

Technology and Learning

- Neil Selwyn My name is Neil Selwyn, and I'm the author of *Education and Technology: Key Issues and Debates*. This is a short recording following on from chapter 4 of the second edition, where we looked at understanding the relationships between technology and learning. We finished the chapter with some questions about the changing nature of learning in the digital age. To get us thinking about these issues, have a listen to the thoughts of another academic who researches and writes on the topic of education and technology.
- Cristóbal Cobo Hi everyone, my name is Cristóbal Cobo, Director of the Ceibal Foundation, in Uruguay and also research associate at the Oxford Internet Institute at the University of Oxford, UK.
- Neil Selwyn Cristóbal Cobo is an interesting person to hear from. As he said, he's an academic at the Oxford university internet institute, but as the director of plan Ceibal in Uruguay, he's also responsible for heading up a nationwide drive that puts digital devices and digital learning into all of the country's schools. So he's at the sharp end of these issues. For this chapter, I asked Cristóbal a basic question: what does he make of the different, and very popular theories, from the twentieth century that the book argues are still often used to explain how technology supports learning.
- Cristóbal Cobo It's tempting to say that reality is more complex than a single theory. But it's also fair to mention all these theoretical perspectives play, in different forms, a contribution to our understanding of reality. If we say that education and technology happens when we discover, exchange knowledge with others and connect with research in context, to some extent we are referring to very different theories. At least from the more classical theories we might not have an approach that is comprehensive enough to describe all these processes. To what extent can we remove the term technology from this analysis? To see the continuing searching for a better understanding of what learning means. Educators, for instance, can talk largely explaining how technology might impact students learning, referring to one or more of the theories described by the author. Interestingly, when the same question is explored by a more scientific method, such as a research, the answer is neither evident nor consistent. Today, it's not clear if those explanations of the impact of technologies on learning are seen to be overrated, or the kind of learning that technology enables are not clearly assessed, or simply understood. The fact that most of these learning theories are borrowed from other fields, different than the learning and technological one, illustrate that:
- a) this is a field of knowledge in a pretty early state, but also
 - b) despite the massive investment in educational technology, our knowledge of how ICT affects learning outcomes, at least based on the knowledge that is traditionally believed about formal education is still very modest.
- Neil Selwyn Cristóbal provides a very useful framing of how we should be approaching these twentieth century theories in the twenty first century. So he warns that these more classical theories, as he puts it, might not give us comprehensive enough an approach to describe all of the processes involved in networks, technology based discovery, and sharing of knowledge. I especially liked his challenge to any account of technology based learning. As he put it, to what extent can you remove the term technology from your analysis? Often it seems that explanations of technology based learning are simply explanations of learning. It's not often clear what role, if any, the technology is playing. Cristóbal also pointed to how these theories are very useful in allowing educators to explain how learning might take place with technology, but often these explanations are rarely confirmed by empirical research, and he offered a couple of quite sensible explanations for this. Perhaps our expectations what technology can do are overrated, or perhaps we just don't fully understand what's going on.

Either way Cristóbal's answer also warns against borrowing theories of learning from other fields that do not fully acknowledge the role that technology now plays in communication, information and interaction. Above all, though, I really like the way that Cristóbal cautions us against looking for one comprehensive explanation or answer. As he put it, we're at a pretty early stage of knowledge about the relationships between learning and technology.