MOOCs and Beyond

ICIS 2103 Panel Statement

Niels Bjørn-Andersen
Copenhagen Business School
Frederiksberg, Denmark
Nba.itm@cbs.dk

John Leslie King
University of Michigan
Ann Arbor, MI USA
jlking@umich,edu

Joey F. George
Iowa State University
Ames, IA USA
jfgeorge@iastate.edu

Teo Hock-Hai
National University of Singapore
Singapore
disteohh@nus.edu.sg

Abstract

Massive Open Online Courses (MOOCs) might be the proverbial "tipping point" in discussions about the role of information and communication technologies in higher education. To some they offer dramatic cost savings without loss in quality; to others they are best described as MESS (Massive Extension of Sage on the Stage). If the history of IS is any guide, MOOCs portend dramatic changes over time, but perhaps less dramatic changes in the short run. This panel discusses the MOOC phenomenon and its implications for both the IS field and for higher education.

Keywords: Higher education, Massive open online courses, MOOC

Introduction

NY Times columnist Thomas Friedman claims that MOOCs, massive open online courses, are revolutionizing higher education (Friedman, 2013). The question of whether MOOCs should be accredited precipitates far-reaching discussions of how teachers teach, how students learn, how (and even whether) degrees should be granted, and a host of other issues (MacKay, 2013). The Information Systems field is or ought to be at the heart of technology-centered discussions of educational challenges, as development, implementation, use and management of IT in relation to education is our field. However, very few IS researchers seem to have taken any role in this!

'An Avalanche is Coming' within higher education, (Barber, Donnelly & Rizvi, 2013) due to a series of challenges like rising costs of higher education, falling value of degrees, doubling of student debt to a staggering $ 1 trillion (USD), increasing awareness of the inadequacy of current learning models, global competition, and so on, involving government, employers, students, their families and policy makers. Information systems have had a deep influence on higher education, creating opportunities for the IS field. MOOCs provide but one example of potentially far-reaching changes. For example, if "standard requirements" can be established for MOOCs, as has already happened for education in medicine and auditing, institutions other than traditional colleges and universities might join the market. This could lead to radical disruption of higher education (Christensen, *et al.*, 2011).   There are many uncertainties, as well. Those outside the United States might worry that the U.S. will dominate the MOOC sphere, and there is no guarantee that MOOCs or the organizations that support them will survive as key agents of change.

MOOCs are attractive to university administrators because they seem to be a way to cut costs, and at the same time, they promise to improve learning by featuring courses taught by world-renown faculty. Yet MOOCs are not cost-free. The redesign of three basic courses at San Jose State University, led by Udacity, took 300 to 400 hours of work. EdX, another MOOC vendor, charges universities $250,000 (USD) to produce a single course for its platform (Fredette, 2013). Despite the costs, most universities offer

MOOCs free of charge to students. Such business plans (or lack thereof) cannot continue indefinitely. MOOCs have the potential to be disruptive technologies, but they may well be symptoms of larger structural changes and not the primary cause. By themselves, MOOCs are not sustainable. Instead, MOOCs may be a reflection of a much larger change: an expansion in the number of ways in which quality education can be delivered (what Selingo calls "college unbound.") and in the variety of providers that will provide it.

This panel discusses the future of higher education from a global perspective, including but going beyond MOOCs to the question of what higher education might be like 10 years from now. Most of the constituencies of universities hold clear ideas about the value and purposes of education in general, and universities in particular. Not all envision a radical change for institutions of higher learning. These coming changes, both expected and unexpected, will be addressed in the panel. The panelists all have knowledge about on-line learning, and they incorporate the experience of people who teach MOOCs but cannot be at ICIS.

Positions and Explorations

John Leslie King will argue that changing agency relations have altered the university's role in the state. While increasingly important to social welfare, higher education faces profound changes that leadership is not prepared for. MOOCs accelerate this. He incorporates direct experience from MOOC instructors Charles Severance and Hank Lucas, as well as findings from a report on alternative learning models for a presentation to AACSB-Europe (with Niels Bjørn-Andersen), to argue that MOOCs signal profound changes in both the value proposition of higher education and in the social contracts on which it is based.

Niels Bjørn-Andersen will argue that after more than 40 years of rather non-challenging developments within areas like computer based training, e-learning, virtual learning, etc., the advent of MOOCs with computer based tools for grading of assignments and 'individual' supervision of students is heralding a development which will lead to the demise of the Humbolt university as we know it. However, this will not take place over night. Universities are extremely resilient to change, and as long as we have the right to award degrees, and most of us have protected home markets, we are home safe. But that will not last, and the IS community should recognize the importance of this development, and be ready to spearhead this development. It is also clear that this development is far too important to leave to initiatives of US based companies and leading US universities.

Teo Hock-Hai will argue that while MOOCs and other technologies will have a far-reaching impact on university education, they are unlikely to usurp the roles of the "in-house" teacher and cause massive defections away from universities. However, that does not mean that "in-house" teachers do not need to adapt and learn the "new" tricks to connect and engage the new generation of Internet-smart students. He will argue that MOOCs provide an opportunity for the IS discipline to shape the future roles of universities and pioneer innovations in pedagogy and delivery through a researched, evidenced-based approach.

Joey George will argue that MOOCs threaten only a small part of what universities provide and symbolize. Universities mean different things to their various constituencies, and for many prospective students and their parents, courses and how they are offered mean little in their decisions about where to attend school. In the US, a much bigger threat is the changing revenue structure for universities. These changes in funding have implications for students, parents, administrators, and faculty. He will argue that, in the next few years, the marketplace for higher education will continue to shift, and students will pay for the product they value most (and will generally be able to afford).

Panel Structure

Each panelist will make at most a 10-minute presentation, focusing on the key points listed above. This will be followed by discussion with the attendees. About half of the panel time will be for discussion. Joey George will serve as moderator of this discussion.

In addition to taking questions from the audience about the panel presentation and the panelists' views, we will also ask members of the audience to consider the following questions, which will be posted at the end of the panel presentation:

1) How are changes in higher education, such as MOOCs, affecting your institution and other institutions in your country?

2) Do you have any experience with MOOC–based instruction you'd like to share with the panel and the audience?

3) What is our role as IS academics in the debate over MOOCs and other changes in higher education?

4) To what extent should we as IS academics be involved in the development of technology platforms for implementing MOOCs and other innovations?

5) Should we be worried about these changes?

Biographies

Niels Bjørn-Andersen has been full professor at CBS since 1987, focusing on organizational/managerial aspects of technology including the way technology is changing our universities. He took part in the first panel on 'computer-based training' in 1974 at the IFIP world conference, and he has followed the area since. He received the AIS - LEO award from the Association of Information Systems. He has published 22 books, more than 60 refereed journal papers and book chapters, and more than 150 other publications. He has obtained more than 30 larger research grants including a € 5,9 million project on trade facilitation from EU and a € 4 million for development of a new infrastructure for 'ERP-systems development.'

Joey F. George is Professor of Information Systems and the John D. DeVries Endowed Chair in Business in the College of Business at Iowa State University. His research interests focus on the use of information systems in the workplace, including deceptive computer-mediated communication, computer-based monitoring, and group support systems. He is a past president of the Association for Information Systems (AIS), and in 2008, he was selected as a Fellow of AIS. As a long-time university educator and past professional association president, he has observed that universities and faculty are resistant to revolutionary fires. He believes that MOOCs and other threats to the status quo must be considered within a much larger context than simply course delivery.

John Leslie King is W.W. Bishop Professor of Information, former Dean of the School of Information, and former Vice Provost for Strategy at the University of Michigan. In the past few years he has focused his research on the relationship between technical change and social change on higher education. He has been Editor-in-Chief of *Information Systems Research,* and has served as member of the Board of the Computing Research Association (CRA), the Council of the Computing Community Consortium, and the National Science Foundation's Advisory Committees for Computer and Information Science and Engineering (CISE) and Social, Behavioral and Economic Sciences (SBE), and Cyberinfrastructure (ACCI). He recently was part of the National Research Council's study *Future Science Opportunities in Antarctica and the Southern Ocean*, and is currently part of the NRC study *The Science of Team Science*. He holds a doctorate in Administration from UC Irvine, an honorary doctorate in economics from Copenhagen Business School, and is a fellow of the Association for Information Systems and the American Association for the Advancement of Science.

Teo Hock-Hai is Professor and Head of the Department of Information Systems in the School of Computing at the National University of Singapore. His research focuses mainly on understanding how organizations assimilate IT or IT-enabled innovations effectively. Besides IT innovation research, he also focuses on human information processing, decision making and privacy issues that are pertinent to new IT artifacts, institutions, and applications on the Internet as well as the mobile platforms. As an administrator, he has introduced several innovations into the curriculum and delivery of courses. To-date, Hock Hai Teo has published more than 100 conference and journal publications. He is currently a senior editor of *Information Systems Research* and the *Journal of the Association of Information Systems*. He is also serving or has served on the editorial boards of numerous reputable journals.

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