

## EDITORIAL

### Unlearning with technology

The late Alvin Toffler wrote predicting big technological and social change in the United States in his book *Future Shock* in 1970. He wrote about unlearning and relearning as requirements for twenty-first century literacy along with learning. Many other authors since have experimented with the notion of unlearning (see Hislop et al., 2014); initially unlearning was just used as another word for forgetting, but the two things are clearly unrelated. Forgetting can be involuntary, can occur with the passage of time, or can simply be the result of a lack of focus or priority on the information lost. Unlearning is more than that; it has the potential to be deliberate, as purposive an action as learning, and this is where there may just be an important relationship with technologies.

Most of the interactive learning environments we discuss in this journal are designed to build knowledge: a process of scaffolding, then constructing ideas, information, opinion, debate, all of which can easily occur online just as in any other communicative context. This produces a focus on learning and development as adding something to what we know. When we build virtual learning environments, and research in granular detail the better and better ways to connect with learners, to sequence activities and tasks, and to build effective linkages between declarative knowledge held in networks around the world and procedural knowledge held by practitioners and professionals, we produce a kind of forward momentum; we are often about searching out additional ways of understanding, aiming to become more and more knowledgeable about our subject.

But what if this forward momentum is a myth? Over 30 years ago, Hedberg discussed the idea that knowledge could not just accumulate: "Knowledge grows, and simultaneously it becomes obsolete as reality changes. Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge" (Hedberg, 1981, p. 3) – this is a sense of unlearning, which is not the same as forgetting but involves the challenge of confronting knowledge, in which we have invested effort, but which is no longer helpful.

Anyone who has studied at doctoral level may be familiar with the personal vulnerability produced when every fact or belief you have held dear, which has been the foundation of your knowledge structure, is challenged as you confront new thinking and contradictory ideas. This is when learning can become a painful experience, as we struggle with cognitive dissonance, trying to hold contradictory notions together. Change and mastery often involve not only the learning of new ideas, behaviours, or routines but also the giving up of some established ones; at an individual level, there is not too much research or discussion of this in the academic literature. One of the most helpful contributions to a discussion of unlearning was made by Rushmer and Davies (2004), writing about a health-care context, when they made a useful distinction between three distinctive types of individual unlearning, which they described as fading, wiping, and deep unlearning.

Fading of knowledge is perhaps self-explanatory: knowledge which is not reinforced in use, application, or assessment is likely to fade quickly. In educational institutions, we endeavour in all manner of ways to reinforce what we consider useful and relevant knowledge for the student. We use flipped learning designs: making learning packages which can be delivered out of class so that in class time is focused on interaction, explanation, and application (as well as testing). We offer case study learning, endeavouring to point to the relevance and real world application of the forms of knowledge we favour. We use enquiry-based learning modes to begin the learning process with students by whetting an appetite for learning by presenting a realistic problem for attention before the theory frameworks which might help to solve it. In all these effective ways, we use learning

technologies to support sound pedagogy, all three of these approaches can benefit from creative use of videos, polling, blogging, and much more.

If these are ways of counteracting the “fading” of knowledge, then are we flying in the face of useful unlearning? Insofar as we design learning outcomes which are linear and cumulative, we have to reinforce and focus on a learning rather than unlearning format. These remedies can be of benefit to the student who wishes to pass assessments and gain qualifications. They can also be useful in a workplace context to alert and remind staff of vital safety procedures and productive protocols which fit with the organisation’s business model. We might, however, suggest that current trends in social media are moving to an overt fading model: consider the increasing popularity of Snapchat and other sources of ephemeral media. Regardless of whether data and images on Snapchat are actually deleted after a few seconds, there is perhaps a sense that all too permanent web records of communication are causing a counter shift.

“Wiping” is another variation of unlearning but produced by an external agent. The idea here is of an imposed change which forces previous ways of doing things to be unlearned and substitutes new ways. This is perhaps more easy to see in a workplace context than an educational one, where topdown changes are frequently imposed as new CEOs and new market turbulence or legislation may require old ways to be unlearned. Here again learning technologies are often brought to bear as slower methods of communication are replaced and intranets and video-conferencing deliver what used to take mountains of memos.

But perhaps the most interesting aspect of unlearning is the deep unlearning identified by Rushmer and Davies. This, they suggest, is about internal change – resulting from something which makes us question or challenge our beliefs and values. And this is where social media is of particular relevance in unlearning. The ubiquity, intimacy, and sheer speed of social media offer great potential for deep unlearning. While it is not difficult to find and cite examples of the harm social media can do in society, it can be harnessed for learning and, I would suggest, constructive unlearning.

The potentially disruptive nature of social media can force us to reconsider and review our values and our personal responses. And this is what we mean by deep unlearning, a personal shift in thinking. We can choose who to follow and befriend, often choosing those whose values are consistent with our own, but social media does not provide a consistently reinforcing and comfortable place, the kind of place we might inhabit with a familiar newspaper or radio station. Social media allows disruption and shock, and its intimacy in use can penetrate our thinking and learning in a way lectures and classes often do not. We know students can learn better from their peers rather than many of their teachers. Educators everywhere are trying to integrate this notion of student-centred peer learning into their learning designs.

Social media are tailor-made for this purpose. Students can catch infectious enthusiasm and urgency for study from their peers via Facebook and Whatsapp. They can use Instagram and Pinterest to build visual narratives and archives to populate reflective blogs and eportfolios. The enquiry that once was under the control of the teacher can now be set free to roam across the world to find the best and the worst of human nature and experience. Meanwhile, the teacher or trainer will always be needed to help the learner make sense of the world they find themselves in. Their role is to provide safe contexts to explore this disruptive world, and to develop robust frameworks and criteria for evaluating the mediated universe.

If we want people to move away from surface and strategic learning, to learn in any depth, they have to unlearn in depth too. Deep unlearning can be triggered through social media to challenge

mindsets and help learners to be receptive to change – both in work organisations and educational institutions. Can social media technologies drive deep unlearning? If so, we need a much better understanding of how this happens and how unlearning with technology can help people face turbulent change in our working and learning environments.

#### References

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