

THE ROLE OF HIGHER EDUCATION IN A CHANGING WORLD: WHY EMPLOYABILITY MATTERS

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ABSTRACT: The transformations of work are increasingly introducing new scenarios at a global level. In fact, the disruptive importance of innovation in all workplace contexts anticipates the challenge of skills and capabilities for the work of the future. In this sense, education has a crucial role in supporting the development of students and future workers. This paper analyses in depth the link between education, work and the pedagogical instrument of work pedagogy that is derived directly from John Dewey's thought. This theoretical standpoint represents the base for the development of employability in higher education and its future challenges of innovation, development, and social inclusion.

KEYWORDS: work pedagogy, employability, innovation, higher education.

1. *The transformation of the world of work*

In the coming decades, global competition will be about attracting innovative human capital and innovative companies. The importance of geography and the forces of agglomeration in determining the location of human capital will keep growing. The number and strength of a country's brain hubs will determine whether it will prosper or decline. Physical factories will keep losing importance, but cities with a large percentage of interconnected, highly educated workers will become the new factories where ideas and knowledge are forged (Moretti 2012: 2900).

This is one of the main conclusions of the economist Enrico Moretti's famous book *The Geography of Jobs*¹ (Moretti 2012) that illustrates the changes in the United States job market. «The New Human Capital Century» (Moretti 2012: 2900), as he calls it, represents the result of a global

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¹ In his volume *The Geography of Jobs*, Enrico Moretti, Professor of Economics at the University of California-Berkeley, analyses why some places are more prosperous than others. He explores the factors that create a concentration of innovative industries in specific hubs. Through a study of the increase in economic differences among 300 areas in the USA over the last 30 years, he points out the main reasons for the birth of those clusters (such as labour market effectiveness, availability of intermediate services and human capital spillovers). From this, he states that the innovative economic sectors (i.e. high-tech or pharmaceutical) generate a multiplier effect that can create in the long-term, for each new job in these sectors, five new opportunities in non-innovative sectors (i.e. services and non-traded activities).

shift from a traditional manufacturing economy towards a knowledge-intensive one. This trend has potent effects on job markets and people's professional pathways. As Moretti analyses in his volume, the transformation of work is shaping not just the size and location of industries but the structure of cities as well. In the past, good jobs and high salaries were directly linked to large-scale manufacturing. Industries were the places where economic value was created. Today, the globalization of markets and the relevance of innovation in the creation of products and services has led to a revolution (Ito, Howe 2017): the quality of employment and wages are increasingly related to the realization of innovative ideas, knowledge, and technologies (Moretti 2012).

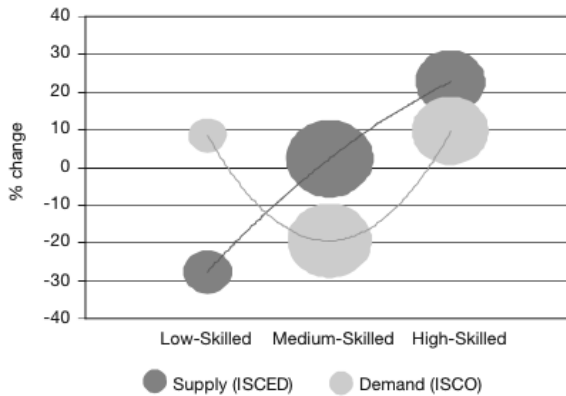
These trends are producing a «Great Divergence» (Moretti 2012: 76) between cities with a high percentage of innovative firms (and skilled workers) and ones that are unable to attract knowledge-intensive ones. However, this phenomenon impacts not just the development of inventive companies, but also the environment: «the presence of many college-educated residents changes the local economy in profound ways, affecting both the kinds of jobs available and the productivity of every worker who lives there, including the less skilled. This results in high wages not just for skilled workers but for most workers» (Moretti 2012: 80).

In this framework, cities become the fulcrum of opportunities for the development of social interactions that can generate innovative ideas. The agglomeration of smart jobs in the same environment can enhance innovation as well as life quality at all levels: moreover, it can attract further innovators and high-skilled workers (Moretti 2012: 232).

The Great Divergence of territories, which could be highlighted both in the USA and Europe, is reflected in employment too. As Paolo Federighi stated, «the changing structure of employment, together with the growing number of jobs that are more knowledge- and skill-intensive, increases demand for professional growth among the employed» (Federighi 2013: 13). The study by Ilaria Maselli effectively explains the Job Polarization trend within European job market: indeed, Figure 1 shows that «there is a trend towards polarization on the labour demand side with respect to occupations in most European countries, whereas on the supply side, the trend is towards a linear upskilling of the population. Depending on the speed of these changes and on the skill content of current demand and supply, there is a risk that in some countries a skill mismatch problem will arise» (Maselli 2012: 26).

Furthermore, the complexity of this new scenario has been increased by the development of Industry 4.0 (Smit, Kreutzer, Moeller, Carlberg 2016) and will further expand with Industry 5.0 (Rai, Rai 2015). These latest trends impose a crucial role for adult education, conceived as a discipline that «goes beyond the boundaries of the school system and professional training» (Federighi 1999: 5).

Figure 1 – Demand and Supply of Work with Respect to Skills/Tasks in the EU27, 2010-2020. [Maselli 2012: 26]



Facing the evolution of work requires the capability to critically analyse the context and its evolution, interpreting future tendencies and unrevealed challenges. In this framework, staying in the job market does not mean creating a skills supply that can match the skills demand (or, at least, no longer). The speed at which production settings change drives organizations and individuals to continuously renew their aims, projects, and competences. From this perspective, it could prove inadequate, if not ineffective, to create formative pathways that simply answer the present skills demand. In fact, the new creation of value is characterised by ongoing transformation, mobility of space and contents and a capacity to innovate products, internal relationships, and organizational structures (Ito, Howe 2017).

The brilliant research by Enrico Moretti, which directly reveals the relationship between the presence of innovative firms and the development of cities and employment, suggests a crucial point for adult education. Indeed, given that innovation has immense importance for high-, medium- and low-skilled workers, the centrality of skills growth, both in firms and at an educational level, become a vital challenge for the whole of society. Contributing to increasing the educational rates, skills, and capabilities of people is not just a matter of one part of the workers. On the contrary, the challenge of up-skilling is a task of the production and educational systems, especially in this knowledge-intensive context which is, today more than ever, centred on human added value (Samans, Davis 2017).

Care of these processes is one of the aims of adult education, not just in the workplace, but also within schools and higher education facilities (Boffo 2015, 2017) where it seems more complex. University is not simply the place where people acquire competences for entering the job

market. It is a space for human education that allows students to grow up globally as subjects, citizens, and workers (Boffo 2012, 2015). However, what matters most is the new relevance of higher education in the advance of innovation. Given the capability of creating better work opportunities and higher wages (Moretti 2012) increasingly related to the value of humans' creativity, the future of our communities is increasingly linked to skills development and entrepreneurial attitudes. Which is why, over the last decades, educational institutions have been charged with the new mission of creating new relationships with multiple stakeholders such as public bodies, companies, associations, and non-profit organizations. The Third Mission of Universities (ANVUR 2015) is intended to enhance and disseminate knowledge and technologies to local, national, and international socio-economic contexts to improve the quality of the economy, work, and human life. These efforts could generate great benefits to all the actors involved: graduates could be equipped with skills to enter the job market and contribute with innovative work; industries could integrate new knowledge into their production processes; communities could take advantage of the presence of innovative firms that can also create opportunities for the low- and medium-skilled.

2. The relationship between education and work: why employability matters

In this framework, the debate on the development of students' work capabilities arises as a key issue for the growth of our countries. The specific contribution of adult education could inform the processes through which young adults acquire capabilities for their personal and professional life. In this sense, it seems interesting to highlight the specific added value of a pedagogical and educational perspective on this relationship alongside the traditional approach elaborated by economic and sociological studies (Gazier 1998).

The connection between education and work originally referred to John Dewey's studies. The American philosopher laid great stress on the relevance of this relationship. In his volume *The School and Society* (1899) he suggested going beyond the conception of school through the mere standpoint of teachers and children. As he clearly showed, school has been transformed by the new patterns of economy and society in broader terms: «the modification going on in the method and curriculum of education is as much a product of the changed social situation, and as much an effort to meet the needs of the new society that is forming, as are changes in modes of industry and commerce» (Dewey 1932: 4). In this sense, the innovation in education can be considered «as part and parcel of the whole social evolution, and, in its more general features at least, as inevitable» (Dewey 1932: 5).

This is why nowadays it is extremely crucial to understand the new trends in the economy and job market: through these analyses educators could better plan pathways to offer students the opportunity to acquire capabilities for their future lives. This is crucial since, as Dewey had already illustrated in 1899, the first transformation that impacts the structure of education is the economic and industrial one:

the change that comes first to mind, the one that overshadows and even controls all others, is the industrial one – the application of science resulting in the great inventions that have utilized the forces of nature on a vast and inexpensive scale the growth of a world-wide market as the object of production, of vast manufacturing centres to supply this market, of cheap and rapid means of communication and distribution between all its parts (Dewey 1932: 5).

It is almost indispensable to point out that these factors have become vastly more disruptive in the current situation, considering the innovations in technologies and industries. Following Dewey's standpoint, these trends have progressively generated a radical metamorphosis of society. We could spend a long time discussing how the past structure was able to better create social and community links or a more settled relationship between people and the world, «but it is useless to bemoan the departure of the good old days [...]. It is radical conditions which have changed, and only an equally radical change in education suffices» (Dewey 1932: 9). We must take note of those in progress to give people the right tools to avoid suffering from their effect.

Work completely permeates human life, in its deepest meaning and its organization of time (Boffo 2012). In line with this, Dewey suggested including manual activities within the school curriculum, to integrate life into the educational process: in fact, «we must conceive of work in wood and metal, of weaving, sewing, and cooking, as methods of living and learning, not as distinct studies» (Dewey 1932: 11). These kinds of activity must be considered «as instrumentalities through which the school itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons» (Dewey 1932: 11).

What are the implications for pedagogy? How could we plan formative pathways, at all levels, that can «consider the relationship of the school to the life and development of the children in the school» (Dewey 1932: 31)? This is a tough task for the whole discipline, especially for adult education, which is fundamentally based on subjects' growth in their working and living contexts. This challenge reflects the research into the most effective ways through which to generate learning linked to human life needs (in any individual, personal, or social scope considered).

As Dewey lucidly stated in *Experience and Education* (1938),

it is part of the educator's responsibility to see equally to two things: first, that the problem grows out of the conditions of the experience being had in the present, and that it is within the range of the capacity of students; and, secondly, that it is such that it arouses in the learner an active quest for information and for production of new ideas. The new facts and new ideas thus obtained become the ground for further experiences in which new problems are presented. The process is a continuous spiral (Dewey 1976: 79).

The relevance that the American philosopher assigned to the generation of innovative ideas is extremely relevant in our contemporary context. The new patterns of global economies and job markets (Moretti 2012) outline the vital role of creativity in work. The ability to imagine innovative projects, to face new situations, and to renovate the plans of individual careers or organizational business plans are progressively strategic characteristics (Ito, Howe 2017). Education has the task of supporting the development of those skills, both in school and in other learning contexts. How can we do this? How can we integrate the free and disruptive dimensions of play and creativity with the structure of adults' learning pathways? We are in front of a changing paradigm.

Traditionally, the ancient philosophers divided the meaning for these actions through different words: public affairs and work (*negotium*) were separated from free time (*otium*), where play could happen. It seems that they were referring to different fields of life, quite clearly separate. On the contrary, what Dewey outlined reveals a unique perspective on the relationship between these two aspects: «in their intrinsic meaning, play and industry are by no means so antithetical to one another as is often assumed, any sharp contrast being due to undesirable social conditions. Both involve ends consciously entertained and the selection and adaptations of materials and processes designed to effect the desired ends» (Dewey 1930: 237).

In this sense, the integration of these dimensions in education could generate new patterns for the development of skills and capabilities. The active occupations represent interesting forms of generating learning, including work-related learning. In fact, if work permeates people's lives and their meaning, and this work is increasingly characterised by creativity, mobility, and other forms of innovation (both for business and career), it is meaningless to maintain this separation. Dewey's contribution to pedagogical reflection clashed with the antithesis «between education in preparation for useful labour and education for a life of leisure» (Dewey 1930: 293). Furthermore, it added that «the bare terms useful labour and leisure confirm the statement already made that the segregation and conflict of values are not self-enclosed, but reflect a division within social life» (Dewey 1930: 293). In the present situation, in which

work feeds on creativity and resourcefulness, this division wanes immediately. How can higher education support this process within its specific pathways? This is one of the key points for present and future research.

What we should be focusing on is the deeper meaning of work, conceived as profession and career, and its relationship with the formation of the self. Dewey provided a precious reflection on this in *Democracy and Education* (1916):

A vocation means nothing, but such a direction of life activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates. The opposite of a career is neither leisure nor culture, but aimlessness, capriciousness, the absence of cumulative achievement in experience, on the personal side, and idle display, parasitic dependence upon the others, on the social side. Occupation is a concrete term for continuity. It includes the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations, to say nothing of mechanical labour or engagement in gainful pursuits (Dewey 1930: 358–359).

The concept of ‘employability’, which is going to be analysed in the next chapter, slots neatly into the pedagogical framework traced by John Dewey throughout the nineteenth century. What is the relation between school and work? How can we help students develop skills and capabilities to better create their own personal and professional pathway? What are the global changes that people need to tackle in their career? How could higher education support both economies and citizens, while increasing the quality of life? These questions, and many others, represent the foundations of the educational reflection on the concept of employability based on Dewey’s pedagogical instrument.

3. Higher Education facing the challenge of work: the concept of employability

The category of employability arose along with the evolution of job market trends at a global level. It has been considered a new construct for the development of students’ and graduates’ work capabilities, especially in countries with high levels of unemployment. In this sense, it represents a reaction to the mismatch between education and employment to increase the support to transitions towards the job market (Boffo, Fedeli, Lo Presti, Melacarne, Vianello 2017). Economists and sociologists were the first who already discussed employability as a way to reduce mismatches in the twentieth century (Gazier 1998). However, these forms ignored the development of the subject and the deep perspective of the construction of skills and capabilities within the course of life. In 1998, Hillage

and Pollard recovered the individual perspective, focusing on subjects' capability to stay in the job market thanks to their knowledge, skills, and aptitude: «In simple terms, employability is about being capable of getting and keeping fulfilling work. More comprehensively employability is the capability to move self-sufficiently within the job market to realise potential through sustainable employment» (Hillage, Pollard 1998: 3).

Anyhow, the pedagogical elaboration of the concept mainly refers to important scholars who operated within the *Enhancing Student Employability Co-ordination Team* (ESECT) research group at the Higher Education Academy in York (UK)². Lee Harvey, Mantz Yorke and Peter Knight guided the team that intensively analysed many aspects of employability. In fact, the ESECT traced an interesting didactic and pedagogical approach aimed at transforming higher education to tackle innovation and the changes in the current social and economic situation.

The problem is not merely the power distribution within the university–economy relationship, or an instrumental view of higher education. On the contrary, the added value of the pedagogical standpoint on employability concerns the university as a place where young adults can develop critical and reflective thought: this may help them deal with the challenges of their lifespan as global citizens, workers, and active participants in the learning process as well (Harvey 1999). Lee Harvey clarified this point thus:

Employability raises fundamental questions about the purpose and structure of higher education. Employability is not about training or providing add-on skills to gain employment. On the contrary, employability is about how higher education develops critical, reflective, empowered learners. Despite appearances to the contrary, the real challenge is not how to accommodate employability but how to shift the traditional balance of power from the education provider to those participating in the learning experience (Harvey 1999: 13).

This is why Harvey emphasized how the conception of employability, as a simple indicator, is reductive in measuring academic performance. Yorke & Knight found themselves within the same framework (Yorke, Knight 2006). They described a competence-centred approach (European Commission/EACEA/Eurydice 2014) that has been widely adopted as a reference point for the creation of specific programmes.

² The Higher Education Academy started working on employability in 2006 through a series of papers. These works, coordinated by Prof. Mantz Yorke, were carried out by Professor Peter Knight (Open University), Professor Lee Harvey (Sheffield Hallam University), Professor Stephen McNair (Surrey University), Dr Brenda Little (CHERI), Professor Kate Purcell (University of the West of England), Mike Hill (Graduate Prospects) and Val Butcher from the Higher Education Academy.

From their perspective, employability meant: «[...] a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy» (Yorke 2006: 8).

This definition outlines a crucial connection between learning and employability and can determine innovative methodologies. This point considers not just the students' perspective, but calls into question the construction of curricula, didactic methods, interdisciplinary contents, but also career services. In fact, it is a learning process, curricular and extra-curricular, that connects, within educational action, concrete experiences, and key aspects for personal and professional growth. In conclusion, the category of employability is extremely disruptive in the pedagogical field since it highlights the formative process of subjects in relation with the social value of traditional university missions such as research and didactics in conjunction with the Third Mission.

4. Final remarks

The job market is changing extremely rapidly. If we acknowledge the trend of the last ten years (especially since the 2008 economic crisis), we can only imagine the extent of the changes we are going to meet in the next decades (Moretti 2012). Today's challenge for the university is not simply the ability to answer the mismatch by strengthening the skills supply. In fact, the timeframe of education does not coincide with the current work demand, which is constantly changing: the risk is to continually (and ineffectively) chase after the economy and the market. Besides, this is not the role of the university, even today when it is being asked to bring more and more added value in terms of innovation (Ito, Howe 2017). As Ulrich Teichler stated, «Higher education has to take care primarily to avoid the danger of «ivory tower knowledge delivery». It does not express warnings against the opposite possible disaster of higher education, i.e. to subordinate itself simply to the presumed demands of the employment system» (Teichler 2004: 7-8).

The Academy should look to the future, trying to understand the current trends also in terms of skill (Davies, Fidler, Gorbis 2011), and above all training people able to always deal with different challenges at personal, social, and political levels.

The change, for the future of countries, starts from higher education's ability to prepare people who can contribute to innovation, development, and social inclusion (Boffo, Gioli, Terzaroli 2017). If work really does represent the tool by which people build sense and their place in the world (Boffo 2012), then people should progressively develop the ability

to create new and better opportunities, for as many people as possible, to increase the quality of their life. This is primarily the task of Universities, for today and for the future as well.

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