

Design Challenges for the Integration of Emerging User Generated Content and Contexts in Formal Education

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One of the many significant challenges that educational institutions will face in the near future are the implications that informal user-generated content and contexts might bring to formal learning settings. The rapid adoption of sophisticated mobile devices (e.g. the new generation of smart phones and netbooks) with constant high-speed connectivity coupled with the growing ability for users to mediate social interactions significantly changes content creation, content sharing and consumption; thus creating new spaces and opportunities for learning. Traditional education tends to be a structured process with well defined learning objectives and outcomes that these technologies and social practices can subvert if not used in a complementary way. Although the introduction of sophisticated learning technologies over the last two decades has provided adaptive and scaffolded systems that support formal learning contexts, they do not take into consideration the current transformative power of mobility and social media. Educational practices in formal and organizational learning are struggling to harness these new socio-cultural technologies for supporting formal learning.

The difference between personal driven learning and interests that involve communities of participation where user generated content and context are key ingredients require shifts in mindsets, skills, and tools to be used in formal education. This shift goes beyond enabling access to mobile applications to fundamental design issues and our conception about what learning is; since these new ways of interacting with technology raise questions that mix cultural practices, the agency of media, and socio-cultural structures. A possible solution for tackling these challenges is to turn to design practices that take in consideration emerging social uses of these new technologies. These practices need to be coupled with the realization that mobile technologies and social media are only a part of the toolbox at the learners and teachers disposal. There is a concrete research (and practice) need to understand how user created-content and contexts can be harnessed across devices, locations, between people and learning situations. These new design strategies need to be better integrated as part of the entire learning experience. In recent research a lot of focus has been spent on the mobile technology out of context of everyday practice. Although this research is important for understanding the microcosms of mobile interactivity and technology, it does not always address the bigger cultural transformation happening outside.

During the last four years we have been conducting research activities that explore new design approaches and innovative uses of mobile technologies and social media in a variety of collaborative educational settings. Our approach is not simply to provide novel mobile computational systems and tools, but rather to explore new and varied design approaches and educational activities that become available while applying innovative approaches for designing new technologies to support new ways of learning. In this paper, we will present the results of our work together with our finding and reflections based on the latest developments and experiences regarding the design of collaborative spaces and tools to enhanced learning across formal and informal educational settings.

Questions for Design Challenges for the Integration of Emerging User Generated Content and Contexts in Formal Education

What new design challenges does the integration of emerging user generated content and contexts in formal education raise, for the learners, the teachers, the organizations, and the business around education? Currently e-books are not cheaper than traditional textbooks in pricing. Will this change when large school systems begin to utilize them in the state of California for example?

From a real-world research perspective, what are the best design strategies and methods to support active users? Can a focus on a more seamless integration of mobile devices and laptops between outside and inside the classroom provide motivation for higher active creation?

How do we create the right environment for all learners to be active in communities of participation? How do we overcome the 80/20 or the 90:9:1 laws of participation where it is acceptable for only a very small percentage of people to be active in creation of content? Even though the small percentage of active creators is significantly more than traditional media creation?