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ONLINE LEARNING: THE CONCEPT OF LESS IS MORE

Peter Cowden, Niagara University
Susan Sze, Niagara University

ABSTRACT

Online instructors, like traditional classroom instructors, often struggle with limited class time to cover massive content. Creative and innovative instructors have strategically design online courses to have students complete “less work” and therefore hoping to heighten the level of students’ accountability for every element of the course. Literature review revealed that “less is more” approach has resulted in improved digital learning experience and skyrocketing online enrollment. As a result of lecture less, facilitate more, think more, learn more, and demand more, students are more engaged in learning and better achieve the desired outcomes of education.

LITERATURE REVIEW

Online courses continue to grow, particularly among nontraditional students, many of whom are seeking to enroll in online graduate and professional programs. Melkun (2012) stated that online collaborative learning groups reap the same benefits as face-to-face collaborative groups: a greater understanding of abstract concepts and ideas, an increase in the student's ability to find and solve problems, and a better understanding of audience and its significance. The less is more model provides flexibility to all learners especially those are in the work force. For example, in 2011, Na-songkhla studied how an online course can provide flexibility for staff to learn at their convenient hours. Results indicated that all staff successfully completed the online learning program by providing a flexible learning model in a workplace with a blended mode of online and offline, a full support from top level management to allocated staff hour for learning, recognition for the outstanding staff, and value their learned skills.

The importance of online learning for students with disabilities was also documented. A recent study conducted by Long, Marchetti and Fasse (2011) reported that students with hearing impairments, deafness, or hard-of-hearing enrolled in online courses, especially those designed with high levels of online interaction, receive higher grades and report greater learning than students in comparable face to face courses. Online courses that are designed in a streamlined format appeared to provide deaf and hard-of-hearing students with special benefits in terms of academic achievement through online “discussion. However, “too much” online discussion can

overload the students and lead to confusion, distraction and frustration. Many studies reported that information overload as one of the main problems that students encounter in online learning. Chen, Pedersen and Murphy (2011) explored the sources of online students' information "overload" and offer suggestions for increasing students' cognitive resources for learning. Findings suggested that varied learner characteristics led some students to be more susceptible than others to information "overload". Keeping activities that enhance learning and weeding out those that distract is the key to higher order learning.

Magzan and Aleksic-Maslac (2011) pointed out globalization on delivering education and the increasing need to adapt to the needs of economic and social life. They argued that higher education institutions effectiveness is depending on the use of technology and contribution to national development. Akdemir (2008) investigated the experiences of faculty members teaching online courses. Results of the study showed that faculty members' interest in using technology and the amount of time available to them for online course design affected the quality of online courses. This should not be seen as being "lazy" or "disorganized" by school administrators. Higher education institutions should support workshops and trainings to increase the skills and interests of non-instructional design faculty members to design and develop online courses. Therefore the evaluation criteria for online instructors should not be based on how many gadgets, "links", "podcasts: or "blogs" etc. the instructor posted online, to determine effectiveness of teaching.

In a study conducted by Gahungu, Dereshiwsy and Moan (2006), the researchers found that online learning was quickly developing into an effective mode of instruction. However, faculty and students appeared to have more or less "jumped into" the online classroom without being adequately prepared, and creation of effective, online, learning communities was still a work in progress. Guldberg and Pilkington (2007) were concerned with teaching and learning in a blended e-learning course that supports students in reflecting on and transforming their practice. They attempted to understand why some online discussions "take off" in terms of numbers of postings and quality of engagement whilst others are less successful. Results show that the nature of the question impacts on discussion outcomes and that it is therefore important for instructors to pose a range of different types of questions to students in line with learning objectives. If the instructors structures discussion and chooses questions carefully there may be "less" need to intervene to stimulate discussion or keep it on track than is sometimes assumed. This shifts the role of the instructor somewhat toward "more" preparatory and plenary work with "less" tutor participation required to support the development of discussion skills amongst students.

Greener (2009) asserted that as online and blended learning become familiar features in the university landscape, pedagogical discussions are being given more priority and ideas about how students can be enabled to learn appropriate skills for employability and lifelong learning, as well as higher order thinking, claim attention. Greener further posited that teachers who are open to new ways of thinking about their subject, and welcome such self-directed behavior from

learners, are most likely to integrate new technology into their teaching, and their own competence with technology will be a factor in how (how much is too much, how much is not enough, what type, etc.) such integration works. There is no doubt that teachers are increasingly uploading materials and web links etc to support learners. However there is less evidence that teachers are role-modeling effective e-learning to their learners. Some of this is about competence, but it is rare for a teacher to lack the ability to learn basic technology use. More of this reluctance is about fear and anxiety, to be shown up as incompetent in class to what are considered the e-generation. Online instruction should allow instructors to design their courses as long as students demonstrate their competence before graduation in "skill areas". Yet as in many campuses, this threatens some instructors' sense of being perceived as not doing enough for the students.

Online learning embedded in effective platforms can lead to supportive of collaborative scientific inquiry processes. However, Eriandson, Nelson, and Savenye's (2010) investigated the effect of communication modality on cognitive load and science inquiry learning in students completing a survey. Seventy-eight undergraduate education majors from a large southwestern university participated in this control-treatment study. Having "too much" multi-media integration into a course can also impede students learning. Results indicated that the complex and amount of multi-media integration can lead to cognitive "overload", with learners unable to effectively process the rich information encountered in virtual space. Vonderwell and Zachariah (2005) explored what factors influenced learner participation in two sections of a graduate online course at a Midwestern university. Findings indicated that online learner one of the factors was information overload. High demands on learners in online learning environments and constraints of the human cognitive system cause disorientation and cognitive overload (Ozcelik & Yildirim, 2005).

Meaningful learning is the fundamental process that underlies the acquisition of useful information and the construction of new knowledge (BouJaoude and Tamim, 2008). By creating meaningful relations, students are able to organize the information in bigger and more organized chunks of information; an organization that reduces memory overload and increases processing capacity, ultimately improving the ability to remember information and solve problems. The study investigated students' perceptions of the effectiveness and utility of generating analogies, summaries, and answering questions in a middle school science classroom and elucidates their intentions to use these strategies in science classrooms and in other subject areas. Results indicated that students felt when they were given "manageable" and "meaningful" materials and activities, their ability in problem solving improved.

Many students reported that they actually preferred a "less is more" type of online teaching culture. Armstrong (2011) studied how undergraduate students' perceived online learning environment and the tools used affects the selection of their approach to learning. Results did not perceive the negative attributes of technology to be inherent to the technology itself but in its use and implementations. Participants reported that the tools used

were not as important as the quality of communication and that the value assigned by students to any tool is influenced by the way the tool is implemented. Report revealed that students did not see heavy course load a sign of vigorous but rather a bureaucratic one. That is, what they wanted above all from instructors was for them to be available for assistance, to provide accurate information about course materials and college rules and to warn against obstacles that might impede their progress in the course.

Pappas (2009) stated that schools have been on passing standardized tests based on a core curriculum. The emphasis on learning content is in direct contrast to the world outside the school walls where the technological capability to provide access to content, i.e., information at lightning speed, already exists. In fact, information is so prevalent that information overload is common. By focusing “more” on teaching the “21st Century Skills” students were able to grasp “more” content materials with “less” frustration. Ozelik and Yildirim (2005) advocated that online learning often feature consensus building and group projects, through which students can develop skills in collaborating with distant peers and cooperating with diverse individuals--skills increasingly needed in the global workplace. To help students make effective use of online learning methods, carefully choosing the type and the amount of curriculum materials by instructors is essential.

According to Boot, Meijman and Fran (2010), structure is needed to make the content of the information accessible and the information flow well-ordered. A designed-based research study explored educators' experiences in an online course to better understand how course design and pedagogical delivery can best support student learning. Researchers investigated what methods of instruction assisted educators in learning and how to use technology to support online communication and collaboration. They also looked for evidence to show that these methods of instruction had a positive impact on students' changing knowledge, skills, and/or dispositions of technology integration. Findings highlighted specific methods of instruction that can inform educators' not to “overload” technology tools in online courses.

Barnett (1992) conducted a survey focused primarily on four in-services scattered throughout the practicum, which presented teaching tasks in smaller, more manageable components to prevent information overload. Singh, Mangalaraj and Taneja (2010) offered a compilation of technologies that provides either free or low-cost solutions to the challenges of teaching online courses. Both studies suggested various teaching methods the outlined tools and technologies can support, with emphasis on fit between these tools and the tasks they are meant to serve. In addition, it highlights various ethical, security and privacy considerations related to appropriate use of such tools.

LESS IS MORE?

"Simplicity means the achievement of maximum effect with minimum means." Albert Einstein

The concept of less is more is most certainly controversial. But with all new ideas, there is always a push back from those who align with a more traditional view. Less is more is a minimalist methodology. In online teaching it allows the instructor and the student to focus on the most important concepts and fully explore them. With clear, basic instructions and clear specific responses based on reflections the lesson takes an *uncluttered approach* to learning. It is an approach whose time has come, especially in this world of digital learning.

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MOBILE TELEPHONY: WHAT ARE THE INFLUENCING FACTORS OF USING A MOBILE PHONE IN CAMEROON?

G rard Fillion, University of Moncton
Pierre Damien Mvuyekure, University of Moncton
Aur lia Nicole Nguejo, University of Yaounde
Jean-Pierre Booto Ekionea, University of Moncton

ABSTRACT

Individual adoption of technology has been studied extensively in the workplace (Brown & Venkatesh, 2005). But far less attention has been paid to adoption of technology in the household (Brown & Venkatesh, 2005). Obviously, mobile phone is now integrated into our daily life. Indeed, according to the latest research from Strategy Analytics, global mobile phone shipments grew from about 1% annually to reach 362 million units in the second quarter of 2012 (Business Wire, 2012), that is, more than 1.5 billion units will be sold this year. In addition, the International Telecommunication Union (ITU) inventoried 4.6 billion subscriptions in 2010, from which 57% come from the developing countries. The purpose of this study is then to pursue the investigation on the determining factors that make such people around the world are so using the mobile phone. On the basis of the moderator-type research model developed by Brown and Venkatesh (2005) to verify the determining factors in intention to adopt a computer in household by American people, this study examines the determining factors in the use of mobile phone in household by Cameroonian people. Data were randomly gathered from 505 Cameroonian people (from Yaounde and Douala; the two more important cities in Cameroon) who own a mobile phone. Data analysis was performed using the structural equation modeling software Partial Least Squares (PLS). The results revealed that half of the variables examined in the study showed to be determining factors in the use of mobile phone by Cameroonian people.

INTRODUCTION

Since numerous years, mobile phone is used for different professional purposes, particularly by senior managers in the workplace. And this technology is more and more used in the workplace since mobile applications have been integrated to actual enterprise business strategies. Individual adoption of technology has been studied extensively in the workplace (Brown & Venkatesh, 2005). But far less attention has been paid to adoption of technology in the

household (Brown & Venkatesh, 2005). Obviously, mobile phone is now integrated into our daily life. Indeed, according to the latest research from Strategy Analytics, global mobile phone shipments grew from about 1% annually to reach 362 million units in the second quarter of 2012 (Business Wire, 2012), that is, more than 1.5 billion units will be sold this year. In addition, the International Telecommunication Union (ITU) inventoried 4.6 billion subscriptions in 2010, from which 57% come from the developing countries. The purpose of this study is then to pursue the investigation on the determining factors that make such people around the world are so using the mobile phone.

Few studies have been conducted until now which investigate the intention to adopt a mobile phone by people in household (in the case of those who do not yet own a mobile phone) or the use of mobile phone in the everyday life of people in household (in the case of those who own a mobile phone). Yet we can easily see that mobile phone is actually completely transforming the ways of communication of people around the world. It is therefore crucial to more deeply examine the determining factors in the use of mobile phone by people in household. This is the aim of the present study. The related literature on the actual research area of mobile phone is presented in the full version of the paper.

As we can see in the summary of literature related to mobile phone presented above, few studies until now examined the determining factors in the use of mobile phone by people in household. Thus, the present study brings an important contribution to fill this gap as it allows a better understanding of the impacts of mobile phone usage into people's daily life. It focuses on the following research question: What are the determining factors in the use of mobile phone by people in household?

The paper builds on a framework suggested by Fillion (2004) in the conduct of hypothetico-deductive scientific research in organizational sciences, and it is structured as follows: first, the theoretical approach which guides the study is developed; second, the methodology followed to conduct the study is described; finally, the results of the study are reported and discussed.

THEORETICAL APPROACH

This study is based on the theoretical foundations developed by Venkatesh and Brown (2001) to investigate the factors driving personal computer adoption in American homes as well as those developed by Brown and Venkatesh (2005) to verify the determining factors in intention to adopt a personal computer in household by American people. In fact, Brown and Venkatesh (2005) performed the first quantitative test of the recently developed model of adoption of technology in households (MATH) and they proposed and tested a theoretical extension of MATH integrating some demographic characteristics varying across different life cycle stages as moderating variables. With the exception of behavioral intention (we included user satisfaction instead given people investigated in this study own a mobile phone), all the variables proposed and tested by Brown and Venkatesh (2005) are used in this study. And we added two new

variables in order to verify whether people are using mobile phone for security and mobility. The resulting theoretical research model is depicted in Figure 1.

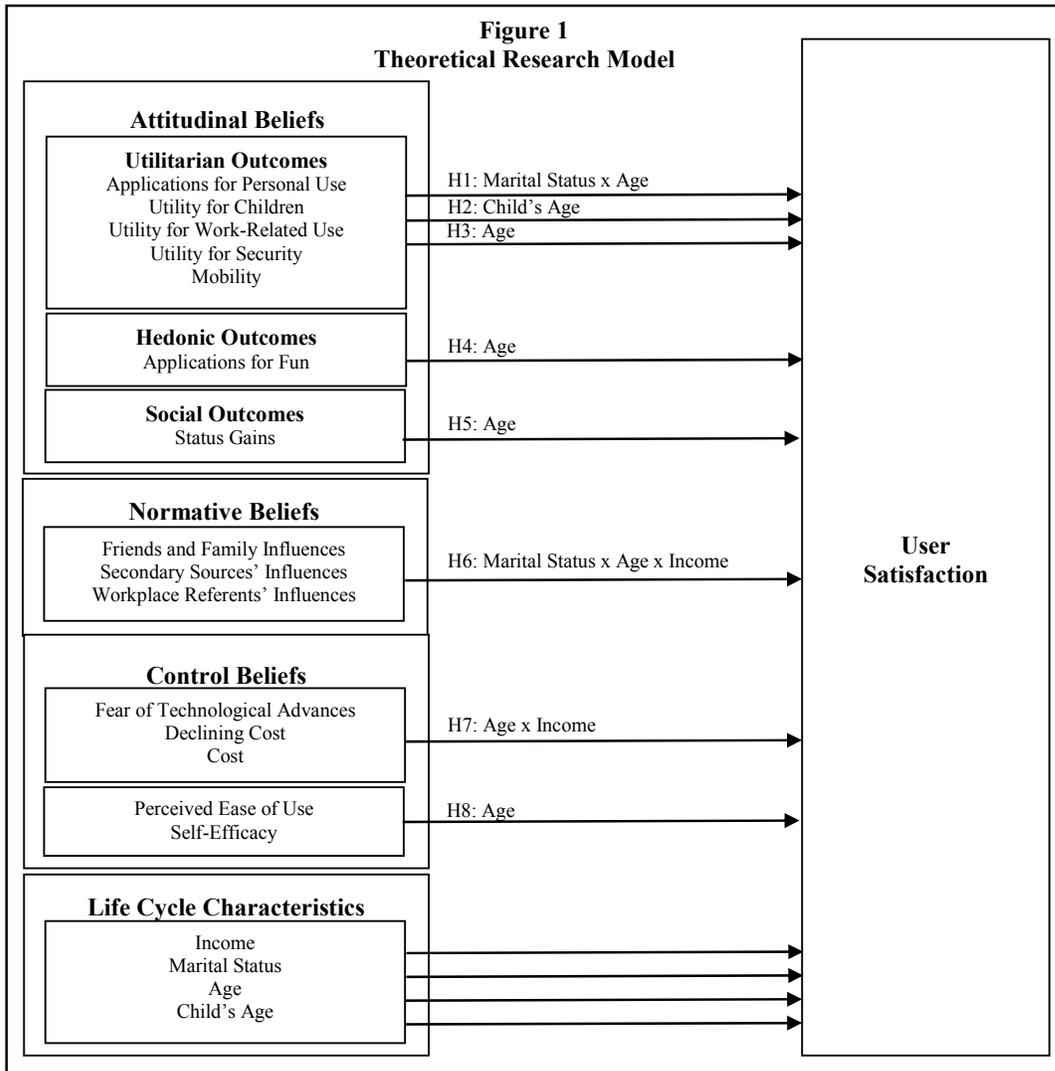


Figure 1 shows that Brown and Venkatesh (2005) integrated MATH and Household Life Cycle in the following way. MATH presents five attitudinal beliefs grouped into three sets of outcomes: *utilitarian*, *hedonic*, and *social*. Utilitarian beliefs are most consistent with those found in the workplace and can be divided into beliefs related to *personal use*, *children*, and *work* (we added beliefs related to *security* and *mobility*). The extension of MATH suggested and tested by Brown and Venkatesh (2005) presents three normative beliefs: *influence of friends and family*, *secondary sources*, and *workplace referents*. As for control beliefs, they are represented in MATH by five factors: *fear of technological advances*, *declining cost*, *cost*, *perceived ease of*

use, and *self-efficacy*. And, according to Brown and Venkatesh (2005), integrating MATH with a life cycle view, including *income*, *age*, *child's age*, and *marital status*, allows to provide a richer explanation of household personal computer adoption (household mobile phone usage in this study) than those provided by MATH alone. Finally, as shown in Figure 1, the dependant variable of the theoretical research model developed is related to *user satisfaction* (satisfaction in the use of mobile phone by people in household). All the variables integrated into the theoretical research model depicted in Figure 1 are defined and the research hypotheses are formulated in the full version of the paper.

In the next section of the paper, we describe the methodology followed to conduct the study.

METHODOLOGY

This study was designed to gather information on mobile phone adoption decisions in Cameroonian households. Indeed, the focus of the study is on individuals who own a mobile phone. So we conducted in-person survey research with individuals of the two more important cities in Cameroon, Yaounde and Douala. In this section, we describe the instrument development and validation, the sample and data collection, as well as the data analysis process.

Instrument Development and Validation

To conduct the study, we used the survey instrument developed and validated by Brown and Venkatesh (2005) to which we added three new scales, the first two measuring other dimensions in satisfaction in the use of mobile phone by people in household, that is, utility for security and mobility, and the last one measuring user satisfaction as such. The survey instrument was then translated in French (a large part of the population in Cameroon is speaking French) and both the French and English versions were evaluated by peers. This review assessed face and content validity (see Straub, 1989). As a result, changes were made to reword items and, in some cases, to drop items that were possibly ambiguous, consistent with Moore and Benbasat's (1991) as well as DeVellis's (2003) recommendations for scale development. Subsequent to this, we distributed the survey instrument to a group of 25 MBA students for evaluation. Once again, minor wording changes were made. Finally, we performed some adjustments to the format and appearance of the instrument, as suggested by both peers and MBA students. As the instrument was already validated by Brown and Venkatesh (2005) and showed to be of a great reliability, that we used the scale developed by Hobbs and Osburn (1989) and validated in their study as well as in several other studies to measure user satisfaction, and that we added only few items to measure the new variables utility for security and mobility, then we have not performed a pilot-

test with a small sample. The evaluations by both peers and MBA students were giving us some confidence that we could proceed with a large-scale data collection.

Sample and Data Collection

First, in this study, we chose surveying people in household over 18 years taken from the two more important cities in Cameroon Africa (Yaounde and Douala) who own a mobile phone. To do this, a graduate student studying at the Faculty of administration of the University of Moncton, one of our colleagues from the University of Yaounde I, and a friend of our colleague in Yaounde were collecting data in-person. One at a time over a 3- to 4-hour period, the three responsible to collect data were soliciting people in-person to answer our survey. And, in order to get a diversified sample (e.g., students, retired people, people not working, people working at home, people working in enterprises, and so on), data were collected from 9 a.m. to 9 p.m. Monday through Friday over a 6-week period. People answering our survey were randomly selected in the streets, in the stores, and in the houses of the two Cameroonian cities chosen for the study by the three responsible to collect data. The sample in the present study is then a randomized sample, which is largely valued in the scientific world given the high level of generalization of the results got from such a sample. Once an individual had the necessary characteristics to answer the survey and was agreeing to answer it, a responsible was there to guide him/her to rate each item of the survey on a seven points Likert-type scale (1: strongly disagree ... 7: strongly agree). In addition, the respondent was asked to answer some demographic questions. Finally, it is important to mention here that no incentive has been used in order to try increasing the response rate of the study. So, following this data collection process, 505 people in household answered our survey over a 6-week period.

Data Analysis Process

The data analysis of the study was performed using a structural equation modeling software, that is, Partial Least Squares (PLS-Graph 3.0). Using PLS, data have no need to follow a normal distribution and it can easily deal with small samples if the sample is at least 10 times greater than the number of items measuring the variable having the greatest weight in terms of items into the model (Barclay et al., 1995; Fornell & Bookstein, 1982). Recently, some authors (see Goodhue et al., 2012) tried to refute this evidence but, in our view, they did not succeed well. In addition, PLS is appropriate when the objective is a causal predictive test instead of the test of a whole theory (Barclay et al., 1995; Chin, 1998) as it is the case in this study. And, to ensure the stability of the model developed to test the research hypotheses, we used the PLS bootstrap resampling procedure (the interested reader is referred to a more detailed exposition of bootstrapping (see Chin, 1998; Chin et al., 2003; Efron & Tibshirani, 1993)) with an iteration of 100 sub-sample extracted from the initial sample (505 Cameroonian people). Some analyses were also performed

using the Statistical Package for the Social Sciences software (SPSS 13.5). The results are presented and discussed in the full version of the paper.

CONCLUSION

To conclude, much more research will be needed on the use of technology in households in order to better understand its impacts on people's daily life. The research will allow, among others, at least to minimize, if not to remove, some negative impacts of technology in people's daily life in the future and to develop new technologies still better adapted to people's needs. So we will continue to inquire into this very exciting field.

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References are available upon request.

SAP AND THE INTRODUCTORY MANAGEMENT INFORMATION SYSTEMS COURSE

Gerald Kohers, Sam Houston State University

ABSTRACT

University curriculums are constantly being modified to reflect changes in demand. Management Information Systems' (MIS) use of ever changing technology demands that its curriculum be evaluated more frequently than many of the other disciplines. In order to assist in curriculum improvement, the Association for Computing Machinery (ACM) and the Association for Information Systems (AIS) has jointly developed guidelines for undergraduate degree programs in Information Systems (IS). One of the notable modifications to the guidelines is the increase in emphasis towards enterprise resource planning (ERP) systems. Many articles have touted the benefits of hands-on learning. The most widely used ERP application on the market is SAP. This paper describes the approach one large university in the southwest took in integrating ERP/SAP into the Introductory Information Systems course.

Keywords: ERP, SAP, MIS Curriculum

KEY ACTORS IN THE MOBILE TELEPHONE INDUSTRY: THE SMART PHONE WARS

Pankaj Nagpal, University of Puerto Rico
Bo Carlsson, Case Western Reserve University

ABSTRACT

We use Actor Network Theory (ANT) as a lens to track the 'wars' among broad based smart phone companies such as Samsung, and high end specialists such as Apple. In addition to historical data, the study draws on recent coverage of the patent disputes among these companies. The key actors in the network are mobile phone, operating system companies, and carriers. Google, Apple, and Microsoft comprise the 'vertex' of the network that affects the actions of smart phone companies. The study extends the scope of ANT, and introduces new concepts into this well known theory. Implications, limitations, and conclusions are discussed in the paper.

Keywords: Smart phones, strategy, alliance, actor network theory, Samsung, Apple, Android, Windows.

GOVERNANCE AND DATA QUALITY

Nicholas J. Cannon, University of Detroit Mercy

Gregory W. Ulferts, University of Detroit Mercy

Terry L. Howard, University of Detroit Mercy

ABSTRACT

There is an increasing need for cooperation among local, state, and federal governments. This means that an accurate national database of citizen information which can be accessed easily, analyzed, and acted upon requires policy consideration. The private sector has already approached the problem of fragmented and stagnant data through centralized data systems.

The purpose of this presentation is to discuss the issues that must be resolved in order for the federal government to create a national citizen database.

