Norbert Pachler
John Cook

Mobile, Informal and Lifelong Learning

A UK Policy Perspective

For the last 20 years or so the UK has been what one might call a hyperactive educational policy domain. The role of technology, in particular its harnessing for education, has been no exception. Unlike other European countries, the UK education sector benefits not just from professional associations providing self-help support for educational professionals, but also from a number of so-called "quangos", quasi non-governmental organizations at arms-length of the government, yet tasked with (supporting the) formulation and implementation of government policy. In this paper, we will look analytically, and where appropriate critically, at central government policy and implementation in the UK with reference to mobile learning in the context of the wider e-learning strategy. In particular, we will look at the trajectories set up by policy documents as well as the work of the British Educational Technology Agency (Becta) and the Joint Information Systems Committee (JISC) from formal education at primary, secondary, further and higher education towards the use of digital technologies outside of formal education and the world of work. We will examine the government's conceptualization of informal and mobile learning, assess its appropriacy and discuss the role and potential of mobile devices for learning within it.

Definitional Bases and Attendant Issues

Given the relative newness of the emerging field of mobile learning, it is hardly surprising to find few direct and explicit references to it in government policy making to date. This is arguably particularly the case because the government strategy for the use of Information and Communications Technology[1] uses the term e-learning and defines it broadly

[1] Department for Education and Skills (DfES), *Harnessing Technology: Transforming Learning and Children's Services*, London: 2005, available at http://www.dfes.gov.uk/publications/e-strategy/docs/e-strategy.pdf.

as any learning that uses ICT. Yet, a closer examination of relevant government policy documents allows for some inferences about the role for, and potential of, mobile learning. We would argue that it is fruitful to use a more fine-grained definitional approach in future policy documents in order to capture the specific nature of and requirements for mobile learning. This we consider important as the effective use of ICT for learning is inextricably bound up with broader government and institutional strategies, such as plans for investment in the necessary infrastructure, and policies for learning and teaching, and requires careful strategic planning, change management and process development.[2] Arguably, various sectors of government provision such as education, social care, health, etc., are still in the early stages of embedding the use of ICT in their respective processes and much still needs to be done to achieve coherence within as well as across sectors. The UK Government is currently placing a lot of emphasis on Home Access as a way of lessening the digital divide, and also to give parents access to information about their children's progress, and to support homework. Home access includes both providing machines in the home for low-income families, and more generally access to the school's intranet. However, in the field of education one of the greatest challenges posed by new, functionally convergent, portable digital technologies with a high degree of connectivity, such as smartphones, is the bridging of the gap between informal and formal learning. In addition, the tendency to focus on technical consideration at the expense of a focus on pedagogy prevails.

Lifelong and Informal Learning

Despite featuring the word in our title, lack of space does not allow us here to offer a detailed discussion of the notion of lifelong learning, let alone whether it is indeed a fruitful construct as an object of enquiry given its relative generality and vagueness.[3] Overall, the recent emphasis on lifelong learning in government policy-making at a national as well as supranational level[4] can be seen to be intimately linked to attempts to bring

[2] See also Higher Education Funding Council for England (HEFCE), *HEFCE Strategy for E-learning*, Bristol: 2005, http://www.hefce.ac.uk/pubs/hefce/2005/05_12/05_12.pdf, p. 6.

[3] See e.g. C. Griffin, "Lifelong Learning: Policy, Strategy and Culture", in *Working Papers of the Global Colloquium on Supporting Lifelong Learning [online]*, Milton Keynes, UK: Open University, 2000, http://www.open.ac.uk/lifelong-learning/papers/393B8319-0006-659F-00000 15700000157_CGriffin-Paper-LifelongLearning.doc, p. 7.

[4] See e.g. the European Commission communication on "Making a European Area of Lifelong Learning a Reality", at http://www.bologna-berlin2003.de/pdf/MitteilungEng.pdf.

educational spending more closely in line with the needs of the economy inter alia through widening of access, of provision of continuing learning opportunities, a greater emphasis on a wider range of modes of provision or an emphasis on learning from experience and work-based learning.[5] We will argue in this short paper that lifelong learning should also, if not first and foremost, be about offering opportunities for personal and individual growth and fulfilment as well as social equity and inclusion. We do so despite the increasing emphasis since publication of the Leitch Report[6] on the development of skills and qualifications for those of working age in the UK.

Because of the intimate interrelationship of lifelong learning with a diverse range of policy imperatives, we prefer to focus on the notion of informal learning. We view learning as a cognitive, psychological as well as a social and cultural phenomenon, which is mediated by tools such as language and technology. Informal learning we see largely as residing outside the infrastructure attendant to formal qualifications and for the purposes of this paper we adopt the definition put forward by Rogers, who likens it to breathing:

> Informal learning is ... seen as a natural activity which continues at all times; it is highly individualised, contextualised... It is almost always concrete, limited to the immediate need; it is always embedded within some other activity. It is associated with our identities – either with confirming and fulfilling our identities in a changing world, or with changing our identities. It is our own individual way of making sense (meaning) of life's experiences and using that for dealing with new experiences. ... like breathing, it is the (mental) process of drawing into ourselves the natural and human environment in which we live ... and using it to build up (develop) ourselves.[7]

---

[5] See e.g. J. Gallacher and F. Reeve, "Work-based Learning: The Implications for Higher Education and for Supporting Informal Learning in the Workplace" (2000), in *Working Papers of the Global Colloquium on Supporting Lifelong Learning*, http://www.open.ac.uk/lifelong-learning/papers/3937BC34-0008-6511-0000015700000157_freeve-jgallacherpaper-noabstract.doc.

[6] *Leitch Review of Skills: Prosperity for All in the Global Economy – World Class Skills: Final Report*, London: 2006, http://www.hm-treasury.gov.uk/d/leitch_finalreport051206.pdf.

[7] A. Rogers, "Informal Learning in Lifelong Learning". Paper presented at *Informal Learning and Digital Media: Constructions, Contexts and Consequences*, University of Southern Denmark, Odense (Sept. 21–23, 2006). Danish Research Centre on Education and Advanced Media Materials (DREAM). For the quoted passage see http://mature-ip.eu/en/node/140.

As we have noted elsewhere,[8] a key defining aspect of informal learning for us is who determines the learning goals. For us, therefore, "informal learning is a natural activity by a self-motivated learner 'under the radar' of a tutor, individually or in a group, intentionally or tacitly, in response to an immediate or recent situation or perceived need, or serendipitously with the learner mostly being (meta-cognitively) unaware of what is being learnt".

What We Mean by Mobile Learning

With Sharples, Taylor and Vavoula we view mobile learning as "the processes of coming to know through conversations across multiple contexts among people and personal interactive technologies"[9]. In this definition, the technological dimension remains in the background and instead of an emphasis on transfer of content and information, dialogue and variously situated social interaction come to the fore. Definitions of "mobile learning" tend to revolve around the mobility of the technology or the mobility of the learner; of late there has been a clear change in emphasis to the latter.

What Do Relevant Educational Policy Documents Tell Us about Mobile Learning?

In 2005, the UK government published a national strategy document entitled *Harnessing Technology: Transforming Learning and Children's Services.*[10] The strategy has recently been revised by Becta, who have just published *Harnessing Technology: Next Generation Learning*[11] and an accompanying delivery plan.[12] Despite the assertions in the subtitles of both, there is arguable little, and at best only indirect focus on learning in these docu-

[8] J. Cook, N. Pachler and C. Bradley, "Bridging the Gap? Mobile Phones at the Interface between Informal and Formal Learning", accepted by *RCET's Special Issue: Learning While Mobile*, the *Journal of the Research Centre for Educational Technology*, Kent State University, 2008, http://www.rcetj.org/files/RCETJ_4_1_learningwhilemobile_cook.pdf.

[9] M. Sharples, J. Taylor and G. Vavoula, "A Theory of Learning for the Mobile Age", in R. Andrews and C. Haythornthwaite (eds.), *The SAGE Handbook of E-learning Research*, London: Sage, 2007, pp. 221–224, this passage on p. 225.

[10] Cf. note 1 above.

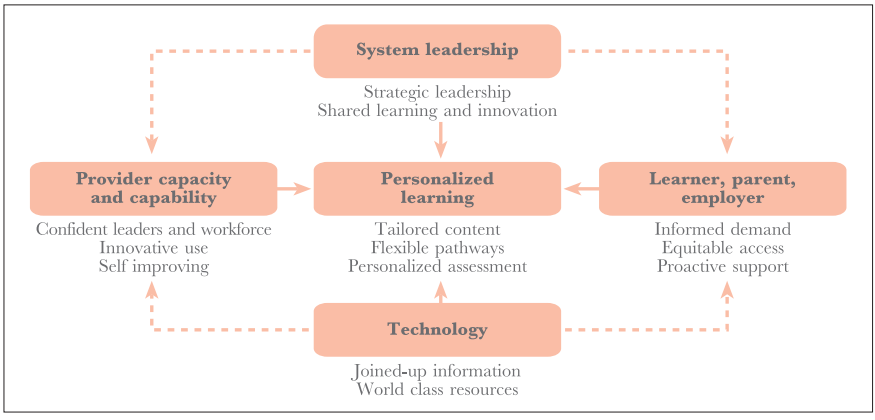
[11] *Harnessing Technology: Next Generation Learning*, Becta: Coventry, 2008, http://publications.becta.org.uk/download.cfm?resID=37348.

[12] *Harnessing Technology: Delivery Plan*, Becta: Coventry, 2008, http://publications.becta.org.uk/download.cfm?resID=28223.

ments. Probably inevitably, the emphasis, certainly in the 2005 document, is on so-called system action and a fit-for-purpose technology infrastructure. Whilst there is a separate chapter on transforming learning and teaching in the 2005 document, it does not really move much beyond asserting the need for a "new understanding of the pedagogies appropriate for a 21st century education system"[13]. The implicit conceptualization is one of a transmission model in which the availability of a range of high-quality, innovative resources available to teachers and learners is of critical importance. The strategy is based on the premise that evidence exists that "where ICT is used effectively, lessons are better taught and students get better results"[14] and it aims to

- transform teaching, learning and help to improve outcomes,
- engage "hard to reach" learners,
- build an open accessible system, and
- achieve greater efficiency and effectiveness.

The 2008 document emphasizes the need to develop an "e-confident" system characterized by the successful integration of technologies in learning processes and practices, provision of leadership in the exploitation of the infrastructure as well as on "achieving greater value for learners from technology and supporting improvement and transformation"[15]. The strategy is based on the following five system components:[16]



[13] DfES, *Harnessing Technology*, p. 26.
[14] *Ibid.*, p. 4.
[15] Becta, *Harnessing Technology*, 2008, p. 17.
[16] *Ibid.*, p. 24.

However, we would assert that making a link between world class resources and strategic leadership is only part of the story. We have proposed[17] that stakeholder/change networks can act as a link between groups of champions and early adopters, other learning facilitators, learners and senior management. In this approach an emphasis is placed on identifying critical interactions between processes, on forefronting the interdependencies between technology, practitioners and strategy; and a premium is placed on informal change networks, feasibility and sequence. Mobile learning and e-learning should be seen as a journey and not a destination.

Becta (with some prompting) are slowly changing their rhetoric from "extending the school into the community" to "connecting home and school". That is in part a code for children using personal mobile devices between home and school. So far, that's mostly been school-provided PDAs and tablets, but Becta has, for example, recently funded a study of children using their own phones to support learning in (pioneer) school classrooms.

At the same time, important quasi non-governmental organizations, such as the Higher Education Funding Council for England (HEFCE) have published e-strategies of their own. The rationale for HEFCE's e-learning strategy[18] very much mirrors the changes in rationale for educational policy-making briefly delineated above, i.e. to:

- meet the greater diversity of student needs
- increase flexibility of provision
- enhance the capacity for integrating study with work and leisure through work-based and home-based learning
- develop approaches to individualized support for planning and recording achievements.

HEFCE's strategy aims to "support the (Higher Education) sector as it moves towards embedding e-learning appropriately, using technology to transform higher education into a more student-focused and flexible system, as part of lifelong learning for all who can benefit".[19]

Another important player in this area is JISC, who have funded var-

[17] J. Cook, D. Holley and D. Andrew, "A Stakeholder Approach to Implementing E-learning in a University", *British Journal of Education Technology*, vol. 38, no. 5 (2007), pp. 784–794.

[18] *HEFCE Strategy for E-learning* (cf. note 2 above), p. 4.

[19] *Ibid.*, p. 5.

ious significant UK e-learning initiatives but very little mobile learning work. Much of the current, still evolving, JISC strategy is dependent on the need to support institutions to use IT as a positive tool to enable change; however it is fair to say that JISC are still working on the best way to do this and are engaging in consultation regarding what Higher Education and Further Education leaders want from JISC in terms of institutional IT support. In terms of mobile learning the big challenges are not just pedagogical, they include issues surrounding scaling up and non-trivial issues surrounding balancing the use of mobile devices for formal and informal use.

The other potentially positive aspect of UK policy-led development is the multi-billion pound Building Schools for the Future (BSF) programme, where some schools are planning new builds around learning with wireless and mobile technologies, but these are unfortunately far and few between.

In relation to the education of school children, the current policy imperative of personalization[20] is particularly noteworthy in relation to mobile learning. The concept of personalization is widely written about and, again, it is not possible to do it justice in the space available in this paper. Given the fact that mobile learning is often associated with, and justified with reference to, notions such as personalized, situated, authentic and private learning, it seems important nevertheless to discuss it briefly here. In essence, the notion is associated with the UK government's aspiration for a world-class education system and embraces the notion that all children should be able to encounter learning opportunities relevant to their needs rather than their age. Clearly, technology can and must be seen as central to these endeavours not only in relation to content provision and the (social) processes of interaction with and around content but also in terms of assessment and testing.

In the first half of this year the UK government carried out a consultation on informal adult learning for the 21st century[21] which offers some interesting insights into the current thinking of policy makers. The theme of personalization mentioned above in relation to school-based education is also foregrounded in the consultation paper, which stresses the importance of learner choice and agency. There exists an undercur-

[20] See e.g. D. Hargreaves, *Personalising Learning: Next Steps in Working Laterally*, London: SSAT, 2004, and http://www.ssat-inet.net/whatwedo/personalisinglearning.aspx.

[21] See Department for Innovation, Universities and Skills (DIUS), *Informal Adult Learning – Shaping the Way Ahead*, London: 2008, http://www.dius.gov.uk/consultations/~/media/publications/I/Informal_Adult_Learning_consultation.

rent in the document that at least tentatively correlates choice and agency with self-funding.[22] Importantly also for the purposes of our discussion here, the role of new technologies in making new ways of learning possible is given high prominence. In relation to technology, one phenomenon the London Mobile Learning Group,[23] of which the authors of the present paper are members, has identified as a key issue in their sociocultural ecology, is the interconnectedness between different media and technology-mediated experiences, such as TV programs or films, related online offers and software applications or games, live events, sharing related information with others in specific groups, merchandising, etc., and how they link to informal learning. The paper also recognizes that what it calls "ever-expanding" learning opportunities are possible inter alia through the availability of hand-held devices and digitally augmented reality.[24]

In relation to the question around the value of learning, the consultation document inter alia identifies the following questions which seem of particular relevance to us in relation to an exploration of the potential for mobile learning:

a. How can we understand more about the factors that are driving [the] diversity of activity?
b. What are the conditions that make it easier for learners to learn? How can we support people to be more instrumental in their own learning?
c. How can we support and develop models of self-organised … education…?
d. How can we improve the connectivity between different kinds of learning episodes…?[25]

Personal ownership is identified by the 2008 Becta strategy for 2008–2014 as an important factor with which we fully agree. The document[26] sees significant opportunities in personally-owned devices, albeit in terms of educational information, resource and service delivery where we would stress the importance of their communicative potential. In our work we focus on the need for, and implications of, the alignment of the pedagogical and cultural practices of formal educational settings with the use of mobile devices in everyday life. However, we recognize also the need to

[22] See e.g. *ibid.*, p. 10.
[23] See http://www.londonmobilelearning.net.
[24] *Informal Adult Learning – Shaping the Way Ahead*, pp. 26 and 28.
[25] *Ibid.*, p. 21.
[26] *Harnessing Technology: Next Generation Learning* (cf. note 11 above), p. 39.

ensure effective management of a "mixed economy" of publicly and privately owned technology as pointed out in the 2008 strategy.

Conclusion

In summary, it seems fair to say that mobile learning has not really reached the consciousness of educational policy makers in the UK. And whilst there is some implicit recognition of the existence of the phenomenon, it seems that we will have to await the next round of policy making documents in the UK for mobile learning to receive the attention we believe it deserves. In the meantime, we, as mobile learning researchers, need to provide evidence for the importance of the field, in particular in bringing practices of personal use and those of formal education into greater proximity across the life course of citizens. However, the big policy challenge remains moving from the rhetoric of "extending the school into the community" to "connecting home and school", i.e. enabling children to use personal mobile devices between home and school.