make some moves and the decisions on your own. I think, you know, And this way we can motivate each other better. When I think about, uh, members, there may be 20% of really active members. I think the rest of members are here for us. Definitely. They are. But if we directly involve them into something, you know, we have to ask and push them to do something to give their feedback. For example, when we decide to develop this tool, um you know, the three of us arranged all things, you know, prepare it and everything. But, you know, then we have, uh, testing workshops, and we invite the members, uh, to help us and find the bugs and, uh, some problematic issues there, for example. Um, yeah.

Francesca [00:21:09]: Do you have also, like, sort of design or working sessions with the Working Group in which all together, you work on our task?

Interviewee #WG7 [00:21:20]: Yes, yes, yes. Definitely. Um, it was better, actually, when we could meet, uh, face to face, you know, because, uh, this kind of workshops, we do a lot of work, and people are motivated better. You know, when they know that they go somewhere and they are then focused on this meeting and the topic of the meeting, and then we discuss, you know, it's probably about 15 to 20 people, uh, usually gather, and, yes, each time we have a different, uh, this last year was all about this tool . Yes, but before that, we prepared, for example, some videos about Open Science, open access, and it was part of the workshops, and, uh, we discuss some guidelines and preparing, You know, the Draft. Uh, of these documents together on the workshops. And after that, we continue with our communication. Usually we are Google docs. Uh, as most of us, Um, so, yeah, we have all benefits. I think you know, um, because first and the most important benefit, and for me and for all members, I think that we can solve some problems, maybe find a solution for some complex issues in collaboration with other colleagues and experts. You know, instead of being left to yourself. And, uh, this brainstorming and the exchange of ideas and knowledge, this experience is precious, I think, you know, and for me in particular, uh, let's say, uh, you know, [names] deal with this area of ethical and legal issues as part of their work at their institutions. You know, they give

lectures and workshops. Um, and they are called leading this group in extension, actually, of this work, uh, me as a head of this archive and the researcher, I'm viewing things from the side of someone who, you know, wants to publish material and what I know who know what the specific problems needs to be solved, you know? So, for example, I was maybe the one who recognised the need and benefit of a tool such as [name project output], you know, because that's something that we need. Uh, but [names] were the two who, you know, devoted themselves on this concrete thing How to implement that tool, you know, And, uh, we also have one of our member [name] is our legal expert, you know? So we hire him, you know, for these legal expertise. So yes, quite a different group. Different types of people from different fields, Uh, with a different experience. Mhm. But well, we always find someone you know who can help us with some concrete problem and question. It's

Francesca [00:24:42]: interesting. I like what you said about. Um, yes. With such an extent, a group like there's always someone who is expert in something and can propose a solution to the problem of others. Even if we're in a different context in different countries, right?

Interviewee #WG7 [00:25:01]: Yes.

Francesca [00:25:02]: And I was wondering, is this maybe, so thinking about more like the kind of the scope of the Working Groups? Because, let me go a moment back because, like, now, like you see Working Groups coming, popping up, like in all the institutions or networks or infrastructures like RDA has Working Groups. Um, other, like LIBER, has Working Groups. So I see a lot of this work. The name Working Groups is popping up everywhere. I think it stems for more like, informal way of working. Um, but yeah, I was wondering, like if you would say something about the benefits or maybe something you don't like or non benefits of the Working Groups in DARIAH, What would it be? What do you think is the added value of working in a in a Working Group?

Interviewee #WG7 [00:26:02]: Well, I think these connections with other people who can help you in some part, you know, if you're dealing with I don't know whether it's a metadata or legal issues, you know, you always can. You know whom you need to approach to two. You know, uh, to resolve some problem. And, uh, if it's probably the

most benefits for those people who are dealing with these things, you know, if somebody is working on, uh, metadata, uh, in the scope of his work, you know, whether if I'm in archive or somebody from the library you know, and you have to develop some set of metadata then it's great if you have a group of people who are dealing with the same thing, you know, so you can follow the right directions, make consultations and, uh, you know, not working on your own. You always have somebody that you can consult, and so you do your work better because you're collaborating is such a group, you know where more people with more knowledge, maybe, or some other knowledge, other experience will open your eyes or you can see some things that you would not you couldn't see on your own. Maybe, you know, so, yeah, I don't think there are some non-benefits from joining here. I mean, you will not be Working Group if you don't have interests, you know? Yeah. So if you are there, you can only have benefits. I think because nobody is forcing, you know, there are a lot of people, those 80% who are not so active members, you know. I mean, they don't have to pay to be a member. We don't force them to do some things if they don't want to, or they don't have a time to deal with it. So you know, nobody is hurt.

Francesca [00:28:09]: No, that's true.

Francesca [00:28:43]: And I think I have my last question. it went very fast because you are very good in going to the point, [name],

Interviewee #WG7 [00:29:01]: um, you know, I like to be sure because I don't like to talk too much, especially in English.

Francesca [00:29:08]: you're doing great, but yeah, I was thinking, like, more reflexive question and note. Um, so basically, I was thinking you are in DARIAH. You are part of DARIAH at different levels. So you are national coordinator. Right? You are national coordinator, right? Yeah. You're part of a Working Group. So in a way, you represent two different stakeholders in in these Research Infrastructures. So you're part of the more, like, institutional level? Let's say so. You talked to the ministry, You talk to the directors in DARIAH. But you also, um, at the level of you working at the level of the researchers. So you represent those researchers. So working from the very bottom up, providing inputs and the tools and services, right?

So how... so? My question here is, um where do you see most? What? Do you see yourself in a research in this Research Infrastructure? So, do you see more like yourself? Um, place in the more like, institutional level of the infrastructure? Do you see more, like, connected to the research community or to the technical development of things? So where do you see yourself placed? Mm, and why?

Interviewee #WG7 [00:30:36]: Yeah, um, you know, right now, I started to work on proposal for a national infrastructure or digital humanities and arts, because from my position, you know, I understand this research part, uh, research, point of view and also this archival library museum from the glam sector. I know these fields very well. I also have connections in ministries and this, uh, upper side of this, uh, issues. So, um, I think I'm able to, um, to connect all these things, you know, to, uh, collect the needs and ideas from the researcher level, uh, of the story and, uh, backed them. Um, you know, in some project and prepare the proposal for the Research Infrastructure that will benefit with researchers. And our constitutions also blame institutions, and I can present them to the ministry's, maybe in a way that they can understand. You know, I can maybe I hope that I will be able to Well, yeah, explain them. Why This is very important. Why This is something that our research community needs, you know, because we don't have developed Research Infrastructure here. I mean, we have a lot of different layers of Research Infrastructures, but they're not quite good connected, you know, Mhm. So we want to do something better to involve the whole humanities sectors, you know, and philosophies and ethnologists and historians, and prepare something together. So, yes, I'm and somewhere between I don't know. I can tell you whether I am definitely a researcher, and I'm still working here. I'm not going anywhere, but, well, this contacts with the ministries and people from the top of this, uh, IT institutions, for example, who can help us on developing this Research Infrastructure is, well, very important, actually. So all these connections, you know, for the last six years, um, that I have are now well, quite a good network of people. And yes, I think it's a benefit from this, uh, DARIAH coordination. And so that I meet met a lot of people. Uh, and yeah,

Francesca [00:33:37]: it's interesting. Very interesting, because I think, it's interesting because, like, you seem to represent a little bit like a Research Infrastructure in yourself. So because you have both this institutional sight, the research sight..

Interviewee #WG7: the multitasking, and I'm on different sides, So yes, I cannot define myself easily. You know, the worst part is when somebody asked, you know, for example, my daughter asked me, What do you do? What should I tell her? You know? Yeah. Yeah,

Francesca [00:34:57]: okay. Do you have anything that you would like to add or any questions for me?

Interviewee #WG7 [00:35:04]: No, I'm really looking forward, you know, to read your thesis one day. You know, it would be very interesting. Yes.

Francesca [00:36:30]: Okay, So I will keep you in touch, and inform on the developments. So for the moment, thanks a lot. And, well, if you have anything or just contact me, you know where to find me,

Interviewee #WG7 [00:36:42]: me. Yes, I will have you on my mind if something pops up on my mind. Topic. Yes, I would think that with you.

Francesca [00:36:51]: So have a nice day

Interviewee #WG7 [00:36:59]: Thank you.

10.4.8 Interviewee #WG8 – 09.04.2021

Francesca [00:00:00]: Yeah. Okay, so and maybe you can start by telling me a little bit about yourself. So, like, Where are you based? What are your fields of research? Um, what do you do? What are your professional research responsibilities? Um, yeah. So a little bit about yourself.

Interviewee #WG8 [00:00:24]: Yeah, So I'm [name]. I am at the moment an assistant professor of digital heritage and metadata at [name university]. Prior to that, I was a post doctoral researcher for 4.5 years at [name university] Centre for digital humanities. I'm an [disciplines] by training. And I have a master's and PhD in [name discipline], um, and posts doc [name university] archaeology and then a post in [name university] in digital humanities. Um, at the moment, I am serving as the, uh, one of the co-chairs of DARIAH [name Working Group] Group and my professional responsibilities at the institute that I'm working on, which is [name university] Centre for Cultural Heritage. Um is basically 40% teaching, 40% research and 20% Let's say science communication services, as it is called. And I think that my research interests are [research interest], as they are used in [name discipline] and more general digital humanities. So [name disciplines] And, uh, I feel like I'm right now at the transition to invest more in machine learning and artificial intelligence. Um, so that's something that's that I'm growing towards at the moment as a researcher.

Francesca [00:02:25]: Interesting. Well, that's really That's right. Diverse backgrounds. Yeah,

Interviewee #WG8 [00:02:51]: yeah, so that's yeah. That's indeed because [name specializations] Yeah, I need It's like a mash of the two things. I have the feeling I have a strong theoretical background to about thinking about humanities.

Interviewee #WG8 [00:03:05]: Yeah, and the implication, I think in humanities. So that's something I find fascinating. And through the fascinating as a research topic. Yeah.

Francesca [00:03:15]: And [name], I see, like because I also follow you on Twitter. Um, but also, like reading a bit hearing a bit. What You're what you're saying to me. Like I know you are active in quite a few networks because I saw, like you also, for

example, gave a presentation with, with the coordinators of [name WG] for example. Um, so can you tell me a little bit about that? So, like, what are the networks in which you are active in, like, in which you take part in? Um, not just your university, your institution, but also outside of it.

Interviewee #WG8 [00:04:05]: Yeah. Yeah. So because I have, I think because I have had a diverse background, I feel like it's now, um, appreciate it in a way. So I find it easy to get involved in networks. I'm invited also often to these things. Uh, so what I'm what I'm active is so there is at the national level. At the moment, there is this [name consortium] Consortium, which is a combination of CLARIN and DARIAH. Let's [...] Centre for digital humanities. So my colleagues there and ex mentor is the PI and that network and under the, uh, they got supported by [name funder]. Recently, I mean, continued their support. So there is a that's a that's like digital humanities, network in [name area]. And that is something I'm quite active in. Uh, and then there is the [name network] Network, which is the linked data network for ancient history and archaeology. That's another network that I'm very active in actively working in. I don't know if I should tell. Explain what I do exactly, because I'm participating in various Working Groups within [name network] Network about annotation, for instance, and pedagogical activities, too. So that's another major network that I work in. I think I can say that although it's not official, uh, there is a very important network with an archaeology on digital archaeology. Let's say there is no official name to that network, but you can see that there are major names there. I mean that it is actually a network that organises that that works around computer applications and quantitative methods in Archaeology Conference, which has been going on now for, uh, I think more than 30 years, Uh, and I have been there early on from 2000, and digital techniques were not That interesting for a lot of people,

Interviewee #WG8 [00:06:06]: So that's also a network Now that's that. I am enjoying the collaboration with some of the colleagues in digital archaeology, and then I'm also active in networks about Mediterranean archaeology. That's about applications of digital archaeology in the Mediterranean context, especially [name country], of course. So I have some colleagues, for instance, with an assistant professor in University of [name university] and who is also [nationality] person who's

doing digital archaeology. So, for instance, we are at the moment building a digital heritage network for [nationality] heritage. So that's another network that I'm involved in.

Interviewee #WG8 [00:06:47]: But I must say I think [name network] and [name network] are the two....I mean, all of them I'm quite active I think, um, so writing the major networks that I am a part of mm. And of course there is DARIAH as well, But there is also DARIAH - through the [name Working Group] Working Group. Um, so with [names co-coordinator]. But these networks often overlap so that there is a lot of overlap with [name network] there and [name network] as well. So But that's also another network. Of course.

Francesca [00:07:20]: Right, it looks like you're busy

Interviewee #WG8 [00:08:02]: So I have the feeling. I mean, some networks are more internationalised than others, and that depends a bit on funding. I had a feeling. So if there is an official funding behind the network, much like with a very clear example, is hilarious. It was a [name network] network when it was supported by [name funder] for I don't know, 10 years, often decades. And then now it became a community, and now it's more on the ways of people so but for instance, [name network] has a big financial support behind, and that's very institutional. I have the feeling, and there it depends. I had a feeling that your role is very much determined. Whether you have you're actually using part of the budget or not. So if your supervisor like an official supervisor in the application, then you are institutionally involved and then you are more involved. There is. There are other networks, As I said, for instance, digital archaeology network there. That's very human, people based and their I'm directly involved with people and people know me. I know people, and then they will invite me to applications, and there is nothing official or nothing really tangible. It's all on relations and experiences and past these stories and the work you do and other people like for work or not basically, and it certainly is a big growth. I must say I developed a series network connections. I really met people I didn't know at all through Twitter and I have been pulled into a certain, um, grant applications. Certain article writing groups etcetera through Twitter, too. So it's I think it's a combination. It is. It can be both. It's not a combination of. It is also a

combination of both, but also it can be The institutional aspect can be more pronouncing one network than the other. Yeah, some are more people based.

Francesca [00:10:05]: Yeah, that's very interesting.

Interviewee #WG8 [00:10:13]: It is attached to the funding. If there is official funding, formal funding behind the network, I think that becomes more institutional. Yeah.

Francesca [00:10:24]: And, um, so I'm switching. I have some questions written down here, of course, but I'm switching them because, like, I'm following what we are talking about now. So, like, if you take all this kind of constellation of networks in which you're active in and you try to visualise for a second your position as a researcher in this constellation of networks, how do you see yourself? Where do you see yourself

Interviewee #WG8 [00:11:23]: yeah, about my perception of my location. You mean, how do I perceive myself? Yeah, that's a very good question, I think before I became an assistant professor and got a permanent job. And that's like three months ago when I knew that I would move because I was a post doc. I think I was feeling more part of the network rather than stable in the institution and institutions and institutional networks coming to me. So I was more "my stuff", so that would be the visualisation. So I would then see these networks more floating without me being fixed in a location. But right now I'm feeling because my job is permanent. I'm feeling more like someone who is representing the institution. So I'm feeling more based and more geo-locatable in a way that I'm university of [name university], and I am someone who connects University of [name university] to these different networks. That would be my visualisation. But it's not completely the case, either. I still feel like an individual, Um, but it's as if I have to think about and, uh, a visualization, the university of [name university] is here [shows with her hands], and I am very tightly connected to it and under all these networks around me. But I'm, like, really there. And this wasn't something I had before this permanent position, as a post doc to I didn't have it. I was really floating. Mm.

Francesca [00:13:03]: Interesting. Yeah.

Francesca [00:13:06]: Yeah, it's interesting. Also, this research basically is theoretically rooted, like, really interdisciplinary position because, like, have some elements or like, philosophy of science, some elements of like, science and technology studies, but also like research policies. Uh, it is quite interesting to see, um, how researchers move their environment and also how to explore different environments. Um, but this, uh, research in particular is more. It looks really, really into Research Infrastructures. Um, so, like, if you move a little bit now toward, uh, more DARIAH questions I wanted to ask you like, when did you first hear about Daria? And how did you get in touch with it?

Interviewee #WG8 [00:14:19]: Yeah, yeah. So I heard about DARIAH during my job application as a post doc to Gent University because [name] and [name] are there. So it was in the job description. It was written that I would be employed to establish a DARIAH [name WG] Working Group. So that was because I was a [name field research] postdoc in [name city] Centre for digital humanities. That was my title, and they were hiring me to establish that Working Group. So that was my job description. That was actually the first time I heard about DARIAH because before that I was very digital archaeology based, very archaeology focused. And that was my first real exposure to digital humanities and humanities infrastructures. And then after that, it emits very quickly became part of my life because of being against centre for digital humanities. Indeed, I made an application to establish the Working Group, and it quickly got established. And then, of course, there was the 2016 events in [name city], uh, switch the DARIAH annual events that I was there as a fresh postdoc, so that that's when it really sank. That's that annual event was also a place where it really sank what DARIAH was for me, but it was the job application. Basically, that's when I first heard about it.

Francesca [00:15:40]: And was it was there already a link with [names co-coordinators] already?

Interviewee #WG8 [00:15:49]: No, no, that I heard of [name co-coordinator] because she's also an archaeologist. So I saw a few of her works about geographic text analysis, but it was not exactly what I was interested in at the moment. So I knew that she was doing some things that were interesting and relevant, but just by

name. So I knew [name co-coordinator], I met [name co-coordinator] for the first time in [name city] in another DARIAH annual event, because [name Sally] encouraged me to invite her to a panel that we were organ...not a panel, but the geo-humanities Working Group meeting. That's where I met her and [name person]. Where did I meet her, actually because I looked her up and then I thought she would be a good co-Şchair, so I invited her to become a co-chair there. But that was actually inviting names co-coordinators] to become co chairs to the geo-humanities Working Group was a very intentional network move from my side. I took into consideration that they were women. That was and I knew I could feel, perhaps that they would get things done and that they were really I think it was a feeling but very much motivated by gender. So I invited them because they were women. They were very good in what they're doing, as far as I could see. So I just, without knowing them, I just invited them. Basically, I asked them and they were OK with it, and I just invited them. And it was a great choice, actually. No regrets.

Interviewee #WG8 [00:17:28]: But yeah, I must say, because it was for me a move to also open up like explore expanding my network a bit. In a way, I did it intentionally as well. My network...I thought their network was the network that I didn't have access yet so intentionally took them as a strategic nodes. [name university] University of [name country] digital humanities scene. So in that sense, it was not a personal move, but I thought it was a very interesting, two interesting hubs that could really cover the landscape of [name discipline] wealth of DARIAH. So it was...

Interviewee #WG8 [00:18:11]: Yes, she was a post-doc then And, like, new and actually [name co-coordinator] involved...involving [name co-coordinator] was involving [name network] network to the [name Working Group] Working Group. And that worked great. That at the moment I did that, that we could really access the [name network] network as the Working Group and that that was, I think, a good move. Mhm.

Francesca [00:18:32]: Okay. Wow, Interesting. And let me formulate a question. Um, so if you think about these, um, DARIAH Working Group that you established together with [names]. And if you look at how this Working Group is included inside the DARIAH Network or inside the DARIAH kind of Research Infrastructure,

institutional Research Infrastructure Um, how do you see? How did it help you to kind of move forward or in your research in your career?

Interviewee #WG8 [00:20:07]: I don't know. Yeah, it. Yeah. So, personally. You mean, how did it help me? The Working Group, is it? So Hey, that's, uh I must say that yeah, to to be able to because I think I I started to work with [names co-coordinators]. It helped me, as I said, because we are talking about visualisations and the way in which I see the Working Group is that it was like this. We were the small I mean, they had a network, as [acronym association]. But it was like the small network and I had the feeling that I had to click another help there and then, like another part that to lighten up. And that's how I feel personally as well, both for the Working Group. So I had. I include... I invited [name] and she accepted it. And then this. This large network opened up and connected with us because again. From that moment on, we started to work very close with [name network] network. We organise, for instance, a workshop where we invited people from [name network] network, and I realised that, for instance, [name] had trouble getting into touch with them. And then we that's really facilitated it for us. So it was both personally for [name WG] working over for [name university]. I think that really and same with [name] at once are, for instance, started to collaborate with [name university] University in DH hangouts. That really helped us. So I think they were really connected hubs and young women active in what they are doing. And in that sense, I think it really helps. Both for [name university], me personally and the, um [name wg] Working Group really work with people that we would not work with otherwise. So, uh and I think maybe there will be other people who could serve in the as those hubs. But I think not everyone in [name university] universe or not everyone in [name network] Network which would be as good of a hub to connect with us and then that facilitate such a bigger network, if you see what I mean. So, uh, so I think personally, it helps my networks. It improves my connection with the largest network. It improved my connection with [name network] digital humanities. Seen actually, so and that. And that was, to be honest, that that was the day that was. I mean, it takes to [names co-coordinators] and the strong bond we had. And then from then, of course, we could reach other people between DARIAH that are interested in [name WG]. But we are finding it difficult to reach others. You see what I mean? So [name university]

University. So what is the DARIAH [name WG] Working Group facilitating? It is, uh, it is covering [name region] or maybe digital humanities in [name region], in [name project] and then a bit in [name country] around [name city] as far as [name person] Network. But we are. We're finding it difficult to connect with a bit difficult to connect with other people. I don't know if this covers your question, but so DARIAH [name WG] Working Group is great, and it's expanded my network, but not infinitely. Mm.

Interviewee #WG8 [00:23:54]: Okay, so there is. Yeah. So I feel like we're a big island now, But we are also still a bit of an island that we are finding it hard to pull other people into DARIAH [name WG], make them connect in a meaningful way.

Francesca [00:24:11]: And why do you think there is this difficulty?

Interviewee #WG8 [00:24:17]: Yeah, that's a good question. We also talked about that among ourselves because I think they do not have an official role. Um, that's one thing, Um, and we try to do that by... I forget now the exact name. But there are. There are members from different institutions. Um, and we try to, um we have a Twitter account where we try to, uh, talk about our activities. We have an email group, but that died now Because of Twitter. Twitter is more the active thing. I think people are expecting more concrete roles in the Working Group and because I think it's in a voluntary basis. We are struggling to create those roles, uh, to think about them. And it's all happening as a as a side job. And we are finding it hard to really, uh, come up with schemes and we are also not always sure whether it should come from us. You see what I mean? Like, I think there's people would like to be actively involved and in a very concrete way. But they do not know how. We do not know how to offer that to them either, because there's so the entire thing is running on voluntary basis. I think that citing a reason that I think time is an issue.

Francesca [00:25:47]: Yeah, definitely. Yeah, I totally understand. yeah, it is on a voluntary basis. So that's of course, difficult because everyone is crazy busy these days. Um, so I wanted to ask you the like on a because, like, now you mentioned that, um, I was wondering. So, does your employer know about that of your involvement in DARIAH, for example, Do they allow you time? Are they happy that you're involved with that? Or it's something that you do in your spare time?

Interviewee #WG8 [00:27:04]: Yeah. So my employer, like in [name university] Of course it was because it was the job description. It was important, and they knew and they there was 400% or maybe 200 support for that. And right now, because 20% of my job description is also about science communication, like it's called services, but it can include exactly that. So there is absolutely no problem about that about the institution. But I maybe, I mean, as a side note, maybe I should say, for instance, an example, I give an example through [name network] consortium. I realised, for instance, that the PI of the consortium had [name network] [...]. I mean, I had incredible, not incredible, but had trouble making people believe that this was something important that it had to... people should contribute to some meetings, for instance. Previously we would, um, have very few people joining. A lot of people would be invited, for instance, and there was not much enthusiasm. And this I think about the problem DARIAH [name WG] WG because people do not see what they should hang on to but anyway, and then later on and [name network] got a lot of money and then it became very concrete. Suddenly, there are so many people in the meetings. I mean, I'm not I don't want to be cynical. I'm not being cynical, but so many people in the meetings that we have to really say Yeah, You don't come to the meeting. You can learn it. You see what I mean? So it's I think people are interested in funding their own students, and no one can be blamed for it, but they would like to generate money so that it can generate work and publications and jobs. Uh, and I don't think that's happening at the moment with the Working Group. Obviously. Um, so ... I think that I see that as a problem. And I think the moment that we would be generating funding, uh, and creating consortiums that are really interesting. Um, I think that would very quickly change. That's my...people really don't have time to explore. They have times for concrete things. They want immediately to go for it. And I think I don't know if this answers your question, but that's my that's my feeling about that moment.

Francesca [00:29:27]: Yeah. This is clear . Yeah, and, um

Francesca [00:29:34]: well, we discussed a lot of points already, and actually, I think that all of the points of what to touch upon our yeah are covered already. Um, do you

have any questions or anything that you feel too? You want to add or maybe something that you thought.

Interviewee #WG8 [00:29:59]: Yeah, so I want to Just maybe because it may help you with your research. One thing I wanted to tell is, um that for me. Infrastructure is the lab. I mean, I didn't hear that a lot in digital archaeology before I started working at [name university]. But from 2016 onwards, it was a big word in digital humanities. And to be honest, I struggled to understand its meaning. I was like, what is meant with it. And then, um I was like, OK, I think it I'd rather bit (bite) on it. And then it was still like, not really giving up. It's a big word, is an expensive word I think. for me what It's boiled down until now. Now I'm in it for five years. Is, um that is people I think infrastructure is, I think people, uh I mean, it's of course, tools and everything, but I have the feeling that the most important aspect of infrastructure, digital humanities, infrastructure, science, infrastructure, yes, maybe in other disciplines is different. But for me. It has been so far. If you would ask me, what's the infrastructure I would say: is people my namely people, The most important element. It has been always people. Maybe because same with DARIAH. Actually, if you would ask me who is the most important name of all entity in the DARIAH network, I would tell I would count different people. And that goes with [name network] network. Okay. They have really nice tools, etcetera. Like [name tool]... they are interesting. Very interesting tools. Uh, so yeah, maybe. Because in the tool side we're a bit weak. I'm not sure, but, uh, but that's my at the moment. That's for how I would define it. And maybe it's interesting for you. Yeah,

Francesca [00:31:59]: it's a very, um, interesting discussion.

Interviewee #WG8 [00:33:31]: Mm, it is complicated. Maybe it's, I don't know, perhaps because you mentioned STS at the beginning, Science Technology studies. So I think from their point of view, it will be obviously from a neo-materials point of view. It will be a mixture of people and tools and like materials, Let's say and technologies and I agree with that. I think, for instance, it is if you have to look more generally, digital humanities, infrastructure [name network] is an important element in there as well as a true unless people in the sense that it creates conversation as you use it...And it's really part... facilitates things. Uh, so I think maybe what I say

that the infrastructures people does not apply. Generally, I think generally a good infrastructure is a bit of everything. But so far for me, digital humanities and especially definitely digital archaeology is very people based. Maybe because we are a bit weak on the tool aspect as services aspect, I mean, or maybe even the policy aspect. So I think that's that. But my experience of it at the moment is like that. But I think a good infrastructure is indeed a bit of everything. That's call next and links things, and you can see that with [name network] Network out that would work. But there aren't many examples as far as I am. I am a aware I mean transcript of this is another one. Like good tools are also in there in the infrastructure, good services. But it's at the moment mostly made of people, I think, for the for digital humanity. Yeah,

Interviewee #WG8 [00:36:03]: yeah.

Francesca [00:37:37]: Uh, okay, I think I have a lot of material. Thanks a lot. It was very nice to talk to you., But lately, I found, um that at the end, it's kind of in the second part of the interview. I also start to kind of introduce what I'm working on, and I see that people like to reflect on it. Um, maybe not in the first part, because You create a bias. But I see that that at least in the DARIAH network, people are really sensitive to these, uh, to this topic. And you also want to grasp what it is. An infrastructure. What do they get from it? How they can participate in it. So it is interesting.

Interviewee #WG8 [00:38:36]: Yeah, I think it's a very interesting, very important question. I mean, it's like what you're trying to define you I mean, it's a big gap. Actually. Everyone is using the term, but it's just very would be very interesting. I would really like to read What? What? What? What? Someone really thinks about what an infrastructure is what comes out for digital humanities. That's really something.

Francesca [00:39:30]: Well, for them, it is a for the European Commission in this, like, infrastructures are really strategic tool, a strategic way to reach certain objectives. And the objectives are the one of competitive competitiveness. Yeah, So how to make competitive their research landscape in Europe? So that's the main,

um, the main desired outcome from a political. Yeah, but if we talk me and you, we just talk about the people, the tool. It's a tolerably different way of talking.

Interviewee #WG8 [00:41:44]: I'd you can imagine. Good luck with it. I'm sure it will be great, but you have so much experience with it that you're sitting in the middle of it. I think there will be and they didn't have to write, and I wouldn't be able to do it otherwise. Definitely.

Interviewee #WG8 [00:42:01]. So you have a very strong feeling of it that already makes you makes give a huge head start.

Francesca [00:42:32]: a lot. And, uh, good luck with everything with your work, uh, with your kids

Interviewee #WG8 [00:42:38]: and we Thank you. Yeah, we will be in touch. Bye.

10.4.9 Interviewee #WG9 – 09.04.2021

Francesca [00:00:09]: Thanks so much for joining today, Um, And for accepting to be interviewed by me, I hope you're doing well and
[during this call we had some initial technical issues]

Francesca [00:02:13]: Um, yeah. Okay, then let's. Let's go on then. And if something happens like that, I'll just type in. If I experience any problems and usually I'll just catch up as well. Don't worry. It should be fine. Let's do that.

Francesca [00:03:57]: So is the reason why I wanted to have a chat with you is because one year ago actually started this PhD research. So let me put you on a big screen. So I see you better. So I started this PhD research even go, um, about so the topic. The field is social sciences and philosophy of science. So it's both, but basically, this research is also informed by the work that I do in, uh So it's also informed by the work that I do in diarrhoea as a Research Infrastructure, but also with this with the Working Groups. And it looks basically at collaboration practises in Research Infrastructures and on in a detail. It investigates how and if this Research Infrastructures also encourage creation of new knowledge among researchers. So not only how they facilitate connection between researchers, but also how is new knowledge created in this new context? Um, so let me just say a few words about the mode of this interview. So as I said, it would last about an hour. Um, I already share with you the informed concerns form. So the answers are recorded, the transcription will be unknown in mind the transcription that I would do and the recording will be dilated after the analysis.

Francesca [00:05:41]: You can stop this interview at any time. And this, um, interview also focuses on three main areas. So first of all, I want to

Francesca [00:06:29]: So it will be a semi structured interview, so feel free to expand on them so and to, like, ignore my question and expand in other directions. So, first of all, I would like to ask you like what, um, to tell me a little bit about yourself. So your discipline, your institute also, that you're part of, um What is your work?

Experience? Your Ph. D. And what are your professional responsibilities at the moment?

Interviewee #WG9 [00:07:00]: Okay, well, I I'm a [name discipline]. I studied ancient history, philosophy and archaeology at [name university] in England and then went on to do my d Phil in numismatics at [name university]. Mhm. I was very lucky to get a scholarship to [name country] to finish my field research and was taken on by a project, a [name field] project dealing with [name field]. So, looking at [name field] treatment in an archaeological context, I am not a traditional museum collection you've missed noticed, but rather a an archaeologist who specialises in [name discipline]. So I'm a little out of the mainstream, maybe of the traditional view of [name discipline]. And that has basically been my work for the last 35 years. Something like that. For 11 years now, I've been employed by the [name institute] which again tells you something about the work I do. I'm in an archaeological framework. Um, there are only two [name field] among, or something like 350 people working at the institute. So we're a very small section. Uh

Francesca [00:08:32]: huh. Mhm.

Interviewee #WG9 [00:08:35]: One of the main aspects, though, that I've become involved in has been the digital world. This is something that's developed over the last 10 years. I've always used databases to record my material. Set up my first database in the late 19 eighties. So I've been following developments and now very much involved in the digital world with semantic wear, blinked open data and things like that. So [name field] archaeology, but also very much digital aspects.

Francesca [00:09:17]: Definitely. Yeah.

Francesca [00:09:23]: And what, so maybe like to ask a question about DARIAH? And when is the first time that you heard about these, uh, infrastructure?

Interviewee #WG9 [00:09:38]: Um Mhm. Yeah. Yeah, I think about 4 years ago. Something like, I'm just trying to think, um, it was when [name person] was setting up the DARIAH for [name country]. Mhm. I work together. So his professor of [name field] well, archaeology at the University of [name university] and was involved with setting up the DARIAH for [name country] and I was invited to a meeting in [name

city]. I think it was to talk about the digital work. I do a conference to kind of present the idea of DARIAH to the [name country] digital community. That's where I first came into contact with DARIAH. I then went to the DARIAH event in [name city] a little later and tried to get to the annual events when I can. Since then.

Francesca [00:11:04]: Okay. Yeah, I remember that. We went there for the first time also.

Francesca [00:11:11]: think. Perhaps. Yeah. And are you also part in other or are you familiar with other Research Infrastructures in humanities or social science? Yeah,

Interviewee #WG9 [00:11:24]: I'm involved in two to broader network projects. I'm a partner in [name project], so linking archaeological data. I'm also [name country] representative for COST. So the cost. You probably know that the cost action. So I'm involved in those two. In the archaeological world, within the [name field] world, I myself have been instrumental in setting up a digital research network within ancient [name discipline]. We have a little association called the [name association]. But I've been involved in the [name network] org project than [name field] linked open data project, more or less since its beginning. And in fact, what we've done now, has been meeting regularly. Now, I think for about eight or nine years, and we've effectively turned our meetings into the DARIAH [name Working Group] Working Group, so yeah, but those are the Those are the main networks I'm involved in, otherwise digital infrastructure. I'm involved in the digital infrastructure of the [name country] Archaeological Institute. But [name projects], um is more of the main, the main networks I'm involved in.

Francesca [00:12:59]: So, like, if you're part of this kind of different, um, many Research Infrastructure and you're connected with them. And you also know DARIAH at the moment. What do you see like, How do you interpret the main role or the main task of Research Infrastructure? So how what do you see? What do you interpret as a Research Infrastructure

Interviewee #WG9 [00:13:31]: Well, it's a very personal view because within [name field] itself, because of the nature of [name research field], mass produced

standardised objects, they are ideal for digitisation. So [name field] has very much lead the way to a certain extent in at least they data driven world of digital world digital humanities. So we have a very good community within the [name field] world. So for me, it's not so much a question of being able to drive [name field] while driving things within the [name field] world. We're already doing that for me. It's the cross fertilisation with other disciplines. Whether it's a reality, for example, getting [name field] into the archaeological world, there's always been a very big divide. We are perceived as ancient historians, not archaeologists. Um, archaeologists think that [name practitioners] to people who sit in museums with precious little objects and don't understand archaeology. So there are a lot of perceived divides around the world of [name field]. A lot of that is actually due to do to us. We are exactly like that. We can be terrible nerds. Um, so one of the big advantages for me is using these networks to get involved with other disciplines. So it's cross fertilisation with archaeologists and then within the context of DARIAH. Uh, we've got this joint work joint meeting coming up with the with the 3D group. So 3D is something that is going to be very big in [name field]. Finally, enough. It's how [name field] started. We have been doing 3D documentation for centuries. We've been making plaster casts of [name research object] to record them, and it was only when photography actually only when digital photography came that making plaster casts so analogue 3D of [name object] actually went out of fashion because it was then easier

Interviewee #WG9 [00:16:01]: to take a digital photo than it was to make a plaster cast from plaster cast is easier than an analogue photo because you could see it immediately kind of thing. A lot of photos you have to take the laboratory and then you find the film didn't work and things. So, um, sorry. That's a bit of an aside. So we're actually coming back to the roots for us. But this is an interesting This is an interesting sort of aspect. Um, what can we learn from other people in order to make use of 3D documentation of [object]? Um, but also, once we've got 3D documentation, what can we do with that as well? For example, how can we use because you don't really want it just as an end in itself? But you want to know? I mean, it's a tool. So what can you do with the tool? Yeah, So for me, it's bringing [name field] to up to the attention of other fields, making other fields aware of the

possibilities of numismatics and for us to learn from other fields. How that can be applied to us, too. Generate new knowledge, new data and new ideas. Yeah,

Interviewee #WG9 [00:17:53]: Archaeology is becoming very much a natural science as well. The natural sciences are getting involved in such a big way. So I, for example, now do a lot of work with them on materiality. So material analysis of [research object] as well. So that's another area. Um, that's starting to come in. So, yeah, that goes outside the humanities, but yeah. So there's a lot of Yes, we're very much at the interface between the humanities and the natural scientists, I think.

Interviewee #WG9 [00:18:31]: yeah, yeah. I've had very little to do with that. Uh huh. What? Ah, what? What I haven't mentioned is, um, there is this huge initiative in [name country] now to set up a national research data infrastructure. Okay, um, the [name country] government launched this 18 months ago. It's something like a €36 million project for Research Infrastructure across all of the humanities and science and everything like that. And the [name country] Archaeological Institute is lead for a consortium to provide Research Infrastructure for archaeology, but we will be involved with. There's already a consortium for culture, but we're going into the very object oriented aspect of it. And also the context and the material and things like that. Um, so that's Yeah. Sorry. I forgot. Um, and that's a That's an aspect of infrastructure. Should have mentioned cause I'm involved. I'm involved. Um, with that, but coming back to the question, I've had very little to do with various. I must confess.

Francesca [00:19:51]: Okay. No, I just came to my mind because it's really, um this Well, this nascent infrastructure is really looking at science for cultural heritage. Scientific, more natural science aspect of cultural heritage.

Interviewee #WG9 [00:20:07]: Yeah,

Francesca [00:20:07]: that's something also for you to look at.

Interviewee #WG9 Okay. I must have a closer look at that and see what the opportunities are.

Francesca [00:20:27]: Yeah. So Thanks. So this was a bit of yeah, introduction or look at the infrastructure. And also, like, I'm talking about the network and getting in

touch with different, um, different expertise or different capabilities. Um, um, I would like to ask you about this Working Group that you're part of in DARIAH specifically. And it's a very well, you are. [name colleagues] have a very different background are coming from different field. So what it is? Yeah, I would like to know. Like what it is about your Working Group and, uh, which, in a way. I know. But how do you can explain? Maybe a little bit? How you construct knowledge and how you work together in this Working Group. So where is the meeting point? And you find interesting between your expertise.

Interviewee #WG9 [00:21:19]: Okay, So within the [name WG] group, well, as I said, the group has existed. Really? For quite a time, even before I'd even heard about DARIAH as a as the managing committee of [name network] org. So as the management committee for this linked open data project with within numismatic. So we've been defining the vocabulary, the standard vocabulary and the ontology for coins for quite some time now and have a lot of projects up and running. Based on that, we we've been having annual meetings now for eight or nine years. But we have a regular monthly video call for this management group, and we essentially, we've turned that into the diarrhoea. As I say, Turn that into the DARIAH. Um, so we have a sort of core group, and then when we meet once a year, um, the larger group. So we're in a bit of a strange position because what has happened is we've always been a Working Group, but it was very unofficial. And DARIAH has actually given us, like an official name for it now, which is very, very useful, certainly. Um, yeah. If you're putting in a project application or something like that, it's nice to have to say right were backed up by Don't here. Um, so that actually means we're in a very, um, yeah, probably in a very unusual situation within the within the DARIAH framework. Where rather than DARIAH Uh huh, giving us a new opportunity. We've come in with something that's already been working into Daria and essentially given it a a new name. So I think we're quite we're probably Well, I mean, I know a lot of groups will have existed already, but we were very much established before getting involved with DARIAH.

Francesca [00:23:31]: Is this group official? Um, is it recognised?

Interviewee #WG9 [00:23:58]: [name network] is actually a very interesting example of a community driven project. Um, everyone working on it does it well, either as part of their job or in their spare time. Um, there is one programmer in [name city] who is paid by the [name society] Society to do work for [name network] and they host it. But that's only the programme or otherwise. The academics partners are all doing it as part of their work. And it is we are. We are internationally recognised as being a very important, um, community and certainly the [name country] Archaeological Institute completely, except that the work I do from the [name network] is important and supports me and lets me do that., How are you funded? And we say we're not, But you must apply for funding and we say no, because the moment we apply for funding will get three years or five years, and then what happens? The person goes. So, um, we are an example where a community dynamic means that we don't have this problem, that funding in the world today is project oriented for a very small short time span. And it's very hard to get anything going for a long time based on project funding. So and so things like the diarrhoea Working Groups are a way of crossing this well of keeping. We're using us an example. I would see DARIAH Working Groups as a chance to keep ideas, communities working and ideas going as funding chances. Opportunities come and go because so many projects just die afterwards. Yeah,

Francesca [00:26:20]: it's very interesting because, like on the one hand is working without funding. Of course, it's clearly a disadvantage because you can't You don't have, like resources to invest in one task. On the other hand, it gives you and leave you the freedom to not be, uh, forced to respect a timeline schedule. Um, uh, or you give yourself schedules or kind of internal projects in this, uh, Thomas Bach community.

Francesca [00:26:54]: Yeah. Yes, yeah. Unfortunately, of course, one takes the freedom not to meet deadlines.

Interviewee #WG9 [00:27:03]: well, too often, then things are sometimes a bit slow and get forgotten. It's You have to find some way of structuring it and monitoring what's going on, that's for sure.

Francesca [00:27:14]: And you have it. Do you have this such a structure to?

Interviewee #WG9 [00:27:18]: Yes. Well, we Yeah. I mean, we have our monthly meeting. We have the minutes. Um, we do it very simply. We have a Google doc, which is now hundreds of pages long where everything is there by some, um, and we really we really ought to make more use of the DARIAH. And I was actually thinking we need to make more use of the DARIAH infrastructure to archive decisions and things like that. This is something I want to talk about with the group.

Interviewee #WG9 [00:28:19]: Yeah, well, there it was. We are sort of anchored with the [name society] Numismatic Society in [name city] because they host websites and they finance the programmer who does things for us. Um, but that's the closest we have to being, um, institutional, I suppose.

Francesca [00:28:49]: But, uh, do you see, like, an in a sort of innovation, or do you see an innovative way of working in this way? Like, do you think that because you're kind of, well, entirely taking part in this community effort? Um, what do you see that are the pros and cons of working this way. How do you see, like in particular, I would like to look in particular at the advantage of working in this way. And do you see like there is particularly in nobody outcomes coming out of this community in this group because it's set up in this particular way. If you see what I mean.

Interviewee #WG9 [00:29:25]: There are certainly advantages because if you are, if you have an agenda driven by an institute or by a project, then you have a road map. We don't have a road map. It relies on people's interests. But on the other hand, we do go out and look for people where we see gaps. Um, let's get people on board too. Work on particular areas that aren't covered. Bias, For example. I am working now setting up a group working on [name discipline] which has been a, um yeah, which is a very difficult field, but one that has not been approached yet. So, um, yeah, I mean, we're very flexible. This gives us a great advantage. And if someone has an idea, then if they if they can go and do it. And, um, on the other hand, this only works because the [name community] community is a small community. What's going on? We are a manageable size. Yeah, and so you could not do this across a broader field like archaeology. Yeah, um, this sort of approach will only really work for smaller, smaller communities or subsections of a of a community. Anything else will need people to guide and govern it, I think. Yeah, yeah,

yeah, just like I mean, although Wikipedia is a very democratic and thing and people can enter what they want. Of course there is. There is now a huge infrastructure. They're running Wikipedia. It's no longer Well, it's not what it was at the beginning. Uh, right.

Francesca [00:31:28]: And do you manage, like to the outcomes? but do you manage to bring, like you and your colleagues to bring the outcomes of the [network] back to your home institution?

Interviewee #WG9 [00:31:41]: Oh, yes. Yeah, quite definitely. Quite definitely. I mean, what we have done is we have provided the language and the grammar of the digital world, and that is now recognised and used by people, people everywhere. My institute certainly and, uh, certainly recognises the importance of it. And it's very our head of our head of i t is very pleased that we're part of it. For example, where where hell we are certainly held up as an example of how things should be done. This is yeah, result of the success

Francesca [00:32:24]: That's good

Interviewee #WG9 [00:32:25]: Also one thing I could say maybe not completely relevant. But what we have learned is the importance of doing things step by step. Initially, people are a little sceptical with things like this, and it's important to have not to go for the big event but to go for a little a little successes and as you build up the little successes, you get more and more people coming in again. And this is very much the sort of the community, the community thing, rather than having a a big project with a big goal. That's one of the advantages people tend. I think people tend to be sceptical of big projects. But if you can get a community that people see as dynamic as an expanding, then that's an advantage

Francesca [00:33:16]: also see in a way that is also the potential of the Working Groups in DARIAH. So if you take the research, the infrastructure itself, it's big. It's also difficult to define in itself in a way. But if you take the single the small communities that it all makes sense, you see like the different dynamics in all the groups and different outcomes and research outputs, so that makes much more so. It's more understandable.

Francesca [00:33:44]:. And the annual event is where the individual groups come together and can link up and cross satellites, which is how, um yeah, So I guess, in a way, DARIAH is kind of an umbrella for think tanks for little communities. And that's how Yeah, that's how the idea for the workshop joint workshop came. Yeah.

Francesca [00:34:11]: Yeah, Well, really, On that point, I would like to Maybe this is the really the last question that I have for you. Like if you could tell me something about your workshop that you're planning with [name person] as well. And also this collaboration with her expertise and with other expertise from the funding that you received from DARIAH. So what? What is the discussion going on there?

Interviewee #WG9 [00:34:40]: Yeah, well, as I said, [name research object] are have traditionally been documented analogue physically in 3D objects, and that is a very important aspect of them as well. They are more than just an image. They are physical objects. Um, and now that there are, there are a lot of opportunity. Well, now that 3D documentation and 3D technology is coming into being and is now reaching the point where it's actually not so expensive. Yeah, um, then its application for [research object] becomes very interesting. So we need, um we need easy, fast, effective ways of documenting in 3D. Now, we're not going to be able to do that ourselves. And there are a lot of people out there who have already worked on this. So this is a big opportunity for us to link up with other with people working on 3D in other fields to learn their lessons. There are so many different techniques technologies involved in 3D documentation, which is best for us. There are interesting technical problems with 3D. For example, I've not yet seen a 3D model of a coin that actually has got the rim the edge of a [research object], right, Okay. Particularly with ancient [research object] which are very broken at the rim. Um, there are, You know, So there are There are these little technical things, for example, about how to do it. Um, and we can learn from such people. Then there is the application. What can you do with a t3Dmodel when you've got it?

Interviewee #WG9 [00:37:11]: These dies were cut by hand, so they're all different, So you might have two [research object] that look the same, but actually, they're produced with a different with different guys. But sometimes you realise they're produced with the same guy. And this could be a very interesting point because it

means these two coins were produced in the same workshop, perhaps on the same day. But why is one in Syria and one in in Holland? Yeah, Um, So, um, now, to do that sort of work by I is really hard. But maybe with computer technology, we can put thousands of 3D models into a computer, and it will say these two are produced by the same guy. Um, the possibility. I mean, if that ever becomes possible, this would be a wonderful tool. Um, it will take a long time to get there, but people are already working on it. So this gives us a chance of also going to look techniques people are using in other fields what might be applicable. Yeah, because we and on the other hand, for other fields can maybe learn from the way we're doing things with coins. So again, cross fertilisation. But also a very important point is, and this is something coming in from my work on the name is my group with standard vocabulary isn't an ontology is, um, you know, standard formats for storing the data. What form do we store the data in so that it's interoperable with other people's data. What formats? Um and one thing we also want to look at in this workshop is the use of triple if which is starting to be used for three D. We already use it for our photos.

Interviewee #WG9 [00:39:21]: Our, um we have some virtual... Well, I suppose the... what's the best way to describe it? There, there. Kind of virtual union catalogues. So we have systems. You go into a system and it's pulling in the examples from different collections around the world into one union catalogue and we and we, the photos, they're all running off IIIF. But then, um, as we get into three d when we need to look at the house Triple A s being used at three D, We don't want to invent the wheel ourselves. So again, go out and look. What are other areas of 3D I'm doing with IIIF So for us, I think we're going to get more out of it than the other group, to be quite honest, because I think we can learn more from them than they can learn from us. But it will be a very interesting exercise. It will help us. I hope it will bring us on in the use of 3D and [research field]. That's the idea behind it. Yeah,

Interviewee #WG9 [00:40:40]: well, it's more. It's not so much her as the group the group gives us access gives us the links to people who work on 3D. Uh, and I mean, is there because she's, you know, one of the chairs of the group, rather than And I couldn't tell you a great deal about triple I f either. I just I have someone to do the work for me, and I appreciate the time. So, um, you know, I mean, we'll be bringing

in expertise to the meeting and then to set up a couple of webinars and, uh, hopefully at the end produced some sort of paper suggesting solutions.

Francesca [00:41:19]: Interesting.

Francesca [00:41:22]: Um, do you have any questions or do you like, Would you like to add anything?

Interviewee #WG9 [00:41:59]: I have another little group where we're working on [name research object] fines. So the analysis of [name research object] coming from archaeological excavations I have that as that as well. Um, and we meet once a year actually combined that with. Up until now, we've combined that with the [name network] But we will probably move to the missed a meeting and try and involve it with the DARIAH, Um, event when things get back to being But no, no, no DARIAH is that is the main Working Group that I'm involved in. There are there are also so to speak, subgroups of the main group. For example, I'm setting up a group for [name sub-group]. Um, but that's going rather beyond the uh...that will feed into the DARIAH group. But okay, just say I mean, for me, DARIAH has been... is very interesting and I think I think the best word for me is DARIAH is very useful because it's...

Interviewee #WG9 [00:43:24]: mean, the [name other WG] group, for example. It's interesting for me because the [name country] Archaeological Institute has an enormous Bibliographical tool, in which we're using for We're turning into a sort of [name discipline], uh, resources. Well, so it's been a big chance to join up with people, um, in other Working Groups which touch on what we're doing. So that's been very you. Yeah, that's the main thing. That's why that's why I see the advantage of DARIAH. It's being able to cross. Fertilise joined up with other people, get other ideas. It's always important to think out of the box. And I think news map [name WG] have tended to stay within their discipline, which is why it's become a kind of ivory tower discipline in many ways. And so, DARIAH, um, gets you out and gives you ideas. Yeah, my time.

Francesca [00:44:27]: OK, [name person], I don't have any other questions. I think you gave me a good overview of your work and the way you're this working with the

name is my community works and how it interacts with other groups and with the infrastructure and with our institution, some kind of interested in all this kind of galaxy collaboration and networks. And it's very interesting, Of course.

Interviewee #WG9 [00:45:18]: Good, Good. No. Well, no, thank you for, um, thank you for coming along, wanting to get some information. It's always good to just to be asked these questions and you start thinking and new ideas come and you start to see things in a different way.

Interviewee #WG9 [00:45:39]: And, of course, like if you have other idea of urgent things that you want to share with me, just drop me an email or and I will also share with you. My actually didn't do that before. I usually do the research, the short research proposals. So, I'd like to have an overview of what it is about.

Interviewee #WG9 [00:46:02]: And yeah, as I said, if you have any other idea or things that come up in your mind that you think is useful. Just feel free to drop me a message.

Interviewee #WG9 [00:46:22]: And I hope that at some point, we actually see each other physically

Interviewee #WG9 [00:47:07]: Keep safe and well, yeah. And do send me the research description and I'll have a look and see You see what I can do and otherwise No. No. And if I have any questions, I'll certainly get in touch.

Francesca [00:47:21]: Yeah, definitely. Thanks a lot.

Interviewee #WG9 [00:47:24]: Okay. When you see hello, send my regards.

Francesca [00:47:29]: Definitely. Yeah, I will do that.

Interviewee #WG9 [00:47:32]: Okay, lovely. Just Francesca. Okay. Bye. Right

10.4.10 Interviewee #WG10 – 07.05.2021

Francesca [00:00:00]: Well, first of all, do you have any questions for me? Like I give you, like, really a summary? A really brief idea of what it is about. Do you have any question? First of all,

Interviewee #WG10 [00:00:15]: No, not really. It was very clear. Thanks.

Francesca [00:00:18]: Uh, yeah, maybe, Like, if you could introduce yourself, um, a bit in detail. So, like, what are your research interest? What is your kind of career path? You also recently changed university and country too. Um, yeah. Just tell me a little bit about yourself.

Interviewee #WG10 [00:00:40]: Sure. Thanks. Um, so I'm [name]. I'm an assistant professor at [name institute]. Working on knowledge graphs for, uh, cultural heritage. I should say collaborative knowledge graphs for cultural heritage and that sort of in a way, that sort of depicts a little bit, Um my trajectory in research. So, I before I was in the [name country], where I did my PhD at the [name university], but also in collaboration with the [name institute] and, um, specifically one kind of umbrella project of the of the [name institute] that was called the [name programme] programme. Um, that that funded my PHD. Really And after that, I was a post doc for four years in [name network], which I believe... no, [name network] is, I think, 100% and [name funder] funded. Yeah. Yeah,

Interviewee #WG10 [00:01:38]: And then after that, I moved on to, uh, to [name city] for a, uh for a permanent academic post. So I think the relevance of the work I've been doing with all you said about Research Infrastructures, uh, touches, very closely, Um, some topics that have been working with since practically since the beginning of my PhD because I think there was a very strong emphasis in digital humanities in my PhD when I started. Um, so I was, in a way, it was asked to contribute to the field of digital humanities at the same time was making contribution to artificial intelligence, which is something very, very hard to do. And but one of the challenges there was the lack of actual infrastructure for doing sort of advanced digital humanities work. So what kind of infrastructures were in place? What kind of open data sets what kind of tools reports, stories, algorithms, and at least in my

experience, there was a big gap there, so I couldn't just go somewhere and say, Look, I need I need this transformer of excel spreadsheets into RDF. It wasn't there, so I had to spend half of the PhD deploying infrastructure for that, um and then a little bit, a little bit of the same happening in the postdoc with [name institute]. But I think [name institute] operated at, uh, at a higher level. Um, I think also perhaps fuelled by something that you've said about this top down approach, right? So I think there was a deeper institutional commitment. Um, there were also lessons learned from [name network] that I've only heard in and read about in literature, but I I never I never had any participation in [name network], but I think [name network] took a lot of inspiration from [name network]

Interviewee #WG10 [00:03:48]: and in DARIAH. So and I'm a [discipline] by training. So deploying technical infrastructure is something that we are taught, um, say at the core of our bachelor's and master programmes. Um, even more so than that research, at least in my particular case. So I think that's a little bit my relationship with Research Infrastructures.

Francesca [00:04:22]: So it's interesting because, you say, like, the infrastructure was missing, the more technical infrastructure. But at the same time, you were collaborating with these, um, like, big national and international Research Infrastructure. So I find it fascinating how, like different layers and understanding of this word infrastructure there are,

Francesca [00:04:56]: Yeah,

Francesca [00:04:56]: that you come across a lot like, for example, among your in your field. Like, which is computer science. Um, it's like the word infrastructure. Or this term. Is it something that you come along a lot or

Interviewee #WG10 [00:05:11]: Oh, yeah. Yeah, definitely. Definitely. And I think at least from the site of computer science, it has a very specific meaning. So it just means, um it just means algorithms, tools, code. Uh, data, um, very help to say this connected.

Interviewee #WG10 [00:05:33]: Yeah, but also, like, very tangible, uh, things. Right? So things that have a very utilitarian function, uh, well defined, uh, technical purpose,

I would say, Um, because I guess you can also understand infrastructure from the point of view of you know, of connecting people, um or things like that. But most of the times when I say infrastructure, if I'm referring to technical...

Francesca [00:07:15]: so now you're at [name institute]. Um so how do you see yourself, Like in a kind of interacting with these institutions, like [name institute], [name city] or the [name institute] before and at the same time with these international projects or infrastructure, Like DARIAH, for example. I don't know if you collaborate with [name country], too. Um So how do you see Like yourself in contact with so many institutions. What institutions? But many projects. Do you feel like a bit lost, Or does it gives you opportunity?

Interviewee #WG10 [00:07:50]: Uh, it's a good question. And it's a hard question. Um, I think as I think, it's not easy in the sense that you know that there is an entry. Very clear entry point. You have to go to identify all these networks and all these Research Infrastructures. So that never really happened? Um, it happened, I would say by chance, Um, but also because I guess I was just in the right circles, right. So from, um and indeed, as you were saying just because I was working in [name network], uh, I went once to the [name network], uh, conference. I'm sure there was a very specific reason for this that I can't recall now, I think I think that Oh, yeah, because we were interested. I was interested in workflow systems, and this is something that [name network] is doing very well. So [name network] is, in a way, reusing successful workflow systems that have been used in biology. Uh, mostly the galaxy platform. Um, and in [name network], most mostly over the first half of my post-doc, there was a big, big concern about, um, about reaching this, this sort of project wide connection. Right? So that making sure that everybody in [name network] was well aware of what everybody else's was doing, uh, that our tools were connected, that we were not repeating work, that kind of thing, and and that visit to the [name network] conference that was very useful. So I really learned, like, OK, these people have a plan. Uh, and they have a specific I don't know if it's right or wrong, but they have a very, very concrete solution for that. Um, and then with DARIAH, I think it was just particularly well connected people. So I think was just

[name person] uh, work, which was my PhD co-promoter. And she's been a mentor to me. Really, Uh, since the beginning.

Interviewee #WG10 [00:09:58]: Um, almost every stage. Who said, um, you know, this DARIAH network is in place. Uh, you know, it's technical infrastructure, but it's also, you know, advocacy of, of, of certain areas of research, reach out. Um, so yeah, I think you know, it happened for the right reasons. So I think it was in the in the right circles to get to know all these infrastructures. But the specific ways in which the connections happen are a bit random.

Francesca [00:10:34]: Um, but is it random? Also the way you developed this connection, then

Francesca [00:10:43]: Like what if you take the example of the of the DARIAH Working Group of your Working Group? I really I think it was really interesting for me to read your what you wrote your or what? [name person] wrote in the report. You said that basically, you would like to perceive or No, it was in an email to [name person]. Uh, that you would like you perceived a Working Group as a sort of, um, lab for the [name project] project.

Francesca [00:11:12]: So that's kind of Yeah. It's kind of interesting. Like to see how you are trying to connect, like the project with this infrastructure group with Research Infrastructure, Working Group and kind of to connect each other to enrich each other. So bringing in DARIAH what you create in [name project] and vice versa?

Interviewee #WG10 [00:11:34]: Yes. Yes. This is a very good point, actually. Um, the very idea of the working I don't I can't recall exactly the details of how it happened, but I remember that we were working on the bed. We were working on the proposal a long time ago, I think in 20 early, 2017 and we wouldn't get funded on that ground. Um, but there was this idea. I think it was [name person] idea to have some sort of, um some sort of initiative to make sure that we would make the products and the outputs of the of the project widely available and communicate them to the relevant communities and all that. Um, And I think perhaps this was this was one of these points that the commission makes very clear in the in the in the calls that, you know, you need to have something in place for this. And I guess the

easy solution is just Yeah, okay. We'll organise a workshop or, uh, you know, uh, we'll do this. We'll do that. Um, but I can't recall whose idea was it to connect it with the fact that [name person] just recently had mentioned, uh, you know, we have DARIAH, We have Working Groups, and, uh and that's it. So I think it's just also a little bit of a coincidence. These two events, these two events happened very, very close in time. Um, and the rest was more or less done because the Working Group is fantastic. I think that it has a great job of giving visibility to all these Working Groups and connecting you to communities that otherwise you would never, uh, meet, uh, And in the in the last Working Group meeting that we had this was really the case. We met, like, 30 new people interested in [name discipline]

Francesca [00:13:21]: Where was this? Was it online, or was it in a person? Uh,

Interviewee #WG10 [00:13:25]: this was in person

Interviewee #WG10 [00:13:38]: So we thought that, uh, that could function very well. So the fact that these were the first people really outside of the bubble, outside of the network of the of the pressure consortium that we should really reach out to and say, Is this any useful? You know, can you use this? Uh um, uh, can you Can you You know, uh, does it help reach your goals

Francesca [00:14:08]: and some of the people that you met during your Working Group meetings or other activities both in person and online? Are you still in touch with or like, it was more like someone just joining in and the living, or did you start some kind of collaboration with them?

Interviewee #WG10 [00:14:30]: So we started. Um, So we put tools in place to, uh, to make sure that the community keeps being connected. Uh, making sure it's not just because of the of the Working Group meeting, afor that we have. So we have a Google group, I believe, with 60 something people subscribed. Um, uh, I can check it out for you later if you if you want the exact numbers

Francesca [00:14:57]: I think became part of that group recently.

Interviewee #WG10 [00:15:02]: All right. Oh, Yes, that's right. That's right. Yes, I saw the I saw the request. Um, so for now, so the community is a little bit I wouldn't say dormant because there is some activity. People share calls. Uh, people introduce

themselves. There's a little bit of everything. So there is a lot of there's researchers. There's artists. Um, there is a particularly from the [name country] strangely enough. Um, so there's an interesting mixture, and [name person] and I are discussing on how to reach out to the community to organise something interesting in October in the next Working Group meeting.

Interviewee #WG10 [00:16:00]: Actually, our plan towards that is to write some sort of white paper because one of the topics that we discussed in the first Working Group meeting was What? What do we all have in common? Um right. So why are we here and and what is it that we really want to do? Uh, so so putting together some sort of white paper or something like that was something that still in our minds.

Francesca [00:16:42]: So I'm going back now to my, um, to my questions because, um yeah, well, what I like in your what I think kind of peculiar and in your case is, uh, that this Working Group is related to the project and to the [name project] project, and that's quite a Yeah, that's quite a interesting, interesting thing. And it's the first time that we have this. That's I think it's also a very good like experiment on our side, um, to see how collaboration inside the Working Group and the project can happen.

Interviewee #WG10 [00:17:30]: actually, you're making me think now that I should really, because some people in [name project] know about the Working Group. Um, but we could do a better job at just telling people to, uh, to join the group, just to, you know, to diversify even more the backgrounds and, uh, I'm really aware. Um, so it's not that suddenly we should have, like, 50 new people coming from the project, but certainly, uh, something towards that. Mm.

Francesca [00:18:13]: what I would like to, um maybe for you and for us to reflect on a little bit is like so like, OK, you're working on this knowledge graph. So you have, like, a lot of these visualizations and graphs in mind. Right? Um, so you if you think about, like, a sort of visualisation or like in map in your head. So if you think, like, in a visual way. And, uh And if you think yourself as a researcher working at an institute like [name institute], but at the same time with, like, uh, with reaching out in a way, reaching out to a lot of different projects and infrastructures, Um, like, how would you How do you How do you see yourself, like, do you see like, uh, do you see, like, these infrastructure in these different projects and enriching what you do

for your institutions? Or like, do you see yourself kind of as the main note in this visualisation? And, like all these, um, different institutional project that you're working for, like, a way to, um, to expand your network or your research interests?

Interviewee #WG10 [00:19:36]: It's a good question. Um, I guess that the scientific and or or, you know, the way of approaching the answer scientifically would be, you know, would the network Continue if my node wasn't there, right? Uh, if it was just the institutions are just the rest of the people, right? Um, and, yeah, I have mixed feelings about that. I think, uh, mhm. I think it's a bit personal, so I don't think it would be the same just because I've put so much in starting to eat from the perspective of what I want to do. Research wise, Right. So, um, but on the other hand, I don't know. [name person] knows all this perfectly well, too, and, you know, he's got an immense network as well, and he was there in in the Working Group meeting. And, um, so um, so Yeah, I think so. I think the network really contributes a lot. I mean, it's not just me, you know, connecting. Just putting things together from the institutions that have been in... It certainly plays a role. I mean, yeah, I have no idea this would have happened, Uh, if I if I wasn't pursuing this particular line of research. Um, but it certainly helped. Absolutely.

[the next part of the interview is on a very sensitive topic and the interviewee asked me not to share]

Francesca [00:24:34]: And by the way, congratulations. Because I heard who told me. I think it was the grant. The grant officer at [name institute]. Well, it's the proposed who writes the proposal. The project acquisition. They told me that [name project] project got the highest, uh, rating ever.

Interviewee #WG10 [00:25:00]: I could. Yeah. Thanks very much. No, we were also happy with that. I mean, there, uh, you know, on the one hand, okay, we had gone through a rejection before, right? So we knew what to improve, but yeah, Really, That was it was a massive. Uh, it was it was massive work to get it done in that way. And we were super happy to see that we got a perfect score. So, uh, yeah, thanks. No, it was great.

Francesca [00:25:32]: okay. Um, do you have any questions for me or anything that you would like to add?

Interviewee #WG10 [00:25:45]: Uh, let me see. So when we were talking at the beginning about this mixing of stop down and bottom up approaches, I got I got that really got me thinking, Uh you got me thinking in the ways in which, um, in which researchers get to know each other and how do they get to collaborate and spark all these things? You know, it's really hard they might discuss to keep the word accident away. I think there are lots of accidents, and I think it's really hard to control under which circumstances those accidents do happen. But I think Research Infrastructures are part of the answer, so I don't think you can control when there's going to be just happened. But I think you can build the right environment, uh, for them happening. So

Francesca [00:26:40]: yeah, you're right.

[another part of the interview which can't be shared]

Interviewee #WG10 [00:32:01]: I like the idea that you mentioned before that. This is kind of happening indirectly through the work of the Working Groups. And you also made me think that perhaps even in the in the [name Working Group] Working Group, uh, which we are, you know, um, keeping right now as a as a as a social networking and is focusing on outreach Working Group. But eventually the purpose will be to use it as a as a transport mechanism for actual technology and, uh, from [name project] . And one of the big challenges in [name project] is to build a similar registry and a similar catalogue of open. Okay, In this case, not of general digital humanities datasets in Europe, but certainly of European music, cultural heritage, uh, institutions and their plans. I mean, I'm not in charge of that, but I've seen I've seen the work they're doing and there's really a lot that they want to deploy, and most of it is based on open source software. So I think there might be an opportunity for we use and consideration, uh, for it being DARIAH infrastructure.

Francesca [00:33:09]: Absolutely. Yeah, sure.

Interviewee #WG10 [00:33:11]: Okay, so that was the first question I had. And then the second question, which I think is more interesting, is what you said. For example,

I had never heard of [name project] before. I didn't know if it was, like, the first time I heard about DARIAH or the first time I heard about [name project]. So I wanted to ask: is there a survey or an atlas or a map? I don't know how to call it of all these Research Infrastructures, uh, one of the goals of your research. So to come up with this comprehensive summary of everything that's out there?

Francesca [00:33:46]: Uh, no, not really. Not really. because, um well, you know, there are things like, I don't know how many infrastructures there are, but there are so many, like, I don't know, like, 100 or so in Europe. And most of them the once that are social science and humanities, just like I don't know, like, 3%. Most of the infrastructure, um, and those are the like, the more powerful and well, not powerful, but like the most important. Because, of course, there directly and more directly link into scientific discoveries like, I don't know, the telescopes array in the Canary Islands that are Research Infrastructure.

Interviewee #WG10 [00:34:58]: see Well, I think I mean, I would be really interested in reading. I mean, in reading the inventory, but mostly on reading the critical, uh, analysis of inventory, namely somebody who took the time to go visit all of them and understand all of them and point out, you know, just very, uh, strike forward, but really interesting and did things that you mentioned, for example, the fact that says that has no relation whatsoever with the researchers write because that's not part of it. While you know, DARIAH has this super strong emphasis on on connecting on connecting people right, uh, and and understanding, understanding this map and why all these different infrastructure is developing in different ways and why, I think I think that would be super interesting.

Interviewee #WG10 [00:36:48]: No, I understand. And I think even on what you're doing will be very interesting to see, because I can already see that they are how to call them that. They are multiple dimensions. Right? Uh, in these in these infrastructures, like, you know, like the social or the networking dimension, the connecting researchers dimension the data repository domain like, um, and even, you know, maybe not a full critique of the all hundreds of them. But just knowing that all these dimensions are there will be already very interesting.

Francesca [00:37:26]: Thanks anyway.

Interviewee #WG10 [00:37:28]: Maybe something for, you know, for when? After you finished your PhD?

Francesca [00:37:32]: It will emerge somehow. Definitely. Uh huh. Yeah. And the last question I have to just came up when you were talking because, like [name discipline] somehow like they have. Okay, I'll give you a bit of introduction. So I was yesterday at this meeting, Um, and it's a project and is specifically about the relationship between Research Infrastructures and the industry. So is it something that I would expect that this is something that that you may be encountered in your research or in your, um, yeah, in your research. Is it something that you are familiar with? Something that you were approached with or like, collaboration within your I don't know, [name project] or other related project with the industry, with companies or so,

Interviewee #WG10 [00:38:34]: Yeah, it's funny you ask that because I have a meeting today at four, uh, my time with the company that's interested in that in, uh, [name discipline] And this is mostly because of one of another such random connection. So, um, back when I was in [name city], that was this master students, not at the [name university], somewhere else. I think he was doing a master on art. And he approached [name person] in my then my supervisor, uh, with ideas about using [name discipline] which are the old city booklets. Uh, and the fact that this city booklets, you know, they don't make any sense anymore, right? We all listen to music on YouTube or Spotify. Um, and we had ideas about digitising that and, you know, and using AI for and this sort of, uh, this sort of spun off into me trying to, uh, to find the startup about this topic which never really materialised, I think because we are terrible business people, Uh, and we should stick to, you know, to what? What we know we can do well. And, um, but still ongoing. And he's very keen on just telling the idea and other related ideas through with respect to the [name WG]. And, you know, we're having chats with companies who can be interested in it. Uh, so there is a movement. I'm not saying that, you know that the research has made it into industry, but there is some noise.

Francesca [00:40:21]: Okay, Okay. That's interesting. You know, maybe if you don't mind. Like, I don't know, in 60 or six months or a year, I will come back with that question because it will be interesting.

Francesca [00:43:07]: Yeah. Uh, excellent. Pretty good. Uh, then I don't think I have any more questions.

Interviewee #WG10 [00:43:21]: I think it's really good. I mean, I also like the style.

Francesca [00:43:26]: I think that's all for me. And, of course, like, if you have any question or if you have double thought, um And you want to think about that, you always have the right to raise to let me erase this file.

Interviewee #WG1 [00:43:41]: don't think that will happen. But thanks for letting me know. I

Francesca [00:43:52]: And but otherwise, let's be Let's keep in touch for your Working Group and for your research, and, uh, yeah,

Interviewee #WG10 [00:44:14]: a lot for your availability. And what? Good luck for every with everything there in [name city].

Interviewee #WG10 [00:45:01]: Perfect.

Interviewee #WG10 [00:45:03]: Thanks very much, Francesca.

Francesca [00:45:05]: Thanks