Learning analytics, student engagement, ethics and informed consent – divergent concepts? (0071)

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Introduction

This paper draws on a Higher Education Academy funded, qualitative research project (Wintrup et al, 2015a) into learner experiences of engagement with massive open online courses (MOOCs) to explore aspects of 'learning analytics'. Analytics are discussed and compared with findings from interviews with MOOC learners. The learning they describe as engaging is contrasted with the kinds of interactions typically captured and measured through analytics. Possible implications of a more systematic use of learning analytics in higher education, beyond distance learning, are speculated upon and discussed in light of the changing relationships within academia.

Learning analytics, MOOC learners and meanings of engagement

'Learning analytics' has been called 'the use of big data to provide actionable intelligence' by Ferguson and Shum (2013) and relies on the capture of students' online interactions via institutional platforms. That such data has the potential for 'misunderstandings, misuse of data and adverse impacts on students' is acknowledged in JISC's recent 'Code of Practice for Learning Analytics' (JISC, 2015).
Since the introduction of MOOCs, analytics are increasingly popular as a form of measuring 'student engagement' (Nelson, 2014). This is a narrow interpretation, if not a misconstruction of the term, unlike Robinson's (2012) discussion of the complex interplay between individual, communal, institutional and political factors. While a better understanding of online behaviours has a worthwhile part to play in evaluating resources, I want to raise questions about its worth as a way of understanding engagement, and about the risks posed by its introduction to individual forms of participation in higher education.

During 2014, a small scale, interview based study was conducted with ten MOOC learners who had completed their six week programme (Wintrup et al, 2015a). Participants were interviewed using Skype, having volunteered to participate during an online iSurvey based on the National Student Survey of Engagement (NSSE) (Wintrup et al, 2015b). Ethical approval was gained through the University Ethics Committee. Ten people from different age groups and backgrounds were selected purposively from 229 volunteers.

The research question asked: how do MOOC learners describe their experiences of learning and how can their accounts inform educators? Not surprisingly, a wide variety of preferences and habits emerged. All had completed the MOOC, so in Nelsons' (2014) sense they were highly engaged. However other than a shared

commitment to 'clicking through' and 'keeping up', the ways in which they engaged in learning were very different.
Interviewees reported regularly using online resources outside the MOOC platform, Google being the popular form of searching. Resourceful individuals posted external links on forums to circumvent costly pay-walls.
Despite a passive enjoyment of discussions, few wanted to interact directly with others, via the forum or on social media, despite social learning being powerful for one person; late night discussions with someone living "on an island in the Pacific" radically changed her view of mining practices by global corporations. Others we spoke to were persuaded by oceanography research to change their views on global warming (and specific behaviours).

So interviewees described many types of engagement reflecting earlier survey based research (Wintrup et al, 2015b), yet it is difficult to see how the things they described would be discernible in their interactions with one platform. While passionate about 'topics', they were selective in using resources. Some were captivated by videos while others chose to ignore them, preferring audio or written sources ("Reading sinks in more"). Few had any time for online tests and simply 'clicked through' saying their goal was simply to enjoy learning. Resources found outside the MOOC platform were valued as highly as those offered through it.

Had interviewees been higher education students, measurement of their interactions with a single platform or set of resources would have suggested a level of disengagement, yet they reported feeling highly engaged and often described new insights. Their rich descriptions of learning and change are valuable in critiquing the notion that learning analytics can reveal engagement in any meaningful sense.

Implications for ethics, consent and relationships in higher education

The popularity of learning analytics has grown with the advent of massive and largely distant education, offering an important role in its evaluation and improvement. However it is my contention here that an unquestioning application of analytic techniques, even within the terms of the new code of conduct (JISC 2015), from this rapidly developing area to other forms of higher education carries unexplored risks.

- It is when analytics data are cross-referenced with students' personal profiles – such as characteristics or prior educational achievements, or even presence on campus in lectures or libraries – that such activity could be construed as covert surveillance. While consent may be sought and freely given (JISC 2015), unless students understand how such cross-referencing might lead to a revealing individual profile, then it cannot be seen to be fully informed consent. An opt-out option carries its own risks.
- Educators need to ask whether new 'knowledge' about their students' online behaviours brings with it an expectation or even a duty to act. Is further surveillance of educators needed to 'prompt' contact with a student who has not completed online activities – and ultimately might

ignorance of an absence of participation be used to suggest negligence on the part of the educator, for example in an appeal process?
- There are not only risks to individuals. Anonymised aggregated data may reveal trends that show particular groups to be less involved in certain activities. Again cross-referencing to degree classifications or drop out rates could conceivably reinforce implicit biases and influence recruitment and retention behaviours towards vulnerable groups.

In conclusion, while analytics have a role to play, I suggest this is not in assessing individual students' engagement with learning. Seeking to do so ignores the learning that takes place away from the screen or particular forms of media, introduces risks to students' privacy and potentially a sense of intrusion into (perceived to be) 'private' online spaces, and in doing those things implicates educators in new surveillance responsibilities.

References

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