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**The individual right to continuous training of workers:
an analysis of best practices
in the international framework**

CARLO VALENTI
Università di Verona

vol. 7, no. 1, 2021

ISSN: 2421-2695



The individual right to continuous training of workers: an analysis of best practices in the international framework

CARLO VALENTI

University of Verona

PhD student in European and International Law

University of Siena

Subject expert and teaching assistant in Labour Law

carlo.valenti@univr.it

ABSTRACT

The article moves from the impact of digitalisation on the international labour market to the importance of lifelong learning measures in countering the negative externalities arising from technological progress, such as labour fragmentation, obsolescence of traditional and repetitive jobs, and skill mismatch. It aims to provide insights regarding the latest efforts in implementing models for continuous training of workers in the current legal framework by carrying out an analysis of remarkable practical experiences and emphasising the different approaches to upskilling and reskilling of the working-age population. By taking into account the idea of an “individual right to continuous training” implemented both by legislative interventions and collective bargaining, this study highlights some of the best practices concerning lifelong learning that could be adopted to counter the growing polarisation between high and low qualified workers. In the final part, the study mainly aims to provide the basis for a discussion regarding effectiveness and scope of the examined measures. In this respect, it also suggests the importance of social safeguards not embedded into employment contracts alone but guaranteed by the labour market itself and applied to the whole labour force. In particular, it stresses the need to strengthen workers’ employability throughout their working

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life to counter involuntary unemployment, highlighting the importance and topicality of the theory of transitional labour markets (TLM).

Keywords: digitalisation; lifelong learning; individual right to continuous training; upskilling and reskilling; transitional labour markets.

<https://doi.org/10.6092/issn.2421-2695/12922>

The individual right to continuous training of workers: an analysis of best practices in the international framework

SUMMARY: 1. The international labour market and the risks of automation: the need for a proper approach to lifelong learning. – 2. The recognition of an individual right to continuous training in Italy: different results from legislative and collective bargaining interventions. – 3. Different schemes for different approaches: individual learning accounts or individual saving accounts?. – 3.1. The importance of lifelong learning in France: from the *droit individuel à la formation* (DIF) to the *Compte personnel de formation* (CPF). 3.2. An overseas perspective on continuous training and individual learning accounts: the case of *SkillsFuture Credit* (SFC) in Singapore. 4. Conclusions.

1. The international labour market and the risks of automation: the need for a proper approach to lifelong learning

The main concerns related to the future of the global labour market commonly revolve around the implications of automation, particularly with regard to the dangers of an increase in unemployment and social inequalities ⁽¹⁾. Such issues have been further highlighted by the current pandemic crisis, which – combined with the disruptive power of technological progress – will indeed lead to serious effects on employment in both the short and long term ⁽²⁾.

Though it may be too early to assess the overall impact of the ongoing transformations, it can be safely stated that the digitalisation processes could result, if poorly managed, in a drastic loss of jobs ⁽³⁾ and socioeconomic distortions or, if well handled, in significant improvements in the quality of work and production and organisational efficiency ⁽⁴⁾. After all, the evolution of the means of production keeps inevitably changing working methods, tasks, and very concept of work, forcing labour law to enforce or even redraw its legal

⁽¹⁾ Cfr. D. Acemoglu - P. Restrepo, *The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment*, in *American Economic Review*, 2018, 108 (6), 1488-1542; A. Sundararajan, *Crowd-Based Capitalism, Digital Automation, and the Future of Work*, in *University of Chicago Legal Forum*, 2017, 19, 487-511.

⁽²⁾ S. Smit - T. Tacke - S. Lund - J. Manyika - L. Thiel (eds.), *The future of work in Europe: Automation, workforce transitions, and the shifting geography of employment*, McKinsey Global Institute Discussion paper, 2020.

⁽³⁾ On this point, see the so-called “technological unemployment” in: J.M. Keynes, *Essays in Persuasion*, W.W. Norton & Co., 1963, 358-373.

⁽⁴⁾ D. Guarascio - S. Sacchi, *Digitalizzazione, automazione e futuro del lavoro*, in *INAPP paper*, 2017, 2, 5 ss.

framework depending on the new context in order to intervene on the existing loopholes in the current legislation ⁽⁵⁾.

This perspective can also be observed in the latest efforts of the international doctrine and case-law, which confronted the challenges of the gig economy over the past several years by focusing on the true legal qualification of platform workers ⁽⁶⁾. Such abrupt changes in the traditional dualistic model of work – commonly based on the dichotomy “subordination and self-employment” ⁽⁷⁾ – have indeed prompted to plug the gaps in the law concerning the so-called “*tertium genus*” and rethink the nature of these hybrid workers arising from digitalisation on account of the present employment legislation.

In this regard, a recent and increasingly clear stance of the international courts ⁽⁸⁾ has gradually recognised the subordinate (or at least para-subordinate) nature of these professional figures, although *ad hoc* legislative interventions have been often suggested as the easiest and fastest way to regulate the gig economy and provide its workers with basic standards of social security. As is well known, labour law’s roots run deep into the socioeconomic ground, making it the most receptive juridical branch to technological progress and changes occurring in the socioeconomic framework ⁽⁹⁾.

Therefore, it is becoming clear that the new impending challenges of digitalisation demand not only to tackle pressing issues (gradual dematerialization of workplaces, strong diffusion of hybrid workers, lack of social safeguards for platform works, etc.), but also to focus on the medium to

⁽⁵⁾ Cfr. P. Ichino, *Le conseguenze dell’innovazione tecnologica sul diritto del lavoro*, in RIDL, 2017, 4, I, 525-563; C. Carboni, *Lavoro ed evoluzione tecnologica*, in *il Mulino*, 2016, 2, 346-354.

⁽⁶⁾ A detailed analysis of the topic can be seen, *ex plurimis*, in: P. Digennaro, *Subordinazione o dipendenza? Uno studio sulla linea di demarcazione tra lavoro subordinato e lavoro autonomo in sei sistemi giuridici europei*, in LLI, 2020, 6, 1; P. Tullini, *Il lavoro nell’economia digitale: l’arduo cammino della regolazione*, in *Lavoro autonomo e capitalismo delle piattaforme*, edited by A. Perulli, Wolters Kluwer Cedam, 2018, 171-195; N. Countouris, *The concept of ‘worker’ in European Labour Law – Fragmentation, Autonomy, and Scope*, in *Industrial Law Journal*, 2018, 47, 2, 192 ss.; P. Tullini, *L’economia delle piattaforme e le sfide del diritto del lavoro*, in *Economia e società regionale*, 2018, 36, 1; A. Donini, *Il lavoro su piattaforme digitale “prende forma” tra autonomia e subordinazione. Nuove regole per nuovi lavori?*, in DRI, 2016, 1.

⁽⁷⁾ On the relevance of such dichotomy, see: M. V. Ballestrero, *La dicotomia autonomia/subordinazione. Uno sguardo in prospettiva*, in LLI, 2020, 6, 2, 1-15.

⁽⁸⁾ Cfr. A. Todolì Signes, *Commento alla sentenza del Tribunale Supremo spagnolo che considera i riders lavoratori subordinati: Tribunal Supremo Sala de lo Social, 25 settembre 2020, n. 805*, in LLI, 2020, 6, 2; M. Barbieri, *Il luminoso futuro di un concetto antico: la subordinazione nell’esemplare sentenza di Palermo sui riders: Tribunale di Palermo, 24 novembre 2020*, in LLI, 2020, 6, 2; G. Pacella, *Drivers di Uber: confermato che si tratta di workers e non di self-employed*, in LLI, 2017, 3, 2, 48 ss.

⁽⁹⁾ The same Lodovico Barassi used to emphasise the important relation between work and technological innovation by addressing it as the «*modern breath of practical life*» at the core of labour law.

long-term forecasts of a global market characterised by the spread of new professional figures, the obsolescence of many traditional jobs, and a greater demand for high skilled workers.

On this point, there is no unambiguous position: reports from the World Economic Forum ⁽¹⁰⁾ estimate a global displacement of 75 million jobs due to repetitiveness and replicability (e.g., telemarketers, bank teller, clerks) in the face of a spread of 133 million new professional figures with high skilled competences up to 2022. Conversely, the McKinsey Global Institute ⁽¹¹⁾ suggests serious changes at a global level, attesting a loss between 400-800 million of workplaces and a workforce transition of 75-375 million workers by the end of 2030.

Disregarding the different scenarios depicted by empirical studies, the forecasts concerning the future of work still divide the socioeconomic and legal doctrine into two main views: on one side, a moderate current of thought that promotes the positive effects of occupational disruptions and job-creation arising from digitalisation ⁽¹²⁾, on the other side, a catastrophic vision focused on the idea of the job-destructive power of technological progress ⁽¹³⁾. Of course, it is still too early to assess the impact of these ongoing transformations, particularly now that the Covid-19 pandemic is worsening both the present and future outlooks ⁽¹⁴⁾. In addition, every country will eventually face different outcomes with respect to the drawbacks arising from the automation of labour, since it will depend on their own ability to adapt throughout the evolution of the global market.

However, it can be safely stated that the progressive digitalisation of labour is urging all policymakers to reconsider the current social security system ⁽¹⁵⁾ and take into account, *inter alia*, reskilling and upskilling measures for the

⁽¹⁰⁾ Cfr. World Economic Forum, *The Future of Jobs Report*, Insight report, 2018; World Economic Forum, *The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, Global Challenge Insight Report, 2016.

⁽¹¹⁾ Cfr. McKinsey Global Institute, *Jobs Lost, Jobs Gained: Workforce transitions in a time of automation*, McKinsey & Company, December 2017.

⁽¹²⁾ D. Autor, *Why are there still so many jobs? The history and future of workplace automation*, in *The Journal of Economic Perspectives*, 2015, 3, 3-30.

⁽¹³⁾ Cfr. J.A. Johannessen, *Automation, Innovation and Economic Crisis: Surviving the Fourth Industrial Revolution*, Taylor & Francis Ltd, 2018; R. Staglianò, *Al posto tuo. Così web e robot ci stanno rubando il lavoro*, Einaudi, 2016.

⁽¹⁴⁾ These forecasts will also be affected by the distortions of the current pandemic crisis, which is expected to increase the negative consequences on employment. Cfr. ILO, *ILO Monitor: COVID-19 and the world of work. 7th edition*, Briefing notes, 25 January 2021.

⁽¹⁵⁾ Cfr. T. Treu, *Trasformazioni del lavoro: sfide per i sistemi nazionali di diritto del lavoro e di sicurezza sociale*, in *WP C.S.D.L.E. "Massimo D'Antona".IT – 371/2018*, 19-27.

whole workforce. That is because technology does not have a neutral impact on the labour market ⁽¹⁶⁾, putting in prominence specific abilities instead of others and changing the very concept of expertise over time ⁽¹⁷⁾. Moreover, the value of skills and knowledge tends to evolve rapidly nowadays, pushing businesses to demand new and high competences that the actual model of education has not been quite able to provide in such short times. Thus, it is unavoidable that – whatever the number of jobs destroyed or created by the digitalisation processes – the population will still need keep pace with the evolution of the labour market ⁽¹⁸⁾ by acquiring higher skills and marketable competences.

For these reasons, it is crucial to further strengthen the cooperation between policy makers and social parts in order to increase their accountability in the definition of effective legal measures of lifelong learning and continuous training, as already emphasized by the article 5 of the ILO Convention No. 142 in 1975 ⁽¹⁹⁾. A joint approach could indeed contribute to counter the negative impacts of the polarisation in the labour market, which keeps significantly pushing the demand of work towards high skilled professional figures; in fact, the involvement of both sides of industry ⁽²⁰⁾ might be able not only to better identify the desired soft and hard skills (e.g., digital, technical) in accordance with the current needs of the market, but also to mitigate negative externalities such as skill mismatch and shortage.

Broadly speaking, the first one can be depicted as the gap between the skills currently offered by the workforce and those actually required on the labour market, while skill shortage can be better defined as the lack of the skills

⁽¹⁶⁾ Cfr. M. Brollo, *Tecnologie digitali e nuove professionalità*, in *DRI*, 2019, 2, 468-491; E. Dagnino, *Occupazione e progresso tecnologico nel mondo del lavoro del XXI secolo: tra sostituzione, creazione, localizzazione e forme*, in *La nuova grande trasformazione del lavoro. Lavoro futuro: analisi e proposte dei ricercatori ADAPT*, edited by E. Dagnino, F. Nespoli, F. Seghezzi, ADAPT Labour Studies e-Book Series, 2017, 62, 96-100.

⁽¹⁷⁾ E. Dagnino, *Dalla fisica all'algorithm: una prospettiva di analisi giuslavoristica*, ADAPT University Press, 2019, 92-107.

⁽¹⁸⁾ Cfr. World Economic Forum, *Towards a Reskilling Revolution. A Future of Jobs for All*, Insight report, 2018.

⁽¹⁹⁾ According to the ILO Convention No. 142 on human resources development «policies and programmes of vocational guidance and vocational training shall be formulated and implemented in co-operation with employers' and workers' organisations and, as appropriate and in accordance with national law and practice, with other interested bodies».

⁽²⁰⁾ An interesting report on efficient joint collaborations between trade unions and companies in the definition of contractual provisions regarding training and education can be found in: D. Mosca - P. Tomassetti (eds.), *La trasformazione del lavoro nei contratti aziendali. Una analisi di buone pratiche contrattuali*, ADAPT Labour Studies e-Book Series, 2015, 44.

sought for a specific job position ⁽²¹⁾. Such misalignments of competences inevitably aggravate the labour supply and demand balance, increasing the number of vacancies due to the inability to find adequate professional figures and generating major socioeconomic distortions ⁽²²⁾; for instance, these burdens affect the efficiency and productivity of businesses ⁽²³⁾, which are therefore unable to fully harness the positive potential of technology ⁽²⁴⁾. Thus, the labour market is gradually approaching skills and competences with human-centric view, seeking for further adaptability and flexibility from workers. After all, work-based learning ⁽²⁵⁾ is crucial both to ensure smoother transitions between employments and manage job and skill mismatches ⁽²⁶⁾.

However, the current juridical framework could be unfit to provide efficient solutions for reskilling and upskilling of the whole workforce, mainly because of the recent growth of non-standard workers that makes it more difficult to draw the line for the scope of social safeguards ⁽²⁷⁾. Moreover, the fragmentation of professional careers throughout the course of the working life complicates the efficiency of continuous training due to the lack of policies' portability. Many of the actual models introduced by legislative intervention or collective agreements are inevitably characterised by a rigid structure that concerns the eligible beneficiaries on the basis of the employment status alone.

Therefore, the outlook of a global labour market characterised by a growing skill mismatch and a rise in non-standard and short-term employment contracts necessarily demands a comprehensive approach to upskilling and

⁽²¹⁾ For a detailed analysis: Cedefop, *Insights into skill shortages and skill mismatch: learning from Cedefop's European skills and jobs survey*, Cedefop reference series, 2018, 106.

⁽²²⁾ These misalignments are due not only to technological progress and obsolescence of certain jobs, but also to growing ageing population and lack of investments in research and innovation caused by economic downturns. Cfr. M. Velciu, *Job mismatch – effects on work productivity*, in *SEA - Practical Application of Science*, 2017, 5, 15, 395 ss.

⁽²³⁾ According to the Boston Consulting Group estimates on the OECD countries, skill mismatch represents «a hidden tax and a qualifications trap» that includes over 1,3 billion persons worldwide. Cfr. J. Puckett - V. Boutenko - L. Hoteit - K. Polunin - S. Perapechka - A. Stepanenko - E. Loshkareva - G. Bikkulova, *Fixing the Global Skills Mismatch*, Boston Consulting Group, report 15 January 2020.

⁽²⁴⁾ Cfr. European Investment Bank, *Who is prepared for the new digital age? - Evidence from the EIB Investment Survey*, EIB report, 2020.

⁽²⁵⁾ G. Alessandrini, «Pathways for upskilling»: un nuovo messaggio dalla Commissione Europea, in *ADAPT International Bulletin*, 2016, 42.

⁽²⁶⁾ As suggested by the transitional labour markets (TLM) theory.

⁽²⁷⁾ Cfr. P. Tullini, *La salvaguardia dei diritti fondamentali della persona che lavora nella gig-economy*, in *Costituzionalismo.it*, 2020, 1, 52 ss.; V. De Stefano, *The Rise of the «Just-in-Time Workforce»: On-Demand Work, Crowdwork, and Labor Protection in the «Gig Economy»*, ILO Conditions of Work and Employment Series, 2016, 71.

reskilling; in particular, such provisions need to consider the whole workforce regardless the nature of their occupational status, since lifelong learning schemes have to concretely help individuals not only to achieve marketable competences and versatility, but also to take more responsibility into their own professional future ⁽²⁸⁾ so that they can adapt to the swift changes of the market.

2. The recognition of an individual right to continuous training in Italy: different results from legislative and collective bargaining interventions

The ongoing labour market trends are rapidly changing productive and organizational models, demanding a continual adaptability throughout the course of the working life. Consequently, such challenges require to intervene on the capabilities of workers, establishing further provisions in the legal framework concerning skill development pathways for the whole workforce ⁽²⁹⁾.

After all, it is becoming clear that the former and traditional educational models alone cannot quite fit anymore into the current employment context, since mainly based on the acquisition of the basic and necessary skills before entering the labour market ⁽³⁰⁾. In addition, after the gradual transition to the so-called “flexicurity” ⁽³¹⁾, the employment safeguard system has not been capable of countering involuntary unemployment as much as the previous model, which on the contrary was able to reduce the risk of occupational mobility on account of its stronger protections regarding dismissals ⁽³²⁾.

Therefore, these changes of the labour market and its juridical framework have prompted once again the need to improve the adaptability of workers, especially regarding the acquisition of new and marketable competences. It has proven to be of crucial importance to facilitate employment transitions and strengthen the very employability of the workforce by investing

⁽²⁸⁾ Cfr. A. Carr, K. Balasubramanian, R. Atieno, J. Onyango, *Lifelong learning to empowerment: beyond formal education*, in *Distance Education*, 2018, 39(5), 69-86.

⁽²⁹⁾ Cfr. ILO, *Skills for Employment Policy Brief - Formulating a national policy on skills development*, International Labour Office Report, 2011.

⁽³⁰⁾ Besides, there was a greater number of jobs that did not require high levels of professionalism from the beginning.

⁽³¹⁾ On the new labour framework after “flexicurity”, see: T. Treu, *Una seconda fase della flexicurity per l’occupabilità*, in *DRI*, 2017, 3, 597 ss.; L. Casano, *La riforma del mercato del lavoro nel contesto della “nuova geografia del lavoro”*, in *DRI*, 2017, 3, 634 ss.

⁽³²⁾ Cfr. V. Speciale, *La mutazione genetica del diritto del lavoro*, in *WP C.S.D.L.E. “Massimo D’Antona”*.IT – 322/2017, 26 ss.

in the continuous training patterns and, thus, providing intrinsic protections in the labour market. Just like Marco Biagi ⁽³³⁾ suggested during the previous socioeconomic transformations, such measures are vital to enforce a firmer protection throughout the evolution of the labour market.

This issue has been the subject of many debates ⁽³⁴⁾ and dispositions over many years, especially regarding the need to balance the regular working hours and the frequency to courses of study or continuous training programmes ⁽³⁵⁾. In this respect, legislative interventions developed in two main approaches: the provision of paid leave days for educational reasons and the implementation of contracts based on the mixed cause of training and work (e.g., training or work-experience contracts, apprenticeships) ⁽³⁶⁾. Focusing on the first kind, it can be observed that many countries have already implemented provisions on paid educational leaves in their national legal framework, as warmly encouraged at the international level by the ILO Convention No. 140/1974.

Regarding the Italian legal framework, such issue was already recognised in Italy with the article 10 of the Law No. 300/1970 (the so-called “Workers’ Statute”), which provided workers who attend courses of study and professional training programmes to achieve a qualification with additional time flexibility ⁽³⁷⁾. By assuring daily paid leaves for exams and exemption from mandatory overtime or work during public holidays, the Italian juridical framework established an important milestone for continuous training, facilitating the participation to study programmes and, thus, professional development. Subsequently, articles 5 and 6 of Law No. 53/2000 have further implemented such provisions, detailing the scope of the paid and unpaid educational leaves for workers.

⁽³³⁾ M. Biagi, *Formazione e qualità: note per una strategia comunitaria dell’occupazione*, in *DRI*, 1996, 2, 75-83.

⁽³⁴⁾ Cfr. *ex plurimis*: T. Treu, *Nuova professionalità e futuro modello del sistema di relazioni industriali*, in *Innovazione tecnologica e professionalità del lavoratore*, edited by L. Galantino, Cedam, 1987, 17 ss.

⁽³⁵⁾ On this topic, other relevant ILO recommendations are: R088 - Vocational Training (Adults) Recommendation, 1950 (No. 88), R117 - Vocational Training Recommendation, 1962 (No. 117), and R150 - Human Resources Development Recommendation, 1975 (No. 150).

⁽³⁶⁾ The establishment and spread of apprenticeship itself are a valid answer to the need to combine educational purposes with the working life, providing not only a first approach to the labour market for young students, but also a solid strategy to define the workers’ competences in accordance with the needs of businesses.

⁽³⁷⁾ In particular, student workers (e.g., university students) who have to attend examinations are entitled both to paid daily leave and preferential working hours to facilitate exam preparation.

However, similar dispositions often tend to be limiting, since they are mostly referred to the courses designed to achieve a qualification/certificate and cast aside those learning programmes based on “informal knowledge” (38). That is the reason why the former approach to continuous training is developing in a more elaborated concept, moving towards the idea of lifelong learning in order to be more inclusive. In fact, although many juridical frameworks already consider the need to attend courses and degree programmes for workers as a natural necessity, reskilling and upskilling pathways are still to be fully recognised as part of a personal right for workers.

In this respect, incisive interventions are also required to encourage minor adjustments of professional skills throughout the working life, especially after organisational and productive changes in the business’ structure. Still on the Italian legal framework, it can be mentioned the “*training obligation*” established in 2015, which demands the employer to provide the necessary knowledge to workers who are assigned new tasks that differ from those previously performed (39).

In particular, the Legislative Decree No. 81/2015 has reformed the article 2103 of the Civil Code (40), acting on two levels and providing new dispositions regarding the power of the employer to change workers’ tasks (*ius variandi*). Firstly, it extended the limits of the *ius variandi* by eliminating the previous criterion of equivalence of tasks and introducing new criteria based on the same level and legal category of classification (41). By doing so, it provided employers with a greater organisational flexibility regarding workers’ tasks, since the reference to “level and legal category” allows businesses to resort to more solutions and assignable tasks.

Secondly, it has been also established that such changes must be backed up by a training obligation, namely a legal burden for the employer aimed at

(38) On this point, the recognition of both formal and informal knowledge by article 4, comma 51-53 of Law No. 92/2012 has to be considered as a positive signal from the Italian juridical framework.

(39) Cfr. C. Alessi, F. Ravelli, *Commento all’art. 2103 c.c. (commi 1-7 e 9)*, in *Codice commentato del lavoro*, edited by R. Del Punta - F. Scarpelli, Ipsoa, 2020, 436 ss.

(40) On this point, see *ex plurimis*: C. Pisani, *La nuova disciplina del mutamento delle mansioni*, Giappichelli, 2015; M. Brollo, *La disciplina delle mansioni dopo il Jobs Act*, in *ADL*, 2015, 20, 6; F. Liso, *Brevi osservazioni sulla revisione della disciplina delle mansioni contenuta nel decreto legislativo n. 81/2015 e su alcune recenti tendenze di politica legislativa in materia di rapporto di lavoro*, in *WP C.S.D.L.E. “Massimo D’Antona”. IT – 257/2015*.

(41) M. Brollo, *Disciplina delle mansioni (art. 3)*, in *Commento al d. lgs. 15 giugno 2015, n. 81: le tipologie contrattuali e lo jus variandi*, edited by F. Carinci, ADAPT Labour Studies e-Book series, 2015, 48, 29 ss.

favouring, if deemed necessary, the adaptation of the worker to the new tasks. To be specific, the third comma of the article 2103 of the Civil Code states that: «*The change of tasks shall be accompanied, where necessary, by the fulfilment of the training obligation, the non-fulfilment of which does not however determine the nullity of the deed of assignment of the tasks. Failure to do so, however, does not result in the nullity of the assignment of the new tasks.*». Although this obligation is not enforced with specific sanctions in the event of non-compliance, it still represents an individual right for workers to receive *ad hoc* training if the new assigned tasks require knowledge or abilities that they do not possess at the moment.

At a first reading, such training obligation appears to be deeply connected with the professional status of the employee, making the entity of such burden placed on the employer very variable ⁽⁴²⁾; after all, this latter would be weighed in accordance with the specific professional needs of the worker and the level of the new required tasks. Thus, it can be stated that the reform of article 2103 of the Italian Civil Code mainly aimed at encouraging greater organisational flexibility for companies, while safeguarding the professional competence of workers through the introduction of a training obligation conceived from a defensive perspective ⁽⁴³⁾.

Indeed, such obligation can be considered as an efficient tool to recognise an individual right to continuous training for workers, despite applicable only when the assigned tasks are changed. However, similar dispositions tend to adopt a defensive approach to the professional status, focusing on a protective perspective rather than a proactive one; that is because safeguards inevitably seem to consider the professional level of workers more as a standard to be maintained above a minimum threshold, and less as a development opportunity.

Therefore, new efforts in providing an effective “individual right to continuous training” for workers are still needed. After all, the ILO itself has

⁽⁴²⁾ Another peculiar case concerning training obligation and new tasks can be observed in the specific instance of workers mandatory training on safety in the workplace issues. In this regard, it is worth noting that a worker’s refusal to change workstation and tasks is justified and cannot legitimate a dismissal if the employer did not provide training and information requested by worker in relation to new risks (Supreme Court 31 January 2012, No. 1401). On this point, see: P. Tullini, *La formazione per la sicurezza sul lavoro*, in *Diritto della Sicurezza sul Lavoro*, 2017, 1, 80-81.

⁽⁴³⁾ As stated by: L. Calafà, *La formazione oltre il contratto di lavoro*, in *I lavoratori e i cittadini. Dialogo sul diritto sociale*, edited by G.G. Balandi - A. Avio - F. Bano - S. Borelli - S. Buoso - L. Calafà - S. Renga, il Mulino, 2020, 149-154. In addition, see: G.G. Balandi, *Formazione e contratto di lavoro*, in *DLRI*, 2007, 113, 135 ss.

sought to promote skill development ⁽⁴⁴⁾ by outlining the importance of personal skill acquisition policies as a key factor for the growth of high-skilled workforce in the labour market and carrying out specific policy consultancy ⁽⁴⁵⁾. In this regard, two main approaches can be identified, namely provisions through collective agreements and legislative interventions.

In the first case, a recent disposition regarding the right to continuous training can be observed in Italian national collective agreement for metal workers signed by Federmeccanica, Assisital, Fim, Fiom, and Uilm (2017-2019) ⁽⁴⁶⁾. To be specific, as stated by the article 7, fourth section, title VI, the signatory parties are bound to activate individual continuous training programmes of 24 hours for all permanent, full-time and part-time, employees in the three-year period ⁽⁴⁷⁾. Such provision aims to ensure the development of digital, technical, and linguistic competences ⁽⁴⁸⁾ by formally entitling workers a “*subjective right to training*” to improve their professional status.

Despite its limited application to specific industrial sectors, this disposition provides an initial and important milestone to introduce a formal right to continuous training for every worker ⁽⁴⁹⁾ and, thus, empower individuals with their own professional future ⁽⁵⁰⁾. Moreover, it is also important to underline that companies are not only bound to fulfil such right over the three-year period for every beneficiary, but also subject to a fine in case of non-compliance with the agreed obligations. In fact, if the employers were negligent toward the fulfilment of such continuous training programmes ⁽⁵¹⁾, employees

⁽⁴⁴⁾ To be specific, its activities of consultancy involve the evaluation, monitoring, and planning of national policies aimed at improving lifelong learning policies in the different juridical frameworks.

⁽⁴⁵⁾ Especially the ILO Recommendation No. 195/2004 on human resources development.

⁽⁴⁶⁾ A. Maresca, *Il rinnov(ament)o del contratto collettivo dei meccanici: c'è ancora un futuro per il contratto collettivo nazionale di categoria*, in *DLRI*, 2017, 39, 4, 156, 709 ss.

⁽⁴⁷⁾ Although different means of implementation may be envisaged for fixed-term and part-time (e.g., hourly adjustments).

⁽⁴⁸⁾ In particular, training programmes can be carried out with different methods (e.g., training on the job, distance education and e-learning, tutoring, etc.).

⁽⁴⁹⁾ Cfr. V. Bavaro, *Il contratto nazionale dei metalmeccanici 2016: una prospettiva sulle relazioni industriali italiane*, in *DLRI*, 2017, 39, 4, 156, 729-742; P. Ichino, *Il nuovo “articolo 18”: la formazione come diritto soggettivo*, www.pietroichino.it.

⁽⁵⁰⁾ Regarding the importance of professional status for collective bargaining, see: D. Mosca - P. Tomassetti, *La valorizzazione economica della professionalità nella contrattazione aziendale*, in *DRI*, 2016, 3, 791-816.

⁽⁵¹⁾ Such provision is also applied if organisational needs have prevented its activation before the end of the three-year period.

would be provided with a €300 credit to invest in reskilling or upskilling programmes according to their needs.

The topicality and relevance of this disposition can be observed in the renewal of the national collective agreement for the 2021-2024 period ⁽⁵²⁾, which confirmed the subjective right to training and extended its scope ⁽⁵³⁾. In particular, the signatory parties decided to entitle it also to all fixed-term workers with a contract of at least 9 months and to those workers returning from an absence period longer than 6 months. In addition, they also allowed beneficiaries to use the spare ones from the previous three-year period (2017-2019) in the following six months or by the end of 2021. Although the hours of continuous training have not been increased over the years, it is interesting to highlight such initial will to introduce a sort of “portability” for such provision.

Therefore, while it is true that the full recognition of such subjective right to training still experiences different issues regarding its practical utilisation from workers ⁽⁵⁴⁾, it still possesses a symbolic value, since it remains a first and original attempt from which few other national collective agreements are starting to draw inspiration. For example, the national collective agreement of the electricity industry (2019-2021) has recently assured no less than 28 hours of continuous training over the three-year period for each employee and, therefore, acknowledged a sort of subjective right to training as well.

Of course, regarding collective agreements it is unavoidable that such provisions would apply to signatory parties alone. The subjective right to training introduced by the national collective agreement for metal workers (2017-2019) can only concern this specific industrial sector and its employers’ associations and trade unions. In this respect, it is clear that the effectiveness and the scope of an individual right to continuous training through collective bargaining are deeply tied not only to the strength of trade unions and employers’ associations, but also to the industrial relation system in the country ⁽⁵⁵⁾. Consequently, it is up to the social parts to implement and further promote

⁽⁵²⁾ M. Tiraboschi, *CCNL metalmeccanica, un cambio di passo per le relazioni industriali?*, in *ADAPT Special Bulletin*, 2021, 1.

⁽⁵³⁾ G. Machì, *Diritto alla formazione e formazione continua*, in *ADAPT Special Bulletin*, 2021, 1.

⁽⁵⁴⁾ G. Impellizzieri - G. Machì, *Verso un “sistema” della formazione nel settore metalmeccanico?*, in *ADAPT Special Bulletin*, 2021, 1; D. Porcheddu - A. Zoppo, *Mercato del lavoro e formazione*, in *ADAPT Special Bulletin*, 2021, 1; T. Galeotto, *Glossario, competenze trasversali e declaratorie. Le innovazioni linguistiche e concettuali dell’ipotesi di accordo*, in *ADAPT Special Bulletin*, 2021, 1.

⁽⁵⁵⁾ Such relations between trade unions, employers’ associations and governments can be based on different models (conflictual, collaborative, concerted).

the subjective right to training in order to really make it effective, otherwise it could risk having the same limited impact of the provisions regarding paid leave days for educational reasons ⁽⁵⁶⁾.

Therefore, if the implementation of an individual right to continuous training by collective agreements were to inevitably suffer from a limited scope due to a weak industrial relations system, it would be more useful to implement it by legal intervention. Surely, the introduction of such provisions in different national collective agreements could be able to prompt policy makers to grow more interest in the matter and directly intervene through legislative intervention.

That is the case of France, which, after the initial spread of provisions regarding continuous training in different collective agreements, has attempted to rearrange the different models by introducing a “*droit individuel à la formation*” (DIF) ⁽⁵⁷⁾ for all private workers with the Law No. 391/2004. Such disposition – before its repeal by the reform of the social safeguards in 2014 (see *infra* 3.1) – applied to all fixed-term employees with a minimum of one year’s service in the company and allowed to accrue 20 hours of continuous and personal training each year ⁽⁵⁸⁾. In particular, workers needed to take the initiative in order to stipulate a written agreement with the employer and receive the authorisation on the chosen training programme. This latter could include promotional actions, qualification actions, and actions aimed at acquiring or improving competences ⁽⁵⁹⁾.

Surely, the *droit individuel à la formation* provided both workers and companies with a useful tool to achieve reskilling and upskilling programmes. In fact, on the one hand, employees could improve their competences and employability by exercising an undeniable right to receive qualifying and non-qualifying training, on the other hand, employers could benefit from high-skilled

⁽⁵⁶⁾ On this point, Gino Giugni underlined how, despite «*the clamour and enthusiasm that was generated around the enormous political achievement*» of the 150 hours study leaves introduced by the article 10 of the Law No. 300/1970, the signatory trade unions were unable to concretely implement it and, thus, lost «*a great opportunity for acculturation and autonomous elaboration*». See: G. Giugni, *Intervista*, curated by P. Ichino, in *RIDL*, 1992, I, 411 ss.

⁽⁵⁷⁾ Ministerio de Trabajo, Migraciones y Seguridad Social, *Formación profesional: Francia*, in *Revista de Actualidad Internacional Sociolaboral*, 2009, 125, 142-145.

⁽⁵⁸⁾ The credits accrued by the worker get annually added within the limit of 120 hours over six years.

⁽⁵⁹⁾ In addition, unless otherwise provided, was to be carried out outside regular working times and partially reimbursed by the company. The costs of the training are borne by the company, which must provide the worker with 100% of the salary, if it is carried out during working hours, or half of it, if carried out outside the regular working hours.

workforce by giving a small contribution for continuous training ⁽⁶⁰⁾. In addition, the subsequent modification made by the Law No. 1437/2009 ⁽⁶¹⁾ increased the efficiency of this lifelong learning provision by extending its portability between different jobs and allowed entitled workers to use their personal credit with the next employer or attend training programme as unemployed with employment centres on termination of employment.

In any case, the efficiency of these interventions still suffered from the complexity of the structure and a limited practicality, leading to a disincentive for workers due to the difficulty of use. In fact, the preliminary bureaucratic procedures and uncertainty of the number of credits accrued often ended up in discouraging the activation of continuous training activities.

Such issues inevitably lead to reflect on the efficiency of interventions carried out through legislative interventions as opposed to those through collective bargaining: while it is clear that the definition of lifelong learning patterns needs the intervention from social parts, it is also true that most of the trade unions do not have enough bargaining power and resources to provide an efficient provision. Conversely, an implementation by legislative intervention alone, despite being a more suitable solution on account of its scope and extension, could still be characterised by a rigid structure and limited portability; indeed, centralised interventions can often lack an overall picture concerning issues in the practical application.

Therefore, it appears unavoidable that the individual right to continuous training for workers still need a joint approach with respect to its implementation. That is because, as already stressed by the ILO, lifelong learning policies would be much more effective if implemented through a concerted dialogue between social parts and policymakers. By doing so, it would be indeed able not only to extend its scope and effectiveness beyond the employment status, but also to provide with greater precision upskilling and reskilling solutions.

3. Different schemes for different approaches: individual learning accounts or individual saving accounts?

⁽⁶⁰⁾ The contribution to *Groupe Caisse des Dépôts* amounts to the 0.55% of the worker's pay for companies with up to ten employees and 1% for the ones with more than eleven.

⁽⁶¹⁾ To be specific, the employees who left or lose their job could use their accrued credits only if they expressed their intention with advance notice. In any case, it was not permitted if the firing was due to gross negligence of the worker.

The first dispositions regarding paid leave days for educational reasons indeed paved the way for the recognition of an individual right to continuous training, promoting the idea that companies need to take responsibility in providing opportunities for upskilling and reskilling of their workers. In this perspective, such step forward is needed to fully harness the positive effects of digitalisation, since the implementation of new technologies in the workplaces constantly requires businesses to adapt and obtain viable expertise not only by hiring new and young workers, but also through the continuous professional development of the current ones ⁽⁶²⁾.

In this regard, the measures described above still suffer from a limited scope, because they exclusively concern workers on account of their employment status: the French *droit individuel à la formation* was initially applied to all private workers and later extended to public ones ⁽⁶³⁾, for instance. In addition, it did not even concern the portability of accrued training hours until its reform in 2009. However, although its difficult usability and structure have resulted in a limited spread over the territory and its abrogation in 2015, it still represents a reforming break from the previous system of education and access to work ⁽⁶⁴⁾.

Such reasoning could be also adopted for the Italian framework, since the training obligation established by the article 2103 of the Civil Code is deeply tied not only with the employment status, but also with the prior change of the assigned tasks for workers. As regards the latest collective national agreement for metal workers in Italy, it is still too early to assess its overall effectiveness, given that the results of the adopted upskilling programmes will be seen in some

⁽⁶²⁾ Cfr. J. Field - R. Canning, *Lifelong learning and employers: reskilling older workers*, in *International Handbook on Ageing and Public Policy*, edited by S. Harper - K. Hamblin, Edward Elgar Publishing, 2014, 36, 463-473; B. Crossan - J. Field - J. Gallacher - B. Merrill, *Understanding Participation in Learning for Non-traditional Adult Learners: learning careers and the construction of learning identities*, in *British Journal of Sociology of Education*, 2003, 24, 1, 55-67.

⁽⁶³⁾ In particular thanks to the French reform of the public sector adopted with Law Act No. 148/2007 (modernization of the civil service), Law Act No. 209/2007 (territorial civil service), Decree Law No. 1470/2007 (civil servants), and Decree Law No. 824/2008 (lifelong vocational training of hospital civil servants).

⁽⁶⁴⁾ V. Merle, *La formation tout au long de la vie, une proposition pour les sociétés démocratiques*, in *La formation tout au long de la vie. Nouvelles questions, nouvelles perspectives*, edited by Y. Morvan, PUR, 2006, 23-38.

time. In any case, it remains a measure strongly linked only to the sole negotiation and to a specific industry sector ⁽⁶⁵⁾.

Therefore, it can be safely stated that the implementation of an individual right to continuous training requires firmer interventions to involve beneficiaries regardless the nature of their occupational status. In fact, even though these solutions involve a significant proportion of the population, it is still crucial to extend their scope and structure, since the lack of digital and professional competences is an issue that goes beyond the notion of employment and affects the whole population ⁽⁶⁶⁾.

However, although it is important to evaluate whether it would be more effective to introduce an individual right to continuous training by legislative intervention or collective agreements, it is also equally relevant to determinate the most appropriate tools to ensure such right. After all, the lack of a comprehensive framework for skill development policies still affects the performance of lifelong learning strategies in many countries ⁽⁶⁷⁾.

In this perspective, it could be useful to take into account the individual learning schemes (ILS), namely «*training schemes attached to the individuals and which are at their disposal to undertake continuous training along their working live and at their own initiative*» ⁽⁶⁸⁾. Individual learning accounts (ILA) and individual saving accounts (ISA) have indeed attracted a lot of attention over the last years on account on their effective usability ⁽⁶⁹⁾. In particular, it could be interesting to consider two of the main schemes highly welcomed by the latest reports of the OECD: the French *Compte personnel de formation* (CPF) and the Singaporean *SkillsFuture Credit*. According to these reports, the first one can be considered as the only real individual learning account to date, while the second one constitutes an interesting hybrid model that place itself between ILA and ISA.

⁽⁶⁵⁾ Indeed, even though the initiative of social parts regarding continuous upskilling is strongly encouraged by the ILO, the entitlement of an individual right depending on the employment status alone tends to represent a half-measure.

⁽⁶⁶⁾ As stressed by the European Commission, the current socioeconomic context requires stronger interventions to counter skill shortages and skill mismatch of the whole population. In particular, it has been highlighted the lack of basic digital skills for approximately 169 million Europeans (range 16-74 years). Cfr. European Commission, *The Digital Skills Gap in Europe*, factsheet 19 October 2017.

⁽⁶⁷⁾ A wider analysis regarding difficulties in skill acquisition can be seen in: J. Tarun - M. Pushkar - M. Subha, *Barriers to Skill Acquisition: Evidence from English Training in India*, in *IZA DP*, 2016, 10199, 1-30.

⁽⁶⁸⁾ As defined in: OECD, *Individual Learning Accounts: Panacea or Pandora's Box?*, OECD Publishing, 2019, 7-11.

⁽⁶⁹⁾ These latter can be broadly described as virtual or real individual accounts to accrue continuous training rights/credits over the course of the working life.

Indeed, despite belonging to such different legal frameworks and socioeconomic contexts, an analysis of these two learning schemes could give some useful insights regarding efficient instruments to promote reskilling and upskilling both for workers and jobseekers, especially on account of their effectiveness concerning scope and usability. In addition, such analysis could give further insights regarding the different impacts and differences between different individual learning schemes.

3.1. The importance of lifelong learning in France: from the *droit individuel à la formation* (DIF) to the *Compte personnel de formation* (CPF)

After the introduction of the *droit individuel à la formation* (DIF) in 2004 and its subsequent reforming process in the following years, the French Ministry of Labour decided to answer the new challenges of the labour market by extending the scope and intensity of its continuous training provisions. Despite the initial positive effect for both private and public sector workers and the further improvements implemented with the introduction of portability between different employments in 2009, the need for extensive measures triggered a wider process of changes in the French legal system ⁽⁷⁰⁾.

Therefore, in the desire to continue the previous reforming process, France introduced substantial changes to its individual right to continuous training in the following years through the use of individual learning accounts. In particular, an extensive reform came to the light between 2014 and 2018, along with an intervention on the pension and social security systems that led to an overall rethinking of welfare and employment measures.

The first step involved the abrogation of the *droit individuel à la formation* with the Law No. 288/2014 in favour of the *Compte personnel de formation* (CPF) in 2015, which established itself as comprehensive public funding mechanism for continuous training. Unlike its predecessor, this individual learning account extended its scope to the whole working-age population (and not just those with an employment contract) by including all individuals aged 16 and over and

⁽⁷⁰⁾ After all, as can be inferred from the ILO recommendation No. 195/2004, the evolution of the labour market demand policymakers not only to take into account the notion competencies and qualifications as frameworks to define different levels of knowledge and skills, but also to consider lifelong learning and employability as key goals to assure a proper development of the socioeconomic fabric.

initially increased the credit to 24 hours a year for a maximum cumulative of 150 hours over eight years. In this respect, the ambitious disposition introduced an individual right to continuous training universally recognized to the person on grounds of citizenship, eligible for capitalisation, and portable from one job to another. Indeed, this reform represents a major change in the perspective of French labour law, since the right to continuous training evolved from being a right embedded in the employment contract to a personal right guaranteed to the individual in the labour market ⁽⁷¹⁾.

However, as previously arranged with the *droit individuel à la formation*, credits were solely calculated on the basis of hours worked during the year, thus limiting its usability to workers alone and presenting the same critical issues. Moreover, the difficulties in converting the accumulated credits into training hours hindered the overall efficiency, since the costs of educational programmes tended to differ and did not have a unique price for every training institution. Consequently, beneficiaries faced obstacles in the first approach to training courses, as they did not have enough prior information on the total cost of access.

Therefore, as initially proposed in the article 38 of the Law No. 994/2015 and later implemented with the Law No. 1088/2016, the reform of French labour policies resulted in the provision of the *Compte personnel d'activité* (CPA), namely an extensive and multifunctional individual account for the French citizens to manage their socioeconomic situation and improve the fungibility of their subjective rights ⁽⁷²⁾. To be specific, this measure aimed not only at reforming the continuous training dispositions on account of an increasingly fragmented labour market, but also at reshaping the way social protections were structured ⁽⁷³⁾ by empowering the population with their own self-determination through a points/hours credit system. Thus, such disposition included – in addition to the above-mentioned individual learning account – the “*Compte professionnel de prévention*” (C2P) ⁽⁷⁴⁾ and the “*Compte engagement citoyen*” (CEC).

⁽⁷¹⁾ For a deeper analysis of workers' rights in the labour market, see: M. Tiraboschi, *Persona e lavoro tra tutele e mercato. Per una nuova ontologia del lavoro nel discorso giuslavoristico*, ADAPT University Press, 2019.

⁽⁷²⁾ C. Tourres, *Un “conto personale di attività” per il lavoratore del futuro: il caso francese*, in *ADAPT Bulletin*, 25 January 2016.

⁽⁷³⁾ F. D'Addio, *Flexicurity alla francese: con il CPA-Compte Personnel d'Activité diritti maturati e competenze seguono il lavoratore nelle transizioni occupazionali*, in *Il Sole 24 Ore*, article from January 20, 2017.

⁽⁷⁴⁾ In particular, it was implemented with the Law No. 1389/2017, which reformed the previous “*Compte personnel de prévention de la pénibilité*” (C3P) and introduced with Law No. 40/2014.

The first one aims to provide social benefits to workers exposed to health risk factors, namely to grant them credit points designed to reduce working time without any reduction in pay or invest in training programmes leading to the acquisition of new skills for less onerous jobs. Such health prevention account is automatically created when, following the company's declaration, a worker with at least one month of seniority is subject to one or more risk factors above the prescribed thresholds ⁽⁷⁵⁾. In particular, an attempt is made to compensate for the dangerousness of possible damage to health by assigning "difficulty points" in proportion to the intensity of the risk factors and allowing to freely use these accrued credits ⁽⁷⁶⁾ to obtain hourly reductions for equal pay, early retirements, or continuous training opportunities for less demanding jobs.

Conversely, the *Compte engagement citoyen* is designed both to involve citizens in voluntary work and ensure jobless citizens to undertake community service activities in order to earn credits for their *Compte personnel de formation*. This latter allows citizens involved in voluntary activities and organisations with social purposes (e.g., educational, scientific, humanitarian, sporting, family, cultural) to acquire up to €240 per year (over a maximum of €720). In this respect, it is quite interesting to stress the intention to stimulate the enrichment of the personal account by encouraging volunteering instead of enabling direct monetary contribution from the beneficiaries.

However, the improved efficiency and wider coverage (e.g., employees and self-employed, public and private workers, job seekers, students) of the *Compte personnel de formation* still did not facilitate the hoped-for spread and fungibility of the measure after this reform. In fact, despite the first positive results after the reforming process ⁽⁷⁷⁾ and the possibility to replenish the account through the *Compte engagement citoyen*, the credit system was still a major issue. For these reasons, Law No. 771/2018 «*for the freedom to choose one's professional future*» reformed such matter and introduced better credit measurement solutions. In particular, it converted the CPF hours in actual

⁽⁷⁵⁾ Thresholds for harshness of work are determined on the basis of the intensity (pressure, extreme temperatures, noise), magnitude (1 or more) and minimum duration of exposure (50-120 nights or 900 hours per year) to health risk factors.

⁽⁷⁶⁾ As stated by the Public service of the French administration, the conversion ratio assigns one point for every three months of exposure to a single risk factor and the overall limit of the account is 100 points (namely 25 years of exposure to professional risks).

⁽⁷⁷⁾ The number of CPF accounts at the beginning of 2018 were approximately 5.468.534 against the 2.496.809 opened in 2015. For a better analysis of the topic, see: S. D'Agostino - S. Vaccaro, *Nuove tutele per i lavoratori: il diritto soggettivo alla formazione Francia e Italia a confronto*, in *INAPP Public Policy Innovation*, 29 November 2019.

money-credit (€15 per hour), thus providing workers with up to €500 credit ⁽⁷⁸⁾ each year for an overall cumulative of €5.000. Moreover, this change was followed by a campaign of promotion of the *Compte personnel d'activité* in 2019, which encouraged an autonomous management of the account through the online platform “*Mon Compte Formation*” ⁽⁷⁹⁾.

To be specific, the online application ⁽⁸⁰⁾ allows both to easily consult the credits accrued for each account of the *Compte personnel d'activité* and to explore the extensive catalogue of training courses provided. In this respect, it is interesting to note that, following the digitalisation process launched on 21 November 2019, the Ministry of Labour has reported an average of 25.000 downloads per day of the application (600.000 after the first month) and the validation of more than 32.000 training courses concerning different topics (e.g., languages, driving licence, skills certification, entrepreneurial assistance, etc.) ⁽⁸¹⁾. Moreover, these latter had an average cost of €1.200 compared to €2.370 before the reform. Such results indeed confirm the increase in competitiveness and, consequently, in the quality of the training providers affiliated to the platform ⁽⁸²⁾, paving the way for a wider spread of the personal accounts for continuous training.

Although the *Compte personnel d'activité* has been criticized and depicted as an attempt to undermine the system of social protections through virtual points and merge pre-existing provisions, it can be taken into account as a remarkable step towards the collective extension of the individual right to continuous training to the entire population ⁽⁸³⁾. In fact, by assuring the continuity of social rights during employment transitions and regardless of the occupational status

⁽⁷⁸⁾ This amount is increased up to €800 per year for a total of €8000 for beneficiaries with disabilities or low qualification levels (source: *Compte personnel de formation (CPF)-service-public.fr*).

⁽⁷⁹⁾ J. Sallet, *Compte personnel de formation: on vous explique tout!*, in *20 Minutes Production*, article from December 2, 2019.

⁽⁸⁰⁾ L. Casano, *Il governo francese lancia Moncompteformation: il diritto alla formazione, su piattaforma*, in *ADAPT Bulletin*, 2019, 42.

⁽⁸¹⁾ A. Ruello, *Démarrage encourageant pour l'application mon compte formation*, in *Les Echos*, article from December 20, 2019.

⁽⁸²⁾ For a better analysis of the quantitative results of the measure, see: Ministère du Travail de la République Française, *Lancement de MonCompteFormation*, press dossier, 21 November 2019 (source: <https://travail-emploi.gouv.fr>).

⁽⁸³⁾ S. D'Agostino - S. Vaccaro, *Nuove tutele per i lavoratori: il diritto soggettivo alla formazione. Francia e Italia a confronto*, in *Professionalità Studi*, 2020, III, 2, 127 ss.

(⁸⁴), continuous training has been promoted along with the empowerment of citizens in their own professional status and future.

In conclusion, it is significant to notice how the link between right to training and individual changed from 2004 to 2019, switching from an entitlement to the employment contract to an individual right for the French citizens. Despite being taken into consideration nowadays as the only real example of individual learning account that involves both workers and jobseekers, the French personal accounts can be appointed as an innovative model (⁸⁵) for other countries with weak lifelong learning frameworks to strive for (⁸⁶).

3.2. An overseas perspective on continuous training and individual learning accounts: the case of *SkillsFuture Credit (SFC)* in Singapore

As noted above, the continuous changes in the global labour market demand workforce to strengthen their resilience and flexibility by investing in their own professional development. After all, smooth employment transitions also depend on the improvement of adaptability – and, thus, employability – through lifelong learning, especially now that, as stressed by many reports (⁸⁷), the spread of new high-skilled professional figures will further polarize the demand of labour on the medium to long-term.

In this respect, low-skilled and poor workers are the hardest-hit categories by digitalisation, since they require specific and inclusive supports (⁸⁸). However, one of the most common solution adopted by policy makers often involves the introduction of training vouchers to disadvantaged individuals (e.g., unemployed, low-income workers, etc.). Another similar approach involves countering such socioeconomic inequalities by implementing individual saving

(⁸⁴) P. Vesan, *Le promesse di un'utopia concreta: in Francia arriva il Conto Personale di Attività*, in *Percorsi di Secondo Welfare*, article from January 4, 2017.

(⁸⁵) L. Casano, *Ripensare i Fondi Interprofessionali per la formazione continua: uno sguardo ai progetti di riforma francesi*, in *ADAPT Bulletin*, 2018, 12.

(⁸⁶) Cfr. L. Casano, *Formazione e instabilità del lavoro: una sfida impossibile? I fondi bilaterali per la formazione dei lavoratori tramite agenzia in Italia e in Francia*, Franco Angeli Editore, 2013.

(⁸⁷) World Economic Forum, *The Future of Jobs Report*, *op. cit.*, 3-14.

(⁸⁸) Cfr. J. Yang - C. Schneller - S. Roche, *The role of higher education in promoting lifelong learning*, in *UIL publication series on lifelong learning policies and strategies*, 2015, 3, 17-39.

accounts (ISAs), namely tools to accumulate and use resources for the educational and training reasons. These latter, although positively designed to favour disadvantaged beneficiaries, have often proven to be too demanding regarding eligible criteria ⁽⁸⁹⁾; that is also due to the fact that cross compliance not only limits the scope to specific categories, but it could also discourage those excluded from investing in their professional status. Thus, excessive difficulties in the administration of the personal accounts can result in the creation of access barriers and, thus, disincentives.

In this respect, more inclusive dispositions concerning lifelong learning can be seen in other models, especially the ones that place themselves between individual learning accounts and individual saving accounts. This is the case of the Singaporean learning scheme named *SkillsFuture Credit* (SFC), namely an individual learning/saving account that applies to all citizens aged 25 years old and up and provide them with a credit of S\$500 for educational purposes ⁽⁹⁰⁾.

Such model can be taken as a best practice model for its approach to fragile categories, since, unlike other learning accounts ⁽⁹¹⁾, it aims for the development of skills by distributing one-off credits to all citizens on the basis of age and providing additional funds and incentives for the most vulnerable ones. In particular, as part of the so-called “*Mid-Career Support Package*”, elder citizens (40-60 years old) were given an additional one-time contribution ⁽⁹²⁾ in order to promote career transitions and adaptability.

⁽⁸⁹⁾ On this note, it is worth mentioning the Canadian ISA known as “*Learn\$ave*”, which was designed to encourage the personal investment of beneficiaries by tripling the value of contributions paid into the account. To be specific, eligible individuals could accrue up to \$6.000 in credits for training and educational reasons in the three-year reference period. However, despite the positive impact on low-skilled people, beneficiaries were subjected to strict eligibility criteria (e.g., between 21-65 years old and not full-time PSE students, with low income, up to \$3.000 in liquid assets, and a house value below the median value of the ones in the area) and were required to regularly save credits (at least \$10 monthly for one year). Moreover, the conditionality of such dispositions on the number of hours worked, the type of contract applied, and the kind of beneficiary unfortunately prevent to define it as a tool to establish an “individual right to continuous training” for the whole working-age population. Cfr. N. Leckie - T.S. Hui - D. Tattrie - J. Robson - J.P. Voyer, *Learning to Save, Saving to Learn: Final Report of the learn\$ave Individual Development Accounts Project*, Social Research and Demonstration Corporation, 2010 final report.

⁽⁹⁰⁾ Cfr. P.T. Ng, *SkillsFuture: The Future of Lifelong Learning in Singapore*, in *Future Directions of Educational Change: Social Justice, Professional Capital, and Systems Change*, edited by H.J. Malone - S. Rincón - Gallardo - K. Kew, Routledge, 2018, 205-221.

⁽⁹¹⁾ To be fair, the *Compte personnel de formation* provides increased credits for beneficiaries with disabilities or low qualification levels as well.

⁽⁹²⁾ Unlike the first credit donation, which does not have a deadline for its use, the additional contributions are made on 31 October 2020 and must necessarily be deployed within 5 years.

Although its structure mainly resembles a sort of “lifetime voucher” for continuous training, the *SkillsFuture Credit* programme still provides all beneficiaries with an individual account, making it a hybrid model in the context of learning schemes. Of course, further contributions to this programme are strictly tied to economic situation of the country (e.g., fiscal position, national budget) and the efficiency of the adopted measures (e.g., utilization rates, participation in training programmes rates). Nonetheless, the government of Singapore seems quite determined to pursue such lifelong learning strategy. This is proved by the decision to confirm it and provide all eligible beneficiaries, aside from the first opening contribution, with a one-off \$500 credit top-up for their *SkillsFuture Credit* accounts as of 31 December 2020. After all, this provision was not only encouraged by the Committee for the Future of Economy (CFE) in 2016 ⁽⁹³⁾, but it has also gained the support of educational institutions due to its involvement in a series of programs concerning career guidance, job-placement, and work-study courses.

In addition, it is also important to mention that, as specified in the Act No. 24/2016 of the SkillsFuture Singapore Agency, all training institutions and partners are subject to specific requirements and conditions in order to provide high quality learning services. Thus, citizens can access to a wide catalogue of courses pre-approved by the Government based on their personal situation and receive personal assistance in order to guarantee an easy research of the available solutions. In this regard, such individual learning account managed to ensure accessibility and simplification for the users, providing an easy-to-understand digital profile with information concerning credit levels and chat-bots assistance.

Therefore, it can be said that such investment in skill development has managed both to involve the whole population and pay greater attention to the most vulnerable beneficiaries, improving the empowerment of citizens with their own professional status. In fact, according to the 2018 SCG report ⁽⁹⁴⁾, the *SkillsFuture* programme has supported approximately 465.000 beneficiaries and involved more than 12.000 businesses since its launch in 2014 ⁽⁹⁵⁾, increasing

⁽⁹³⁾ This commission support the Singaporean government by analysing the evolution of the global economy and suggesting strategic policies. In particular, the key topics concern the future of the economic fabric (markets and industries), companies’ capabilities and innovation, jobs and marketable skills, landscape of cities, and connectivity.

⁽⁹⁴⁾ Cfr. SkillsFuture Singapore (SSG), *SkillsFuture 2018 Year-In-Review*, report 2019.

⁽⁹⁵⁾ On this point, see: M. Fung, *Developing a Robust System for Upskilling and Reskilling the Workforce: Lessons from the SkillsFuture Movement in Singapore*, in *Anticipating and Preparing for*

training participation in Singapore by 14% in four years and bringing it to a total of 49% in 2019 ⁽⁹⁶⁾.

Surely, such individual learning account would be more effective if given the possibility to accrue more credit through personal contribution or other functionalities (e.g., voluntary activities). However, it still constitutes one of the most comprehensive and efficient examples of individual right to continuous training for the whole population at the present day. Indeed, such programme represents a remarkable instrument to tackle the issues related to the obsolescence of the skills and, thus, the challenges arising from the Fourth Industrial Revolution.

4. Conclusions

As can be observed from the renewed interest in lifelong learning policies, the digitalisation processes have divided countries in two main groups according to the method adopted for reskilling and upskilling: on the one hand, some of them have decided to leave to social parts the efforts to bring an individual right to continuous training through collective bargaining (e.g., Italian national collective agreement for metal workers), on the other hand, others have decided to adopt extensive dispositions through legislative interventions (e.g., *Compte personnel de formation*, *SkillsFuture Credit*).

On this point, it could be also interesting to reflect on the impact of an individual right to continuous training for workers, especially regarding its effect on the matter of dismissals for objective reasons. After all, the attribution of such right to attend upskilling and reskilling programmes throughout the course of the working life could indirectly limit the decisional power of the employers to fire for objective reasons, given that potential incompatibilities could arise from this provision and subsequent strengthen of the social safeguards for dismissal.

For example, if an employer were to fire a worker due to the futility of the tasks or the obsolescence of the services, the employee could defend himself by arguing that the company has not taken action to ensure the full exercise of

Emerging Skills and Jobs, Key Issues, Concerns, and Prospects, edited by B. Panth - R. Maclean, 2020, 55, 321-327.

⁽⁹⁶⁾ A. Teng, *Singapore Budget 2020: \$500 SkillsFuture Credit top-up for Singaporeans aged 25 and above*, in *The Straits Times*, article from February 18, 2020.

his/her right to improve employability and skills. Thus, if that were true, the truthfulness of the employer's motives would suffer from the failure to comply with the employee's individual right to attend continuous training.

Focusing on the above-mentioned legal frameworks, possible examples of legal provisions regarding professional development and employer obligations can be observed in the former "*obligation d'employabilité*" in France, which, as stated by article L. 6321-1 of the Labor code, places on the employer the responsibility to assure updated capabilities⁽⁹⁷⁾ and marketable skills for the employees along the evolution of the labour market. To be specific, it can be appointed as the obligation of guaranteeing the adaptability of workers by providing reskilling and upskilling programmes in relation to the use of new technologies and techniques.

A similar perspective might be observed in the case of the "*repêchage obligation*"⁽⁹⁸⁾ in the Italian juridical framework, since the introduction of an individual right to continuous training by legal provision could strengthen the defensive position of workers during dismissal proceedings. In particular, the procedural burden known as *repêchage* require the employer to verify the impossibility of assigning the employee to other tasks or positions before proceeding with an objective dismissal⁽⁹⁹⁾. Thus, an employer's negligence to activate any reskilling or upskilling processes at the request of the worker, before the dismissal procedure, could be considered by the judges as a failure to fulfil the right to continuous training and, consequently, as an impediment to the acquisition of skills useful to remain in the company and avoid a firing.

However, it is likewise clear that such provisions could not affect and limit the freedom of economic initiative. Thus, such assumptions on the potential limit to dismissal should not be formulated before the introduction of a clear "individual right to continuous training" to the whole working-age population by legal disposition. After all, it should be first clarified who is the

⁽⁹⁷⁾ On this point, see: R. Del Punta, *Labour Law and the Capability Approach*, in *IJCLLR*, 2016, 32, 4, 383 ss.; B. Caruso, *Occupabilità, formazione e "capability" nei modelli giuridici di regolazione dei mercati del lavoro*, in *DLRI*, 2007, 113; S. Deakin, F. Wilkinson, "*Capabilities*", *ordine spontaneo del mercato e diritti sociali*, in *DLM*, 2000, 2.

⁽⁹⁸⁾ On this point, see *ex plurimis*: R. Del Punta, *Sulla prova dell'impossibilità del ripescaggio nel licenziamento economico*, in *Giuseppe Santoro Passarelli Giurista della contemporaneità - Liber Amicorum*, edited by A.A. V.V., Giappichelli, 2018, 1189-1203; M.T. Carinci, *L'obbligo di ripescaggio nel licenziamento per giustificato motivo oggettivo di tipo economico alla luce del Jobs Act*, in *RIDL*, 2017, I, 203-240; F. Amato, *Licenziamenti economici e responsabilità d'impresa: obbligo di repêchage nel licenziamento per g.m.o. e tutela della professionalità del lavoratore*, in *RCDL*, 2006, 7 ss.

⁽⁹⁹⁾ Also considering other suitable professional positions inside the company.

subject responsible to fulfil such worker's right, i.e., if the employer or the State itself.

Returning to the main subject, it can be stated that some of the challenges arising from the evolution of the labour market can be initially tackled by entitling an individual right to the whole population and providing a strong safety net of social protections to workers with direct subsidies for occupational purposes. After all, new generations are experiencing a recent increase in fragmentation of their working lives and, therefore, require individual labour rights to be a portable provision through different employments, as often stressed in the transitional labour markets (TLM) theory. In particular, this latter suggests the importance of considering the labour market by a social perspective, providing equal opportunities and right to all working age individuals despite their occupational status in order to achieve full employment.

Nonetheless, the implementation of an individual right to continuous training for the whole working-age population can be surely achieved through different tools, although individual learning accounts are getting acknowledged more and more as remarkable ways to improve continuous training and promote both adaptability and autonomy for the beneficiaries ⁽¹⁰⁰⁾. In fact, policy makers can rely not only on individual learning accounts, but also on individual saving accounts, vouchers for educational purposes, and other instruments ⁽¹⁰¹⁾.

In this respect, broadly speaking, criticism can also be made against provisions introduced through legislative intervention, such as individual learning accounts, individual saving accounts for training, and training vouchers ⁽¹⁰²⁾. This occurs when such measures are limited to few and peculiar groups of beneficiaries instead of others equally needy (jobseekers, disadvantaged persons, low-level educated adults, etc.) ⁽¹⁰³⁾.

Moreover, most of these measures often risk developing structural flaws with regard to the financing mechanisms; for instance, subsidies and vouchers for educational or training purposes that require further financing from the

⁽¹⁰⁰⁾ Cfr. Cedefop, *Empowering adults through upskilling and reskilling pathways. Volume 1: adult population with potential for upskilling and reskilling*, Cedefop reference series, 2020, 112.

⁽¹⁰¹⁾ OECD, *Individual Learning Accounts: Panacea or Pandora's Box?*, *op. cit.*, 47-54.

⁽¹⁰²⁾ These three models are mainly aimed at providing funds for upskilling and reskilling periods to the eligible beneficiaries. On this point, see: Cedefop, *Individual learning accounts*, Cedefop Panorama Series, 2009, 163, 1-20.

⁽¹⁰³⁾ On this point, it is important to remember the case of the Italian "Relocation check", which, after its reform by art. 9 of Law No. 26/2019, only covered the beneficiaries of the "Guaranteed Minimum Income". In recent times, such provision has been repealed by Law no. 178/2020, extending the categories of potential beneficiaries eligible for the check.

beneficiaries in order to be really effective have proven to be unappealing despite the tax deductions and reductions introduced to stimulate workers to contribute and pay for their own learning pathways ⁽¹⁰⁴⁾. Thus, another relevant issue revolves around the funding mechanism of skill development policies, in particular in relation to the involved individuals. Indeed, some solutions promote funding apportionment in percentage between government, employers, and workers, given that all of these parts are equally interested in the development of skills and improvement of the economic fabric.

However, despite the fairness of the repartition, an excessive burden on the beneficiaries can still generate a disincentive and create access barrier for low-income individuals. Thus, the funding mechanism must be designed in order to assure a better fungibility, especially from low-skilled and low-income adults who are the most disadvantaged individuals and need to have an easy access to the lifelong learning solutions.

So, it is vital for policy makers to agree on basic standards when it comes to the fight against skill mismatch ⁽¹⁰⁵⁾ and misalignments in the allocation of labour. To be specific, policy makers should still be responsible for the provision of adequate continuous training opportunities, working along with social parts and focusing on the removal of limitation to the accessibility. For this reason, policy makers also need to take into consideration the correct extent of guidance and support to provide to beneficiaries. For example, the future of the *Compte personnel de formation* in France experienced a solid improvement and increase in users after the introduction of *Mon Compte Formation*, which has undoubtedly boosted not only the number of accesses to the accounts, but also the reliability of training providers.

The same can be said for the Singaporean disposition, which decided to rely on chat-bots and online tech support to encourage the usage of the accounts. These experiences demonstrate that simplification of access procedures and management support for citizens by the government are key elements in increasing effective participation in the instrument. In any case, such reforms are still in motion ⁽¹⁰⁶⁾ and, despite the already-improved dispositions,

⁽¹⁰⁴⁾ Moreover, the lack of a detailed guidance for training programmes can often undermine the overall efficiency.

⁽¹⁰⁵⁾ OECD, *Increasing Adult Learning Participation: Learning from Successful Reforms, Getting Skills Right*, OECD Publishing, 2020.

⁽¹⁰⁶⁾ Regarding the French case, see: B. Gazier - J.F. Le Rouf - A. Lopez - T. Pech - B. Palier - M. Richer, *Le bel avenir du Compte personnel d'activité*, in *Terra Nova*, article from February 16, 2016.

could evolve in an even more comprehensive measure in accordance with the future needs of the labour market.

In conclusion, despite the different approaches to continuous training, the introduction of an individual right to continuous training definitely needs to take into consideration not only the above-mentioned key issues related to the viability of the dispositions, but also the involvement of all social parts in the definition of its basic standards. The cooperation of both trade unions and employer association is indeed crucial to solve the main issues related to the practical implementation of such right. By doing so, it could be possible to face the digitalisation processes with a firmer stance on lifelong learning ⁽¹⁰⁷⁾, providing comprehensive measures of continuous training that could contribute to assure smooth transition between different employment and strengthen workers employability.

⁽¹⁰⁷⁾ For a better analysis on the role of training as employment measure, see: A. Rota, *Sull'Accordo quadro europeo in tema di digitalizzazione del lavoro*, in *LLI*, 2020, 6, 2; B. Caruso - R. Del Punta - T. Treu, *Manifesto per un Diritto del lavoro sostenibile*, in *CSDLE "Massimo D'Antona"*, 20 maggio 2020, 33-34; A. Salento, *Digitalizzazione delle imprese e trasformazione delle competenze. Quadro analitico e riscontri empirici*, in *Labor*, 2019, 2, 131-142; A. Loffredo, *Diritto alla formazione e lavoro. Realtà e retorica*, Cacucci, 2012, 100 ss.

Literature

- Acemoglu D. - Restrepo P., *The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment*, in *American Economic Review*, 2018, 108 (6), 1488-1542.
- Alessandrini G., "Pathways for upskilling": un nuovo messaggio dalla Commissione Europea, in *ADAPT International Bulletin*, 2016, 42.
- Alessi C. - Ravelli F., *Commento all'art. 2103 c.c. (commi 1-7 e 9)*, in *Codice commentato del lavoro*, edited by Del Punta R. - Scarpelli F., Ipsoa, 2020, 436 ss.
- Amato F., *Licenziamenti economici e responsabilità d'impresa: obbligo di repêchage nel licenziamento per g.m.o. e tutela della professionalità del lavoratore*, in *RCDL*, 2006, 7 ss.
- Autor D., *Why are there still so many jobs? The history and future of workplace automation*, in *The Journal of Economic Perspectives*, 2015, 3, 3-30.
- Balandi G.G., *Formazione e contratto di lavoro*, in *DLRI*, 2007, 113, 135 ss.
- Ballestrero M. V., *La dicotomia autonomia/subordinazione. Uno sguardo in prospettiva*, in *LLI*, 2020, 6, 2, 1-15.
- Barbieri M., *Il luminoso futuro di un concetto antico: la subordinazione nell'esemplare sentenza di Palermo sui riders: Tribunale di Palermo, 24 novembre 2020*, in *LLI*, 2020, 6, 2.
- Bavaro V., *Il contratto nazionale dei metalmeccanici 2016: una prospettiva sulle relazioni industriali italiane*, in *DLRI*, 2017, 39, 4, 156, 729-742.
- Biagi M., *Formazione e qualità: note per una strategia comunitaria dell'occupazione*, in *DRI*, 1996, 2, 75-83.
- Brollo M., *Disciplina delle mansioni (art. 3)*, in *Commento al d. lgs. 15 giugno 2015, n. 81: le tipologie contrattuali e lo jus variandi*, edited by Carinci F., ADAPT Labour Studies e-Book series, 2015, 48, 29 ss.
- Brollo M., *La disciplina delle mansioni dopo il Jobs Act*, in *ADL*, 2015, 20, 6.
- Brollo M., *Tecnologie digitali e nuove professionalità*, in *DRI*, 2019, 2, 468-491.
- Calafà L., *La formazione oltre il contratto di lavoro*, in *I lavoratori e i cittadini. Dialogo sul diritto sociale*, edited by Balandi G.G. - Avio A. - Bano F. - Borelli S. - Buoso S. - Calafà L. - Renga S., il Mulino, 2020, 149-154.
- Carboni C., *Lavoro ed evoluzione tecnologica*, in *il Mulino*, 2016, 2, 346-354.
- Carinci M.T., *L'obbligo di ripescaggio nel licenziamento per giustificato motivo oggettivo di tipo economico alla luce del Jobs Act*, in *RIDL*, 2017, I, 203-240.
- Carr A. - Balasubramanian K. - Atieno R. - Onyango J., *Lifelong learning to empowerment: beyond formal education*, in *Distance Education*, 2018, 39(5), 69-86.
- Caruso B. - Del Punta R. - Treu T., *Manifesto per un Diritto del lavoro sostenibile*, in *CSDLE "Massimo D'Antona"*, 20 maggio 2020.
- Caruso B., *Occupabilità, formazione e "capability" nei modelli giuridici di regolazione dei mercati del lavoro*, in *DLRI*, 2007, 113.
- Casano L., *Formazione e instabilità del lavoro: una sfida impossibile? I fondi bilaterali per la formazione dei lavoratori tramite agenzia in Italia e in Francia*, Franco Angeli, 2013.
- Casano L., *Il governo francese lancia Moncompformation: il diritto alla formazione, su piattaforma*, in *ADAPT Bulletin*, 2019, 42.

- Casano L., *La riforma del mercato del lavoro nel contesto della “nuova geografia del lavoro”*, in DRI, 2017, 3, 634 ss.
- Casano L., *Ripensare i Fondi Interprofessionali per la formazione continua: uno sguardo ai progetti di riforma francesi*, in ADAPT Bulletin, 2018, 12.
- Cedefop, *Empowering adults through upskilling and reskilling pathways. Volume 1: adult population with potential for upskilling and reskilling*, Cedefop reference series, 2020, 112.
- Cedefop, *Individual learning accounts*, Cedefop Panorama Series, 2009, 163, 1-20.
- Cedefop, *Insights into skill shortages and skill mismatch: learning from Cedefop’s European skills and jobs survey*, Cedefop reference series, 2018, 106.
- Countouris N., *The concept of ‘worker’ in European Labour Law – Fragmentation, Autonomy, and Scope*, in *Industrial Law Journal*, 2018, 47, 2, 192 ss.
- Crossan B. - Field J. - Gallacher J. - Merrill B., *Understanding Participation in Learning for Non-traditional Adult Learners: learning careers and the construction of learning identities*, in *British Journal of Sociology of Education*, 2003, 24, 1, 55-67.
- D’Addio F., *Flexicurity alla francese: con il CPA-Compte Personnel d’Activité diritti maturati e competenze seguono il lavoratore nelle transizioni occupazionali*, in *Il Sole 24 Ore*, article from January 20, 2017.
- D’Agostino S. - Vaccaro S., *Nuove tutele per i lavoratori: il diritto soggettivo alla formazione. Francia e Italia a confronto*, in *Professionalità Studi*, 2020, III, 2, 127 ss.
- D’Agostino S. - Vaccaro S., *Nuove tutele per i lavoratori: il diritto soggettivo alla formazione Francia e Italia a confronto*, in *INAPP Public Policy Innovation*, 29 November 2019.
- Dagnino E., *Dalla fisica all’algoritmo: una prospettiva di analisi giuslavoristica*, ADAPT University Press, 2019.
- Dagnino E., *Occupazione e progresso tecnologico nel mondo del lavoro del XXI secolo: tra sostituzione, creazione, localizzazione e forme*, in *La nuova grande trasformazione del lavoro. Lavoro futuro: analisi e proposte dei ricercatori ADAPT*, edited by Dagnino E., Nespola F., Seghezzi F., ADAPT Labour Studies e-Book Series, 2017, 62, 96-100.
- De Stefano V., *The Rise of the «Just-in-Time Workforce»: On-Demand Work, Crowdwork, and Labor Protection in the «Gig Economy»*, ILO Conditions of Work and Employment Series, 2016, 71.
- Deakin S. - Wilkinson F., *“Capabilities”, ordine spontaneo del mercato e diritti sociali*, in *DLM*, 2000, 2.
- Del Punta R., *Labour Law and the Capability Approach*, in *IJCLLIR*, 2016, 32, 4.
- Del Punta R., *Sulla prova dell’impossibilità del ripescaggio nel licenziamento economico*, in *Giuseppe Santoro Passarelli Giurista della contemporaneità - Liber Amicorum*, edited by A.A.V.V., Giappichelli, 2018, 1189-1203.
- Digennaro P., *Subordinazione o dipendenza? Uno studio sulla linea di demarcazione tra lavoro subordinato e lavoro autonomo in sei sistemi giuridici europei*, in *LLI*, 2020, 6, 1.
- Donini A., *Il lavoro su piattaforme digitale “prende forma” tra autonomia e subordinazione. Nuove regole per nuovi lavori?*, in *DRI*, 2016, 1.
- European Commission, *The Digital Skills Gap in Europe*, 19 October 2017 factsheet.
- European Investment Bank, *Who is prepared for the new digital age? - Evidence from the EIB Investment Survey*, EIB report, 2020.

- Field J. - Canning R., *Lifelong learning and employers: reskilling older workers*, in *International Handbook on Ageing and Public Policy*, edited by Harper S. - Hamblin K., Edward Elgar Publishing, 2014, 36, 463-473.
- Fung M., *Developing a Robust System for Upskilling and Reskilling the Workforce: Lessons from the SkillsFuture Movement in Singapore*, in *Anticipating and Preparing for Emerging Skills and Jobs, Key Issues, Concerns, and Prospects*, edited by Panth B. - Maclean R., 2020, 55, 321-327.
- Galeotto T., *Glossario, competenze trasversali e declaratorie. Le innovazioni linguistiche e concettuali dell'ipotesi di accordo*, in *ADAPT Special Bulletin*, 2021, 1.
- Gazier B. - Le Rouf J.F. - Lopez A. - Pech T. - Palier B. - Richer M., *Le bel avenir du Compte personnel d'activité*, in *Terra Nova*, article from February 16, 2016.
- Giugni G., *Intervista*, curated by Ichino P., in *RIDL*, 1992, I, 411 ss.
- Guarascio D. - Sacchi S., *Digitalizzazione, automazione e futuro del lavoro*, in *INAPP paper*, 2017, 2.
- Ichino P., *Il nuovo "articolo 18": la formazione come diritto soggettivo*, www.pietroichino.it.
- Ichino P., *Le conseguenze dell'innovazione tecnologica sul diritto del lavoro*, in *RIDL*, 2017, 4, I, 525-563.
- ILO, *ILO Monitor: COVID-19 and the world of work. 7th edition*, Briefing notes, 25 January 2021.
- ILO, *Skills for Employment Policy Brief - Formulating a national policy on skills development*, International Labour Office Report, 2011.
- Impellizzeri G. - Machì G., *Verso un "sistema" della formazione nel settore metalmeccanico?*, in *ADAPT Special Bulletin*, 2021, 1.
- Johannessen J.A., *Automation, Innovation and Economic Crisis: Surviving the Fourth Industrial Revolution*, Taylor & Francis Ltd, 2018.
- Keynes J.M., *Essays in Persuasion*, W.W. Norton & Co., 1963.
- Leckie N. - Hui T.S. - Tattrie D. - Robson J. - Voyer J.P., *Learning to Save, Saving to Learn: Final Report of the learn\$ave Individual Development Accounts Project*, Social Research and Demonstration Corporation, 2010 final report.
- Liso F., *Brevi osservazioni sulla revisione della disciplina delle mansioni contenuta nel decreto legislativo n. 81/2015 e su alcune recenti tendenze di politica legislativa in materia di rapporto di lavoro*, in *WP C.S.D.L.E. "Massimo D'Antona". IT – 257/2015*.
- Loffredo A., *Diritto alla formazione e lavoro. Realtà e retorica*, Cacucci, 2012.
- Machì G., *Diritto alla formazione e formazione continua*, in *ADAPT Special Bulletin*, 2021, 1.
- Maresca A., *Il rinnov(ament)o del contratto collettivo dei meccanici: c'è ancora un futuro per il contratto collettivo nazionale di categoria*, in *DLRI*, 2017, 39, 4, 156, 709.
- McKinsey Global Institute, *Jobs Lost, Jobs Gained: Workforce transitions in a time of automation*, McKinsey & Company, December 2017.
- Merle V., *La formation tout au long de la vie, une proposition pour les sociétés démocratiques*, in *La formation tout au long de la vie. Nouvelles questions, nouvelles perspectives*, edited by Morvan Y., PUR, 2006, 23-38.
- Ministère Du Travail De La République Française, *Lancement de MonCompteFormation*, press dossier 21 November 2019.
- Ministerio De Trabajo, Migraciones Y Seguridad Social, *Formación profesional: Francia*, in *Revista de Actualidad Internacional Sociolaboral*, 2009, 125, 142-145.
- Mosca D. - Tomassetti P. (eds.), *La trasformazione del lavoro nei contratti aziendali. Una analisi di buone pratiche contrattuali*, ADAPT Labour Studies e-Book Series, 2015, 44.

- Mosca D. - Tomassetti P., *La valorizzazione economica della professionalità nella contrattazione aziendale*, in *DRI*, 2016, 3, 791-816.
- Ng P.T., *SkillsFuture: The Future of Lifelong Learning in Singapore*, in *Future Directions of Educational Change: Social Justice, Professional Capital, and Systems Change*, edited by Malone H.J. - Rincón-Gallardo S. - Kew K., Routledge, 2018, 205-221.
- OECD, *Increasing Adult Learning Participation: Learning from Successful Reforms, Getting Skills Right*, OECD Publishing, 2020.
- OECD, *Individual Learning Accounts: Panacea or Pandora's Box?*, OECD Publishing, 2019.
- Pacella G., *Drivers di Uber: confermato che si tratta di workers e non di self-employed*, in *LLI*, 2017, 3, n. 2, 48 ss.
- Pisani C., *La nuova disciplina del mutamento delle mansioni*, Giappichelli, 2015.
- Porcheddu D. - Zoppo A., *Mercato del lavoro e formazione*, in *ADAPT Special Bulletin*, 2021, 1.
- Puckett J. - Boutenko V. - Hoteit L. - Polunin K. - Perapechka S. - Stepanenko A. - Loshkareva E. - Bikkulova G., *Fixing the Global Skills Mismatch*, Boston Consulting Group, report 15 January 2020.
- Rota A., *Sull'Accordo quadro europeo in tema di digitalizzazione del lavoro*, in *LLI*, 2020, 6, 2.
- Ruello A., *Démarrage encourageant pour l'application mon compte formation*, in *Les Echos*, article from December 20, 2019.
- Salento A., *Digitalizzazione delle imprese e trasformazione delle competenze. Quadro analitico e riscontri empirici*, in *Labor*, 2019, 2, 131 ss.
- Sallet J., *Compte personnel de formation: on vous explique tout!*, in *20 Minutes Production*, article from December 2, 2019.
- SkillsFuture Singapore (SSG), *SkillsFuture 2018 Year-In-Review*, report 2019.
- Smit S. - Tacke T. - Lund S. - Manyika J. - Thiel L. (eds.), *The future of work in Europe: Automation, workforce transitions, and the shifting geography of employment*, McKinsey Global Institute Discussion paper, 2020.
- Speziale V., *La mutazione genetica del diritto del lavoro*, in *WP C.S.D.L.E. "Massimo D'Antona".IT* – 322/2017.
- Staglianò R., *Al posto tuo. Così web e robot ci stanno rubando il lavoro*, Einaudi, 2016.
- Sundararajan A., *Crowd-Based Capitalism, Digital Automation, and the Future of Work*, in *University of Chicago Legal Forum*, 2017, 19, 487-511.
- Tarun J. - Pushkar M. - Subha M., *Barriers to Skill Acquisition: Evidence from English Training in India*, *IZA DP*, 2016, 10199, 1-30.
- Teng A., *Singapore Budget 2020: \$500 SkillsFuture Credit top-up for Singaporeans aged 25 and above*, in *The Straits Times*, article from February 18, 2020.
- Tiraboschi M., *CCNL metalmeccanica, un cambio di passo per le relazioni industriali?*, in *ADAPT Special Bulletin*, 2021, 1.
- Tiraboschi M., *Persona e lavoro tra tutele e mercato. Per una nuova ontologia del lavoro nel discorso giuslavoristico*, ADAPT University Press, 2019.
- Todoí Signes A., *Commento alla sentenza del Tribunale Supremo spagnolo che considera i riders lavoratori subordinati: Tribunal Supremo Sala de lo Social, 25 settembre 2020, n. 805*, in *LLI*, 2020, 6, 2.
- Tourres C., *Un "conto personale di attività" per il lavoratore del futuro: il caso francese*, in *ADAPT Bulletin*, 25 January 2016.
- Treu T., *Nuova professionalità e futuro modello del sistema di relazioni industriali*, in *Innovazione tecnologica e professionalità del lavoratore*, edited by Galantino L., Cedam, 1987, 17 ss.

- Treu T., *Trasformazioni del lavoro: sfide per i sistemi nazionali di diritto del lavoro e di sicurezza sociale*, in WP C.S.D.L.E. "Massimo D'Antona" .IT – 371/2018.
- Treu T., *Una seconda fase della flexicurity per l'occupabilità*, in DRI, 2017, 3, 597 ss.
- Tullini P., *Il lavoro nell'economia digitale: l'arduo cammino della regolazione*, in *Lavoro autonomo e capitalismo delle piattaforme*, edited by Perulli A., Wolters Kluwer Cedam, 2018, 171-195.
- Tullini P., *L'economia delle piattaforme e le sfide del diritto del lavoro*, in *Economia e società regionale*, 2018, 36, 1.
- Tullini P., *La formazione per la sicurezza sul lavoro*, in *Diritto della Sicurezza sul Lavoro*, 2017, 1.
- Tullini P., *La salvaguardia dei diritti fondamentali della persona che lavora nella gig-economy*, in *Costituzionalismo.it*, 2020, 1, 52 ss.
- Velciu M., *Job mismatch – effects on work productivity*, in *SEA - Practical Application of Science*, 2017, 5, 15, 395 ss.
- Vesan P., *Le promesse di un'utopia concreta: in Francia arriva il Conto Personale di Attività*, in *Percorsi di Secondo Welfare*, article from 4 January, 2017.
- World Economic Forum, *The Future of Jobs Report*, Insight report, 2018.
- World Economic Forum, *The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, Global Challenge Insight Report, 2016.
- World Economic Forum, *Towards a Reskilling Revolution. A Future of Jobs for All*, Insight report, 2018.
- Yang J. - Schneller C. - Roche S., *The role of higher education in promoting lifelong learning*, in UIL publication series on lifelong learning policies and strategies, 2015, 3, 2015, 17-39.