

# UNIVERSITY GOVERNANCE FACING CHALLENGES OF DIGITAL TRANSFORMATION.

## SOME RESULTS OF THE FIELD RESEARCH

**Emanuela Proietti**

Università degli Studi Roma Tre - [emanuela.proietti@uniroma3.it](mailto:emanuela.proietti@uniroma3.it)

### ABSTRACT

*Some studies show that most European HE institutions haven't made much progress in changing the courses they offer to a student centred learning model that can take into account developments and opportunities in technology-enhanced education. Challenges posed by digital transformation to universities do not regard only teaching and learning processes. There are different levels of institutional and organizational action which produce effects on these processes.*

*The paper presents some results of a part of the field research of the Erasmus+ Project ECOLHE. Six case studies have been carried out. They have aimed to investigate how the universities involved develop their strategic approaches to digitalisation. The results presented refer to the focus groups conducted in 2021.*

### INTRODUCTION

The world of universities is rapidly transforming, in continuity with what is happening in the global and national scenarios, but not without a bright internal debate on the contradictions of unplanned and few managed development, especially regarding the technological and digital issues.

Some major trends are changing the educational landscape and posing challenges for universities that wish to remain competitive: the nature of jobs is changing and students need to be able to update their skills throughout their careers; demand for continuous education and corporate training is growing; higher education (HE) faces serious capacity issues to deal with the global increase in student numbers; competition to attract the best students is increasing; public funding is decreasing as a share of revenue; research funding is increasingly skewed towards the top universities; Universities are collaborating more but increasingly selective; digitalized learning environments are becoming the norm and blended learning is becoming the main way of learning (Raetzsch et al., 2016).

Concerning this last challenge, ECOLHE (*Empower Competences for Online Learning in Higher Education*)<sup>4</sup> – an Erasmus+ Project, carried out from September 2020 to August 2023 – examines how the vision of digital learning in the European Higher Education Area (EHEA) is “translated into practice” (Latour, 1988; 2005) at national level by academic bodies. It aims to identify how digital challenges to promote lifelong learning through information and communications technologies (ICTs) in HE is shaped in specific contexts. ECOLHE aims to find out how universities involved adopt the European steering documents about how to use ICTs for HE; how digitalization contributes to transform teaching and learning processes or can help to do it, but also how it influences the action of Universities in their territorial context and in relations with the several stakeholders, in the perspective of a planning more

---

<sup>4</sup> <https://ecolhe.eu/>

participatory and bottom up; basically, how European recommendations and digital innovation processes are transposed into organizational practices.

Main ECOLHE's objectives and phases are: to analyse six case studies in HE, to examine how the universities involved develop their strategic approaches to digitalization; to implement online training to empower lectures and researchers to perform online and blended learning, more responsive to the qualitative dimensions of relationships; to develop innovative online environments for HE, enhancing the gamification tools; to develop a tool for the self-assessment of HE professionals based on the Symbiotic Learning Paradigm (SLP), a framework which, placing the learner at the centre, guides to a hyper-collaborative relationship between all stakeholders in HE; to provide guidelines, in order to propose Academic Bodies recommendations and tools to run digital transformation in HE; to favour social innovation in EHEA, also sharing good practices developed by partners<sup>5</sup>.

The paper presents some results of the focus groups conducted during the first phase of the international research: the six case studies. They are the following: in Italy, eCampus University (presented by Fondazione Link Campus University, applicant of ECOLHE) and University Roma Tre (presented by CRES IELPO, a Research Center of the Department of Education<sup>6</sup>); in Spain, the Universitat Oberta de Catalunya; in Ireland, the Adult Continuing Education of the University College Cork; in Greece, the University of Patras and in Finland, the Laurea University of Applied Sciences.

## **THEORETICAL FRAMEWORK**

The progress of the division of labour generates more knowledge-based work, new jobs and the rise of new social groups in search of recognition, as well as instability, precariousness and new forms of inequality (Butera & Di Guardo, 2010). 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" aspect of work tends to expand. Greater responsibility attached to the role also means more complexity of the performances (Negrelli, 2013). Work environments are expected in the near future to be characterized by greater autonomy, less routine activities, greater use of ICTs, less physical exertion and greater social and intellectual tasks (Cedefop, 2018).

Organisations are increasingly characterized as learning organisations, subject to solicitations that transform their distinctive features in relation to structures, processes, but also to their culture, towards new logics, which are less hierarchical, more open, flat, networked and adhocratic (Cocozza, 2014).

Workers have to face a growing number of challenges, which have continually evolving implications: to adapt the ability to learn to new situations and problems, develop an ability to learn quickly. Coming times are those of research and discovery, information overload, compliance to legislation and making sense of data (Al-Kofahi, 2018).

The lifelong learning key competences (Council of the European Union, 2018) - as strategic resources for living and working - redefine the educational, political and social dimension which qualifies the relationship between state and citizen, in a new, more inclusive and democratic form.

In this framework, lifelong learning becomes a requirement, but also an entitlement.

Universities are tested about their capability to offer a fundamental contribution in the construction of this universal entitlement and giving it effective responses. The entitlement to learn lifelong and to see

---

<sup>5</sup> Further information on intellectual outputs and research reports of ECOLHE is available at: <https://ecolhe.eu/outputs/>.

<sup>6</sup> <https://cresielpo.uniroma3.it/>.

recognized own non-formal and informal competences is highlighted and today required by different European Union recommendations and national decrees and laws (Proietti, 2020).

A universal entitlement to lifelong learning “enables people to acquire skills and to reskill and upskill. Lifelong learning encompasses formal and informal learning from early childhood and basic education through to adult learning. Governments, workers and employers, as well as educational institutions, have complementary responsibilities in building an effective and appropriately financed lifelong learning ecosystem.” [...]

“Establishing an effective lifelong learning ecosystem is a joint responsibility, requiring the active engagement and support of governments, employers and workers, as well as educational institutions. For lifelong learning to be an entitlement, governments must broaden and reconfigure institutions such as skills development policies, employment services and training systems to provide workers with the time and financial support they need to learn. Workers are more likely to engage in adult learning where they are assured of continuity of income and labour market security. Employers’ and workers’ organizations also have a leading role to play in this ecosystem, including through anticipation of future skills requirements as well as participation in their delivery” (International Labour Organisation, 2019, pp. 11; pp. 30-31).

Universities are called to contribute to prepare students - and to accompany adult learners who return to study - for the challenges of today's world of work; to become “self-navigators” (Wyn, 2014); through innovative, multidisciplinary, open, pioneering learning processes.

Digital transformation can offer strategic opportunities in this direction. It is characterized by a fusion of advanced technologies and the integration of physical and digital systems, the predominance of innovative business models and new processes, and the creation of smart products and services<sup>7</sup>. It is the use of technology to radically improve the performance or reach of an organization. In a digitally transformed business, digital technologies enable improved processes, engaged talent, and new business models<sup>8</sup>. In this scenario, the digitalisation is the series of phenomena that turn around the adoption of the outcomes of the process through which physical entities of different nature (three-dimensional objects, documents, sounds, images) are represented through a sequence of numbers (digits), usually in order to manipulate them by means of information technology (process known as digitization). The novelty of recent years, therefore, is above all in the process of creating digital data, which has reached ever more extensive processing capacities and which grow at an exponential rate combined with a progressive reduction in costs (Ambra, Pirro, 2017).

The transformation of organisational, professional and educational models that radically alter the rules, boundaries and autonomy of those who work daily in educational contexts, should suggest a global rethink of the education model and the idea of digital innovation to be pursued. Organisational processes and systems in their internal configurations (processes, procedures, internal and external communication systems, learning paths and environments, educational interventions, etc.) must be rationalised in order to integrate and exploit DTs, with the aim of making them more flexible and effective (Capogna, 2014; Capogna, Cianfriglia, Coccozza, 2020).

An organization has no other existence than that of the people who make it live (Morgan, 2014). Weick (1997) proposes to read organizations through the concept of *sensemaking*: a process based on the construction of identity; retrospective; establishment of sensitive environments; social; continuous; centred on (and from) selected information; driven by plausibility rather than accuracy. The meaning that digital transformation assumes for University is therefore given first by people who work in it and

---

<sup>7</sup> European Commission about digital transition available at [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/shaping-europes-digital-future\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/shaping-europes-digital-future_en).

<sup>8</sup> <https://www2.deloitte.com/ie/en/pages/technology/articles/digital-enablement.html>.

have constant relationships; while the impacts it produces are not always the desired ones, because, beyond the unexpected factors, the planning of the adoption of ICTs is not always systematic and built in a shared and bottom-up way.

DTs in educational institutions have the potential to be one of the main means of delivering quality education in line with their mission and vision. Their adoption and integration into educational systems implies changes in three basic dimensions: cultural, organizational and educational. The qualitative field research on ECOLHE focuses on them; they consider seven sub-dimensions of analysis based on the proposal of a *Digital Maturity Framework for Higher Education Institution* (Đurek, Begičević Redep, Kadoić, 2019), a synthesis of the main existing frameworks related to the integration of DTs in HE: leadership, planning and management; quality assurance; scientific-research work; technology transfer and service to society; learning and teaching; ICT culture and ICT resources and infrastructure.

At European level, the European Digital Competence Framework for Educational Organizations (DigCompOrg) (Kampylis, Punie and Devine, 2015) is another interesting framework, useful to encourage self-reflection and self-evaluation within educational organizations as they progressively develop learning pathways and teaching methodologies for the digital era; to create the conditions for decision makers can design, implement and evaluate programmatic interventions aimed at integrating and using educational technologies effectively. The role of management in integrating and effectively using educational technologies to achieve educational goals is crucial. The strategic plan of an educational organization should take into account technologies as a key element of a long-term educational vision, well-articulated and clearly expressed. Visible actions related to the leadership and management of the organization can provide important support for the realization of this vision, which should be an integral part of medium to long-term planning. The concept of learning in the digital age is an integral part of the mission, vision and strategy of the educational organization. The strategic planning of the educational organization, together with its documentation, reflects a vision and a mission in which the potential contribution of technologies to favouring the modernization of educational practices, particularly in the generation of broader educational outcomes (Earp and Bocconi, 2017).

## METHODS

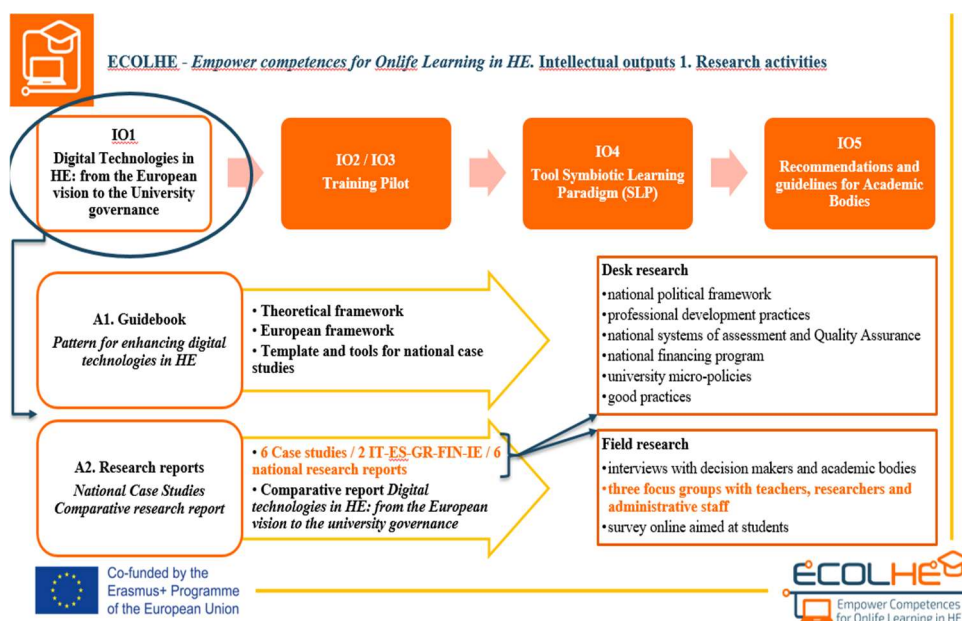
ECOLHE is an action-research (Barbier, 2007). To investigate the complexity of the phenomena, the field research adopts a mixed method, in which the team combines elements of qualitative and quantitative approaches.

The first phase of ECOLHE is organised in two main activities (Fig. 1).

The first one has the objective to elaborate a Guidebook *Pattern for enhancing digital technologies in HE* for the development of the case studies. It offers a theoretical background, a European framework about DTs in HE and a template and tools for the national case studies. The second activity has the objective to develop the field research: the research teams have realised the case study of its University; then, a comparative report on *Digital technologies in HE: from the European vision to the university governance* has been realised.

The six case studies, using an organisational empowerment approach (Capogna, 2018), aim to investigate some specific aspects of the evolution in the adoption of DTs in HE, from the European vision to the university governance and to examine how each university (unit of analysis) involved develops its strategic approaches to digitalisation.

**Fig. 1 – Ecolhe. Research activities of Intellectual Output 1. Digital technologies in HE**



The national research reports of the case studies have the objective of illustrating: needs and perspective of improvement of the use of DTs in HE; emerging teaching, researching and administrative staff competences for the digital era; the most important problems detected and possible solutions (suggested in according to a bottom-up approach).

They present the same structure, organised in two main parts, which describe the results of a desk research and the field research. The first one shows a reconstruction of the national political framework related to digital innovation in the national HE system; the professional development practices; the national systems of assessment and Quality Assurance in HE; the national financing program and a focus on university micro-policies by documentary analysis; university good practices of digital learning and smart-working.

The main phases of the field research are: in-depth interviews with decision makers and representatives of academic bodies; three focus groups with teachers, researchers and tutors and administrative staff (according to a qualitative approach); a survey online aimed at students to investigate their perception of the ability to integrate DTs into organizational and training processes supporting teaching and learning activities (according to a quantitative approach).

A total of 45 teachers, 35 researchers and tutors and 41 office workers have participated. In some cases, the focus groups had not the minimum number of participants suggested in literature (at least 6), but we have decided to use the results anyway because they have been still considered useful and interesting by the researchers, in line with the other evidences emerged.

The focus group is a data collection method: a detection technique for social research, based on discussion between a small group of people, in the presence of one or more moderators, focused on a topic that you want to investigate in-depth (Corrao, 2000). Data are collected through a semi-structured group interview process. The exchange of views of the various participants can promote a greater wealth of ideas and information on the topic.

The focus groups have been conducted using the questioning route method, which is often used in academic research. There has been a structured path in which the moderator has developed specific questions to which participants have responded verbally. The type of questions has been divided according to the degree of exploration to be achieved, using open questions. Main issues discussed are:



their digital innovation idea; organizational dimension of digital innovation; teaching practices and digital innovation; professional development with a focus on digital skills; good practices related to their own university; strength and weakness, opportunity and threat (SWOT analysis) in implementation of digital innovation in HE<sup>9</sup>.

The next paragraph presents the main results emerging from the focus groups.

## RESULTS

All we remember probably the key dates of the COVID-19 Pandemic. In December 2019, the Wuhan Municipal Health Commission (China) reported to the World Health Organization (WHO) a cluster of cases of pneumonia of unknown aetiology in Wuhan, in the Chinese province of Hubei. In January 2020, first, the new virus identified, then the new coronavirus transmitted from person to person and finally the first lockdown in the world begins, in Wuhan.

It means that during the development of our field research, and especially during the course of the focus groups (between March and June 2021), we have listened the reflections of colleagues on experiences made during the health emergency phase, and they are strongly affected by the impacts that a rapid, and sometimes disorganised, digital tools adoption have had on learning and organizational processes, during the 2020.

The results are presented in aggregate form and they concern three main investigation dimensions: organizational, teaching practices and professional dimension<sup>10</sup>.

Regarding the organizational dimension, main results are the following. During the Pandemic, the need to resort quickly - even if not always effectively and efficiently - to ICTs to guarantee the continuity of teaching open up a wide debate on how to improve the integration of DTs at all levels in the HE. In all Universities, there is a good availability of digital tools, platforms and devices (e.g. TEAMS, ZOOM, CANVAS); in some cases, they were already present but not so used. All participants agree on the huge possibilities offered by the automation and the development of the dematerialization process, especially in the public administration. The use of DTs favours the development of relationships with stakeholders: for example, thanks to the increase of online meeting. All categories of participants highlight a greater work and learning flexibility, which, however, often coincide with an unclear difference between working time and free time. Some needs have been highlighted: to develop co-creative processes which integrate all staff, students, workplaces and digital tools; a greater technical support dedicated to teachers and administrative staff; a strong quality assurance system to guide and to evaluate the practices; a strong sharing culture for learning by best practices (also among universities); a shared vision and good competences (in digital, but above all in communication and relationship fields); a greater need for leadership (guidance, support and collaboration). A lack of a long-term digital vision in academic governance has been registered, which is considered crucial to accompany the skills and organizational development models, thanks to a bottom up approach. But all institutions should be prepared to receive innovative proposals and to share them, to develop a more learner centred approach. The key is to transform organizational dynamics into a learning organization model.

Regarding the teaching practices and DTs, main results are the following. The first and more important lesson learned is that online learning is not the transfer of the face-to-face method into the virtual world. It needs of solid methodological and pedagogical approaches. Especially in teaching, the technological and digital infrastructure and tools were there, but they weren't used. There has been a great diffusion

---

<sup>9</sup> Further information on methodological approaches and research results is available at: <https://ecolhe.eu/outputs/>. With particular reference to IO1 Report "Digital Technologies in HE: from the European vision to the university governance".

<sup>10</sup> Further information on the results of the six case studies is available on: <http://ecolhe.eu/outputs/>.

of DTs in learning processes, which has promoted a larger integration of research projects and teaching (easier thanks to the possibilities of online meetings). The outstanding use of distance learning has attracted more students and encouraged the inclusion of others. But a lack of didactic skills in a digital environment has been registered: by all staff involved, sometime by teachers, researches and administrative staff, but also by students (although most of them are considered digital natives). They have sometimes demonstrated a poor set of self-management skills. For university staff, the bigger lack has been that of time resources: too much work to do during all the day. So, the main lesson learned is that there are some weaknesses in using DTs in teaching practices governed largely by emergency measures, without a long-term vision.

Finally, regarding the professional development, main results indicate that digital competences of teachers and researches are still diverse and heterogeneous (and also of administrative staff). New ones are necessary: including mastery of the subject to be taught, of the language of instruction, of digital tools, pedagogical and communication skills, innovative mind-set, correct attitude, systems thinking and learning skills. Participants underline that there has been a good availability of internal training, including participating in organized courses, but above all reading, observing, peer discussions and experimenting with new tools on their own and trying to do our best have been the main opportunities. Essentially self-training. There has been a lack of time for personal development and no possibility of specialization. A significant weakness is the recognition of creative and hard work done, also due to the considerable adoption of old and new digital tools: participants say generally it is not appreciated and not valorised. The motivation to train or to adopt new methodologies are not connected with career progression. This situation could be one of the factors of a resistance to change, which all participants recognize as one of the greatest risks also for the academic community.

## DISCUSSION

The main lessons learned by the research team on the basis of the results of the focus groups are the following. Traditional universities are expected to undergo a profound evolution to achieve the integration of online learning into their structured learning processes. Digital innovation is a vehicle for improvement, not a goal in itself. Universities should use technology to improve teaching, research and knowledge sharing, but the technology transfer is an application of knowledge transfer. So, develop knowledge remains the most important challenge for universities. The digital transformation proceeds step by step: some parts of the organisation proceed faster than other; this can be a trouble in the adoption of new DTs and innovative technological processes, for this reason training opportunities are recognised as a strategic choice. The intensive use of digital "forces" to deal with a new way of working: more digital, open, collaborative, agile, data-based and, above all, more transdisciplinary. A great convergence emerges regarding the idea that *digital* must remain a technology "at the service" of well-being of people and of knowledge.

## CONCLUSION

The three dimensions briefly analysed are closely related. In the first one the vision, ideas, concrete projects of organizational development are born; they find application in professional practice: in teaching and learning processes, as well as in research and third mission –; but the administrative apparatus of the university is deeply involved too, because it works in essential support of these processes and actions. Not only that, it represents a wealth which is sometimes little used and valued in universities. From critical issues arises a new training need for all types of staff and from fully exploited training opportunities emerge the need for change and new ideas, new projects, innovation in essence, which must return to the organizational dimension. Otherwise the circle is not virtuous and the organization risks wrapping itself up. At an organizational level, several dimensions come into play: the structural one, the cultural dimension; organizational roles and coordination mechanisms (Cocozza, 2014).

In a scenario characterized by strategic vagueness and continuous change (Cocozza, 2023) – in a metamorphosis as Beck (2016) remembers us – in work and organizational processes, in life – as Pandemic pointed out –, in the economy of flexibility and indeterminacy, life cycle analysis of organisations should be recurring, carried out in an in-depth and participatory manner by all stakeholder representatives. Analysis and decision times are shortened and condition not only the set-up and functioning of the structures, as well as the articulation of processes, but they require a new organizational culture paradigm oriented marked by change and the enhancement of people and diversity present in organisations, assumed as a strategic asset to effectively carry out a real innovation project. An innovation that improves the results of the overall performance of the organisation, not in an ephemeral and transitory way, but in a lasting way, because it is based on a complete conscious and participated renewal of personal, professional, productive, administrative and organizational behaviours (Cocozza, 2014).

## REFERENCES

Al-Kofahi K., *All is bringing a new set of rules to knowledge work*, Thomson Reuters, 2018, <https://blogs.thomsonreuters.com/answeron/ai-knowledge-work/>.

Ambra M.C. & Pirro F., “Digitalizzazione e lavoro: nuove sfide per il social investment approach”, *La Rivista delle Politiche Sociali*, n. 3, pp. 79-94, 2017.

[Barbier](#) R., *La ricerca-azione*, Armando Editore, Roma, 2007.

Beck U., *The Metamorphosis of the World*, Polity Press, Cambridge, UK, 2016.

Butera F. & Di Guardo S., *Rappresentare e gestire il lavoro della conoscenza: un approccio per svelare e sviluppare broad profession. Working paper*, Fondazione IRSO, 2010.

Capogna S., “La valutazione come strumento di empowerment organizzativo e professionale”, *Rassegna Italiana di Valutazione*, Vol. 70, pp. 99-117, 2018.

Capogna S., Cianfriglia L. & Cocozza A. (ed.), *Digital Culture for Educational Organizations. Guidelines for Teachers and Education Agencies*, University Press, Roma, 2020.

Capogna S., *Scuola, Università, E-learning. Una lettura sociologica*, Armando, Roma, 2014.

Cedefop, *Less brawn, more brain for tomorrow's workers. Cedefop briefing note, June 2018*, 2018, <http://data.europa.eu/doi/10.2801/532551>.

Cocozza A., *Organizzazioni. Culture, modelli, governance*, Franco Angeli, Milano, 2014.

Cocozza A., *The Unexpected in Action: Ethics, Rationality, and Skills*, Springer, Berlin, 2023.

Colella F., *Focus group. Ricerca sociale e strategie applicative*, FrancoAngeli, Milano, 2011.

Corrao, S., *Focus Group*, FrancoAngeli, Milano, 2000.

Council of the European Union, *COUNCIL RECOMMENDATION of 22 May 2018 on key competences for lifelong learning* (Text with EEA relevance), 2018.

Durek V., Begičević Redep N. & Kadoić N., “Methodology for Developing Digital Maturity Model of Higher Education Institutions”, *Journal of Computers*, 14(4), pp. 247-256, 2019.



Earp J. e Bocconi S., *Promuovere un apprendimento efficace nell'era digitale. Il quadro di riferimento europeo DigCompOrg sulle competenze digitali delle organizzazioni educative*, Istituto per le Tecnologie Didattiche, Consiglio Nazionale delle Ricerche (CNR), 2017.

International Labour Organisation, *Work for a brighter future. Global commission on the future of work*, International Labour Organization, Geneva, 2019.

Kampylis, P., Punie, Y. and Devine, J., *Promoting Effective Digital-Age Learning: A European Framework for Digitally-Competent Educational Organisations*, Publications Office of the European Union, Luxembourg, 2015, DOI: 10.2760/612227.

Latour B., *Reassembling the Social. An Introduction to Actor-Network Theory*, Oxford University Press, Oxford, 2005.

Latour B., *Science in Action. How to Follow Scientists and Engineers Through Society*, Harvard University Press, Cambridge, MA, USA, 1988.

Morgan G., *Images. Le metafore dell'organizzazione*, Franco Angeli, Milano, 2014.

Negrelli S., *Le trasformazioni del lavoro*, Laterza, Roma-Bari, 2013.

Proietti E., *Il lavoro nella learning society: la sfida delle competenze*, Roma TrE-Press, Roma, 2020, DOI: 10.13134/979-12-80060-07-5.

Raetzsch A., Thuaux-Alemán B., Rogers S., Berguiga M., af Sandeberg I. and Bricout V., *The future of higher education. Transforming the students of tomorrow*, Arthur D. Little, Bruxelles, 2016.

Weick K., *Senso e significato nell'organizzazione. Alla ricerca delle ambiguità e delle contraddizioni nei processi organizzativi*, Cortina Raffaello, Milano, 1997.

Wyn J., Conceptualizing Transitions to Adulthood, in Davis C.A. & Olson J.S. (eds.), *New Directions for Adult and Continuing Education. Special issue: Meeting the Transitional Needs of Young Adult Learners*, n. 143, pp. 5-16, 2014, DOI: [10.1002/ace.20100](https://doi.org/10.1002/ace.20100).

Yin R., *Case Study Research: Design and Methods*, SAGE Publications, New York, 2003.

Zack L., *Using a Multiple-Case Studies Design to Investigate the Information-Seeking Behavior of Arts Administrators*, [Johns Hopkins University Press](https://doi.org/10.1177/0013164406287111), Baltimora, Maryland, USA, [Vol. 55, N. 1](https://doi.org/10.1177/0013164406287111), pp. 4-21, 2006.