

**Expert Seminar on Technological Change
and Lifelong Learning
7 April 2008**



Summary of Key Points

This was a wide ranging and stimulating seminar which offered creative challenges to established thinking. The following key policy issues for further consideration by the Inquiry emerged from the discussions:

1. Generations, cohorts and digital divides. A range of concepts were advanced to describe the ways in which different groups interact with technology, and the digital divides that exist between generations and cohorts. Those born after 1983 have been termed the 'Net Generation' and labelled 'digital natives', in contrast to older groups who have been styled 'digital immigrants'. The limited readiness of the lifelong learning system to respond to the learning needs and expectations of the rising 'Net Generation' was highlighted. But these generational concepts are contested, and it was also argued that they do not form an adequate basis for understanding patterns of engagement with technology. Greater understanding is needed about the extent to which a generational divide exists in fact, and how the age variable is cut across by other factors that contribute to technological inclusion and exclusion.
2. Entitlement and access. The possibility of a citizens' entitlement in relation to access to technology, and in particular the internet, was considered, as a way of beginning to bring into the frame those who are most excluded. Some definition of what public access should be guaranteed would be desirable.
3. Technological change presents a range of contradictions. On the one hand, it is dramatic, and has dramatic impacts. The pace of innovation is rapid and constant, with the IT industry described as being in a state of 'permanent revolution'. However, to understand fully the implications of technological change, it is necessary to look beyond individual innovations and to identify and trace longer term shifts in behaviour that appear to be taking place. Not all of these may be driven solely by technology. For the Inquiry, being able to distinguish between fundamental trends and passing fads will be critical, and there are challenges in seeking to establish cause and effect. One possible approach that was suggested is to begin by looking at changing behaviours, rather than technologies, and to track back.
4. Location and environment. The importance of location and the physical learning environment presents another key contradiction. Even as technology de-centralises knowledge and individualises learning through the growing use of mobile, 'any time, any place' devices, the need increases for attention to be paid to the design of collective learning spaces in which shared learning can take place. Considerable investment continues to be made in the HE and FE estate, but institutions need help from government and others to redesign and develop their space in ways that enable effective learning in light of the use and impact of new technologies. Indeed, a clearer view is needed of what such learning environments might look like.
5. Implications for pedagogy. The seminar began to explore this area but there is much scope for its further consideration. It is clear that the established ways in which knowledge is created and transmitted are being profoundly challenged by technology. The example of Wikipedia was discussed, and it was suggested that, 'It is not what you know but what you share,' that is becoming increasingly important. Linear and narrative ways of knowing / understanding, and their associated teaching and learning practices,

may appear increasingly irrelevant. What new pedagogies will need to be developed, and how policy can support this, are critical questions. However, it is also debatable how far such changes may be limited by discipline / subject.

6. Workforce capability. Understanding what skills are required of the lifelong learning workforce in light of technological change is an obvious but important challenge. Research points to a current divide in both understanding and expectations between tutors and students in relation to the role and function of technology in learning. If new recruits to the lifelong learning workforce are 'digital natives', this could be expected to change, but we know that the age profile of the lifelong learning workforce is rising so the focus may need to be on CPD.
7. Choice and guidance. The notion of 'continuous partial attention' was used to describe how technology makes demands on us to be 'always on'. But in reality, there are questions about the extent to which adults are able to operate effectively in such an environment. Surrounded by a 'cloud' of technology and faced with a flood of (mis)information, individuals require advice and guidance to enable them to make decisions effectively, to discriminate, sift and discard. The new adult advancement and careers service will have a key role to play in this regard.
8. Technology and the blurring of boundaries. The capacity of technology to blur a range of boundaries within lifelong learning was repeatedly referred to and has considerable implications for policy. One of the strongest effects of technology is to blur the line between individual and collective learning. This has direct practical implications for assessment, and raises questions about how assessment systems should be adapted to reflect the fact that people learn with and from each other, and that the demonstration of their learning will increasingly be a collective output. The assessment issue is also linked to the blurring of the boundaries between the individual learner and the 'cloud' of technology that surrounds him/her. On both these issues, a tension is posed by the role of technology when the overwhelming policy drive is towards qualifications attached to the individual.

Technology is also blurring the boundaries between formal and informal (and intentional and incidental) learning, and between the contexts and settings in which people learn. In relation to the workplace, technology carries with it the potential to enable greater embedding of learning in the development of technical or professional practice.
9. Quality and standards. There was broad agreement that we do not yet know what good e-learning looks like. The rapid pace of technological innovation means that, rather than seeking to identify good or best practice, it may be necessary to focus on *next* practice. In this context, determining standards and guaranteeing quality poses particular challenges.
10. The role of broadcasting. The potential capacity of television to address digital exclusion was considered. However, there was little discussion of the role that broadcasting has played historically in sustaining a 'grand narrative' of shared experience, and what the implications might be for that of the increasing diversity of information and communication technologies with which people interact.