

Manuel León-Urrutia
Esteban Vázquez Cano
Nicholas Fair
Eloy López Meneses (coords.)

Trends and Good Practices in Research and Teaching

A Spanish-English
Collaboration

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C/ Bailén, 5 – 08010 Barcelona
Tel.: 93 246 40 02
octaedro@octaedro.com
www.octaedro.com

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Introduction

Our lives are increasingly digital and digitised, which increasingly requires that all of us become appropriately equipped to face the current and emerging challenges that a digital life poses. Coexisting in highly diverse yet and nonetheless closely related settings, often with increasingly blurred nearly inexistent boundaries between, such as the physical and the virtual spaces, enhances the complexity of teaching and learning processes. These new ways in which we establish a relationship between information and knowledge require an evolution metamorphosis in the way in which education systems are developed, in the educational practices, and teacher development, as well as in the way in which we conceive the knowledge and professional competencies, skills and literacies required by of educators our teachers. Technology is present in these processes, as an essential element in all of these factors this equation (López-Gil y Bernal, 2016; López-Gil y Bernal-Bravo, 2019).

The XXIst century is the century of information, where individual learning is conceived mainly through interactive and collaborative technologies. These technologies are meant to offer a stimulating and socially positive learning experience, but equally to become a construct that allows students to learn by doing, while sharing their learning experiences with others who are often at the other side of that virtual space (Gómez-Parra y Huertas-Abril, 2019).

The rapid integration of ICTs into almost all aspects of modern life since the turn of the millenium is fostering a continuous transformation in our society, becoming one of the most significant agents of social change (Esteve, 2016). In previous epochs, information was the preserve of a small elite (teachers being one example), however, with the advent of the World Wide Web and the physical and virtual networks which it runs on, the XXIst

century can now be seen as a period of abundant information. This information is primarily accessed, now, through physical networks (e.g. servers, wifi routers/towers, satellites, cables... etc) and digital networks of application services, social platforms, and people. Interaction is mediated through ubiquitous Web-enabled, mobile devices from any physical location. Education has, of course, not been immune to the change represented by digital technology and is undergoing a fundamental re-evaluation of what it means to teach and learn in this information-rich, networked age. In short, understanding the transformative role of ICTs in education must not be ignored (Cabero, Llorente & Morales, 2013). Current societies need education systems able to respond to the social and educational changes resulting from digital networks. Furthermore, modern education systems also need to be fit-for-purpose for future professionals entering a rapidly changing labour market increasingly typified by Industry 4.0, Robotics, Big Data and machine learning / artificial intelligence. These educational systems should therefore rapidly evolve from traditional teacher-centred models, based on the transmission and memorisation of knowledge, to new pedagogies and methodologies that allow students to acquire knowledge, skills and attitudes that are continuously applicable to real-world changing work / life practices (Fernández, Leiva y López Meneses, 2017).

This is especially true for Higher Education, with the reification of new pedagogical approaches, as well as new learning design in which digital technologies, and in particular the Web, have a fundamental role (Mar Marín & Cabero, 2015). The use of these digital technologies also transcends teaching and learning processes, having an influence on the organisational and structural aspects of education provision (Jiménez, Alvarado & Llopis, 2017). This is because learning has become a sociotechnical process (e.g. Cummings, 1978; Bijker, 1997; Geels, 2002) in which the learner and the learning process can not be separated from the technologies used for learning purposes. Learners are at the centre of an autonomously built and maintained network of connections to digital devices, services, information and people – their Personal Learning Network (Fair, 2020) - which forms the framework for all their learning activities. This reconceptualisation of the learner from merely a physical body located at a single

point in space/time, to the learner being the centre of a complex, dynamic, evolving and temporally/spatially unbounded network has profound effects on how we conceptualise learning.

This reconceptualization of the learner is one important reason why professional development programmes for HE educators that include the construction and dissemination of knowledge around the Networked Society (Castells, 1996), Personal Learning Networks and networked learning are needed, in order to equip educators with the knowledge and understanding necessary to face the demands of the current complexities and sociocultural dynamics of this networked age (Piscitelli, 2006). This is why it could be argued that we are facing a change of paradigm in the way professional development processes for Higher Education educators should be understood (Vázquez-Cano, 2015). Consequently, universities are the sociotechnical pillars for the expansion and dissemination of global knowledge, citizenship's empowerment, professional development and educational innovation for the progress of the social and economic fabric of society (López-Meneses, 2017). Universities will therefore need to continue, and even accelerate, the adaptation of their teaching and training practices to supply the demands of this changing society. HE institutions (HEIs) are already paying increased attention to the characteristics and needs of current students; and are facilitating the incorporation of flexible and open settings that help transform traditional communication models - characterised by the passivity of the students - into new models in which students can actively participate in the construction of knowledge and where they are aware and own their processes of competencies acquisition (Cabero, Ballesteros y López-Meneses, 2015). However, there remains considerable institutional inertia, as predicted by sociotechnical theory (Geels, 2002), towards the pedagogical and learning design shifts we argue are necessary to respond effectively to the new networked paradigm.

This book will attempt to add light to current debates by indicating that it is not only important to expose students to virtual tools, as well as ensure HEIs remain up-to-date with learning technologies that transform education, but also to pedagogically transition to the active, autonomous development of mature and effective personal learning networks and the development of digitally-enabled, networked learning behaviours. The book consists

of thirteen chapters reporting on research in which collaboration between British and Spanish universities has taken place. The book aims to disseminate and critically reflect upon a series of educational experiences with the common factor being the use of a wide range of learning technologies, with the common aim of enhancing the sustainability of Higher Education provision by implementing new pedagogies or learning design applicable to the network age. This work also aims to encourage Higher Education professionals to generate innovative approaches to their teaching practices.

ADD

To conclude, the research described in this book indicates the need for an acceleration by HEIs in their transition to digitally-enabled personal learning pedagogies and has provided a series of examples of how this may be achieved in practice using a range of digital technologies in innovative ways. The book also indicates, in line with Fernández-Márquez et al., (2019), that the professional development of HE educators requires an increasing focus on network-centred, digitally-enabled pedagogies and learning design, where skills, literacies and competencies are as important as content knowledge (for both students and educators). In this way, HEIs can find sociotechnical approaches which are capable of rising to the challenge of aligning the HE learning experience with the expectations and behaviours of the modern HE student, living, working and learning in a Network Society.

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MOOCS and Higher Education Globalisation: Social Work and Social Education Students' Perspectives

MANUEL LEÓN-URRUTIA

m.Leon-Urrutia@soton.ac.uk

Orcid: 0000-0002-6358-7617

Universidad de Southampton

EVA ORDÓÑEZ OLMEDO

eva.ordonez@ucavila.es

Orcid: 0000-0002-6220-0302

Universidad Católica de Ávila

ESTEBAN VÁZQUEZ CANO

evazquez@edu.uned.es

Orcid: 0000-0002-6694-7948

Universidad Nacional de
Educación a Distancia.

ELOY LÓPEZ MENESES

elopmen@upo.es

Orcid: 0000-0003-0741-5367

University of Pablo de Olavide

Abstract

MOOCs can support educational innovation in a wide range of contexts, from formal to informal and from expected to unexpected. This kind of open online courses are often used within campus modules as core elements of their curriculum. This is the case of this experimental study, where we analyse an experiment of HE educational innovation about the perceptions of students around strengths and weaknesses of MOOCs in socio-educational settings. 54 students were surveyed with multiple choice questions around this topic. The results show that HE students of education degrees tend to see the potential of MOOCs to aid the transformation of the classrooms often currently reserved to social elites. They also see that MOOCs can transcend to new learning arenas more ubiquitous, connected, informal and horizontal, which can facilitate the digital inclusion of disenfranchised groups, as well as potentiate the blooming of interactive communities of collective intelligence. However, these students were also aware of important shortcomings such as the lack of monitoring, and MOOC's often unattainable demand of high learner autonomy.

Keywords: MOOCs, education innovation, MOOCs within campus, MOOCs for inclusion

1.1. MOOCs and learning models in Higher education and Society

Conner (2013) suggests that learning in the Knowledge Society occurs in a diversity of contexts, ranging from formal to informal and from expected to unexpected (figure 1).

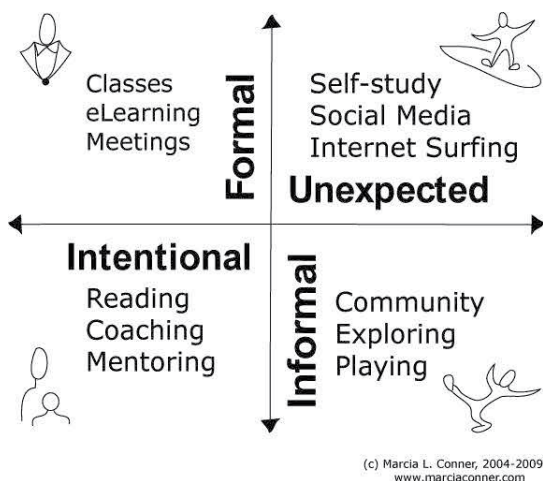


Figure 1. Learning contexts (Conner, 2013).

In this sense, MOOCs are interesting educational approaches to develop in this polychromatic plurality of educational contexts.

MOOC acronym stands for Massive Open Online Courses (Rheingold, 2013). In scientific literature, MOOCs are often portrayed as virtual environments of social connectivity around a particular area of study with an open pedagogical approach (McAuley et al., 2010; Vázquez-Cano, López-Meneses & Barroso, 2015; Aguaded, Vázquez-Cano & López Meneses, 2016). These are in turn offered by many of the top Higher Education Institutions (HEIs) worldwide, and have the potential to alter the global Higher Education ecosystems (López-Meneses, 2017). Castaño & Cabe-ro outline the following characteristics of MOOCs:

- ▶ They are educational resources with certain resemblance to a classroom.

- ▶ They are events with start and finish dates.
 - ▶ They have assessment mechanisms.
 - ▶ They are online.
 - ▶ They are free for learners to use.
 - ▶ They are open, without admission prerequisites.
 - ▶ They allow interactive participation at scale of large learning communities.

The MOOC universe is object of pedagogical and educational reflection among many academics in the field (Zapata, 2013; Ramírez-Fernández, Salmerón y López-Meneses, 2015) as well as for HEIs in the globalised world (Haggard, 2013). That entails an innovative model of massive education that exploits the potential of communication and information technologies in a paradigmatic fashion at societal level (Pérez-Parra & Gómez-Galán, 2015). In the same way, massive and open education poses a challenge for HEIs and the HE teaching community, who is pushed to redefine the current methodological paradigm in order to charter new curricular approaches which are more open, interactive, collaborative and ubiquitous, in symbiosis with a more dynamic and holistic assessment, embedded in more flexible and diversified programmes, more adapted to the job market to promote and provide students with the implementation of their own skills and competencies development paths for their academic and professional development (López-Meneses, 2017).

Many attempts have been made at classifying the different types of MOOCs. Perhaps one of the most commented taxonomies is that of Clark's (2013), who identifies seven types:

- ▶ TransferMOOCs (consisting of taking existing in-campus courses and transferring them to MOOC platforms).
- ▶ MadeMOOCs (purpose-made MOOCs with emphasis on the quality of the multimedia materials and MOOC-specific tasks and interactions for students).
- ▶ SynchMOOCs (courses have start and end dates, as well as specific assessment events).
- ▶ AsynchMOOCs (self-paced, with no dates or deadlines).
- ▶ AdaptiveMOOCs (using adaptive algorithms to personalise learning, based on learning analytics insights).
- ▶ GroupMOOCs (designed for specific groups)

- ▶ ConnectivistMOOCS (following Siemens' and Downes' connectivist principles).
- ▶ MiniMOOCSs (with small numbers and short duration).

However, the most generalised classification is that of xMOOCs and cMOOCs, where the former is a centralised approach with behaviourist pedagogical underpinnings, and the latter is a distributed approach with social constructivist and connectivist pedagogies (Downes, 2012; Karsenti, 2013; Vázquez-Cano, López-Meneses, & Sarasola, 2013).

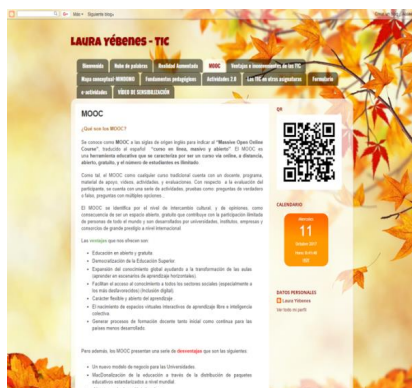
As Aguaded & Medina suggest (2015) the MOOC movement currently emanates from a process of innovation in the context of open education, oriented by the principles of massive and free distribution of contents, and technologically facilitated by online, interactive and collaborative applications. Gértrudix, Rajas, & Álvarez (2017) note that his movement has significant academic and journalistic attention, as evidenced by the bibliometric analyses of academic (López-Meneses, Vázquez-Cano, & Román, 2015; Aguaded, Vázquez-Cano, & López-Meneses, 2016; León-Urrutia, Vázquez-Cano, & López-Meneses, 2017) and non-academic literature (White, León, & White, 2015; Kovanovich *et al.*, 2015). This attention is also reflected in the institutional policies that stimulate MOOC production (Hollands & Tirthali, 2014), and the analysis of their pedagogical quality (Roig-Vila, Mengual-Andrés, & Suárez-Guerrero, 2014; Aguaded & Medina-Salguero, 2015), among other areas. MOOCs can be therefore considered as a new learning path for universal education.

1.2. The setting

In this study, we analyse an experiment of HE educational innovation about the perceptions of 54 students of an Education degree module named "Information and Communication Technologies" in the double degree of Social Work and Social Education, from the cohort of February 2016-17, in the University Pablo Olavide of Seville. One of the core contents of these modules are MOOCs and their social and educational impact (see module in <<http://bit.ly/2xwjh4x>>).

This experiment encourages first-year Social education students to reflect upon the advantages and disadvantages of MOOC in socio-educational settings. For this, every student would produce a personal *edublog* for the module, keeping record the activities carried out in it. One of the tabs would be a record of the MOOCs where they would contribute with their reflections. In figure 2, two exemplars are displayed.

Edublog 1
URL: <http://laurayebenetic.blogspot.com.es/p/mooc.html>



Edublog 2
URL: <http://educametetic.blogspot.com.es/p/mooc.html>

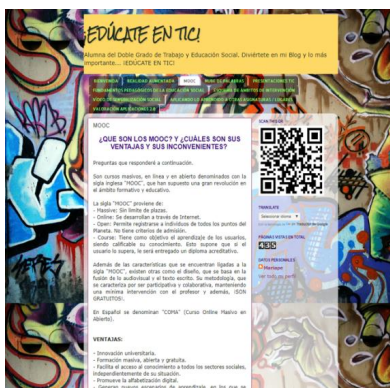


Figure 2. Personal edublog exemplars

1.3. Aims

The structure of this study was devised in attention to its main aims, which are the following:

- ▶ Analysing how students perceived the advantages of MOOCs in socio-educational settings where students of this particular module operate.
- ▶ Determine the main weaknesses of MOOCs as seen by the students of the module.
- ▶ Enhance our understanding of *edublogs* as educational resources, and find how to best use them to support the professional development of the social educator.

1.4. Methodology

This research Project used qualitative and descriptive methodological approach. The sample was formed by 54 students of the double degree of Social Work and Social Education, in the Faculty of Social Science of the University Pablo Olavide, cohort 2016/17.

To analyse the different students' outputs (comments made in the individual edublogs) throughout the module, a reference framework was taken from the guidelines established by Bogdan & Biklen (1992); Miles & Huberman (1994), and Monje (2011).

The first stage of the data analysis process consisted of data reduction by categorising and coding the information obtained. The categorisation involved simplifying and selecting the information in order to make it more manageable. For this, the following steps were followed:

- ▶ Units were separated to identify relevant instances about reflections on advantages and drawbacks of MOOCs in socio-educational settings.
- ▶ These units were grouped in themes.
- ▶ The instances were synthesised and classified into those different themes.

During the coding stage, each textual instance was identified and inserted into its corresponding category through a mixed inductive-deductive procedure, to then perform a statistical analysis of the counts obtained. Finally, the analysis process was completed with a second stage in which the different instances were interpreted and categorised, in order to facilitate the inferences and interpretations of the results, as described below.

1.5. Results

This section starts with the analysis of the study participants' reported perceptions with regard of the strengths of MOOCs in socio-educational settings. More specifically, Table 1 displays the frequencies of participants' responses around this topic. From the table it can be inferred that most students saw gratuity as one of the main advantages of this approach for knowledge expansion,

followed by 46 students who thought that its greatest advantage is the flexibility that MOOCs provide, adapting to the learners' availability and ability to devote time to those courses. It is also worth highlighting the 33 responses stating MOOC's ability to create learning communities and networks, from pools of massive numbers of participants, facilitated by discussion forums (32 responses specific to fora). Moreover, 31 students highlighted the inclusive nature of MOOCs, enabling access to disenfranchised groups.

Table 1. Participants' responses on MOOC strengths

| MOOC advantages | FREQUENCIES |
|--|-------------|
| Gratuity | 47 |
| Higher education content | 24 |
| Flexibility | 41 |
| Width of choice | 18 |
| Education for the disenfranchised | 31 |
| Employability | 9 |
| Support to traditional education | 10 |
| Discussion forums | 32 |
| Multimedia materials | 4 |
| Introductory topics and life-long learning | 19 |
| Online education | 12 |
| Collaborative social networks | 33 |
| Certification | 14 |
| Unlimited enrolments | 9 |

24 responses agreed that MOOCs offer Higher Education contents, signed off by prestigious universities. 19 of the responses indicated that MOOCs can introduce learners to scientific topics and disciplines, as well as providing live-long learning experiences, with a wide variety of offerings (18 responses).

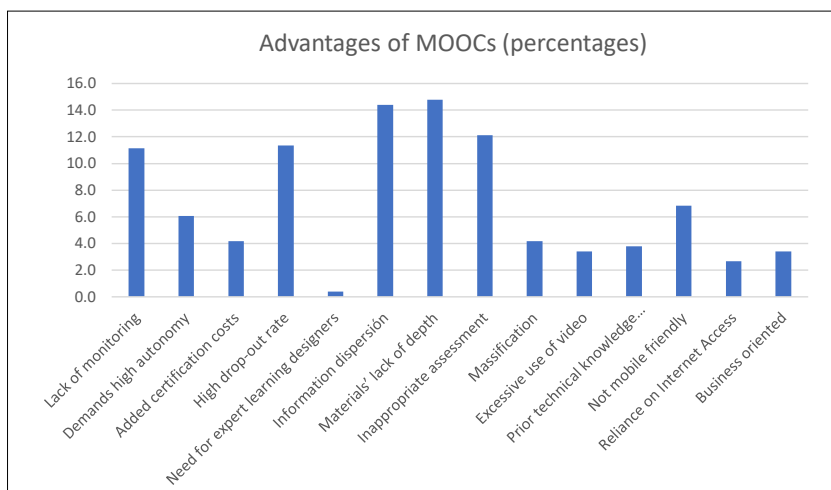


Chart 1. Percentages of responses from participants about advantages of MOOCs

In light of the results obtained referring to the advantages of MOOCs, it can be inferred that these courses have a significant potential to offer affordable and accessible education to everyone regardless of their background, as others have already suggested (Christensen et al., 2013; Daniel, 2012). The results show that this is also true in our social and educational settings, where these courses can support the digital inclusion of disenfranchised groups (Vázquez-Cano, López-Meneses, & Sarasola, 2013). Finally, in consonance with Moser-Mercer (2014), learning in “fragile” contexts is fundamental for an equal societal development, as well as the internalisation of HEIs (Teixeira *et al.* 2016).

With regard of the main challenges and difficulties of the MOOC movement in socio-educational settings, Chart 2 highlights a 15% of participants noting a lack of depth in the contents and materials offered in MOOCs. To this respect, as pointed out by Daniel, Vázquez-Cano, & Gisbert (2015), too many MOOCs are designed as a collection of videos with a discussion forum, which involves a traditional distance learning model that does not promote personalised learning. This in turn leads to a unidirectional teacher-centred content-based communicative design, with serious issues in attending individual differences, in a tendency to standardise learning (Valverde, 2014). In this sense, other authors (Lane & Kinser, 2013; Aguaded, Vázquez-Cano, & Sevillano, 2013)

use the term McDonalised of education to refer to the distribution of standardised educational packs at global scale. Also, over 10% of the participants expressed that these courses lack appropriate and quality-ensuring assessment systems.

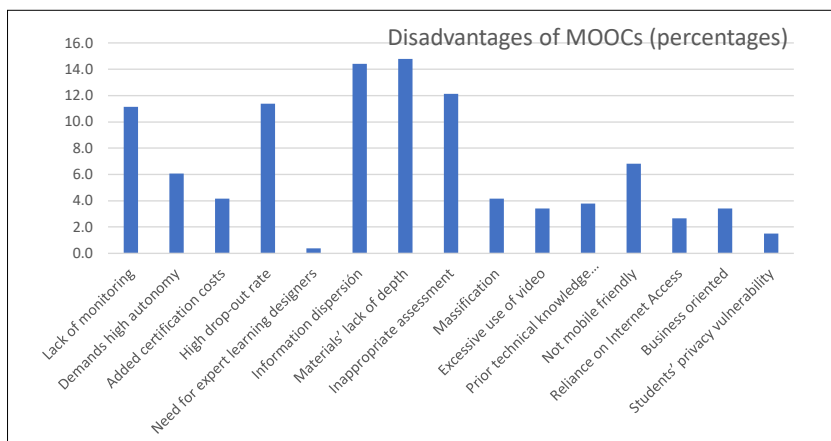


Chart 2. Participants' opinions about MOOC weaknesses, in percentages

There was also a 14.39% who stated that most MOOCs, due to their massiveness, come with an information deluge that could lead to dispersion and disorientation. In this sense, Calderón, Ezeiza, & Jimeno (2013) pointed out that some learners who feel disoriented and overwhelmed have low probabilities of interaction with tutor or expert co-learners, little meaningful socialisation in the MOOC, and little depth in their interactions.

12.12% of the participants also identified the predominance of multiple choice questions in the MOOC assessment methods as one of their main drawbacks. Another widely criticised aspect of MOOCs (11.36%) was the high attrition rates, in line with Fidalgo, Sein-Echaluce, & García Peñalvo (2013). Also, almost 11% expressed that MOOC lacked an appropriate follow up of the learning process.

Other reported weaknesses worth mentioning were MOOC's non-mobile friendliness (18), a high reliance on students' autonomy (16), and additional costs for certificate obtention (11). See table 2 for all the results about MOOCs' weaknesses.

Table 2. Frequencies of participants' responses in relation to MOOCs' weaknesses

| MOOC weaknesses | FREQUENCIES |
|--|-------------|
| Lack of monitoring | 29 |
| Demands high student autonomy | 16 |
| Added certification costs | 11 |
| High drop-out rate | 30 |
| Need for expert learning designers | 1 |
| Information dispersión | 38 |
| Materials' lack of depth | 39 |
| Inappropriate assessment | 32 |
| Massification | 11 |
| Excessive use of video | 9 |
| Prior technical knowledge requirements | 10 |
| Not mobile friendly | 18 |
| Reliance on Internet Access | 7 |
| Business oriented | 9 |
| Students' privacy vulnerability | 4 |

Another 10 participants indicated that MOOC often required too much previous technical knowledge to get started with the course. Also, 9 of the participants expressed that there was an abuse of video materials in detriment of other formats, an unbalanced that affected the quality of the courses (Zapata, 2013; Vázquez-Cano, López, & Sarasola, 2013).

Finally, seven participants indicated the indispensability of a working Internet connection as a significant weakness. One of the students also expressed that quality MOOCs could not be delivered without specialist learning designers. In this sense, León-Urrutia, Vázquez-Cano, & López-Meneses (2017), suggested that MOOC designers must provide a more comprehensive and adaptive design to cater for different socio-educational realities, in order to address the diverse training and educational demands.

1.6. Discussion and conclusion

One of the most salient features of the current Information Society is the relevance that Information and Communication Technologies have been gaining recently, becoming elements for exclusion and discrimination in a wide range of social contexts (Cabero-Almenara, & Ruiz-Palmero, 2018). Martín-Padilla (2017) indicates that this is especially true for MOOCs.

Moreover, universities are socio-technical pillars for the expansion and dissemination of global knowledge, as well as for the empowerment of citizenship, educational innovation, knowledge transfer. Universities are also catalysts for professional development, social cohesion, and an integrating agent for the economic and technological fabric of the knowledge society and human development (López-Meneses, 2017). Under this socio-technical and educational perspective, MOOCs can aid the transformation of the classrooms often currently reserved to social elites. MOOCs can transcend to new learning arenas more ubiquitous, connected, informal and horizontal, which can facilitate the digital inclusion of disenfranchised groups, as well as potentiate the blooming of interactive communities of collective intelligence. However, we must be aware that, after of a first phase of effervescence in HE, a set of shortcomings have become evident, as participants in this study have identified, and other authors have corroborated. These are, among others, the high attrition rate, the scarce interactivity of MOOC participants, the weaknesses in the official recognition through creditation, and the tendency to monetisation over quality (Aguaded, Vázquez-Cano, & Sevillano, 2013; Daniel, Vázquez-Cano, & Gisbert, 2015; León-Urrutia, Vázquez-Cano, & López-Meneses, 2017). An awareness of these shortcomings, as well as these advantages, can support a transformation towards more horizontal, connected, informal, and inclusive educational offerings, creating virtual habitats for sustainable educational development for the *Homo Conexus/digitalis* in the path of globalised knowledge (Vázquez-Cano, López-Meneses, & Barroso, 2015).

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Trends and Good Practices in Research and Teaching

This book will attempt to add light to current debates by indicating that it is not only important to expose students to virtual tools, as well as ensure HEIs remain up-to-date with learning technologies that transform education, but also to pedagogically transition to the active, autonomous development of mature and effective personal learning networks and the development of digitally-enabled, networked learning behaviours. The book consists of thirteen chapters reporting on research in which collaboration between British and Spanish universities has taken place. The book aims to disseminate and critically reflect upon a series of educational experiences with the common factor being the use of a wide range of learning technologies, with the common aim of enhancing the sustainability of Higher Education provision by implementing new pedagogies or learning design applicable to the network age. This work also aims to encourage Higher Education professionals to generate innovative approaches to their teaching practices.

To conclude, the research described in this book indicates the need for an acceleration by HEIs in their transition to digitally-enabled personal learning pedagogies and has provided a series of examples of how this may be achieved in practice using a range of digital technologies in innovative ways. The book also indicates, in line with Fernández-Márquez et al., (2019), that the professional development of HE educators requires an increasing focus on network-centred, digitally-enabled pedagogies and learning design, where skills, literacies and competencies are as important as content knowledge (for both students and educators). In this way, HEIs can find sociotechnical approaches which are capable of rising to the challenge of aligning the HE learning experience with the expectations and behaviours of the modern HE student, living, working and learning in a Network Society.