

# Microlearning – Examples, Challenges, and Conceptual Considerations

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## *Position Paper*

### **1. Definition and Context**

In the rapidly-changing world of the Internet and the Web, theory and research frequently struggle to catch up to developments, interactions and permutations in technology and the social forms and practices evolving with it. In respect of practical issues, lots of promises have been made when introducing distributed education, networked learning, and distance learning. Today, some seem to claim a kind of evolution from e-learning 2.7 to m-learning 0.9. Are we moving on from e-learning promises to m-learning-promises? Are there useful cross-over concepts in a situation of moving cultures and fragmentation of knowledge, formats, audiences, and even life?

In this paper it is argued that microlearning is a useful cross-over concept. In contrast to microteaching and also to other terms such as microphysics or microbiology, microlearning is a rather new expression. Similar to related expressions like microcontent or micromedia, it has been in use only since about 2002, though many aspects of learning, didactics and education have, of course been addressed on what can be called a “micro” level for centuries. The discourse, or rather, multiple discourses that have emerged and developed around microlearning are above all polyvocal and international. Such cultural, geographic and linguistic heterogeneity underscores the fact that the technology central to microlearning –like any technologies or technical systems—are not constituted in isolation, producing the same results in different institutional, social and cultural contexts.

The heterogeneity of the contexts, cultures and ultimately, meanings associated with the term microlearning is further compounded by heterogeneity of the term learning itself. For example, learning can be conceptualized as a process of building up and organizing knowledge. But it can also refer to the change of behaviour, of attitudes, of values, of mental abilities, of task performance of cognitive structures, of emotional reactions, of action patterns or of social dynamics. No matter how learning is conceptualized, in all cases there is the possibility of considering it in terms of micro, meso and macro aspects or levels (cf. Hug 2005, p. 4). As a result, microlearning can be understood in manifold ways which can refer to micro aspects of a variety of phenomena including learning models and concepts. Depending on frames of reference and economies of scale, micro, meso and macro aspects vary. They are relational rather than “absolute.”

### **2. Didactics of Microlearning**

As to didactics of microlearning, it is important to be aware of different cultural and academic traditions. It makes a big difference if we understand didactics mainly as instructional design, as literary genre, as it is discussed in the French speaking cultural area, or as an umbrella term which refers to a variety of concepts, approaches, models, theories, experiences, or technologies, or to questions of an art of teaching and learning. However, didactical considerations may focus on subjects (who), contents and skills (what), methods and technologies (how), reasons, purposes, and goals (why and what for), as well as on social relations, institutional and societal conditions, settings and arrangements, learning ecologies and cultures, media environments, power and control, or evaluation and assessment. Furthermore, there are general models which open up different ways of understanding how microlearning elements can be linked together. Here are four examples (cf. Hug 2007, p. 20):

- In the *multicomponent model* micro aspects or contents are combined more or less systematically in sequences, linear, recursive and/or branching, relating to each other as separate components.
- In the *aggregation model* microlearning elements that are fundamentally *similar* are bundled or combined as a relatively unstructured entity or homogenous mass (“aggregate”).
- In the *conglomerate model* diverse micro elements are arrayed as a kind of assortment or “bouquet” of learning products and processes.
- In the *emergence model* new phenomena, coherent structures and qualities evolve from and between microlearning elements themselves. These novel patterns or properties cannot be attributed to any single element. Instead, they arise out of a multiplicity of relatively simple interactions or steps in dynamic process of self-organization.

According to the ways of modeling, the form of a final microlearning product may have characteristics of fragments, facets, episodes, skill elements, discrete tasks, etc. Even though we have manifold options of describing and creating microlearning phenomena, its general characteristics are easily outlined: In terms of time microlearning is related to relatively short efforts and low degrees of time consumption, and in terms of content it deals with small or very small units and rather narrow topics. In other words: microlearning is a cross-over concept in terms of special moments or episodes of learning while dealing with specific tasks or content, and engaging in small but conscious steps.

### 3. Mobile Examples

As to politics of education, lip services to the future of education is being paid rather often. With the exception some individualists, school experiments, and innovative companies, the mainstream seems to insist on traditional learning models. In many places, e-learning has promoted rather bureaucracy and spheres of influence of ICT-administrators rather than innovation in education. Issues of administration, accounting and controlling are still central, even though media developments and learner interests are creating a situation in which new learning cultures and more flexible educational alternatives are needed. M-Learning and microlearning approaches can promote such alternatives. But they don't do it per se. It depends on meaningful didactical settings, on ways of promoting decision making and encouraging meaning making, and on the modes of making use of the use of media. In the workshop a selection of different examples of mobile microlearning applications is going to be presented.

### 4. Critical Issues and Questions

Even if we think of microlearning as a fruitful and useful concept, and even if we agree on potentials of the examples and scenarios for future developments, however, critical issues and questions should be addressed such as the following:

- If we take learning processes as processes of transformation which are based on processes of meaning-making of individuals in specific contexts, and if we are focussing on micro dimensions, aren't we then underestimating systemic dimensions, power relations, efforts of "education towards truth" (cf. Hug 2008), and organized practices through which subjects are governed (cf. Weber & Maurer 2006)?
- Looking at the relation and relevance of institutional and personal aspects of learning environments, how can meaningful learning be promoted?
- Isn't it all about bits and pieces loosely joined (D. Weinberger)? Isn't microlearning the problem considered itself to be the solution?
- Isn't microlearning mainly about computer literacy or digital fluency? Which literacy modes have to be considered if we want to avoid technology fallacies?

- Along with that: If we think of microlearning other than in the sense of formal or informal modes of "flickering minds" (Oppenheimer 2003), how can we conceptualize educational claims and their relation to microlearning, literacy modes, as well to formal, non-formal and informal learning?

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