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A socio-cultural ecology of mobile learning

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Outline

- Growing significance of mobile devices
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- Public, personal and intimate spaces and ethical considerations
- Learner-generated contexts and augmented reality
- Affective and motivational factors
- Interface between learning in informal and formal settings
- Mobile learning and design
- One possible scenarios of mobile learning in the workplace

Growing significance of mobile devices

- Teachers' TV programme *School Matters: Mobile Phones, Mobile Minds*
- mobile devices have become increasingly embedded in the life worlds of (young) people
- there is a danger of
 - a failure of the education system to keep pace with the developments in the life worlds of young people and society more widely
 - potential disconnection between the way (young) people operate in their daily lives and the way educational institutions interact with them
- we live in a 'mobile society in flux', in quantitative and qualitative terms (see e.g. Traxler 2007)

Definitional bases

- the basic principles informing work in mobile learning are by no means new:
 - ‘learning’ in general, as well as its mediation by and through technology, is a hugely contested and much written about field
 - ‘mobility’ has been a concern of researchers, scholars and education practitioners for a long time
- what is new is:
 - the capability and the functionality of the technology, in particular the convergence of services and functions into a single device, its ubiquity and abundance, portability and multi-functionality
 - the boundary and context crossing mobile technologies enable in the context of learning
- different definitions foreground the mobility of
 - the technology,
 - the learner,
 - the information

- mobile learning as ‘anytime, anywhere’, ‘just-in-time’ rather than ‘just-in-case’, ‘just-enough’, ‘just-for-me’
- we emphasise mobility in relation to the ‘habitus of learning’: constantly to see the life-world of the individual framed both as challenge and as an environment and a potential resource for learning (Kress and Pachler 2007)
- mobile learning – as we understand it – is not about delivering content to mobile devices but, instead, about the processes of 'coming to know' and 'being able to operate successfully in and across' new and ever changing context and learning spaces
- mobile learning is about understanding and knowing how to utilise our everyday life worlds as learning spaces
- paradigm of ‘the world in the box’ versus ‘the box in the world’
- for us, mobile learning is not primarily about technology

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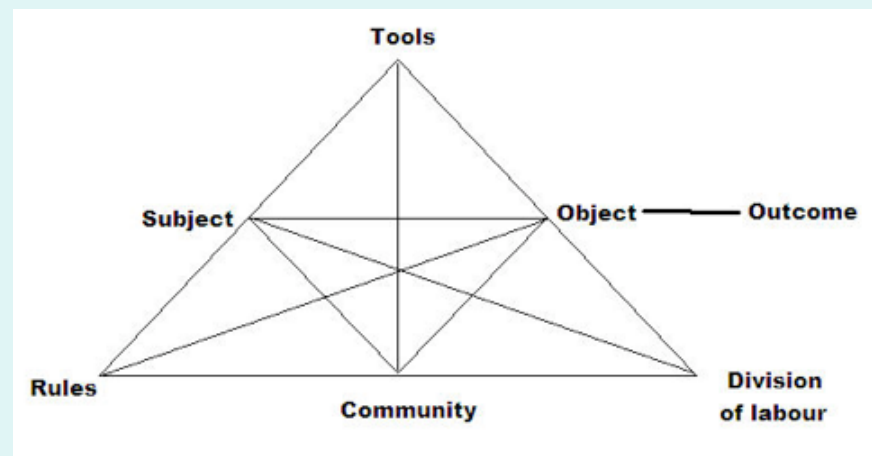
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- We view learning with mobile devices as a process of meaning-making through communication across multiple contexts among people within a triangle of social structures, cultural practices and agency. (see also Sharples, Taylor and Vavoula, 2007)
- We consider emerging socio-cultural practices around the use of new technologies in learners' everyday life worlds to be important sites and acts of learning.
- We view agency as manifesting itself as the learner's social and semiotic capacity.
- Communication for us captures the fact that meaning-making is bound up in economic, socio-cultural, technological and/or infrastructural systems including the mass media and technological networks/infrastructure.



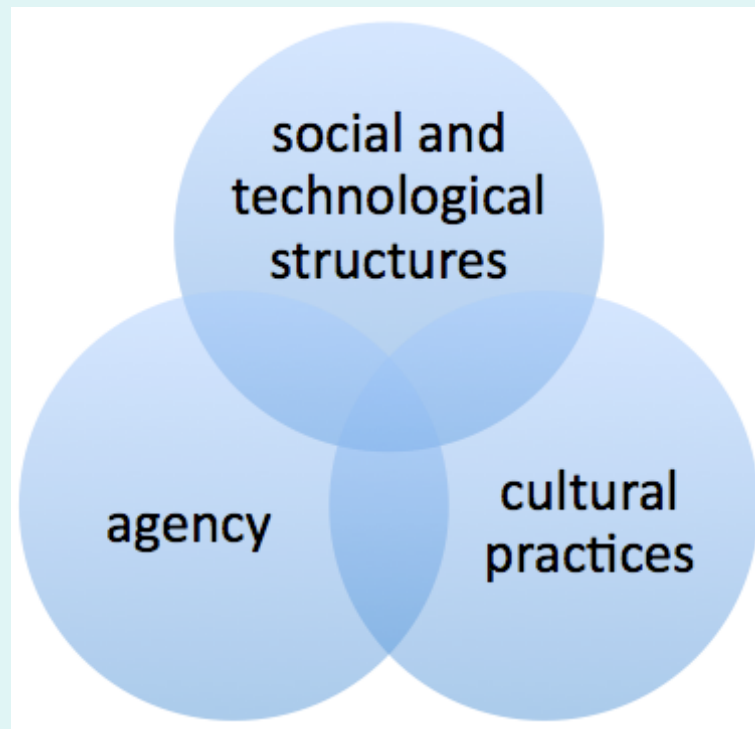
A socio-cultural ecology of mobile learning

- We reject Activity Theory for our purposes; we consider it to have merit in the context of describing structure but see it as limiting analysis on the nodes of the triangle.



Activity System (Engeström, 1987) (Source: Taylor et al 2006, p. 8)

- Instead, we propose a socio-cultural ecological perspective.



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Structures

- individual risk society; 'liquid modernity'
- individualised and mobile mass communication incl. mobile devices and their functions such as video recording capability within a technological infrastructure of media convergence
- curricular learning in educational institutions
- approaches of educational institutions towards the use of new cultural resources
- increase of informal learning outside the school
- new social stratification leading to at-risk learners with their own situated expertise



Agency

- new habitus of learning within a ‘curricularised’ world
- learner-generated content and contexts
- learning as meaning-making
- expertise, which is individually appropriated in relation to personal definitions of relevance

Cultural practices

- use of mobile devices and social networking technologies for social interaction, communication and sharing
- view of learning as culturally situated meaning-making inside and outside of educational institutions
- media use in everyday life

The policy context

- mobile learning has not really reached the consciousness of educational policy makers in the UK, but

Informal adult learning – shaping the way ahead (DIUS, 2008)

- recognises 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
- ever-expanding' learning opportunities are possible inter alia through the availability of hand-held devices and digitally augmented reality

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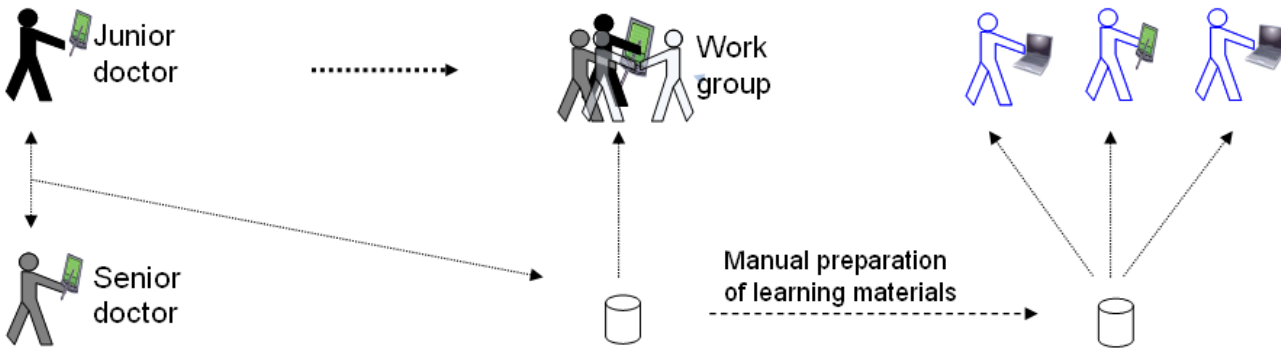


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Scenario

In a problematic situation, junior doctors capture symptoms and procedures of treatment with the help of their mobile devices (e.g. smartphone) based on imaging and video streaming and convey it to senior doctors. Through simultaneous discussion the junior doctors are supported in problem solving. The multimedia materials generated in this way can later be used in follow-up meetings and training sessions in order to promote sustainable learning, dissemination of organisational knowledge and contribute to quality assurance.



Situation	Work situations: junior doctor in emergency hospitalisation, operating room, rounds, doctor's consultation	Follow-up meeting with other junior doctors, guided by senior doctor	Training: Distribution of selected materials to further learners
Activity	Just-in-time communication, problem solving	Discussion, reflection	Just-in-case learning
Process visualisation			
Technology	Video conferencing, and streaming, image capturing	Platform for multimedia data	E-learning/knowledge management platform

Pimmer, Pachler and Gröhbiel (forthcoming)

References

- Department for Innovation, Universities and Skills (DIUS) (2008) *Informal adult learning – shaping the way ahead*. London Available at: <http://www.adultlearningconsultation.org.uk>
- Engeström, Y. (1987) *Learning by expanding an activity -theoretic approach to developmental research*. Helsinki: Orienta-Konsultit Oy
- Kress, G. and Pachler, N. (2007) 'Thinking about the 'm' in m-learning.' In: Pachler, N. (ed) *Mobile learning: towards a research agenda*. WLE Centre, Institute of Education, London, pp. 7-32. Available at: http://www.wlecentre.ac.uk/cms/files/occasionalpapers/mobilelearning_pachler_2007.pdf
- Pachler, N., Bachmair, B., Cook, J. and Kress, G. (forthcoming). *Mobile learning?* New York: Springer**
- Pimmer, C., Pachler, N. and Gröhbiel, U. (forthcoming) 'Arbeitsintegriertes Lernen im Gesundheitswesen. Didaktisches Konzept für ein mobiles Lernsystem am Beispiel der medizinischen Weiterbildung.' Submitted to *E-learning*.
- Sharples, M., Taylor, J. and Vavoula, G. (2007) A theory of learning for the mobile age. In. R. Andrews, and C. Haythornthwaite (eds) *The SAGE Handbook of e-learning research*. London: Sage, 221-224
- Taylor, J., Sharples, M., O'Malley, C., Vavoula, G. and Waycott, J. (2006) 'Towards a task model for mobile learning: a dialectical approach.' In *International Journal of Learning Technology* 2(2-3), pp. 138-158. Also available at: <http://kn.open.ac.uk/public/getfile.cfm?documentfileid=7175>
- Traxler, J. (2007b) 'Flux within change.' In *mLearn Melbourne 2007: making the connections. Conference proceedings* , pp. 256- 264. Available at: http://www.mlearn2007.org/files/mLearn_2007_Conference_Proceedings.pdf