

Education, Digital Natives, and Inequality

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The online pivot

Third level education has been undergoing challenges from digital factors since long before the Covid 19 pandemic. There has been a growing body of work featuring explorations into distance and online learning, including critical research into educational technologies and digitally mediated education (Ahern & Repman, 1994; Söderström et al., 2006; Doering & Veletsianos, 2008). The ‘pandemic pedagogies’ which are a feature of our current crisis are nestled within this scholarly milieu, and further exploration and debate is needed to ensure that our online pedagogies are not just rigorous, but also inclusive. The digital realm proffers ease of access, connectivity, easy dissemination of knowledge and information but it also produces and sustains inequalities and perpetrates assumptions. Our students may not be the digital natives we assume, nor is their access to technology necessarily equitable. This debate calls for a deeper consideration of potential disparities in internet access and usage in the context of the ‘online pivot’. The socio-cultural preconceptions at play in Ireland and beyond suggest that students are ‘digital natives’ with access to the internet and technologies. These preconceptions and predetermined notions of access and skills have consequential effects on third level learning, arguably now more than ever.

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‘Digital Natives’

Is being online the *a priori* condition of students’ lives? Popular culture, news media and even scholarly research now describe students as digital natives; consummate digital creatures who are connected, plugged-in and au fait with the latest digital technologies. Marc Prensky coined the term digital native (2001; 2011) to describe students born after 1980, who live ostensibly immersed in internet technologies. These students have grown up in the era of the internet, however research has shown that there are notable variations among digital natives’ usage of the Internet (Teo 2016). Prensky described adults who grew up before the digital age and are familiar with the world of digital natives as ‘digital immigrants’. In education, ‘digital immigrants’ usually refers to the pre-1980 generation of teachers who educate digital natives in schools and higher education. Digital natives *for the most part* are highly likely to respond well to pedagogy that takes a digital form, including social media (Kivunja, 2014; Sarkar et al., 2017). However, there is a lack of information regarding mature students who may be ‘digital immigrants’ and whether they are at a disadvantage in the online pivot. Further work is urgently needed in this area.

Beyond the assumption that all students have easy access to technology and to the internet, there are preconceptions at play regarding students’ access to learning materials and VLEs. The Irish National Digital Experience Survey (2020) says that nationally, 82% of students surveyed use a smartphone to aid their learning, and 64% say they regularly access their VLE from a mobile device. Nielsen (2013) pointed out that mobile is the primary means by which new Internet users—particularly those with lower incomes—are getting online. However, there is significant current research across a range of disciplines to illustrate that mobile Internet access represents, in many ways, a significantly inferior form of Internet access when compared to personal computer (PC)-based access (Napoli & Obar, 2014). While many HE institutions now offer laptop-loan schemes to students, Napoli and Obar (2014) emphasize that while hardware may address one access component of the divide, there is a distinct risk of a ‘mobile Internet underclass’ defined by a lack of access and opportunity due to infrastructure, network, software, and content divides.

The digital divide

The digital divide can be defined as the chasm between those who have access to and skills in digital computer and internet usage and those who do not. While those with regular and reliable access to the internet and digital technologies enjoy a surplus of information, those with limited access may struggle to comprehend the opportunities, convenience, the savings in time and money it allows, and the ability to acquire everyday information which can make life easier (Warf, 2019). Peoples’ engagement with the digital realm shapes their life chances in multiple ways. Employment, access to health services, and education are all affected by digital

engagement. Social ties, too, are increasingly mediated, resulting in disparities of social engagement and support for large groups of people. Representation in large scale research studies now often depends on digital engagement; the result can be an exclusion from such research and the silencing of offline life experience. Digital inequalities are intersectional, by that I refer to the multiple axes of inequality such as economic, ability, class, gender, race. Under-represented groups and groups who suffer from inequalities (offline) may use the internet less intensively than advantaged counterparts (Robinson et al., 2015). As such, digital inequality may worsen already dire circumstances.

As the internet matures, forms of digital exclusion proliferate. First-level digital disparities in access are joined by digital engagement gaps, chasms between content consumers and producers, and disparate forms of participation in the high-tech economy. (Robinson et al., 2015)

In the Republic of Ireland, marginal first-level digital disparities exist, as evidenced by the Central Statistics Office figures (CSO 2019). Nearly 80% of persons use the internet every day. However, the disparities in skills have not been adequately or efficiently measured to date. Second-level digital inequalities such as specific digital skills, advanced participation, and efficacy at a range of skilled tasks affect even those who are termed as 'users'. As usage figures rise, assumptions about skills, adaptability, financial means of access and geographical range become entrenched. The 'net' exponentially encroaches on everyday life and so forms of digital inequality mutate.

The CSO 2019 figures, (pre-Covid 19), show that of those persons who used the internet every day, 58% used the internet *several times a day*, while 16% used the internet *nearly all the time* and 3% stated that they used the internet *all the time*. Students were the most frequent users of the internet, 54% used the internet *several times a day* while a further 31% of *students* used the internet *nearly all the time* and 5% used the internet *all the time* (CSO, 2019). More research is needed to ascertain the level of skill within these usage patterns; as they stand they offer a potentially disorienting view of internet/digital equality and at the very least hide some of the chronic disparities in internet connectivity and hardware available in peoples' homes. A closer examination of this divide should move beyond the simple term 'usage', which may be a minimal 'surface' usage such as scanning a single media platform. Further research is needed to challenge the salient view that students use the web all the time, that they are 'digital natives' and tech savvy.

Education and Digital Gatekeepers

The Covid 19 pandemic has resulted in wide-scale shifts in education, notably Higher Education Institutions across Ireland have moved to remote teaching, using the internet and specific platforms to reach, teach and examine their students. Many studies have already noted that the quality of the interaction between

lecturers and students is compromised by the mediated nature of such teaching during the Covid emergency (Corbera et al., 2020; Quezada et al., 2020). While student engagement is often top of the list of concerns, not enough research has yet been undertaken into students' digital inequalities.

The cost of access and devices has serious implications for students which is often overlooked by institutional planning. Cost is an essential element to remote or online education, bringing economic disparities to the forefront in causality of disengagement. Hill and Lawton (2018) identify the problems of online education by assessing what they term the 'iron triangle', access, cost, and quality. While the online realm offers the potential to provide mass education, the quality of access is critical. 'The nature of online interaction can support learning but cannot do it alone' (2018). Hill & Lawton point to Ke's (2010) work which argues that the connection felt between learners and teachers is key to the quality of the education. Online learning is dependent not just on the content but on the overall experience, which itself is mediated by devices and their quality.

In his article 'Education in Liquid Modernity', Bauman noted that government policy drives education to 'catch up with the volatile and capricious shifts in "business needs"' just as students struggle to orientate themselves to the 'capricious demands' of unpredictable and seemingly haphazard labour markets (2005, p.316). In discussing his perceived shift of emphasis from 'teaching' to 'learning' in contemporary education, Bauman suggests that the responsibility for learning is transferred to individual students. Arguably, this is critical today as the privatization and individualization of student responsibility now extends to active and successful engagement in digital work. Noting that educational institutions in the past enjoyed 'a monopoly on the office of gatekeepers of knowledge' Bauman observes that in liquid modern times, educators must share or compete for gatekeeping duties with the open market, in particular with suppliers of computer software. At no time in modern history has this been more pertinent, as students' access to the internet and hardware is taken for granted.

Concluding remarks

While HE continues to grapple with the complexities of online delivery, there is a pressing need for research into the variety of digital divides which are an enduring feature of cyberspace and a need to link the understanding of online teaching and learning with spaces of class and power. The existing social categories of wealth and power are replicated in cyberspace, at least in terms of access to the equipment and technical know-how necessary to gain entrée (Warf, 2019) and as sociologists and educators the onus is on us to examine how the Internet reinforces and deepens divisions between the haves and have-nots. Here, I have attempted to highlight the urgent need for academics to visit their preconceptions of students' abilities, opportunities and access to education, so that we may create and sustain inclusive and egalitarian practice.

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