LABOUR WORLD AND PROFESSIONAL SYSTEMS' TRANSFORMATIONS: NEW CHALLENGES FOR UNIVERSITIES

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THE REFERENCE SCENARIO

The reference scenario of this contribution is related to the transition from the knowledge society to the learning society. This change had a significant impact in redesigning the work and some relevant features of knowledge workers. The growth of the knowledge and learning dimension, required for an increasing number of jobs, leads us to reflect on a further step: the change from knowledge workers to learning workers.

Some international steering documents (European Commission, 1995; UNESCO, 2005; UN, 2015) have acknowledged the advent of a new type of society, where the previous constraints on where and when organised knowledge could be acquired are no longer applicable. In this new society, on the one hand lifelong learning (conceived as a citizen's duty as well as a right) becomes the keystone of the construction of training pathways for professional and personal growth. On the other hand, institutions are asked for a timely and effective response to the challenges of social and economic change and to the endless recurrent transitions in people's lives.

In 2010, the Harvard Business Review emphasized the necessity to consider every company employee and collaborator as a knowledge worker, anticipating the idea of widespread and shared knowledge representing one of the characteristics of current jobs (Hagel, Brown and Davidson, 2010).

In 2016, Jacob Morgan published an article on Forbes with an eloquent title: "Say Goodbye to Knowledge Workers and Welcome to Learning Workers". The spread of knowledge and its rapid change are the main causes of the transition from knowledge workers to learning workers.

In the knowledge society, knowledge workers assume an increasingly important role: fully immersed in the work process, they use more and more knowledge in their jobs (Drucker, 1959, 1969, 1987). In fact, the working processes require a new combination of skills and competences and are characterised by demographic heterogeneity, fluidity and variety, flexibility, responsible autonomy, collaboration, temporal intensity and vision, and not just performance (Bagnara, 2010).

Greater responsibility attached to a role also means more complexity in the performance of that role, but, in many cases, there is not as much recognition in terms of status and dignified working conditions, or active support for worker welfare, making it increasingly difficult to get a good job which is stable and rewarding. The time taken to obtain a satisfying job tends to lengthen; and it is equally difficult to maintain it, often working more and earning less. Additionally, if the job is lost, it is difficult to get new opportunities (Negrelli, 2013).

The progress of the division of labour generates more knowledge-based work and new jobs, and new social groups in search of recognition rather than instability, precariousness and new forms of inequality (Butera & Di Guardo, 2010; Gallino, 2014; Negrelli, 2013).

In the knowledge economy, a worker is required to be increasingly educated and trained, creative, resourceful, flexible, autonomous and responsible; a significant dimension of the "know-how" of work tends to expand. Nevertheless, at the same time, work becomes more precarious and the complexity of services increases; but in many cases, there is no equivalent recognition in terms of status and working conditions, making it increasingly difficult to get a good, stable and rewarding job (Negrelli, 2013).

The capitalist economy is transformed by the knowledge economy, thanks to Internet and knowledge workers. One of these transformations is an emerging new way of producing knowledge: collaborative, transparent and open, which contrasts with the traditional way of producing goods and services. The internet, free and open source software, social networks, Wikipedia and open science are the first important and concrete demonstrations of the success of new production methods. These changes have the capacity to generate a global cultural revolution which heralds a radical transformation of knowledge production, distribution and consumption. Knowledge workers are producers of a collective intelligence, based on individual initiative and teamwork, on trust and equal exchange, on democracy and meritocracy, which rapidly generates and multiplies new knowledge and has the potential capability of governing more advanced forms of production. In the knowledge economy, trust, reciprocity and voluntary cooperation are fundamental conditions for producing solutions to problems, developing smarter, more efficient and more effective production models (Gazzini, 2008).

On a more general level, some knowledge workers experience phenomena of psychological and social criticality linked to the inability to manage stress. In globalization, offshoring processes and the crisis threaten white-collar jobs as well as the blue-collar workers. Many knowledge workers are over 45 and are vulnerable in the labour market. Forms of protection and representation are scarce in self-employment and in "flexible" forms of work. The numerical expansion and the centrality of the role of knowledge workers pose the problem of their adequate political representation and their full participation in the economic and political system (Grazzini, 2008).

The growth of the role of knowledge and the rapidity of change in the workplace create the need for a constant updating of the knowledge held by workers, which generates the further transition from knowledge society to learning society and thus from knowledge workers to learning workers

Jarvis (2012) proposes three different interpretations of a learning society, based on existing literature.

The first refers to a futuristic or rather idealistic concept of the learning society as an educational society: as an ideal to strive for, which can be achieved only through a reform of public educational institutions.

The second refers to the learning market, in which the production of knowledge becomes an industry in the contemporary consumer society; it cultivates people's desire to learn, so that they can take part in contemporary society. Today, it is possible to learn in a fun way – as consuming is a fun action: thanks to countless tools, exposure to different environments, and without limits of time. Providers of these learning sources are not educational institutions, thus pressuring the latter to change their approach quickly.

Finally, the third refers to the reflexive society; reflexive learning is a symbol of the learning society. Society has become reflexive (Giddens, 1990; Schön, 1983), and in this perspective the knowledge that people acquire is no longer certain and stable forever; its value lies in allowing them to live in this rapidly changing society. A great part of this learning is individual and private, but a part is still public, which challenges public educational institutions, for

example in the case of knowledge-based occupations. In addition, the need to acquire new knowledge is pervasive, but learning new things and acting on their basis always contains an element of risk (Beck, 1986). As Jarvis argued in 2007 the crucial role of lifelong learning only gained mainstream status when ongoing learning became more work oriented. Now lifelong learning is recognized as a condition for economic competitiveness in a global economy, replacing the earlier conception of lifelong learning as a condition for democratic citizenship (Raggatt, Edwards & Small, 1996).

This change, together with the marketization of education, produces a further challenge to public educational institutions: to ensure the former function (making people and the economy competitive) without abandoning the latter (being an instrument of peoples' empowerment and of strengthening democracy).

Today, learning has become an intrinsic characteristic of a growing number of jobs and crafts; in most cases, the ability to learn autonomously is increasingly related to the ability to act independently.

The main resource of the person is no longer and only their existing knowledge, but the ability to acquire new knowledge, applying it to new environments and scenarios. The worker's ability to learn and adapt is more important than the knowledge possessed at recruitment. The strategic competence of learning to learn, as well as the ability to adapt, to understand and manage change, to find new solutions to new problems, is crucial. Hence also the need to combine with specific technical skills and the ability to self-analyse one's training needs, and to self-build one's learning paths, based on the critical examination of professional situations in which people work.

IMPLICATIONS FOR ORGANISATIONS AND WORKERS

Organizations are increasingly characterised as learning organizations, subject to forces that transform their characteristics, especially related to structures and processes, but which also drive their culture towards new logics which are less hierarchical and more open, flat, networked and adhocratic (Cocozza, 2012).

New challenges for workers are different, in quantity and quality, and have continually evolving implications: effectively applying their learning ability to new situations and problems, and developing the ability to learn quickly. Increasingly the focus is on research and discovery, with challenges such as information overload, compliance and giving meaning to data (Al-Kofahi, 2018).

For organizations, there is a growing need to constantly support the worker's learning process. They must begin to interpret the concept of workplace learning and on-the-job learning in a new way: the contribution provided by the person's involvement in activities and working relationships becomes the crucial element. Thus, learning acquired in different ways from traditional programs developed in institutional training contexts are valued (Billett, 2001, 2008, 2014).

For workers, the opportunities offered by this changing environment appear to be considerable: flexibility, conciliation, teamwork, networking, initiative, creativity, autonomy, responsibility. But these traits paradoxically can become critical elements to self-manage: the difficulty of managing time and space of work and of bearing the weight of planning one's own work; the frequent need to respond to various requests simultaneously; the overall and increasing precariousness of the employment situation and conditions for many workers in this environment.

Being 'self-navigators' is increasingly necessary, in part because the links between education and employment are so complex. Research shows that educational qualifications, although important, do not correspond directly to employment outcomes. […] Being good navigators requires a conscious approach to personal development so that individuals can see how their personal biography has developed in the past and how it is currently being constructed so that they can make decisions about their future options. Being good navigators also requires a deep understanding of the nature of the social, economic, and political world in which they are living and their relationships with others, locally and globally.   (Wyn, 2014, p.12)

Casey (2003) underlines the prevailing economic perspective, according to which economic and managerial models overcome human subjectivity, and learning interests are not strictly linked to market needs. This leads the author to propose a broader perspective, which can connect the productive needs of companies with individual empowerment and societal democratic citizenship.

Another critical element is the continuous shift in the responsibility for work from the organizations - and from the systems - to the worker. A kind of collapse on the individual level of business, economic and social problems that seems to be solved by the individual worker, as Beck had already suggested in 1986.

In a broader and mid-term perspective, we think that the needs of the economic and social systems and those of individuals can overlap significantly, and that one of the tasks of public educational institutions is to pursue this perspective and show that the contradiction between collective and individual needs is only apparent and short-term. That is to say that, in the long run, workers who are ready to manage change and able to learn constantly and reflexively, being also aware and active citizens, will allow for "squaring the circle" between freedom, social security and political democracy, as Dahrendorf had well anticipated in 1999.

CHALLENGES FOR UNIVERSITIES

The three missions of universities, in different ways, are all questioned by increasing complexity, labour market crises, lifelong and life-wide learning implications (Frignani, 2014). Universities are called to prepare students - and to accompany adult learners who return to study - for the challenges of today's working world, preparing them to become "self-navigators", through innovative guidance services and multidisciplinary and open pioneering learning processes.

First of all, universities must complete their transformation from "exclusive owners" of knowledge to organisers, enhancers and promoters of widespread knowledge in society and the economy; not forgetting, of course, the creation of new knowledge through research, which remains a distinctive element of universities. It is strange that this aspect has been analysed especially in terms of new teaching methodologies, which put the learner at the centre, without realising that the centrality of the learner also changes the function of the university.

Moreover, universities have an important political role to play, facing the contradictory messages sent to learners from contemporary society. On one side, there is the pressure on individuals, presented as the only ones responsible for their future and called to solve through their life trajectories the problems that society is not able to face. As argued above, universities cannot ignore this pressure on individuals, and must answer with stronger services in the areas of guidance, lifelong learning, recognition of competences, etc. (Palumbo and Startari, 2013; Palumbo and Proietti, 2018; Proietti, 2019). On the other side, Universities must fulfil the task of soliciting critical thinking and awareness of learners as

citizens and strengthen their ability to be active citizens. This can happen in two ways. Firstly, by cultivating the critical thinking that has always characterized the university and has often justified the suspicion with which the holders of power have considered universities: indispensable for the progress of science, but dangerous to social consensus, to privilege preservation and to the reproduction of inequalities. Secondly, by promoting forms of social innovation and participatory social design that allow scientific knowledge to enrich social life forms, from welfare services to the circular economy to environmental sustainability.

These transformations pave the way to a rethinking of universities' role in society. Therefore, we must consider the challenges for social innovation, with an evolution from Triple to Quadruple Helix approach proposed by Etzkowitz and Leydesorff (2000) and by Carayannis and Campbell (2009), who defined the fourth helix as "the media based and culture based public", associated with the "creative class". In this vein, the focus on relationships among governments, industries and universities widen to include a fourth pillar, civil society, and the role of universities grows toward a more global and "universal" task: to consider not only the evolutionary needs of economy and society, but also critical forecasting of the future of work in a *finanzcapitalismo* (Gallino, 2011) globalized society.

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