

# **FEATURE**

# Bridging the divide between educationalists and technologists

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**DOI:** https://doi.org/10.26203/gbb6-a986

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**To cite this article**: Al BISHAWI, R., (2015). Bridging the divide between educationalists and technologists. *Education in the North*, **22**(Special Issue), pp.80-83.



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# Bridging the divide between educationalists and technologists Ramone Al Bishawi, University of Aberdeen

## **Background, Context and Rationale**

This feature details how a research proposal has evolved from an interest in some of the developments I have witnessed whilst working on several technology projects over the past four years. One particular project, that will be the focus of this article, is the KICKSTARTER initiative which involved a variety of professionals; teacher educators, researchers, technicians, educational technologists, teachers and development officers. Professionals brought together to work on a substantial project aimed at connecting learning spaces between schools and universities through technology, with an aim of bridging the gap between educational theory and practice and transforming the pupil and professional learning through these shared learning spaces.

On starting the project it was clear the team were under pressure to implement the project design however it was not immediately clear what that would entail. It soon became evident how those involved had significantly different perspectives from one another about the aims of the project and we faced many challenges. A clear requirement of the project was to ensure teachers could record their lessons simply and early on in the project educationalists recognised that a team of technology consultants were needed to investigate and identify a suitable supplier capable of providing the right technical equipment to meet the project's needs. Whilst the Principal Investigator communicated the need for equipment to easily record events within the shared learning spaces and for it to be under the direct control of the end users (teachers, lecturers, pupils etc.) the technologists decided to use a separate recording service, without consulting the educationalists, and the system became significantly more complicated for the end users. It soon became apparent as the project unfolded that we, as a team in the School of Education overseeing and managing the KICKSTARTER initiative, had to make significant compromises over many technological requirements. A complicated recording system meant that participants became reliant on a few key people responsible for recording and storing lessons, therefore decreasing participants' ownership of the technology. The initiative has faced similar issues on several occasions causing a great deal of frustration for the team. What I am keen to investigate is how these types of issues can be avoided and how we as professionals can find a way to collaborate that ensures we develop a shared understanding of a project's aims and ensures transparency at every stage of the project.

#### Literature Review

Laurillard (2008) called for the implementation of digital technology within education to be driven by educationalists, arguing that the present way in which technology is implemented does not meet the needs of its users. Currently educators have to find ways to use technology that is designed for other purposes but we know that technology works best when it is meeting a challenge rather than as a solution searching for a problem.

Many scholars recognise the need to shift the way we think about education technology initiatives and this feature will seek to give an overview of their central arguments. France & Crompton (2012), for example, suggest there is an assumed simplicity about the ways that educationalists and technologists work together. Technology initiatives are heavily influenced by external political rhetoric which is often the thing that instigates and steers a project. Selwyn & Facer (2013) reinforce this argument by stating that 'there remains limited analysis of the politics, economics, the cultures, and the ethics of digital technology in education' (p.1).

Whilst technology initiatives often have good intentions about improving education, upgrading the educational model or transforming education and redesigning schools, it is worrying that a thorough analysis has not been made of exactly how and in what ways those changes are actually taking place. Selwyn & Facer (ibid) suggest a growing trend has emerged from a theory of learning dating back to 1918 and originating with Thorndike. This theory foregrounds learning as an activity on the part of the student -and reduces the role of the teacher to one of support and facilitation' (p.22) and goes further to suggest that the teacher's role could be easily substituted by a computer. According to this approach, computers simply need programming to understand complex behaviour. The writers demonstrate how this theme runs through constructivist and sociocultural theories of learning from 1918 until the present day. Whilst I agree with the argument that technologies have great potential for enabling "the mental models of expert and novice learners to be visualized" (Jacobsen, 2004, p. 41 cited in Selwyn and Facer, 2013, p.30) the theories simplify what in reality is a much more complex process. One can think of alternative ways of studying the learning process and foreground other elements of education such as the learning environment but this only replicates the way that constructivists and social theorists perceive of the learning process themselves. In reality education

'is inextricably enmeshed with cultural and social significance that to conceive of it in terms of the provision of a kind of hothouse environment for the optimal growth or operation of a specific organ or process is to reduce it to a functionalistic caricature' (Selwyn & Facer, 2013, p.36).

The literature predominantly focuses on the learner in an educational setting however it must be highlighted that this discussion does not only apply to the student but applies to the education professional too. Interestingly the educational technologist's perspective (Aslan and Reigeluth, 2013) sees education stuck in the industrial age unable to prepare its citizens of tomorrow for the information age in which they live. Educational technologists believe they are enablers of this paradigm shift and their description of how this shift can occur focuses on a learner centred approach. Whilst important, the description omits any thoughtful consideration of the necessity of education beyond simply preparing students for projectbased work. There is also a lack of understanding of the teachers' perspective, instead the educational technologist decides it is their duty to transform learning and for them to bring teachers with them. This is short sighted, reflecting the lack of consideration some technologists have for developing a shared understanding with colleagues in other disciplines. In order to develop a shared understanding amongst professionals one needs to not only identify the prior knowledge and misconceptions of professionals involved in an educational project but also be exposed to the professional's culture (Selwyn and Facer, 2013). So for educationalists, spending time in a technologists' community can help the learning process, however, as Lemke (cited in France and Crompton, 2012) asserts, whilst the learner exposes themselves to a new community they have to then decide whether it is within their interest to participate.

The initiative that I am investigating has been educationally driven, thus fulfilling Laurillard's call for educationally directed projects. However, there was no clear sense that a *shared* understanding was achieved between those working on the project; individuals' prior knowledge and misconceptions were not addressed. This provides the impetus for a new piece of research: to investigate how cross disciplinary and cultural work between technologists and educationalists might be better understood in order to improve practice and bridge this divide.

#### **Aims and Objectives**

Through personal reflection and a review of the literature, an investigation into the perspectives of educationalists and technologists might lead to a better understanding of how and why projects unfold in particular, and often problematic ways. The literature argues for the necessity of a better understanding of the ontology and epistemology of technologists. However, whilst this might provide fruitful results for improving educational technology projects it is not clear how the educationalist's understanding of a project also influences its direction. To understand professional perspectives we must take a balanced approach by considering the views of both educationalists and technologists. The proposed study aims to do exactly that and to then assess whether this knowledge does help to improve educational technology projects overall.

## Philosophical and Methodological Aspects of the Research

A qualitative approach will be taken to understand the different views of the participants. The researcher's ontology and epistemology is that reality is subjective and there are multiple ways of knowing and interpreting the world. Taking a qualitative approach allows the researcher to utilise various types of evidence and subscribe to the idea that whilst aiming for objectivity, the reality is that all research has a subjective dimension that should be incorporated through researcher reflexivity (Newby, 2010). The philosophical stance chosen is interpretivism. This stance underpins the chosen methodology of case study and implies that from this position the researcher is aiming to understand the respondent's perspective; how the respondent views '...actions, objects, and society...' (Psatha, 1973, pp.6-7 cited in Crotty, 1998, p.73).

#### **Proposed Research Questions**

In what ways have the differing perspectives of educationalists and technologists collaborating on KICKSTARTER influenced the development and direction of the initiative? How can the divide between educationalists and technologists be narrowed?

By understanding the different perceptions of professionals working on the KICKSTARTER initiative the study will identify potential solutions to the sorts of issues that this type of collaboration raises. Regardless of how one formulates research question/s there are always assumptions being made, for example, in this study there is an assumption that the educationalists and technologists' perspectives differ, that perspectives will shed light on why the initiative unfolded in a particular way, that the study will obtain a thorough description and understanding of people's perspectives. Whilst one cannot be sure that such assumptions are correct knowing that it is acceptable to revisit research questions during data collection is reassuring, however this must be done cautiously to avoid having to completely redesign one's study (Yin, 2003). This will be borne in mind during the research process.

#### Conclusion

Involvement in an educational technology project led the researcher to recognise a gap between the perspectives of technologists and educationalists and how that can become problematic within collaborative projects. Through an interpretivist case study approach combining data collection methods, literature and narrative analysis, we will develop an understanding of the different perspectives and identify how these influence the direction of the KICKSTARTER initiative. In conclusion the researcher is hoping to share this knowledge so that it can inform and improve future collaborative projects.

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