Surveillance Culture and Educators' duty of care to their learners

Realities of now

We live in a world in which technology is becoming increasingly entangled with our daily activities. Western culture particularly highlights that increased reliance on technology enables the generation of large amounts of data - 'big data'. Zuboff (2015) highlights 'three of the world's 7 billion people are now mediated in a wide range of their daily activities far beyond the traditional boundaries of the workplace' (p77).

In digital culture, we are conditioned to access information anytime, anywhere through the internet (Frith, 2012). Platforms like Google are monitoring everything you search for, whilst Netflix builds a preference profile, and Amazon knows what you're buying (Walker, 2018, p1). Smartphone adoption has bridged the divide between physical and digital spaces. These entanglements have implications for surveillance: people have become 'visible, knowable and shareable in a new way' (Zuboff, 2015, p77), regularly volunteering their personal data - 'as a trade-off for personal benefit' (Rainie & Anderson, 2014 cited in Lyon, 2017, p830).

Education is no exception, with EdTech companies integrating across the sector, educational institutions engaging in monitoring and measuring practices, and the future of education incorporating new technologies. Walker (2018) describes the 'Silicon Valley mantra that 'data is the new oil' and the apps and websites you use every day are the extraction method' (p1). There are many benefits to technology adoption in education but there is an often overlooked, darker side to what happens to the data generated by this integration. In this paper, I explore surveillance culture, and my position on how implications of such culture need to influence the considerations of the educator, given the trust their learners put in them. In this context, my reference to the educator includes both the individuals and associated institutions working with education technologies.

Surveillance culture

Raab and Mason (2002) remind us that surveillance is 'an ancient practice in all societies, long antedating the 'information age' or 'cyberspace' (p240). More recently, Lyon (2017) describes surveillance culture and how, through surveillance imaginaries and practices, we are all contributing to a 'big brother' way of living. 'It is no longer merely something external that impinges on our lives; [it] is something that everyday citizens comply with – willingly and wittingly, or not – negotiate, resist, engage with, and in novel ways, even initiate and desire' (Lyon, 2017, p825). However, this data is often sold and subsequently monetised and, ultimately, used to manipulate future experiences. Zuboff (2015) discusses the emergence of surveillance capitalism – 'Big data is cast as the inevitable consequence of a technological juggernaut with a life of its own entirely outside the social' (p75). Therefore, educators incorporating technology need to be mindful of how the data generated by their learners could be measured, monitored and monetised.

I argue that educators need to regulate this under-researched surveillance to ensure they identify the permissible limits of data use to maintain trust and respect in their relationship with learners. They need to be aware of what they are asking their learners to contribute to and how this might be used, mined or analysed - data 'not only imposes information but it also produces information' (Zuboff, 2015 p76). Surveillance raises the important issue of trusting relationships and their potential to be abused, with companies like Google replacing 'the rule of law and the necessity of

social trust as the basis for human communities with a new life-world of rewards and punishments, stimulus and response' (Zuboff, 2015, p86).

In an education context, trust can be defined as 'the degree to which a student is willing to rely on the e-learning system and has faith and confidence in the instructor or educational institution to take appropriate steps that help the student achieve his or her learning objectives' (Wang, 2014, p347). Educators have a duty of care to their learners to ensure that the technology they incorporate into their pedagogical design is carefully vetted to ensure that the data it inevitably generates is intended for improvements in learning outcomes rather than the commoditisation of learners' data. If platforms, social media, or other technology tools are used in learning, they need to be justified and adding value – 'learning analytics should function primarily as a moral practice resulting in understanding rather than measuring (Reeves, 2011 cited in Slade & Prinsloo, 2013, p1519).

Educator considerations

Gilliard (2017) highlights that the 'personalised nature of the web often dictates what kind of information students get both inside and outside the classroom' (p64), and how this has changed our youth's experience of the world. Educators must consider their use of the web as a learning tool and ask themselves: 'what are we signing them up for?' (Gilliard, 2017, p65). 'Higher education institutions have an obligation to protect participant data on the institutional LMS and also to inform students of possible risks when teaching and learning occur outside the boundaries of institutional jurisdiction' (Slade & Prinsloo, 2013, p1521).

The future of education sees an increasing reliance on technology and, according to Watters (2019), EdTech companies suggest that 'to resist technology, therefore, is to undermine students' opportunities; [to] resist technology is to deny students their future' (p1). However, if educators are asking learners to engage with a platform, they need to ensure that platform isn't harvesting their learners' data for consumerist motivations and 'make students aware of the scope and nature of their data trails' (Slade & Prinsloo, 2013, p1524). Srnicek (2017) makes a strong argument for paying attention to how data is being mined and manipulated for the 'big five's' needs, along with others hoping to operate in the same space or gain knowledge from big data. Srnicek (2017) warns that 'an underestimation of [the 'big five's'] dominance serves only to enshrine their position, and as they become increasingly central to the global economy it becomes even more important to understand their functioning' (p257).

Algorithms & analytics

Big data and analytics are significant influencers in shaping the future of education. Peters (2019) describes big data as a 'brewing storm', to which we are all contributing through our increasing use of technology. It's through these digital trails that algorithms are able to learn and predict our future. However, algorithms are not neutral, and they remain difficult to scrutinise, as they are often 'black boxed' (Gilliard, 2017). Watters (2016) highlights the implications of algorithms as expressions of power and influence and suggests that 'an algorithmic education, despite all the promises made by EdTech entrepreneurs for 'revolution' and 'disruption', is likely to re-inscribe the power relations that are already in place in school and in society' (p3). Peters (2019) draws attention to the implications of our reliance on technology, describing it as a 'supply-chain interface for the unobstructed flow of behavioural data on its way to predicting our futures in a surveillance economy' (p5).

I argue that, as the e-learning market continues to expand with educational apps and other tools for learning, educators have a responsibility to consider the merits to their learners' experience before pursuing or endorsing adoption. Yang et al (2007) identify 'the difficulties in finding quality learning content and trustworthy learning collaborators to be major barriers to efficient and effective knowledge sharing in virtual learning communities' (cited in Wang, 2014, p348). EdTech motivations of efficiency, speed, and scale could risk devaluing actual learning by prioritising categorisation of learners or oversimplifying the role of the educator by reducing it to 'cognitive and routine tasks' (Bali, 2017, p2-3).

There is an opportunity through big data for educators to gain useful insights about their learners; however, a greater awareness of the power and bias of algorithms is needed to ensure they're not filtering what our learners see based on the wrong assumptions, or for the wrong motivations – 'we can engineer the context around a particular behaviour and force change that way' (Zuboff, 2019, p3). Likewise, O'Neil (2017) highlights the implications of blind faith in big data, specifically the algorithms manipulating it, stating that 'algorithms are opinions embedded in code', so it's critical that educators 'bring the same scrutiny to the algorithms [they are] compelling students and teachers to use in the classroom, and ask: how will an algorithmic education also serve to amplify the voices of the powerful and silence the voices of the marginalised?' (Watters, 2016, p5).

Due consideration needs to be given to the realities of digital culture and the implications for surveillance. Educators not only have a responsibility; they have an opportunity to learn more: the more they can scrutinise the algorithms underpinning their pedagogy, the more they can enhance their learners' experience. 'Students should be informed that, to deliver a personalised and appropriate learning experience, higher education needs not only to harvest data but also to ensure that deidentification of data should not hamper personalisation' (Slade & Prinsloo, 2013, p1521), whilst recognising that 'the dynamic nature of student identity necessitates that we take reasonable care to allow students to act outside of imposed algorithms' (Slade & Prinsloo, 2013, p1517).

Slade and Prinsloo (2013) focus on learning analytics in education and specifically on 'understanding the power relations among learners, higher education institutions, and other stakeholders' (p1511). They provide a socio-critical perspective on the ethical issues associated with educational data: 'the collection, analysis, use and appropriate dissemination of student-generated, actionable data with the purpose of creating appropriate cognitive, administrative, and effective support for learners' (Slade & Prinsloo, 2013, p1512). Recognising that 'algorithms used in learning analytics inherently may reflect and perpetuate the biases and prejudices in cultural, geopolitical, economic and societal realities' (Slade & Prinsloo, 201, p1524), I agree with Petersen's (2012) suggestion that a more 'holistic approach to data management' is needed to reinforce trust in educational data mining (Petersen, 2012 cited in Slade & Prinsloo, 2013, p1516).

Trust & duty of care

An insatiable hunger for data collection is today's reality and, for learners, this is often ubiquitous. Big data inevitably permeates education as aspirations and solutions for 'education for all' manifest but it's the purpose this data collection serves that needs further exploration. Educators must honour their position of trust by ensuring their learners' data is mined ethically and for the right motivations, not 'using student data in a service of neoliberal consumer-driven market ideologies' (Slade & Prinsloo, 2013, p512). Research supports trust as being 'vital for ensuring effective commitments and reducing the level of uncertainty' for learners (Kramer, 1999, Luhmann, 2000 cited in Wang, 2014, p346).

Grandison and Sloman (2000) describe trust as the 'firm belief in the competence of an entity to act dependably, securely and reliably within a specific context' (p4). Trust is particularly important in online learning; by educators investing in developing trusting relationships, they are likely to see improvements in both enrolment and retention (O'Brien & Renner, 2002, cited in Wang, 2014, p346). Wooten and McCroskey (1996) suggest that 'trust is also a requisite component of a student-teacher relationship for maximal learning to occur' (cited in Wang, 2014, p346). Kirkman (2014) highlights research that endorses the development of a trusting collaborative culture in schools (p6), whilst Knox (2010a) focuses on how trust has been shown as 'a critical affective component of education, impacting quality of dialogue, academic achievement and intellectual risk-taking' (p2).

Sharing is caring

I agree with Long and Siemens' (2011) view that 'analytics in education must be transformative, altering existing teaching, learning, and assessment processes, academic work, and administration' (p38). If 'sharing is caring' as Dave Egger's suggests in *The Circle* (2013), and educators seek to encourage sharing for dynamic discussion and an inclusive education for all, then they need to demonstrate *'care'* in their *own* behaviours when they incorporate education technology. It's paramount that those working in education confront and resist surveillance capitalism, which 'thrives on the public's ignorance' (Zuboff, 2015, p83).

There's huge potential for educators to learn from analytics, provided the ethical implications of data collection are managed. Educators have a responsibility to ensure they 'optimise the selection of data harvested and analysed' (Slade & Prinsloo, 2013, p1521). Long and Siemens (2011) suggest that 'using analytics requires that we think carefully about what we need to know and what data is most likely to tell us what we need to know' (p32). This approach invokes trust and supports Wang's (2014) argument that 'by implementing strategies and features that enhance the trustworthiness of online learning environments, online instructors can be more effective in meeting their responsibilities' (p356). These provisions enable educators to mitigate the risks of surveillance by economic and political powers and, ultimately, the 'big other' (Zuboff, 2015), remembering that 'cultures of surveillance, whether critical or complacent, are socially constructed and can thus be challenged or reconstructed' (Lyon, 2017, p835).

Educators are uniquely positioned to lift the lid on the black box by clarifying the purpose, constraints and conditions of mechanisms behind education technologies that require further exploration to ensure learning remains the core objective, not harvesting more data. Learning isn't straight-forward, it's messy! If we rely on algorithms to make assumptions about us, the world risks becoming reduced to lines of code. However, data and analytics *can* provide educators with valuable insights but those insights need to be balanced with an understanding of how they were generated and a curiosity to contextualise and understand further (Knox, 2010a, p15-27), to ensure that learners' trust isn't misplaced.

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