

# Chapter 14

## Towards Work–Based Mobile Learning: What We Can Learn from the Fields of Work–Based Learning and Mobile Learning

**Christoph Pimmer**

*University of Applied Sciences Northwestern Switzerland, Switzerland*

**Norbert Pachler**

*Institute of Education University of London, UK*

**Graham Attwell**

*University of Warwick, UK*

### ABSTRACT

*Mobile devices are increasingly being used to support learning in work contexts. In exploring the emerging field of work-based mobile learning (WBML), researchers need to give consideration to the theoretical and empirical findings from mobile and work-based learning. In this paper, the authors provide an overview of key issues and dominant debates in these fields with the aim of providing a systematic introduction for mobile learning researchers interested in exploring the use of mobile devices for learning in work-based contexts. This paper's focus is aimed at scoping possible commonalities across mobile and work-based learning in order to establish a baseline for future conceptual work in empirical research towards WBML.*

## MOBILE LEARNING

### An Emerging Field

Today mobile technologies such as cell phones are widespread and multifunctional, mobile broadband coverage has improved considerably in recent years and smartphones are combining more and more capabilities—ranging from telecommunication and video capturing to personal information management (Livingston, 2004); this important characteristic is referred to as convergence in the literature (Pachler, Bachmair, & Cook, 2010). At the same time costs for telecommunication have been decreasing (compare e.g., European Statistics Eurostat, 2008). Mobiles—such as the iPhone—were identified in recent Horizon Reports (2009, 2010) as the technologies with the highest likelihood of entry into the mainstream of learning-focused institutions within the next year. Whereas mobile devices have become more and more embedded in the life worlds of learners, schools have mostly not considered them as cultural resources (Pachler, 2009; Pachler, Bachmair, & Cook, 2010). Similarly, companies seem to be hesitant acknowledge the potential of mobile technologies for learning (Härtel et al., 2007) despite the high penetration of mobile devices also in the business environments (Dzartevska, 2009).

In line with the spreading of mobile technologies, mobile learning is a rapidly expanding field of research (see e.g., Vavoula, Pachler, & Kukulska-Hulme, 2009). Its growing importance is reflected, for example, in the rising number of conferences<sup>1</sup>, journals and books<sup>2</sup>. A number of mobile learning projects have been piloted in schools and institutions of Higher Education (see e.g., <http://www.moleap.net>; for a state of the art analysis of mobile projects compare e.g., Frohberg, 2006; Frohberg et al., 2009; Pachler, Bachmair, & Cook, 2010; Seipold & Pachler, 2010). Some projects have been also conducted and researched in business contexts (see e.g., Pimmer & Gröhhbiel, 2008; Pachler, Pimmer, & Seipold, forthcoming).

## Definitions and Theoretical Concepts

At present there is no dominant definition of what constitutes mobile learning. Particularly in the early days of work in the field, mobile learning was often conceived of as a technological concept (based on portable technology) (Kukulska-Hulme et al., 2009) and to the delivery of content to mobile devices (transmission based-learning) (Frohberg et al., 2009). Today, contextual factors are considered to be of great significance. This is also mirrored in some commonly used definitions where, for example, mobile learning is considered as “the processes of coming to know through conversations across multiple contexts among people and personal interactive technologies” (Sharples et al., 2007, p. 158). Our perception of mobile learning is based on a similar understanding: we characterise it as the processes of coming to know, and of being able to operate successfully in, and across, new and ever changing contexts with and through the use of mobile devices. Instead of a technical orientation today’s focus is on an educational perspective, given the affordances that mobile devices provide for meaning-making (Pachler, 2009; Pachler, Bachmair, & Cook, 2010).

Activity Theory (AT) is well acknowledged in mobile learning and many researchers have used the model as an explanatory frame for exploring learning with mobile devices. Of particular interest seems to be the triangular activity system of Engeström (1987). Despite its prevalence in the literature, AT has been criticised for not being an adequate theory for researching mobile learning: on the one hand it lacks the necessary simplicity to be of value for practitioners and policy makers; on the other hand (from a theoretical perspective), the notion of learning as the acquisition of objects, as well as the distinction between learning subjects and objects, is considered as problematic (Pachler, Bachmair, & Cook, 2010). In their article on Folksonomological Reification, Parslow et al. (2008), suggest that it is important to modify the

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/towards-work-based-mobile-learning/62144](http://www.igi-global.com/chapter/towards-work-based-mobile-learning/62144)

## Related Content

---

### Journalism 2.0: Exploring the Impact of Mobile and Social Media on Journalism Education

Thomas Cochrane, Helen Sissons, Danni Mulrennan and Richard Pamatatau (2013). *International Journal of Mobile and Blended Learning* (pp. 22-38).

[www.irma-international.org/article/journalism-exploring-impact-mobile-social/78333](http://www.irma-international.org/article/journalism-exploring-impact-mobile-social/78333)

### Upgrading a Numerical Methods Course into New Mobile Technologies for Mathematical Education: An Approach Based on Flexibility and Skill Development

Francisco Javier Delgado-Cepeda (2016). *Mobile and Blended Learning Innovations for Improved Learning Outcomes* (pp. 201-222).

[www.irma-international.org/chapter/upgrading-a-numerical-methods-course-into-new-mobile-technologies-for-mathematical-education/151864](http://www.irma-international.org/chapter/upgrading-a-numerical-methods-course-into-new-mobile-technologies-for-mathematical-education/151864)

### Flip and Retrofit University Lecture Theatre Into Caribbean Classrooms: Turning Teacher Education and Training Inside-Out

Paulette Joyce Feraria (2019). *Innovative Trends in Flipped Teaching and Adaptive Learning* (pp. 38-54).

[www.irma-international.org/chapter/flip-and-retrofit-university-lecture-theatre-into-caribbean-classrooms/227439](http://www.irma-international.org/chapter/flip-and-retrofit-university-lecture-theatre-into-caribbean-classrooms/227439)

### The Research Field of Reality Environments in Education

Anita Norlund (2019). *International Journal of Mobile and Blended Learning* (pp. 68-77).

[www.irma-international.org/article/the-research-field-of-reality-environments-in-education/223156](http://www.irma-international.org/article/the-research-field-of-reality-environments-in-education/223156)

### Digitizing Learning: How Video Games Can Be Used as Alternative Pathways to Learning

Carol-Ann Lane (2019). *Innovative Trends in Flipped Teaching and Adaptive Learning* (pp. 138-161).

[www.irma-international.org/chapter/digitizing-learning/227443](http://www.irma-international.org/chapter/digitizing-learning/227443)