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Digital natives revisited: the need to reorganize academic institutions and conceptual categories in a digital world (0087)

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## Outline

Digital technology and modern students' use of it means that Higher Education is faced with new expectations from young people regarding what digital possibilities are available to them to engage in as students of modern universities. With the recent rise of smartphones young people are becoming used to be able to interact, communicate, monitor, reflect and learn when and how they want to. In this context, university information websites and web based e-learning tools that cannot be accessed by phone are already a thing of the past: modern students are getting more and more used to be able to access information on the go. The smartphone also opens up new possibilities to tailor information to the individuals needs – information in this modern digital age is not just about accessibility but customisation (Kaplan & Haenlein 2006) - an array of functionalities by which the information output is determined or affected by input in terms of the individual user's current context: social, geographical, behavioural etc. (Pedersen et al. 2013).

Recent studies have questioned the assumption that today's students are digital natives (Prensky, 2001) and as a consequence develop new learning styles that demands fundamental changes in Higher Education. [Margaryan](#) et al (2012), Hargittai (2010) and Jones & Cross (2009) seek to nuance the idea of all young people being avid users of digital technology and they document significant variations in students' access to and usage of digital media. Especially [Margaryan](#) et al (2012) argue for a more empirical based approach when seeking to uncover the digital habits and expectations of modern students and not just assume that universities should transform in order to accommodate the habits and expectations of digital natives. While pointing out the need for empirical knowledge certainly is a commendable, it does not take into account what has been called the "exponentiality" of the use of digital media and how this play into the research field in very real ways: academic, rigorous research and the following publication process takes time, and as a consequence findings published in 2012 such as those of [Margaryan](#) et al's draw on data collected in 2007. But the change in the digital media landscape has been radical in recent years. For example, between 2009 and 2010, smartphone ownership leaped 70% ([Internet Advertising Bureau UK \(IAB UK\)](#)) and between 2011 and 2012 the number of Danish smartphone owners rose by 40 % (Index Danmark/Gallup 2012). eMarketer projects that by 2017, smartphone user penetration among mobile phone users ages 12 to 44 will be between 94% and 98% in the UK. When it comes to mobile app usage, it is key to remember that The Apple App Store only opened in July 2008, and that the number of apps downloaded is rising extremely fast (with a reported total of 50 billion downloads from Apple App Store alone.).

We argue that the world as we know it is changing through digital media in fundamental and real ways that calls for transformation of Higher Education. But the structure of today's universities are poorly suited to meet this demand for new digital technologies that can easily be incorporated in the everyday lives of modern students, and as a consequence there is what has been aptly named an *app gap* in Higher Education (Prensky, 2012). As the main reason for the existence of this gap we point to the history of our academic institutions which is intertwined with the emergence and production of the printed book in 1450 (Eisenstein 1983). From the late 1400s to 1800 the number of universities in Europe increased by almost 500 percent, according to Frijhoff (1996), and conceptual categories that emerged with and in relation to print technology like authorship, originality and copyright (Rose 1993) are also central to academic culture. These categories as well as the view of the book as "the solid and fundamental unit of the author and the work" (Foucault 1984, p. 101) are being challenged by digital media.

In this presentation we point to these structural challenges and their historical background and suggest ways of reconceptualising academic institutions in order to be able to rise to the challenge of digital media in a mobile context. We do this through a case of developing a smartphone app aimed at supporting students writing their Master's dissertation (Pedersen et al. 2013). The central idea of the app is to support the individual student's dissertation process in accordance with his or her personal and current work process, goals and habits and whenever and wherever the student feels the need of support. We show how co-developing a mobile learning app with students does not fit into the existing framework of authorship, copyright, publication as well as dominant research methodology and how this pose structural problems in regard to achieving funding and further academic careers. We argue that Higher Education will not be able to fully explore the learning potential of digital media until we fully realize how intertwined the organization of academia is with the concept of the printed book and that fundamental changes must be made in order to enable modern universities taking part in shaping what opportunities for digital learning are made available for university students of today and the future.

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