



UNDIVIDING THE DIGITAL? THE POWER OF NARRATIVE RESEARCH TO UNCOVER THE HIDDEN COMPLEXITIES OF STUDENTS' DIGITAL PRACTICE

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Abstract

It looks like the emerging media and the new technological landscape brings some magical change with it. Furthermore, those changes are mostly seen as inevitable and always for the better enabling students to access *effortlessly* some kind of inevitable progress. Thus the usual questions asked in the field tend to be related with *what works?* *performativity* and *efficiency*, narrowing the understanding of these issues and avoiding as Selwyn (2017) reminds us the problematisation of the use of technology in education. This paper aims to challenge these assumptions by telling the story of thirty-two undergraduates at an English University that struggle to understand online tools and services, finding themselves more like visitors of the Web than residents.

Adopting a more conservative stance and scrutinising the *state-of-the-actual*, I decided to explore the current digital practice of students, placing the digital inside the texture of everyday life. I used mapping as a means to enquire whether, how and why students engage with digital tools and platforms in formal and informal settings. Constructivist grounded theory (Charmaz, 2006) has been used for sampling, collecting and analysing the data.

Despite the euphoria and enthusiastic rhetoric of many educational technologists (Oliver, 2011; Selwyn & Facer, 2013), the participants of this study have not yet changed their behaviours nor their attitudes towards learning. Instead what is observed is how participants cling to the structures and practices they are familiar with being reluctant to explore let alone adopt new tools for their academic practice. This reality reinforces an increasing 'digital inequality' (DiMaggio et al., 2004) stemming from individuals who have access to the Internet.

The results include valuable insights that allow for a deeper understanding of students' voice, their experience, struggles, and needs regarding their digital practices in academic settings. Some of these elements can be hindering students to experience a more critical and productive engagement with digital literacies for learning and researching. Inspired and driven by the results of this study I argue for the need to deliver a more realistic and inclusive student experience that includes scaffold and support regarding the critical engagement with digital literacies and practices; an experience that takes into account the voices of the most unconnected and vulnerable students as well as the specialists users of technology.

Introduction

“[...] It is difficult to determine whether digital media are levelling the playing field for youth or whether they are raising new barriers for some while advantaging the societal position of others” (Hargittai, 2007). This quote encapsulates my thoughts about the depth and breath of the work Higher Education Institutions (HEI) are doing around educating students to be digitally fluent for their academic digital practice. I question if instead, universities are perpetuating and even increasing inequality and exclusion? Is the University aware of the need and struggles that students are having when engaging with their academic digital practice? It is curious as Selwyn (2010) states, how many of the features of teaching and learning remain untouched by the potential of educational technology despite the long history of ‘potential’ transformation of education through innovative technologies (Selwyn, 2010).

Practice in this paper is defined as the “nexus of doings and sayings [that are] socially dispersed and temporally unfolding” (Schatzki, 2010; p.22). That is a spatio-temporal manifold of actions that have two basic components: action and structure. The structural component entails the know-how (performance of the actions and activities), the rules (maxims that guide the practice), teleo-affective structuring (the purpose, goals and emotions that underpin and direct performance) and the general understandings (relevant information for a particular task).

There is a need to approach research in education and technology with a critical stance (Selwyn & Facer, 2013); or in words of Winner (1980), with political teeth (Winner, 1980). In so doing we minimize – at least we attempt to – the risk of deterministic ideas obscuring the state of the actual use of digital technology in education. Research in Technology Enhanced Learning is usually approached from an enthusiastic view with an emphasis on *what works*, *performativity* and *efficiency*. Little analytical attention has been given to the lived digital culture and experiences of young people, thus leaving this area of research relatively unexplored (Selwyn & Facer, op. cit.). Greater attention needs to be paid to how technologies are actually being used or not used in real world educational settings. For that, Selwyn (2010) suggests we develop a context-rich account of the social realities of technology use on the ground in educational settings. This study aims at such a critical endeavour; to shed light on a complex and messy area of education and technology, namely the daily entanglements of young people with digital tools. This with the intention to operate in and consider the broader sociological and political account of education where ideas such as young people being *Digital Natives* (Prensky, 2001) are uncovered (Oliver, 2011; Selwyn, 2014) allowing us to see beyond what seems apparent. In so doing I aim to reveal some tensions and uncover naturalistic discourses that render the presence of educational technologies as an inevitable progress “very easy to accomplish with young people ‘always ready and prone’” to dive in and explore new digital landscapes. On the other hand, it is important to stress the inherent risk that is implicit when the philosophy of the university is based in such deterministic ideas, i.e., the net generation or the digital natives as it entitles them to think that there is no need to educate their students digitally (Lanclos, 2016). It also hides, in nuanced ways, the internal politics of

the University regarding the ways in which they use and promote technology. It reminds us that “decisions about technology are political” (Pelletier, 2004).

Diving deeper into the politics of technology one is able to see how it can veil the real needs of students. The work of Pelletier (2004) is relevant and illuminating. She hypothesizes that the way technology is realised within the university is as an ideology; ideology in terms of Barnett (2003), that is, beliefs systems that are guided by interests. It involves collective identities to achieve particular ends (Barnett 2003). Pelletier asserts that there has been little theorization of the role that technology plays in university cultural agenda notwithstanding the wide acknowledgement of its importance (Pelletier, 2004). This under-theorization reinforces the idea of new media and digital technologies in general as having inherent positive consequences for university's practices. The danger of ideological projects is that what remains untouched and unseen is the social context within which teachers and learners work, has historically undermined efforts to transform education through technology (Pelletier, 2004; Selwyn, 2012; Selwyn & Facer, 2013). In this regard, Cuban's (1986, cited in Pelletier op. cit.) ideas although thirty years old are relevant to the argument I am making, as he points to the fact that educational technologies are not only the outcome of technological development but also a consequence of social and institutional demands which technology helps to fulfil. If we aim to understand and address the implications of digital technology in education for issues of social justice, we ought to take a step back from our privileged position towards digital technology to gain insights into the social, political and cultural nature of educational technology (Selwyn & Facer, 2013). We are encouraged by Selwyn & Facer to “develop a more politically aware and sociologically grounded narrative of change” (p.4).

With every narrative to influence change towards a more equal society one needs be clear about the questions one makes regarding inequality (van Dijk, 2012). In the first instance, we need to ask what inequality we are talking about, equality of what? Second: What is new in this particular inequality? Third, what new types of inequality are rising in the researched context? I will refer to the first question in more detail, showing through the data of my study what is unequal in my researched context. First I will describe some of the current ideas around digital inequality and how this concept has evolved from an earlier idea, namely the digital divide.

Technology and inequality, how does it work?

My analysis shows the unequal distribution of digital cultural capital among young students in an English university. I refer to cultural capital as in the view of Bordieu, the ingrained habits, skills and dispositions individual possess due to their life experiences.

Technology is changing fast. Every day there are new applications that improve the older ones. Society, is transforming into an information and Network Society (Castells, 2000; van Dijk & Hacker, 2000) where the majority of the processes occurring in different spaces of society are mediated through digital tools and online applications. In such society information is a primary good, everyone, or at least those who are active citizens, need information to

function in society. Together with information, people need the skills and knowledge to use it appropriately, what is also called, cultural capital in terms of Bourdieu. This cultural capital is unequally distributed in society (van Deursen & van Dijk 2010; van Dijk & Hacker 2000). On the other hand, but within this line of thought, Pearce & Reis (2013) suggest that even though eventually everyone would benefit from a resource such as the Internet the pace of appropriation is different among different groups of people. What tends to happen, the authors have found, is that the ones with the most resources (status, cognition, education) adopt it first gaining more skills, using it more and in a more creative manner (Pearce & Rice, 2013).

The exponential growth of information available on the Internet demands that people choose and use different tools to sieve through the information and keep updated with relevant material. Hargittai (2007) has found that search engines and portal sites require a certain level of understanding and the know-how to use them properly. The fact that the Internet offers information about almost everything does not mean that finding it is a straightforward task. Hargittai (op. cit.) comments on how easy it is to get lost in the vastness of resources and many times, she affirms, it is not easy to find the level of specificity that one is looking for. If people who need the information are not able to find it, the availability of the material does not imply any benefit for them. Feed or RSS how they are popularly called, is another example of this situation. Feeds are a useful tool to curate resources and sift the noise of the Internet allowing to harness the materials that are relevant to the user, but understanding the mechanisms of the tool and being able to make it work is a key skill in order to take advantage of the affordances of the tool. Individuals with the skills and know-how will take advantage earlier in their own practices.

In a network society the major form of organisation is the network, thus the position an individual occupies (in or outside the network) becomes vital, it defines the opportunities and power in society (Castells, 2000; van Dijk, 1999). The position in the network acquired at the university, at work, and in the local community determines the opportunities to get basic digital experience, to develop that experience, and to put it to use in particular contexts (van Dijk & Hacker, 2000) being able to take advantage of the opportunities available through the medium and the network.

As getting connections to the Internet is becoming less difficult nowadays, the important question to ask is not so much if people have or do not have access to the Internet but about the quality of the experience people have while they are online. This is a significant aspect to predict the level of skills and usage of the Internet. DiMaggio et al. (2004) have found that when the experience being online is positive, people tend to come back exposing themselves more to the internet and in so doing they increase the opportunities to learn the skills and knowledge they need to navigate successfully and do what they need to do. The rewarding experience is a driver to further engage in the Internet and pursue more difficult and challenging tasks. Instead, if the experience online is a negative one, where what is needed is not found, or information is lost, or tools just cannot be understood, the level of frustration

increases and people tend not to come back again, hence they will have less exposure to the Internet and to the skills and know-how gained when using it (DiMaggio et al. 2004) being in a less advantaged position.

As the evidence shows it is not so much about people having access to the Internet but how they experience the Internet what is more important when it comes to more nuanced ways of access. There is much more to this fascinating topic of the different and contested visions on technology and inequality, but it is out of the scope of this paper. For the interested reader I suggest to read DiMaggio & Hargittai (2001) to have a more expanded view on these issues.

From Digital Divide to Digital Inequality. Does it matter?

The metaphor of divide has been used in initial research when the concerns had to do more with having or not having access to the Internet (DiMaggio et al., 2004; Hargittai, 2007; van Deursen & van Dijk, 2010). Though it is still used in some spaces of educational research, the problem with term *divide* is that it suggests binary thinking and it seems that the problem lies in having or not having access to the Internet ignoring the more complex fabric where access to the Internet and its tools and platforms is embedded.

Although findings from earlier investigations were showing that despite the increasing level of penetration of the Internet, the spread of the medium happened at different rates in different social strata (DiMaggio & Hargittai, 2001; Hargittai, 2002), more recent work has focused on more refined and nuanced measures of access and use. Thus the type of use and user abilities need to be considered (van Dijk, 2005; Hargittai, 2007) as new elements in the research agenda (van Deursen & van Dijk, 2010; van Dijk, 2012). In fact, if we aim for a more equal society in terms of the digital experience and its implications for people's daily life, we need to move to a more complex landscape. This will provide a better understanding of where inequalities may reside (DiMaggio et al., 2004; Hargittai & Hinnant, 2008; van Dijk, 2008).

Digital inequality is a field that has gained interest and is expanding (Robinson et al., 2015). There are different figures in the field, of particular interest for this study are Hargittai, DiMaggio (with a US oriented perspective) for their similarities with Schatzki's ideas of social practice, being digital practice the focus of this study, and Jan van Dijk, Warschauer, van Deursen (with a more Europe centred perspective) to put the issue within a European context. While all of them suggest different models to study the issue, they agree on the need to explore further in a more refined manner to find ways to bridge the gap where it is possible. DiMaggio & Hargittai's theoretical framework to analyse inequality through five dimensions has proven useful, and inline with Schatzki's definition of practice, to understand better what are the constraints and enablers of students' digital practice, shedding light on a rather unclear space for students themselves.

The authors call attention to five forms of inequality (DiMaggio & Hargittai, 2001), which I will describe briefly:

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1. Variation in the technical means, the technical apparatus (Hardware, software and connections) with which people access the Internet. This will have consequences in the experience people have online and the range of sites they are able to access.
2. The degree to which people exercise the autonomy in using the web. This refers to the fact that some people access the Internet from home where they have freedom to do what they want/need whereas other people can only access the Web from work or a library where they sometimes are monitored and need to compete for time to connect having a negative consequence in their experience.
3. The skills that people bring to use the medium. The authors suggest there are at least four areas of relevant knowledge.
 - a. Recipe knowledge: How to log on, to conduct searches, and download information.
 - b. Non-domain specific background knowledge: Designing effective search algorithms is one example.
 - c. Integrative knowledge in regards to different ways the Web operates that makes the navigation experience optimal (use of plugins, feeds, web browser extensions, etc.).
 - d. Technical knowledge about software, hardware and networks that can be of use in case of troubleshooting (how to operate a tool, how to solve different problems).

These four kinds of knowledge are what the authors have called 'digital competence', they are necessary for individuals to act and respond to challenges and opportunities in a way that they take advantage of the Internet's potential and in so doing they could avoid frustration and the negative consequences already described above.

1. The social support on which Internet users can draw.
2. The purpose for which people use the Internet.

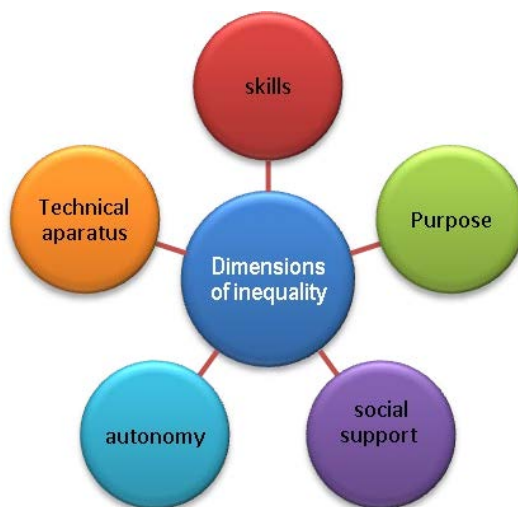


Figure 1. Model for digital inequality (DiMaggio & Hargittai, 2001)

As an initial step to contribute to the call in the research agenda of digital inequality, my study approaches students' (daily) digital practice to find out how do they engage or do not engage with the Internet its tools and platforms and why, and which are some of the barriers they are confronted with. This together with an exploration of their experience and expectations of the digital practice at the University will give the reader an idea of where are students standing regarding their digital practice identifying where inequalities may reside. The next section will describe the methodology and the preliminary findings of my study.

Methodology

In order to avoid simplistic and narrow views about the digital practice of young people, this study aims at co-constructing data with the participants. Therefore, the study has opted for a qualitative empirical method that uses a constructivist grounded theory (CGT) approach (Charmaz, 2006) to explore weather, how and why students engage with digital tools and platforms in formal and informal settings and how they make sense of those engagements and the environment in which they are learning and making meaning. In so doing it assumes as Charmaz (2006) states, the existence of multiple realities "recognizing the mutual creation of knowledge by the viewer and the viewed, and aims toward an interpretative understanding of subjects' meanings" (Charmaz, 2006; p.250), that is, how participants construct their realities, namely their digital practice. In so doing it aims to generate as its outcome and together with the participants, a shared reality instead of a concept as in classic grounded theory (Charmaz, 2006). The study is framed in a socio-cultural perspective.

The empirical data was collected at an English University. The project was publicised through different means to all students across the three years of education studies degree. Thirty-two undergraduates volunteered to participate in the study. Two of them were mature students, over 35, and the rest between 20 and 26 years old and only four of the participants were male. They were invited to a focus group (4 to 5 participants per focus group) that was organised around the visitor and resident approach (White & Le Cornu, 2011) as the starting point of a longer discussion. The cited authors generated this method as an alternative proposal to the limited view of the *digital native/digital immigrants'* typology presented by Marc Prensky around 2001. Prensky's proposal has been criticised elsewhere by McKenzie (2007) and Kennedy et al. (2010) both cited in White and Le Cornu, (2011), due to lack of substantial evidence and the limitations that such a deterministic approach entails. The conceptual idea of mapping is inspired by Deleuze and Guattari's construe about rhizomes and mapping (Deleuze & Guattari, 1987). It is based on the ontology of becoming instead of being, portraying reality as a dynamic process of change. The experience of mapping discloses potential instead of reinforcing fixed and deterministic identities; a powerful tool to uncover the myth of the digital natives.

The visitor and resident approach takes a different view on the ways people engage with the Web; it is framed as a continuous mode of engagement. It fluctuates from feeling like a visitor who thinks about the Internet as a series of tools to resolve particular tasks with no intention

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of leaving a social trace on the web, to a different view of the Web as a series of places where people are active participants who are looking to establish social bonds on the Web. They are interested in leaving a social trace and developing a social identity while engaging with people in open and visible ways. Individuals are split all across that continuum no matter if they are from a particular niche or if they are part of a broader audience, let us say a whole university. The continuum is depicted in the X axis of the map whereas the context is depicted on the Y axis. For this study I was interested in formal (Institutional) and informal (personal) settings. In this way the map is formed of four quadrants: institutional-visitor, institutional-resident, personal-visitor and personal-resident. Students allocated the tools and platforms where they felt more identified with, either as residents or as visitors throughout the continuum. They could perceive themselves residents (more or less) in some spaces of the Internet whereas in others they felt like mere like visitors. To understand this metaphor, it is useful to imagine what we do and how we feel when we are residents in a neighbourhood compared to how we feel if we visit an area for the first time.

In the focus group students had time to map their engagements in the web and after that each of them described their map in detail and we discussed the relevant aspects that the map described for them. The sessions were videotaped and then transcribed.

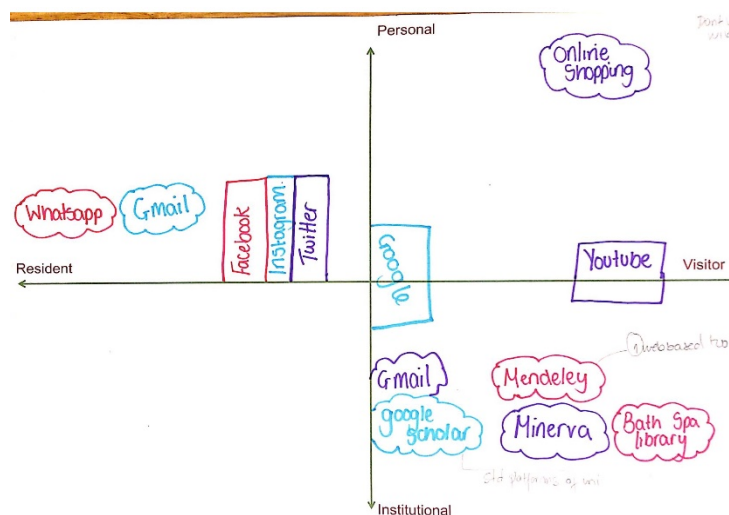


Figure 2. One of the participants' map: topography of their digital practice

This method was an excellent opportunity rarely given to students, so they said, to reflect upon their digital practice. Much of what students do online is not visible for themselves let alone for the university. One of the aims of this approach is to bring students to reflect on their own digital practice, making visible the invisible and in so doing understanding what the main constraints and possible enablers are in their practice. It brings students to think about and discuss how they can bring their practice further, how can they shift it in any way that it turns out more useful for their learning experience. It is a way to DO something instead of talking about it.

Preliminary Findings

The preliminary findings indicate more struggle and conflict in students' digital practice than any other thing, in particular in their academic digital practice. Although all of the participants have access to a formal education and come from a middle class background, they have difficulties using the Internet in more sophisticated ways. They are able to access basic services like their email account(s), the virtual learning environment, the library page, Google Scholar, but they stay at a very basic level, so they said. Their barriers and difficulties are mainly related with the skill and knowledge dimension of DiMaggio and Hargittai's model and the structural element of practice defined earlier in the paper (Schatzki, 2012). In the data a curious pattern appeared, namely the majority of students had rather ambitious aspirations when it came to their digital literacies and the way they wanted their digital practice to be, this became evident throughout the discussion that arose while they describe their maps. But there was a big disparity in what they aspired to and what they were able to accomplish in reality. This deserves to be investigated further and in more depth, as I believe it can provide fruitful insights about new areas to explore and identify where potential barriers to a more sophisticated digital practice reside and how students can be encouraged to bring their practice more aligned with their aspirations and in so doing building a stronger social identity.

As Figure 1 depicts, and this was the case for 28 maps out of 32, the institutional-resident quadrant is empty and the institutional-visitor one is populated only with the institutional tools, tools that are closed and provided by the institution, hence not chosen by students. One of the things many of them said is that they felt safe within those closed spaces, as they could not break them. But what most of them also said is how little they liked the Virtual Learning Environment, some went as far as "I hate it but I am forced to use it". This shows that they felt unable and unsafe to explore new tools for their academic practice as they said they felt anxious about the lack of skills and know-how to find new tools and bring them to work for their purpose. They were afraid of doing something wrong and as a consequence affect their grades. For some students messing up with their grades was not an option and that kept them away from trying out new things. This was the case when I asked why they do not use a referencing manager tool or a social bookmarking tool that allows them to annotate the Web and curate, organize, store and share resources to be used in their dissertation, why they preferred to do things the old way, namely copying and pasting the references from the source to the word document. One student said, "I am scared, I don't understand where my stuff is, in the cloud? How does it work? What do I do if I cannot find it anymore?" "The risk of something going wrong with my grades puts me off to try new tools in my modules"; "I stick with what I know"; "It is the new stuff that worries me." To explore this further I asked: "what do you do if you are interested in anything you find on the Web, do you save it, bookmark it?" A student answered: "Usually what I do is copy and paste it into a Word document and then I referenced it from there." I wanted to go even further so I asked why again? She said: "It is safe, and it is quicker to reference because I already have it there." Instead of knowledge of the tool's affordances what motivates her performance, it is the fear of losing information; hence

affecting her grades. This clearly limits her to explore and find out new tools forcing her to stick with her known practice for the sake of “efficient and practical reasons” as she said.

From the four students who had a referencing manager tool (3 had Mendeley and 1 had RefMe) in their institutional quadrant, all of them referred to the importance of the lecturer's support regarding the use of the tool. One of them said, “I use it (Mendeley) because my lecturer encouraged me to do so. If I would have not had the support from him I would have dropped it.” This reveals what DiMaggio and Hargittai (2001) said about how the social support that students get is a determinant factor in the use of the Internet. All of the participants said that support and guidance is needed to explore and improve their digital literacies in the university.

Another element that hinders the exploration of new digital tools is the anxiety students have towards the openness and immaterial nature of the Internet. Some of the students said, “the Web is too big and too open”; another described this in a different way, “there are too many tools that do the same thing, how can I choose? It is all like different entities, without a unifying factor, I don't think it is worth it”. This reveals the anxiety and preoccupation with a discrete vision of technology that some students have, which is already researched in other studies (Davies et al., 2008). Some of the students feel they are the generation that has been forgotten! “No one explained us at school because no one knew about this stuff and now at the university we are expected to know all of it, so no one bothers to explain it to us. How am I supposed to know this?”

For the majority of students, it is difficult to build their network of people and resources. Many reasons for that, the most common was the feeling of not having a strong voice in their field of interest. They felt they had not much to say in the public arena so they prefer not to expose themselves to any relevant network of people, be it experts or not. The fact they feel vulnerable and exposed is another barrier to build a network and be an active part of it, despite the importance of it already stated by van Dijk (1999) increasing the existing inequality. There is much more that can be teased out from the data, but for what I aim to show in this paper this is enough.

I will now proceed to discuss the findings looking at the broader issues happening around digital inequality.

Discussion and future actions

The aim of this study is not to produce generalisable results, rather the intention has been to have an in-depth approach that allows students' voice to be raised and create a space for reflection and awareness regarding their actual digital practice exploring barriers and enhancers in order to find ways to overcome them. It was important to hear their worries, struggles, and experiences, in short, document the state-of-the-actual in words of Selwyn, in order to identify where do issues of digital inequality arise and how can something be done.

A limitation of the study is the self-selected sample, which opens the door for different hypotheses about why people decided to participate in the study, is the sample biased? Nevertheless, bigger studies (Beetham & White 2013; Davies et al., 2008; Hargittai, 2002; Prendes et al., 2014; Sefton-Green et al., 2009) point towards similar findings, which indicates that the results of this study are aligned with broader studies that aim at generalizing further. Furthermore, it contributes to the field of research with a more detailed account of students' views and perspectives about potential barriers and enablers of their academic digital practice. In this way it provides fine grain detail about the messy present of students' use of digital technology on the ground. I believe that there are issues to resolve around unequal access and performance of academic digital practices in young students and devote attention to students' voice when it comes to tackling problems that are related to them.

What can be concluded in this study, I repeat, with no intention to generalize any further, but dramatic enough to pay attention to, is the limitations that the lack of skills and knowledge described in DiMaggio and Hargittai's model, and evidenced in the data, brings to students' academic digital practice, hindering students to benefit from advance digital technologies and more complex applications and services that lead to a more sophisticated digital practice. As Hargittai (2007) described in a more recent paper, certain attributes of users' Internet-related experiences (i.e. the sense of getting lost and not finding what they are looking for) influence individuals lack of motivation to engage further with the consequence of being less exposed to the skills and know-how they need to improve. All of the above only increases, as DiMaggio and Hargittai (2001) predicted, new kinds of inequality among Internet users affecting the extent to which they reap benefits from going online.

People could argue that students learn despite the lack of digital literacies and that they do not need a huge range of digital tools to study. That can be true to a certain extent and not without its consequences for student's current and near futures. In fact, the differential usage of the Internet is a neglected phenomenon (van Dijk & Hacker, 2000). Most of the time it passes under the radar of social and educational policy-makers, arguing it is a matter of free choice of individuals in a differentiating post-modern society, leaving the more disadvantaged ones with neither protection nor support and exposed to a minuscule fraction of the benefits and advantages that can be found mainly online (Pearce & Rice, 2013). This scenario, in my view, will be less and less possible in a society that is transitioning from being a combination of online and offline modes to one that will be mediated exclusively online, where the boundaries between the two modes are increasingly blurred. My stance on this issue is that digital literacies are still a choice but not for much longer. Students can definitely come away without them but not without exacerbating already existing social inequalities that are fostered by differential access to benefits (Helsper & Eynon, 2010; Pearce & Rice, 2013) and an uneven spread of cultural capital among students. We would not question nowadays the importance of being literate, on the contrary, it is highly encouraged from very early on. Literacy and numeracy are present along the entire education system. Almost six hundred years has passed since the book has made its debut, there is copious evidence of the

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advantages this medium, and its concomitant skills, brought to human development. To read and write in sophisticated ways rather than just at a basic level is not questionable anymore. Hopefully we will need less than 600 years to acknowledge the relevance of engaging in a sophisticated manner with refined digital practices increasing the level of digital literacies in order to take advantage of the benefits of the medium in students' daily life – formal and informal. Warshauer (2002) reminds us that literacy is a social practice, involving access to the physical artefacts, content, skills, and social support. Skills and social support, I argue, are mainly missing in many educational landscapes. Authors that have opposed themselves to simplistic and asocial approaches to literacy have been leading movements that extend literacy. That is the case of Paolo Freire who put forward a social-rooted critical concept of literacy being in his main interest to devise campaigns of mass literacy around the world revolutionizing what education is for the more disadvantaged part of society.

The committee of the EDEN conference posed some interesting questions about digital inequalities, i.e. how do educators, stakeholders, and policy makers meet digital inequalities? As part of the dissemination stage of the research I opened up my findings to a broader audience at the university. I observed that different members of staff are struggling with digital literacies and their digital practice as students are. Many of them tend to walk away not aware of students' struggle and limitations. In general, HEI tend to hide in deterministic and false metaphors like the one of the *digital natives*, which makes them think that there are not much problems around students' digital literacies thus there is little to do around digital education. It becomes evident in this study that this is not the case, on the contrary, students are very illiterate therefore they ask for guidance and support to improve and refine their digital practice and experience. Technology and 'open' education will not open any doors to learners if the basic and more complex needs of students regarding the skills, know-how and social support are addressed. It is the University as an Institution for intellectual experimentation and emancipation who needs to allocate resources for both, students and members of staff.

As seen in the study, it is not so much about the technical apparatus students have access to or the autonomy they have when connecting to the Internet, it is more about the lack of social support students are able to ask for and get and the lack of different forms of knowledge described in DiMaggio and Hargittai's model of digital inequality. Some of the items that conform the structural dimension (know-how and teleo-affective structuring) of practice defined by Schatzki (2012) are what in my view needs to be attended and be included in teaching and learning initiatives and supported by inclusive policies at Higher Education Institutions.

This can be offered to students through the creation of a safe space to explore and *play* with new tools and ways of engage with the Internet. A *sandpit* that is not related with students' grades, a lab where what counts is what students do and so much if it is wrong or right. The first year at English universities is ideal, as the grades do not count for their final mark. Students can be encouraged to experiment with participatory tools that boosts an open digital

practice instead of closed ones – VLE, where students are conceived as the passive consumers of content leaving their agency dormant and their creativity locked away. I have proposed elsewhere (Kühn, 2017), that a Personal Learning Environment approach (Buchem, 2014; Castañeda & Adel, 2013; Prendes & Castañeda, 2013) to learning and teaching could be one way of addressing digital literacies. Students could experiment with creating their own learning space, a personal domain as a means to build their social and digital identity that will be part of their e-portfolio to take with them to the work place. And all of it can be embedded in the curriculum so to make it meaningful for students and relevant for teachers. As Gert Biesta affirms, we need self-determined empowered subjects and this, in my view, should be our goal.

In the field of education, in particular, in Higher Education, *Open* is among the most debated topics in the current research agenda, but *open* is not open by default, there are a set of skills and knowledge that need to be in place so students can open the *open* spaces of learning and access the plethora of opportunities available online but necessarily mediated by digital tools and platforms.

It is a deliberate act that requires intention, know-how, time, and resources. I believe that for that to happen, political awareness ought to be raised so that we can find alternative routes than those offered by an instrumental approach to digital technologies that is guided by what works, efficiency and retention. Not only digital literacies need to be supported and improved to close the gap between students' aspiration and the actual precarious reality of their digital practice, but a deeper approach needs to be taken to awaken students' minds, in words of Pelletier (2004), towards the political elements present in the university's approach to the use of technology in educational settings. We would be favoured if we create opportunities for non-instrumental exchange, dialogue, and critique at our universities if we aim to foster an education that enables students to voice out and demand the education they are aspiring to have but first of all, foster awareness of what that means and entails.

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