

A COMPARISON OF PLS AND EQS USING A COMPLEX MODEL

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Abstract

Information systems researchers are increasingly using structural equation modeling (SEM) software, such as EQS, LISREL, AMOS, and PLS, to address a wide range of research questions. These SEM modeling approaches have advantages over first-generation statistical modeling approaches, including multiple regression and principal components analysis, due to their ability to simultaneously model relationships among multiple independent and dependent variables, as well as their ability to construct unobservable latent variables and test a priori measurement assumptions against empirical data (Gerbing and Anderson 1988; Chin 1998; Gefen et al. 2000).

Among the SEM approaches, there are several well-recognized differences, especially between the covariance-based approach (utilizing software such as EQS, AMOS, and LISREL) and the partial-least-squares or component-based technique of PLS. For example, the objective of the covariance-based SEM approach is overall model fit (i.e., whether the data support the theory/model being tested), and the objective of the component-based approach is variance explanation (i.e., maximizing R^2 and the significance of individual paths) (Gefen et al. 2000). In addition, covariance-based techniques use factor analysis to determine factor loadings whereas PLS uses a principle components approach to determine factor loadings (Chin 1995). Finally, covariance-based SEM supports confirmatory research, requires a multivariate normal distribution (if using Maximum Likelihood (ML)), and requires a minimum sample size of at least 100 cases (Gefen et al. 2000). On the other hand, the component-based SEM technique supports confirmatory and exploratory research, is robust to departures from a multivariate normal distribution, and supports smaller sample sizes (i.e., at least 10 times the number of items in the complex construct) (Gefen et al. 2000; Falk and Miller 1992; Hair et al. 1998). The reason to explore these differences is to ensure that researchers are aware of them when interpreting results.

To compare the EQS and PLS SEM techniques, data is used from a study that examines the factors affecting the job turnover of information systems personnel (McKnight et al, 2009). The model proposes that two contextual factors (structural assurance and job security) and two job-related factors (autonomy and workload) directly and indirectly impact turnover intention through work outcomes (job satisfaction and work exhaustion).

While the objective of PLS is to maximize variance explained, the variance explained (R^2) in the dependent variables using EQS is similar to or better than PLS. Using PLS, job satisfaction has a R^2 of 34%, work exhaustion has a R^2 of 23%, and turnover intention has a R^2 of 33%. Using EQS, job satisfaction has a R^2 of 42%, work exhaustion has a R^2 of 23%, and turnover intention has a R^2 of 40%. Regardless of the approach that is used, when examining variance explained (i.e., R^2), one can conclude that the model produces results that suggest the data fit the model. However, in terms of overall model fit using EQS, the fit indices (chi-square divided by degrees of freedom - 2.25, CFI - 0.86, SRMR - 0.09, RMSEA - 0.09) results suggest the data does not fit the structural model very well.

Thus, the results of this study introduce the possibility that the use of different modeling techniques can lead to different conclusions about one's research model. Many researchers using PLS emphasize variance explained without regard for overall model fit. PLS, thus, does not necessarily reveal overall fit problems easily whereas using a covariance-based SEM approach readily exposes potential flaws in the data for overall model fit.

Keywords: PLS, SEM, Modeling, dependent variable

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DEBACLES IN THE DECISION MAKING PROCESS AROUND TECHNOLOGY IMPLEMENTATION: A CASE STUDY OF COMPANY ACME DURING A DATA ANALYSIS AND WAREHOUSING PROJECT

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Abstract

This paper seeks to create an understanding of data, information, and knowledge as it relates to strategic decision making in the Consumer Packaged Goods industry (CPG). This paper relates a case study of a technology implementation project by company ACME in order to store, house, and analyze data around their shopper marketing and marketing finance departments. What is shown is that a data-warehousing project without purpose is data for data's sake and does not create information or knowledge. At company ACME, a single person proceeded to implement a piece-meal solution to force fit a strategic decision making model, therefore sacrificing context and data connection due to technological limitations. This decision ends up costing ACME a great deal of money and inhibits the greater decision-making ability of both groups by improper resource allocation. The conclusion can be drawn that a data-warehousing project without a proper purpose and corresponding data analytics tools and models is fraught with potential errors

Keywords: SharePoint, Data Warehouse, Decision-Making, Technology Implementation

Introduction

Technology and data management is a key business process for any successful consumer packaged goods company (CPG). These processes allow companies to make strategic course decisions. The more efficient, nimble, and comprehensive this process, the higher quality and more frequent these decisions can be made and evaluated. Large CPG companies use large data warehouses to store consumer, consumption, financial, and sales data. This data is called upon in order to plan for future events, product introductions, or the scaling of sales activity through various analytic tools and presented through a refined dash board presentation.

The most efficient set up for this quantity of data is use data marts within a data warehouse. This data can then be called on by classification in order to cross-reference with data in other data marts and make strategic decisions. This data warehouse would also have open access to all organizational functions so that cross-functional decisions can be evaluated on a more broad organizational level. The organizations that implement this process most effectively use highly advanced and technical dashboards to pull regular data reports and present them in useful graphical interfaces in a real time basis.

What this article presents is a case study of an organization that had a desire to execute such a data project, but lacked the financial resources to employ the proper systems. This organization pieces together parts of systems that are already in place, attempts to create a bridge from system to system, and expects the results to match those of larger and more complex systems. In the end, the failure of this project can be traced back to a poor understanding of the size of the data pool, the necessary flexibility in data analysis to create knowledge, and the bandwidth needed to execute such a system.

Discussion

Company ACME is a CPG, which produces food goods and interacts with a very nimble marketplace. ACME makes budget and funding decisions on a daily basis, constantly evaluating spends, balancing budgets, and taking advantage of unforeseen opportunities. One of the most active departments in this process is the Customer Marketing department. This department interacts directly with the end retailer in negotiating and executing feature pricing, display vehicles, and promotions in order to maximize volume and retailer relations.

In ACME, the budgets for customer marketing are set by the brand marketing teams by month. These brands have expectations of their traditional marketing investments to actualize and become real at a high level of certainty each month. The nature of customer marketing funds is to fluctuate throughout the year and be fluid due to retailers cancelling and moving investment opportunities. These changes make it very difficult for the brands to manage and balance their monthly budget through their marketing finance position. In turn this created a great deal of frustration for the person in the marketing finance role.

The customer marketing execution, budget management, and reporting to the finance department has traditionally been managed by agency A. Agency A manages all data, workflow, calculation, and data transfer through a series of Microsoft Excel Spreadsheets. All of these spreadsheets are manually manipulated, changed, and morphed based on programming and reporting needs. This was a point of contention for the marketing finance role.

Without a focus on the true work that Agency A performs, the marketing finance role pinpointed that the fluctuations in budget were due to human error and not due to the natural flow of the customer marketing function. In this decision, the marketing finance role decided to explore how to remove the work that Agency A does behind the scenes make it more apparent, tangible, and automated. With this goal, the marketing finance role decided to engage and outside consultant to devise a solution at minimal cost that would accomplish his goals of standardization, visibility, and accurate reporting. At the time that the marketing finance role undertook this project, Agency A produced a report that their estimation and reporting work is accurate within +/-5% error rate. Company ACME deemed this margin of error acceptable.

After a few weeks of closed door meetings, the marketing finance role and the consultant announced their solution. Company ACME was already invested and using SharePoint software. The designated solution was to use SharePoint as a data warehouse and apply a Microsoft Excel worksheet with multiple Macros to pull data through as a data entry and reporting tool. Agency A would log onto SharePoint and pull off the latest estimating worksheet. They would enter all of the data and at the end of the day, upload to dump all of the new data in SharePoint. This reduced the reporting of this system a maximum of once per day due to the daily batch upload schedule of data. For reporting, the consultant would work over the next few weeks to develop multiple Excel templates with Macros that would pull data from SharePoint for reference.

Ultimately the consultant was never able to make the input Excel sheets as nimble as the manual work Agency A was performing. This resulted in a standardized set of inputs that did not correspond to specific retailers and reduced the vibrancy of the data. As a result of this Agency A was required to continue their manual work and then fit it to the macro Excel program the consultant had written. This created double work and reduced the timeliness of the available data. Finally, it was discovered that a single Excel worksheet with macros did not contain enough data space for all of the entries that certain retailers required. Therefore, Agency A had to narrow their data and track certain retailers outside of the system. All of this ended up making a very clumsy and inefficient system.

Conclusion

The implications of the decisions of the marketing finance role are far reaching. The conclusions that other organizations can learn from fall into two categories, Technology Implementation and Decision Making.

Technology Implementation

In proper technology implementation, a clear understanding of the available expertise should be obtained. In combination with the desired metrics of success, a project manager is able to ensure a functional and efficient end tool. In the organization being examined here, the marketing finance manager jumped into the project with limited knowledge of the interface being redesigned. This manager was always on the output end of the system and had no interaction with the input process. This led him/her to making assumptions about what went into the data entry method, creating conflict when a new process was presented to the workforce. They rejected the system on the basis that it did not meet their input, tuning, and experimentation needs at this level. They also rejected due to the fact they did not have any input on the validity of the new tool. In reality, they had been making adjustments to their process in order to prevent errors, which had been effective over the past 12 months. A manager with limited technological skill and minimal knowledge of available technology initiated the process. The goal was set to develop a system using Microsoft Excel interface with SharePoint data warehouse. This was evidence that the proper consideration of why technology should be implemented was not properly considered. The manager had basic knowledge that systems that could perform the desired functions were in existence; however the details of these systems remained an unknown. This knowledge led this manager to decide to try and implement this data warehouse with a very basic set of tools and minimal budget. The technology was not being introduced because the latest tool was available. A vision was never established for the base of this project. Meetings were never conducted to survey team expertise, needs, and proficiencies to gain support for the project. A clear background of the project lacked proper examples and facts to support its development. In failing to outline this beginning point, the manager of this project failed to properly establish reasoning for this technology. In an ideal situation, the managers of this project would have engaged multiple systems, experts, and users to gauge and rate which system is appropriate in order to improve organizational functionality. Proper implementation would be set in stages to properly achieve buy-in from users and managers, training, and trouble-shooting.

In the case presented here, implementation was planned through limited meetings and full dictation to the end users. This was justified by the desired end result of getting this departmental tool to generate an outcome that would correspond with an organizational wide tool, and now in a needed process or report. How a manager should implement technology touches on the enterprise culture. Some organizations are highly committed to training and coaching. The organization that is examined here, conducts an extensive marketing training academy signaling that it does have an interest in pacing and progressing its employees. This corporate culture seems to dictate that a very methodological process be used for development of this technology.

Decision Making

Nutt (2002, pg. 117) states, “Decision makers who become fixated on an idea fail to ask “reframing” questions.” This manager was fixated on the idea that the implementation of this project was the key to his/her success. Had they stepped back and asked, “how can I make the best decision for the business?” instead of, “how can I make this work by the deadline?” they had the opportunity to put themselves in a true leadership position. In other words, a simple reframing of the “how” approach to this project had the potential for great acclaim instead of conflict. Williams (2002, pg 58) concludes, “To combat possible framing effects, it helps if we are able to frame problems in terms of what it is we are trying to accomplish. Looking at a situation from the conclusion backward often allows us to frame our problems more objectively.”

In the end, this project is a good example of a debacle of technology introduction and implementation. It provides a learning opportunity for other technology manager and employees looking to take a leadership role in their organizations. This case shows how the considerations of why, when, and how in projects of this type and if not considered properly, how they can doom a project from the start.

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APPLYING VISUALIZATION TECHNIQUES TO COMPUTER FORENSICS ANALYSIS

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Abstract

Typical tools available to investigators are text-based, which are sorely inadequate given the volume of data needing analysis in today's environment. Many modern tools essentially provide simple GUIs to simplify access to typical text-based commands but the capabilities are essentially the same. For simplicity we continue to refer to these as text-based and command-based in contrast to the visualization tools and associated direct manipulation interfaces we are attempting to develop. The reading of such large volumes of textual information is extremely time-consuming in contrast with the interpretation of images through which the user can interpret large amounts of information simultaneously. Forensic analysts have a growing need for new capabilities to aid in locating files holding evidence of criminal activity. Additionally, we integrate interaction capabilities for more complete exploration, significantly improving analysis efficiency. Finally, we discuss the results of an applied user study designed specifically to measure the efficacy of the developed visualization capabilities in the analysis of computer forensic related data.

Keywords: Computer Forensics, Visualization, User Interfaces, Digital Evidence, Cyber-Forensics, Digital Forensics Information Security

EDUCATIONAL INTELLIGENCE: KNOWLEDGE WAREHOUSING IN ACADEMIA

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INTRODUCTION

Although some academicians may cry foul at the thought, academic institutions are businesses and as such must make crucial, time-sensitive decisions based on current, useful data in order to keep the business afloat. While it is possible to produce reports from the many disparate systems academic institutions utilize to run the business, it can be difficult to correlate and analyze existing information, create new knowledge, and ultimately make the right decision at the right time. Two fields of research have the ability to combat these issues if properly used together: data warehousing and knowledge management.

A SIMPLER TIME

Nelson, et al [5] offers a view of the disparate information systems that an educational institution may have. Such systems as enterprise resource planning, course management, computer-assisted learning & simulation, assessment & testing, student tracking, and SMART technology. Each system is used in the “day-to-day operation of the institution” [5]. While these systems are heavily used, many of them do not interact. As far as the administration is concerned, grades entered into a course management system don’t exist because they do not appear in the separate system that the administration uses.

These disparate systems need to interact in order for proper and easier information sharing within the institution. From a business-decision point-of-view, how does the administration make decisions using data that exists in many different places? The dean’s-eye view of the academic institution is scattered, at best. Nelson, et al [5] call their fellow faculty to arms in order to do their part in directing the future of higher education and the information systems used within so that these problems can be addressed.

DATA, AISLE 3

One solution to this problem is the use of data warehouses and business intelligence tools. Hammergren & Simon define the data warehouse as the “home for your high-value data, or data assets, that originates in other corporate applications [...] or some data source external to your company” [3]. Implementing a data warehouse in an educational institution is a first step to corralling all of the disparate data within the institution. Business intelligence, on the other hand, is not a data storage method but rather a way “to enable interactive access (sometimes in real time) to data, to enable manipulation of data, and to give business managers and analysts the ability to conduct appropriate analysis” [8].

Rabuzin [7] found that data warehousing and business intelligence are useful tools for new students. In addition to college entrance exams, Rabuzin notes that data from similar courses taken in high school are used in addition to information from extracurricular activities. Such information as comparing high school grades per discipline to entrance exam grades suggests areas of the country that appear to score higher than the student can actually perform. The users of the data warehouse are also able to determine the best high schools.

When it comes to the effectiveness of e-learning, assessment is much more difficult due to the lack of in-person professor/student interaction. van Dyk [9] performed a case study which built upon previous studies to determine the correlation between teaching effectiveness and online behavior. Using the previously studied measures of hit consistency and number of hits per student per module, van Dyk added a third measure, total time per student per module. “The tracks left behind by a student as he click[s] his way through an LMS is called the click-stream” [9]. By utilizing BI tools, van Dyk was able to conclude many things, such as the way technology is used being more influential than the mere fact that technology is used and that the indices of online behavior increase when professors enhance their online courses based upon previous indices.

In addition to these focused cases, data warehousing can have an impact from an institutional assessment viewpoint. Biswas and Ghosh [2] conducted a study in which multiple measurements were made on both students and teachers in order to assess learning (on behalf of the student) and performance (on behalf of the teacher). While personal observations are subjective and may lead to error, their study was “intended to provide a fully objective assessment strategy” and not “criticise individuals” [2]. In addition, once the metrics were measured over time the researchers could suggest ways to modify courses or teaching styles.

The use of data warehousing and business intelligence tools is a great improvement to reporting in higher education institutions, however their reach only extends so far. There is still a vast amount of tacit, non-explicit knowledge that is not captured by these traditional methods of measurement. Such hidden knowledge can also play a major role in the decision-making process of higher education institutions.

GET OUT OF MY HEAD

Despite data warehousing and business intelligence adding great benefit to educational institutions, the dean's-eye view still is not complete. Subjectivity plays a large role in many business decisions. Why, then, do we not have a way to capture subjective information? Tacit knowledge, as made popular by Polanyi, is "knowledge that is not systematised or knowledge that is not easily expressed" [4]. This inexpressible knowledge has an influence on a person making decisions. If one could capture this knowledge it would allow an institution to create and foster, as Petrusel argues, "common thinking pattern[s]" [6]. Petrusel offered a systematic approach to capturing the decision making process when an individual follows a single process workflow. His work, however, does not adequately account for the subjective nature some decisions.

Eliciting this tacit knowledge, thus converting it into explicit knowledge, is a "reflexive practice"; "the activity of thinking about one's own actions and analyzing them in a critical manner, with the purpose of improving a professional practice" [1]. Formal interviews conducted by an external interviewer over multiple sessions can help with the knowledge conversion. Once the tacit knowledge has been made explicit, it can be stored in a database, imported into a data warehouse, and be subjected to the same analyses as other organizational data.

THAT'S A WRAP

Disparate systems housing educational data cause issues for the decision makers. With the addition of data warehousing and business intelligence, the dean's-eye view of the institution is a manageable, meaningful set of actionable information. Decision-making, however, can be made better with the addition of aggregate knowledge from all institutional decision makers. Through reflexive practices this tacit knowledge can be converted and stored so that it can be accessed by anyone. Should this occur, educational institutions can make better decisions for employees and students.

Keywords: knowledge, warehouse, education, academia, data

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BUSINESS INTELLIGENCE EMBEDDEDNESS MODEL

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Keywords: Business intelligence systems, acceptance of BIS, use of BIS, BIS embeddedness, specifics of BIS

The proposed/completed study

Actual and effective use of Business Intelligence Systems (BIS) is considered as one of the main sources of competitive advantage for long-term survival of organizations and presents a link between the information provided by BIS and the business value of BIS. The implementation and the existence of BIS in the enterprise is not enough to record better performance of organization and value added of BIS. The key question is therefore whether users after the implementation of BIS actually accept, use and take full advantage of its capabilities. Acceptance and use of BIS should not be understood only as frequency and intensity of use (Davis, Bagozzi & Warshaw, 1989), which was the focus of most previous research, focused mostly on operational IS, but also if users are acting on the basis of information provided by BIS, where using BIS becomes an integral part of the business value generation process. Therefore it is important, if BIS are deeply embedded within the business to create “BI-driven decision-making routines and BI-enabled organizational processes that takes managerial decision making to new levels of understanding and foresight” (Shanks, Bekmamedova, Adam & Daly, 2012). Thus, understanding adoption, acceptance and use of BIS presents a priority item for both researchers and practitioners alike, since BIS from the point of view of acceptance and embeddedness have not been researched much before and must be addressed. Better understanding of these factors might improve the utilization and business value of BIS in

The basis of the study

According to the described problem our goal is to identify what influences BIS acceptance and why and which aspects are specific for BIS, while we are also interested in how BIS is used, not only the frequency and duration of use, which was the focus of most previous research, but also how extensively BIS is utilized in an organizational context for decision support, work integration, and customer service functions (Doll, Torkezadeh, 1998). Since more use is not always better, an important question to turn attention to is, whether BIS have become increasingly embedded into the routines of decision makers and into organizational processes, technology infrastructure and strategy (Shanks et al., 2012). Based on the findings from the extensive literature review where general IT acceptance determinants have been identified and systemized and the findings from the exploratory research phase where professionals and experts on the field have been interviewed to gain additional insight and based on identified specifics of BIS, the determinants of user acceptance, use and embeddedness of BIS in organizations will be identified and a conceptual model of BIS embeddedness will be developed with a specific set of determinants that apply for BIS embeddedness. A conceptual model will further be empirically tested and evaluated.

Several competing models of acceptance have been previously developed (i.e. TAM (Davis, 1989), TTF (Goodhue & Thompson, 1995; Cane & McCarthy, 2009), UTAUT (Venkatesh, Morris, Davis, & Davis, 2003), TAM 3 (Venkatesh & Bala, 2008), etc.); each with different range of acceptance determinants (Venkatesh et al., 2003, p. 425), although with some overlapping among them, of which TAM proposed by Davis (1989) is the most influential and most commonly used. Based on extensive literature review we identified nearly fifty additional determinants that influence IT acceptance (Grublješič, 2013) and have been included in researches either as additional external factors affecting the basic TAM construct and by that better predict the technology acceptance, or as antecedent factors that better explain the two main belief constructs, perceived usefulness and perceived ease of use. Exploratory research analysis based on semi-structured interviews of professionals in the field revealed which of these determinants apply for BIS acceptance, use and embeddedness which will be used to construct the model of BIS embeddedness. A conceptual model of BIS embeddedness will include two levels of determinants. First level will include determinants relating to individual characteristics, BIS quality characteristics, organizational factors and environmental characteristics. These determinants will have an influence on the second level of determinants which are performance perceptions, effort perceptions, result demonstrability, social influence and facilitating conditions which should have an impact on behavioral intention and affect use, which is sectioned to measure how much

The implications

A key implication of this study for practice is thus that managers will now have a way to assess individual characteristics, system and information characteristics and organizational factors and then reliably investigate their impacts on ultimate usage through the proposed causal chain. As Wixom and Todd expose (2005, p. 99) “this can help with management activities such as task prioritization and resource allocation”. Second the model can help designers understand which characteristics in the context of BIS have the most relative importance (e.g. complexity, accessibility and output quality) for BIS to be used. Third, we believe that the proposed determinants will have diagnostic value at any stage of system’s implementation or usage process. All these implications can help for BIS to be used extensively and effectively in its full capacity and for it to be embedded into the routines of decision makers. This study also yields implications for research as it follows the encouragement of Wixom and Todd (2005, p. 100) that researchers should “investigate the effects of the IT artifact itself as an antecedent to ease of use, usefulness and related factors”. Also Benbasat and Barki (2007, p. 215) call for this saying that “we need to identify the antecedents of the beliefs contained in the adoption models ... focusing on the mediators of the impact of IT design on adoption is beneficial to the extent that this identifies which ones are important”. This study represents a contribution to the field of TAM related studies in terms of the specifics of BIS and the expended view to acceptance with the inclusion of embeddedness.

Conclusions

This study will identify the determinants that are specific for BIS acceptance and use and enable for BIS to be embedded into the routines of decision makers. The investigation is based on extensive literature review and confirmed by semi-structured interviews of experts and professionals in field of acceptance, adoption and implementation of BIS in organizations who had sufficient knowledge of the researched matter. The study will propose a set of determinants specific for BIS acceptance and embeddedness based on which a conceptual model of BIS embeddedness (Business Intelligence Embeddedness Model – BIEM) will be constructed. Future research will therefore include an empirical test and evaluation of the proposed research model. Although this study will clearly confirm some of the determinants of IT acceptance as were identified in previous studies, it will also identify and point out some determinants that are specific or more important for a long-term, sustainable, and efficient use of BIS embedded in business processes.

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BUILDING VIDEO PRODUCTION COMPETENCIES AMONG MIS STUDENTS

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Keywords: video production, teaching, video capture software

Developing video messages is increasingly a competency needed by information systems and other professionals for a variety of reasons: internal communications (such as giving informative reports and pitching ideas or proposals), training, and marketing. With products like Screencast and Prezi, producing professional-grade videos is becoming easier. Furthermore, producing videos as a pedagogical tool is engaging and effective.

To help our students develop this emerging competency, we developed a video assignment that integrates class content. In the first phase of these video assignments, students create one-minute video commercials based on the discussion topic of the week. As part of this video, students focus on a particular company, one of its products, and learn about its messaging. Students are assessed on the product selection, quality of sound, and quality of messaging and information. In the video production process, students learn about the product, the class topic of the week, and video production skills. In the second phase of these video assignments, a “Playlist” is built in YouTube where the other students can view their classmates’ videos. Students are required to leave meaningful comments (primarily related to message quality rather than video quality) within YouTube. This process allows students to learn about other products and engage in a conversation about best practices in video production.

In our presentation, we show brief examples of videos our students have created and discuss the reactions of our students to this assignment. In particular, we discuss how students compare producing video versus written deliverables. More broadly, we talk about the following: (a) the value of video production as a competency among IS and business professionals; (b) the value of video production as a learning tool; and (c) practical tips for developing video production assignments.

FACTORS AFFECTING E-SHOPPING SUCCESS DIMENSIONS: A GENDER PERSPECTIVE

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ABSTRACT

While B2C is well developed in the developed countries, still it is not very mature in developing countries. Despite that business to customers web sites (B2C) are growing very fast and is becoming an important marketing and purchasing channels still customers are not very keen to shop online and are not satisfied with the current design and operation of the shopping websites. Therefore success of e-commerce B2C web sites is still one of the biggest challenges management may face. While B2C success has been recently the focus of several e-commerce studies, notably these studies have all ignored the effect of gender on B2C success.

Our research study aims to test the effect of gender on the DeLone & McLean model [1] in B2C e-commerce systems within an Arab culture taking into account the modifications proposed by Wang [3].

The research problem that has been addressed in our research is the following: Does culture represented by gender has an effect on the success of B2C web sites in Kuwait? To what extend does male participant differ in their perceptions toward B2C success in Kuwait compare to women online shoppers? Based on these research questions, our research aimed to achieve the following three objectives: (i) Re-examine the effect of gender on the relationships between system quality, service quality, perceived value and user satisfactions. (ii) Empirically validate the new model using data gathered from a sample of Arab online shoppers in Kuwait; and (iii) add to the body of knowledge on B2C e-commerce in Arab countries.

To achieve our aim, we proposed a research model which integrates four variables: two exogenous (system quality and service quality) and two endogenous (perceived value and user satisfaction). Number of modifications has been conducted to test our research model. First, we eliminated the information quality construct and we keep system quality and service quality since most web sites do care now about their online shoppers and provide them with necessary information. Besides, the B2C web sites do provide enough information for their customers in term of information, completeness, information precision, meeting online shoppers, information reliability and up to date information. These requirements are becoming de facto in most B2C web sites. Second, unlike Wang's [3] re-specification of DeLone & McLean model, our study focused only on user satisfaction as a dimension of success. We defined user satisfaction as the extent to which users believe that the B2C web site available to them meets their requirements. We believe that e-loyalty, repeat purchase or intention to reuse can be used to measure user satisfaction, while length of stay can be used to measure system use. However, in our study, we focused more on satisfaction rather than on length to stay. Third, we include gender in the research model, especially that, Gender relations in Kuwait are grounded in religious and tribal traditions.

We tested the model using a random sample of 198 Kuwaiti adults who experienced purchasing products or services over the Internet. In addition, we built two regression models that were used to the user satisfaction for two groups: male participants vs. female participants.

The results showed that gender does affect the user satisfaction of web sites. We found absence of the link between system quality and perceived value for female participants. We also found the difference in the relative importance on the effect of exogenous variable on endogenous one. Satisfaction of male participants were primarily driven by system functionalities of the web sites such as system accessibility, ordering process, and search capability, and secondly by service quality features such as website intelligence, responding customers properly, and assuring customers' privacy. Unlike male participants, female were more driven by perceived value of the web sites in term of monetary values followed by service quality. The results also revealed that despite both system quality and service quality affect perceived value of the web sites for male participants; it is driven only by service quality features for the female participants.

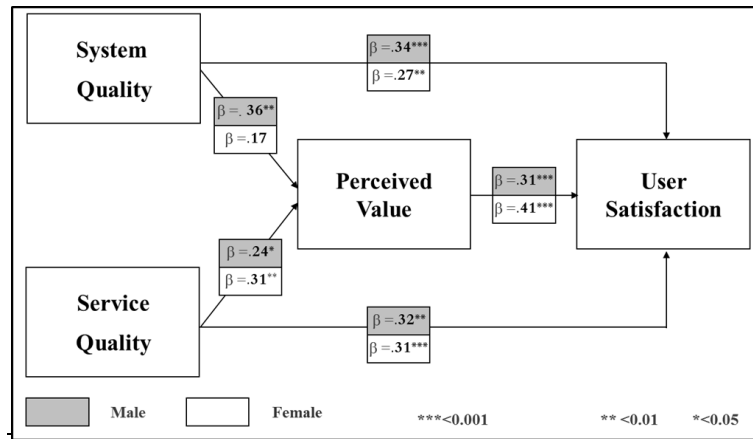


Figure 1. Results of the research model

Our research study provides perspectives to advance management of web sites as well as to future research perspectives. Results of our study enable us to distinguish potential users into two categories: male and female, and not to consider them as one pool. Each of these two categories is driven by certain factors that B2C website owners could use them to increase their satisfaction with B2C web sites. From a research perspective, future studies may reconsider the measures of Wang [3] in particular the measurement of system quality, service quality, and perceived value to include other measures. System quality by including for example availability, reliability, and security, perceived value to include monetary and non-monetary value, service quality to include also site intelligence, order tracking, and responsiveness. Another perspective is to apply the Hofstede [2] four dimensions of culture (individualism/collectivism, power distance, uncertainty avoidance, and masculinity/femininity) on e-commerce success since Arab countries score differently on these four dimensions than other countries where the DeLone and McLean model was developed and tested.

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EMPIRICAL ASSESSMENT OF EMPLOYEES' CYBERSLACKING IN THE SERVICE SECTOR

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Abstract

With the increasing use of the Internet, new concerns present themselves in the workplace during work hours. Employees are spending time on the clock to visit shopping Websites, manage their personal bank accounts, play online games, send personal e-mails, manage their social networking Websites, and/or visit pornographic Websites. These types of actions in the workplace are known as "cyberslacking." This behavior affects an employee's productivity, presents legal concerns and also affects the security of employer information with the vulnerabilities that exist on the Web.

This proposed research will study the problem of cyberslacking in the public sector, the ethical severity of cyberslacking activities and seeks to see if the frequency occurred differ based on gender, age, level of education, and years of employment. This proposed research study will attempt to measure the frequency of cyberslacking activities in the workplace and determine whether employees understand that these types of activities are unethical according to the policies and regulations of their workplace.

The proposed research study will focus on the problem of personal misuse of the Internet in the workplace. The Internet facilitates communication, but it is necessary to examine both the proper use of it in the workplace and the rise of cyberslacking by employees in the service sector. This proposed research study will contribute to the Information Systems knowledge base by identifying new concerns regarding the use of information systems in the workplace that affects the service sector.

With the integration of new computer tools and the Internet, the service sector needs new regulations and a new approach to control inappropriate computer use. The proposed research will attempt to assess the amount of cyberslacking reported by employees about themselves and their peers, the ethical severity of that behavior, and the degree to which they engage in cyberslacking activities.

Keywords: cyberslacking, government sectors, IAUP, self-control theory of crime, SNS

A STUDY OF THE SUCCESS OF GROUP FORMATION IN VIRTUAL TEAMS USING COMPUTER MEDIATED COMMUNICATIONS

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Abstract

In the digital domain, virtual teams are becoming common within organizations and corporations. Restructuring an organization or corporation is vital because competition and globalization are increasing. In this era of globalization, distributed working groups need to develop a competitive advantage in these ever-changing environments. Historically, teams had experienced problems stemming from geographical and temporal limitations. With the increase of technology in telecommunications, people are increasingly forming virtual teams, which have become critical to the survival of nearly any organization or corporation.

Virtual teams have some of the same problems that regular teams have. One of them is their method of forming teams in digital environments. Despite the difficulties, the digital environment has made successful team development all the more critical. The variation in people's skills makes the formation of teams even more difficult. This is why individuals cannot determine in advance if a virtual team will be a success.

In an effort to determine the success of team formation in a virtual setting, the researcher intends to evaluate the role of Computer-Mediated Communications (CMC) in a virtual team. This study seeks to determine how CMC, specifically in conjunction with social networking sites (SNS), can help overcome the difficulty of team formation and collaboration between individuals in virtual teams. By creating these groups in the virtual world, and monitoring how successful the groups are using SNS as their medium of team formation. The results of this study can be informative to help organizations identify ways to support effective team formations.

Keywords: group formation, social networking sites, computer-mediated communications, virtual teams, cohesiveness, social bond theory, team cohesion

MENTORING FOR INFORMATION SYSTEMS PROFESSIONALS

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ABSTRACT

This study was that of the mentoring process and the impact of mentor selection as it applied to corporate information systems within mid-western corporations during fiscal years 2011 and 2012. The research sample involved 23 organizations that openly encouraged and supported mentoring for newly hired IT professionals. These organizations were financially successful, organizationally stable, and solid players in information systems for ten years or more.

Previous research on mentoring concentrated on “perceived” end results of a mentoring process. However, more often than not the previous research did not adequately evaluate the overall effect of the mentor/protégé relationship--and the effect of that metric on the overall quality of the mentoring process.

For the purpose of this study, the mentoring experience was described as developmental relationships between an experienced and less experienced IT professionals to better assess and achieve expectations and goals of both individuals and organizations.

Areas of obvious impact to a successful mentoring relationship include apparent or hidden hostility by either the mentor or the protégé (or both); destructive or deceptive behavior by either the mentor or the protégé; ridicule by the mentor that results in some form of retaliation by the protégé; and insensitivity by either the mentor or the protégé.

A questionnaire was administered to 38 mentor/protégé teams within the 23 organizations cited for this study. The mentors were 64/8% male (35.2% female) and the protégés were 55.1% male (44.9% female). The reported average age of mentors was 39.4 years of age and the reported average age of the protégés was 26.8. The mentors were the immediate supervisors of the protégés in 82% of the mentoring teams included in this sample.

Research results for this presentation will include the following:

1. Mentors and protégé personality match for maximize success.
2. Supervisor mentoring effectiveness
3. Success of the mentoring process (lowering of stress levels, building on trust, control of hostility, ridicule, insensitivity, and various forms of interference).

Keywords: Mentor, protégé, supervision, Information management, hostility, interference, ridicule, insensitivity.

THE EFFECTS OF FLOW ON INFORMATION SYSTEMS DEVELOPMENT BEHAVIOR

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ABSTRACT

The purpose of this study is to examine how flow experience (Csikszentmihalyi, 1975) influences individual's systems development behavior and performance. In IS literature, flow has been widely investigated in computer-mediated environments, with specific focus on use of information systems. This study extends the IS research of flow by examining the flow effects on behavioral intention and performance during the systems development process. Particularly, we investigate how task challenge, perceived skills, goal clarity, feedback, focused concentration, perceived control, and enjoyment influence behavioral intention and performance. In addition, we examine the moderating effects of perceived usefulness (PU) and perceived ease of use (PEOU) of the systems development tool on the relationship between flow and behavioral intention. A survey was administrated in two information systems programming classes.

Keywords: Flow, behavioral intention, performance, information systems development, TAM

INTRODUCTION

Increasing information systems development productivity and quality have been the highest priority in business application development. Poor developer performance resulting in low software product quality continues to be a major issue and challenge for the software industry. Developers face increased pressures of decreased product delivery time and increased product quality. Previous Information Systems (IS) research focused on measuring systems development success from the perspective of the user and the organization (Zelaznym, Belange and Tegarden, 2012) or measuring team-level behavior and performance related to systems development projects (Sawyer, Guinan and Coopridner, 2010). However, teams are comprised of and rely upon the contributions of individuals. Individual development and performance is fundamental for team work and is necessary for the success of a systems development project. The study of individual development behavior and performance has been ignored. The purpose of this study is to close this gap by providing empirical research findings and knowledge about systems development behavior at the individual level.

Particularly, we investigate how task challenge, perceived personal skills, goal clarity, feedback, focused concentration, perceived control, autotelic experience, curiosity, intrinsic interest, and enjoyment influence behavioral intention and performance. In addition, according to the technology acceptance model (TAM) (Davis, 1989), we also examine the effects of perceived usefulness (PU) and perceived ease of use (PEOU) of systems development tools as moderation factors. A survey was administered in two programming lab classes.

LITERATURE REVIEW

In this study, we apply the flow theory (Csikszentmihalyi, 1975) to investigate systems development behavior and performance. Systems development is a cognitive and psychological process and its behavior and performance are shaped by an individual's working belief, motivation, and attitudes toward tasks (e.g., Ajzen 1991; Rozella and Gardner, 2000). Attitude and motivation are determined by the intrinsic and extrinsic factors (e.g., Csikszentmihalyi, 1990; Davis, Bagozzi and Warshaw, 1992; Koufaris, 2002; Bénabou and Tirole, 2003). Systems development behavior is thus motivated by both intrinsic and extrinsic factors (von Krogh, Haeffliger, Spaeth and Wallin, 2012). Numerous studies have suggested that flow be a useful construct for describing the behavior of computer users (Csikszentmihalyi, 1990; Ghani, Supnick and Rooney, 1991; Trevino and Webster, 1992; Webster et al., 1993).

RESEARCH METHODOLOGY

Survey data was collected from college students taking upper-division information systems programming courses at a university. The partial least squares (PLS) (Wold, 1974 and 1985) method was employed to analyze a complete survey dataset in the study. The overall research model is shown in Figure 1.

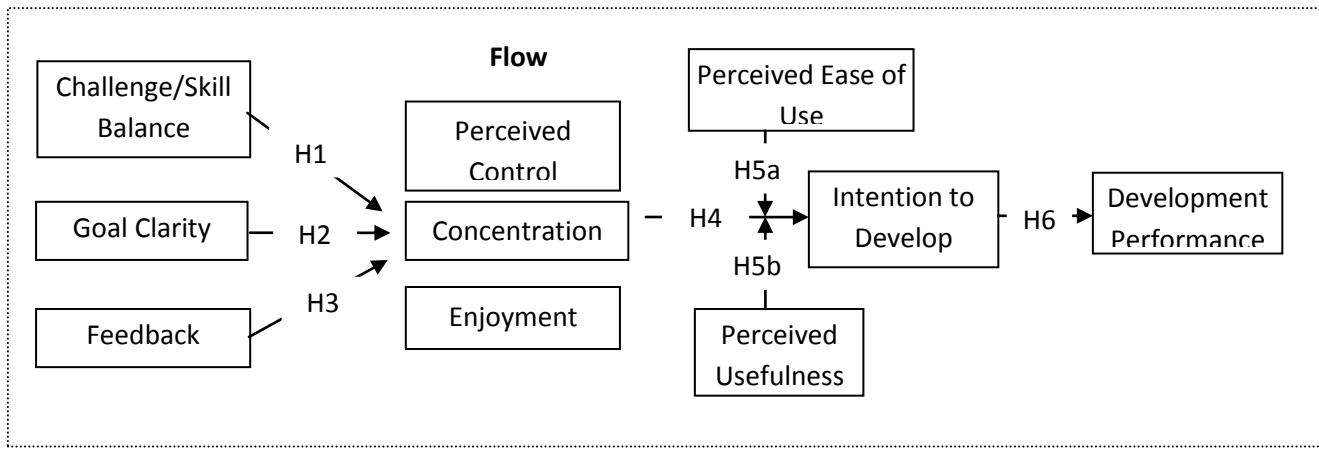


Figure 1. Research Model for Behavioral Intention to Information Systems Development

CONCLUSION AND CONTRIBUTIONS

Findings from this research contributes in four ways to the IS discipline and business education in the IS discipline. First, it extends current research conducted at group and institutional levels by providing insight into development behavior at the individual level. Second, the findings will help both scholars and practitioners better understand individual developer’s behavioral intention and performance and further provide suggestions on the improvement of development performance. Third, the study empirically examines flow in a systems development context. Lastly, the findings of this study help IS educators better understand their students’ behaviors and learning practices during systems development activities, thus providing a guide for improving curriculum design and teaching techniques.

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Due to space limitations here, the full list of references is available directly from the authors.

ENSURING PHARMACEUTICAL INDUSTRY SAFETY THROUGH RFID

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ABSTRACT

Keywords

Case study, IT-supported business processes, RFID implementation, pharmaceutical supply chain

Study Description

The safety of products, services and patients is a critical issue in the pharmaceutical environment. On the one hand, counterfeit medicines pose a growing threat; on the other hand, all medicines require a high level of quality assurance for manufacturing, transport, storage and administration. Accordingly, safety in the context of both materials management and supply management is crucial for protecting patients. This article investigates how Radio Frequency Identification (RFID), a communication technology based on radio waves [1], can be used to improve safety in the pharmaceutical industry. RFID has been successfully implemented in a variety of settings; from consumer packaged goods supply chains to libraries and hospitals in throughout the world [2, 5, 8]. RFID seems particularly well fitted for healthcare environments, where it is poised to become the next wave of disruptive innovation [6] by providing real-word awareness [3,4]. This paper extends and complements previous RFID studies by analyzing an RFID platform which is already used productively in practice, and by presenting a novel view of safety from multiple stakeholder perspectives in the pharmaceutical supply chain. The study answers the call for timely research on healthcare information systems and technologies, a contemporary topic of increasing importance among information systems researchers in general and among IACIS members in particular as evidenced by the inclusion of sessions on health information systems research and applications in the most recent IACIS conference.

Methodology and Analysis

The paper uses a revelatory case analysis methodology [7]. The context is RFID implementation in Germany, which is the largest country in Europe (with 82 million people) and the world 3rd largest pharmaceutical market, with EUR 41.5 billion in sales in 2008. The study focuses on a RFID platform developed by German firm XQS GmbH and used successfully for the tracking of oncology and stem cells medication. This particular implementation of RFID technology can serve as a revelatory case because of its documented track record in trials for tracking medication over the last several years. The study uses semi-structured interview data collected by one author from several supply chain stakeholders (manufacturer, wholesaler/distributor, pharmacy, and hospital / clinic) which have all participated in RFID trials using the XQS solution. The analysis was performed by a second researcher who iteratively coded the data and compared it with theoretical insights. The results were verified for face validity by the interviewer and reviewed for accuracy by an XQS senior executive. Thus, triangulation is ensured by considering multiple points of view from different supply chain participants and from different researchers [7].

The interview analysis reveals that the XQS solution for RFID implementation in the supply chain has been positively received at all levels of the supply chain, with significant benefits being cited by all supply chain participants. Having unique product codes embedded in RFID chips affixed to medication increases safety by enabling accurate tracking and preventing counterfeiting. The RFID system automates the shipping and receiving processes, eliminating errors that were common in the previous manual-based bar code environment, strengthening controls, and reducing labor and technology costs.

Implications and Conclusions

This paper confirms that pharmaceutical supply chain safety can be increased when supply chain participants adopt RFID. The analysis reveals that perceptions of safety are higher at the ends of the supply chain – at the manufacturer and the clinic level – as the RFID technology increases the trust that other supply chain processes are secure. RFID technology enables all supply chain participants to

access core supply chain process knowledge - even for processes outside of their control – and make informed decisions to ensure the safety of the ultimate supply chain customers – the patients. This paper advances the current literature on RFID implementation and benefits by providing an evidence-based evaluation of an integrated, supply chain, end-to-end process that is largely missing from current RFID research [5, 8]. For practice, this paper provides insights on early adopters, which can be used to demonstrate benefits and promote further adoption. Future research can explore alternative RFID platform models or RFID implementation in the context of other countries as well.

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ENHANCING INSTRUCTIONAL VALUE VIA ONLINE DISCUSSION FORUMS IN INFORMATION SYSTEMS COURSES

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ABSTRACT

As online and blended learning opportunities grow, so has the interest in ways to manage and meaningfully engage students with online discussion forums [1, 2, 3, 4, 5, 6, & 7]. The purposes of this presentation are: (1) to identify issues associated with the use of online discussion forums and (2) to identify strategies for instructors to effectively administer and to significantly involve students with online discussion forums found via a literature review.

Keywords: online, discussion forum, instruction

CONTENT

Nandi, Hamilton, and Harland [5] explored the issues of expected student engagement behaviors and expected instructor roles in online discussion forums. Among the student engagement behaviors observed were: (1) questioning—both asking and responding, (2) seeking clarification, (3) interaction suggestions, and (4) suggesting solutions. Among the instructor exhibited behaviors were: (1) offering feedback and examples, (2) introducing new questions, (3) intervention to redirect discussion, and (4) offering assistance (e.g., technical). Nandi, Hamilton, and Harland [5] suggested that a blended strategy of both student and instructor facilitated discussion as possibly working best.

Dooley and Wickersham [3] reported that one issue regarding the use of online discussion forums is participant numbers. They noted that large numbers of participants resulted in considerable discussion for students to read/digest and for instructors to evaluate. To explore the impact of participant numbers in online forums, they conducted a study comparing the critical thinking and interaction with entire class and smaller within class learning communities. Results of their study indicated that discussion was (1) often times off topic, (2) dominated by a few students, and (3) more disconnect relative to critical thinking. A strategy suggested by Dooley and Wickersham [3] involved creating small learning communities as a way to refocus discussion on quality.

Goldman [4] noted the issue of balancing online discussion forum quality and workload for both students and instructors. Goldman [4] described the discussion forum guideline document outlining requirements and best practices. This document consists of three components: (1) design and development, (2) set expectations, and (3) launch and manage. Goldman [4] suggested that a strategy of developing a document designed to balance the online discussion forum workload for both students and instructors would result in high quality learning experiences.

SUMMARY

The purposes of this presentation were: (1) to identify issues associated with the use of online discussion forums and (2) to identify strategies for instructors to effectively administer and to significantly involve students with online discussion forums.

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THE ROLE OF JOB EMBEDDEDNESS IN GOVERNMENT INFORMATION TECHNOLOGY JOBS

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ABSTRACT

Employee turnover has been a key issue in management and psychology for decades. Although turnover is one of the most well researched topics in management, there have been few studies that have identified factors contributing to low employee turnover. The purpose of this paper is to find the role of job embeddedness by identifying the factors contributing to low employee turnover among government information technology employees. The result of this study will provide insight into ways to reduce employee turnover across industries.

Keywords: Job Embeddedness, Government, Information Technology

INTRODUCTION

Employee turnover is a naturally occurring event at any organization. Some employees leave by choice, and some employee changes are initiated by the organization itself. According to a recent report [1], industries with the lowest turnover rates are high-tech (11%) and state/local government (9%). Industries with the highest turnover rates are services (35%); entertainment and recreation (27%); and retail/wholesale trade (22%). The purpose of this paper is to find the role of job embeddedness by identifying the factors contributing to low employee turnover among government information technology employees. The result of this study will provide insight into ways to reduce employee turnover across industries. To accomplish the research objective, this study deploys a qualitative study using government information technology employees.

BACKGROUND

Prior studies in employ turnover have focused on the factors related to employee dissatisfaction as the main approach to understanding and preventing turnover [2]. However, the job embeddedness model focuses on the factors that make an individual more likely to stay in the job, in addition to the factors likely to make an employee leave. The concept of job embeddedness relates to a measure of how much individuals are embedded in their current job or organization [3]. The individual aspects of job embeddedness are 1) *fit* including person-job fit, person-organization fit, and community fit, 2) *sacrifice* which refers to an individual's perception of financial and psychological benefits that may be lost by leaving a job, and 3) *links* including organization and community links. In addition, family embeddedness, which refers to family approval/disapproval of the organization, has been also proposed as a predictor of turnover intentions and an aspect of job embeddedness [4].

RESEARCH METHOD

This study will investigate and compare the perception of job embeddedness and job security among government information technology employees. To accomplish the research objective, this study deploys a qualitative study using government information technology employees. A case study is conducted for exploring the factors, and semi-structured interview is conducted for data gathering in this case study. The semi-structured interview is conducted by asking central interview questions and other relevant questions. The result will be presented at the IACIS Conference in October 2013.

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MOTIVATING WITH MOBILE: CROSS-PLATFORM DEVELOPMENT IN INFORMATION SYSTEMS COURSES

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ABSTRACT

Keywords: Mobile Cross-Platform Development, Mobile Applications, Teaching Module, Programming

Introduction

Mobile devices have gained prominence in the field of Information Systems (IS) and will remain a focal point as smart devices and Internet access continues to become more pervasive, accessible, and affordable [1, 3, 9]. Given this evolving technological landscape in global organizational life and in the lives of students, many researchers and educators alike recommend introducing students to the development of mobile applications to add value to the curriculum and stimulate student interest [2, 4, 5, 8]. Recent studies have reported offering mobile development modules as part of undergraduate degrees to engage and motivate students [2, 4, 5]. The purpose of this paper is to outline a teaching module for employing cross-platform mobile development as a motivational tool to engage students early in the IS curriculum.

Approach

To motivate students and enhance programming skills, a mobile development teaching module was developed, tested, and applied in a beginning university *Business Applications Programming* course. The module was designed to integrate basic principles of object oriented programming as well as provide an introductory experience with mobile cross-platform development. The module content is grounded in current literature and derived from respected program development practices [6, 7]. The module provides an opportunity for students to build a simple business application with a single platform and code-base. Students are introduced to the foundations of building applications that share code on iOS, Android, and Windows Phone. The module seeks to prepare students for success in advanced courses and to serve as a springboard for future development opportunities.

This paper seeks to demonstrate the importance of integrating mobile development early in university IS curricula. While application development may not be part of the prescribed core for many IS programs [9] using mobile cross-platform development may help students see the immediate connections between information systems and real-world technology. Three objectives provide a framework for this paper, including: (a) highlight relevant literature and theoretical underpinnings of the teaching module, (b) describe the teaching module, and (c) discuss lessons learned from module implementation and share ideas for motivating with mobile.

Implications and Conclusion

The teaching module identified in this paper should prove helpful to IS educators who seek to provide an engaging, rigorous, practical, and relevant experience in their beginning courses. While programming native apps is complex; initial module results align with previous studies that suggest students with limited programming experience can create mobile applications within the scope of a single course [2, 4, 5, 8]. This introductory module uses pervasive mobile devices to add value to beginning programming courses and seeks to stimulate student interest by providing a high-engagement culture in which students can thrive. This paper will prove useful to those who seek to motivate students to code efficiently, communicate effectively with peers, and improve software development practices.

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MOBILE REALTIME OPTIMAL EVACUATION ROUTING SYSTEMS

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ABSTRACT

In some emergency situations, such as exploding, wildfire, tornado, flooding and chemical leakage, the people living in the area may be trapped because some disasters have time sensitive. A well-organized emergency evacuation manual and a real time emergency aid will help people to minimize the possible life and property loss because the manual is not enough and cannot cover all the situations in real time. This research paper is about developing an optimal evacuation route and real-time evacuation routing aid. To get an optimal route, mathematical models of the most realistic hurricane evacuation scenarios and multiple traffic models using the Java programming language are developed. The bi-directional real time evacuation routing aid system provides effective and efficient information, and allow sharing the information each mobile users.

Key words: Optimal Evacuation, Mobile application, Evacuation routing systems, Emergency management, real time systems

INTRODUCTION

In 2005, hurricanes Katrina, Rita and Wilma had significant impact along the Gulf and Atlantic Coasts, caused more than \$ 100 billion damages and thousands of fatalities. Due to the disastrous strength and relatively short notice, evacuation process should be operated efficiently following the proper evacuation plan in limited time. During hurricane Rita, Houston's hurricane evacuation plan experienced a lot of unexpected difficulties. Because of the extremely high traffic volume on the designated evacuation routes, evacuees had to drive more than 24 hours to reach safe areas such as College Station, San Antonio, Huntsville, Dallas and Lufkin, During the long evacuation delay, most of evacuees were stranded and some of them died on the road while trying to save the gasoline by not operating the air conditioners in the 98°F temperature (CNN and Wikipedia, 2006).

BACKGROUND

As the case of Houston shows, any evacuation plan could experience some unexpected problems. The residents around the threatened area need to be evacuated to at least 20 to 50 miles to locate a safe place within 24 hour period depending on the situation. With mass evacuation, 24-hour timeline is not enough since necessities such as lodging, restaurants and gas stations are limited; which means, the actual evacuation distance can easily be more than 100 miles. Development of mass evacuation plan is challenging since it requires transfer of mass population through the limited route spaces within the limited time frame. The plan must be proactive and stay up-to-date with population growth, city expansion and more. If not, escaping one disastrous situation can easily lead to another disaster such as Rita's evacuation case. To avoid such a situation, an effective and efficient evacuation plan must be developed and validated.

OBJECTIVE

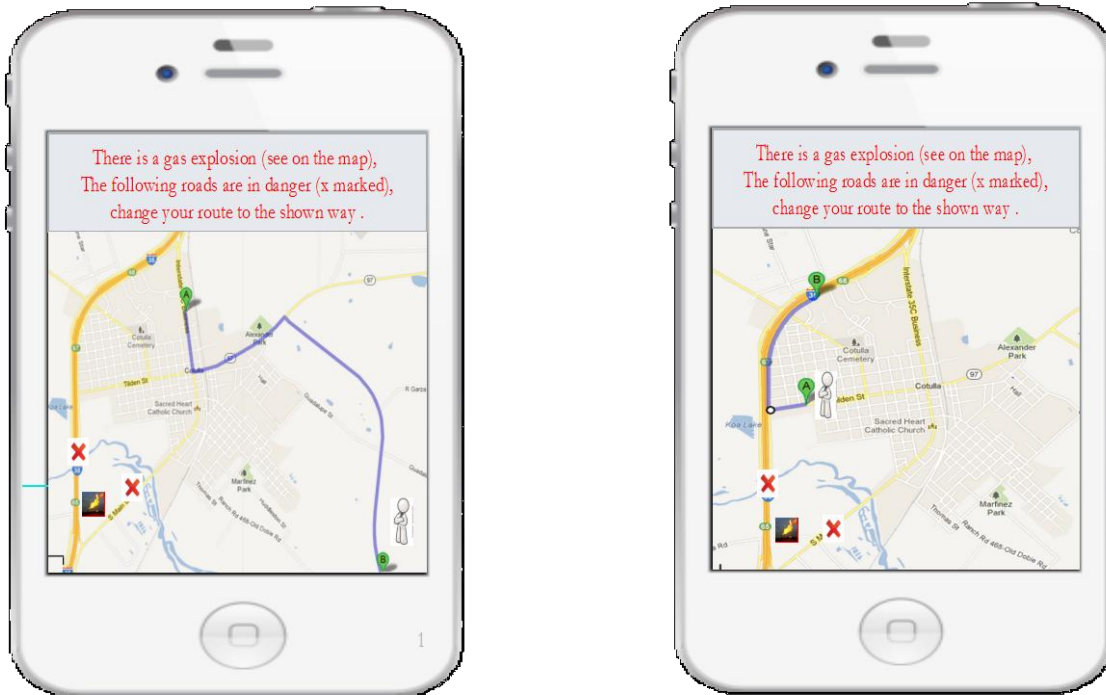
Even a well developed city's current evacuation routing information provides only paths to evacuate. In a real situation, the routing information did not provide enough information, such as a sudden road washed out, other paths' status. Radio/Television broadcasting and weather websites give accurate but delayed information to people in emergency situation. Also current GPS system provides one-directional information, from satellite to device, and only shows estimated time to reach the destination using the current vehicle speed. So, the development of the bi-directional real time evacuation routing aid is critical and the aid should provide critical information for current location in real time so that people in the area will share information together. So, the main objective is to develop a Real Time Evacuation Routing Aid using Schematizing Maps. To accomplish this main objective we have three tasks:

1. Identifying the location(s) of the natural disasters
2. Providing the disaster location(s) and evacuation route to people
3. Providing a bulletin to people so that proactively involve the situation because...
 - a) Most of disasters are sudden and unexpected,
 - b) Authorities' reactions are slow due to the verification,
 - c) TV and radio stations are also not fast enough,

d) GPS information is not enough.

BI-DIRECTIONAL EVACUATION ROUTING AID

To develop a bi-directional real time evacuation routing aid system, first of all, a server is built. This server will provide all the necessary information about the current situation and it allows smart phone users to write their own information of their current location in the server so that all other users can share the information, which is difficult to get especially in an emergency situation. The information obtained is posted on the server. This server communicates with various smart phone devices through base stations (cell towers). The followings show the information display on the mobile devices, for example.



CONCLUSIONS

The Bi-directional communication system between server and mobile phone give the optimal route to escape out the disaster location according to changing position of person. Thus our proposed bidirectional emergency evacuation aid has shown to be very useful in the test example evacuation process. However, during an emergency situation, such as hurricane, this system may be disrupted. In the implementation step of this system, creating a backup system would be a critical consideration.

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FOSTERING ACADEMIC INTEGRITY IN COURSES WITH SIGNIFICANT DIAGRAMMING COMPONENTS

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INTRODUCTION AND PROBLEM STATEMENT

In some Information Systems courses diagrams form a significant component of the course material, for example data flow diagrams (DFDs), flowcharts, and use case diagrams (UCDs) in systems analysis and design courses and entity-relationship diagrams (ERDs) in database design and management courses. Automated solutions like *Turnitin* go some way to deter violation of academic integrity and to detect similarities between submitted student work and existing electronic sources but these solutions aren't without problems and concerns. One such concern is that automated solutions are unable to compare non-text material such as diagrams. The purpose of this presentation is to present a strategy that may contribute to deterring academic dishonesty in courses with a significant diagramming component in both face-to-face and online environments.

LITERATURE REVIEW

Academic dishonesty encompasses plagiarism, cheating, collusion, falsification and fabrication to name but a few examples that violate academic integrity. Educators and educational institutions have two responses to such academic dishonesty: deterrence and/or detection [4]. Reliable detection, investigation and reporting of academic dishonesty is a challenging and time consuming process. It is even more challenging when it comes to diagrams such as DFDs, flowcharts, UCDs and ERDs. In simple exercises one may reasonably expect that there are limited combinations in which diagrams can be drawn. Nevertheless, the likelihood of two students drawing *exactly* the same diagram in terms of placement of symbols relative to each other, sizing of symbols, and choice of labels (including spelling and capitalization) is low. More advanced exercises with potential red herrings can further decrease the likelihood of similarity.

Given the dearth of automated plagiarism checking solutions to detect similarities between diagrams detection of academic dishonesty relies on rudimentary methods: a single assessor assessing all diagrams and being able to recall and identify exactly similar diagrams. Manual detection has been shown to be much less accurate than automated detection: Jocoy and DiBiase [3] found that manual detection missed nearly 4 in 5 cases of plagiarism in text documents compared to automated solutions. Manual detection may not only be unrealistic in larger classes but also in classes where multiple instructors and teaching assistants are involved in assessment. Students may also appeal against a determination of misconduct based on such detection procedures in terms of fairness, equal treatment and possibly claim victimization. Students may also not only copy from each other in a single class, they may recycle work from previous semesters – either their own work if repeating the course or another's work from a previous semester – making detection even less likely. If students are aware that there is no scalable means to check diagrams they may be more tempted to engage academic misconduct. Additionally, if students are aware of the low likelihood of similarity between any two diagrams it may result in simple but effective avoidance strategies such as resizing symbols, moving symbols relative to each other, minor changes to labels, etc., further decreasing the likelihood of detection.

Given these difficulties with detection and apprehension it may be more effective to instead rely on prevention strategies. Instruction on the importance of academic honesty can be an effective deterrent: students who participate in active instructional activities related to infractions such as discussing definitions of plagiarism are half as likely to plagiarize than those who do not [5]. New assignments from one semester to the next can discourage academic dishonesty and enable students to avoid self-plagiarism, an issue for students repeating a course. Minor changes to assignments can also help students avoid self-plagiarism and increase the likelihood that infractions can be detected manually. Assigning different exercises or teaching cases to different groups of students in a cohort can deter academic dishonesty in a given semester. A less common strategy is to require students to submit the outcome, the diagram(s), together with a description of how they arrived at the outcome. There are a number of techniques that can be used to incorporate a process component into assignments such as journaling and protocol analysis or, as it is also called, the think aloud method or simply 'think alouds.'

The think aloud method was originally developed by cognitive psychologists to study how people solve problems [6]. When employing 'think alouds' the subject, in this case the student, is asked to verbalize or think out loud his/her thoughts while completing a task [1]. When incorporating 'think alouds' into diagramming assignments students record their thoughts as they complete the

assignments and submit the audio file together with the resulting diagrams. If no audio file is submitted or the audio file is not on task or doesn't correlate with the diagram submitted the assignment is considered incomplete and not graded for credit or for significantly reduced credit. For example, if a documented thought process is clearly flawed and yet the resulting diagram does not exhibit this flaw further investigation may be required. Listening to audio files describing the process in conjunction with assessing the diagram output increases the workload but strategies can be employed to reduce the assessment workload and retain efficacy. For example, instructors can announce that a certain number of audio files will be randomly selected and listened to in full. Alternatively, a random section of 30 seconds of all audio files will be sampled. Class policy can also indicate that if there is suspicion of academic misconduct all audio files can be reviewed in full, even if not originally selected for assessment or assessed in its entirety. Although audio files generated through the think aloud method cannot be checked by existing comparison software, transcripts could potentially be submitted to automated detection software such as *Turnitin* for comparison checking.

CONCLUSION AND IMPLICATIONS

Educators and educational institutions must not only educate students about the need for and nature of academic integrity and why instances of academic dishonesty such as plagiarism are considered serious offences but also to detect academic dishonesty using whatever tools at their disposal and investigate and report suspected cases in accordance with the educational institution's policies. Ensuring academic integrity in both face-to-face and online modes of delivery is of critical importance to educators and educational institutions in order to maintain the quality and reputation of their qualifications and in the case of the US, to comply with the *Higher Education Opportunity Act of 2008* (HEOA). Integrating process-focused techniques such as 'think alouds' into assignments and assessment can contribute to discouraging academic dishonesty with respect to diagramming components and provide further assurance as to the integrity of the outcome produced, reducing the need for detection as well as the risk of not detecting infractions. Added benefits of such process-focused components in assignments are that, first, students are encouraged to articulate and reflect on their thought processes, which can enhance learning, and, second, these process-focused assignments make students' thought process more transparent to educators who can use the insight thus obtained to improve their instruction [2]. It must be noted, however, that although these techniques may foster greater academic integrity they do not eliminate the possibility for collusion.

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EMPIRICAL EXAMINATION OF CONSUMERS' SELECTIVE e-COMMERCE PERSONAL INFORMATION DISCLOSURE AND PRIVACY CONCERNS

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ABSTRACT

Research Problem

The study is an examination of antecedents to consumers' selective disclosure of personal information in e-commerce environment. Despite numerous pure and applied research studies on the phenomenon, there is still a gap between what consumers say they would do regarding disclosure of their personal information online and what they actual do when transacting online. The fact is that even when a consumer truly states his or her intended behavior in ecommerce, other factors may intervene and mediate the person's actual behavior in an instant in time. The privacy paradox is that consumers have less control of their e-commerce personal information despite increases in internet privacy concern and e-commerce privacy awareness. According to [6], consumer privacy calculus is an impromptu cost-benefit analysis during online transactions; however, the paper noted that perceived value of a particular transaction could override consumers' concern for privacy. Consumers are more willing to consent to personal information disclosure online when business provides them with the organization's information privacy practices and when they believes that there is fairness in such practices [2]. Reference [3] found that consumers' e-commerce privacy calculus is driven by exchange benefits, salient beliefs, and expected privacy risks. In addition, [5] found that noticeable and accessible privacy information in e-commerce environment encourages purchases at premium price. Nonetheless, the issue of consumer willingness to disclose personal information in an online transaction persists. Thus, this study is interested in the factors other than those proposed and tested in literature that influence consumers' discriminating transactional information disclosure.

Research Argument

This study argues that consumers' willingness to disclose personal information in an e-commerce environment depends on the *consumer's information privacy boundary control, consumer's information privacy equilibrium, and available behavioral mechanisms in the context*, based on Privacy Regulation Theory [1]. That means the context in which the decision is being made and by the information available to consumers, the correctness of the information notwithstanding. In other words, we argue that consumers' reveal-and-not-reveal or selective personal information sharing decisions in e-commerce is not only dynamic, but is based on consumer's desired and actual levels of privacy, consumer obtaining optimal level of privacy in e-commerce space, and on the available privacy features and information online.

Importance of the Research Problem

The study will show that although privacy concern is a universal phenomenon, yet the degree to which the concern influences willingness to disclose personal information during online transaction differs culturally and depends on the context [4]. In addition, the study will confirm or disconfirm that consumer's choice; to disclose or not disclose, is dynamic rather than static. The context is important because consumers' online non-monotonic information disclosure behaviors are based on the information that is available, which may or may not be correct [1]. In other words, active processing of privacy disclosure action depends on the context of one technological capabilities or another, and the perceived validity of available information. The study will also confirm or disconfirm that more privacy is not necessarily better as well as explain the privacy versus publicity dichotomy; for example, it is possible for consumers to feel that their personal privacy space is being violated, yet simultaneously feel the need to put their information out there during online transactions.

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PEDAGOGICAL OPPORTUNITIES OF MICROSOFT'S ADVENTURE WORKS DATABASE

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Keywords: Database, Microsoft, business intelligence, pedagogy

A strong and technically vibrant CIS curriculum should include robust training in database application development, as well as practice in business intelligence implementation and analysis. For universities that make extensive use of Microsoft products, especially if they are members of the Microsoft Developer Network Academic Alliance (MSDNAA), there is a tremendous opportunity to utilize Microsoft's Adventure Works database for a variety of pedagogical purposes. This presentation discusses what Adventure Works is all about and how it can be used in the classroom.

Adventure Works (AW) is a fictional bicycle manufacturing company. The business model of this company is described in the Microsoft documentation. Basically, AW manufactures bicycles and sells these to retail stores. Although it does not have a brick-and-mortar store of its own, it does include an internet-based sales arm which sells to individual customers over the web. AW also sells bicycle parts and accessories, many of which it obtains by purchasing from third-party vendors. Many of the components AW uses for manufacturing bicycles are also obtained from vendors. Thus, the AW business model includes the entire supply chain, from purchasing to production to sales. In this way, it presents a robust and realistic business scenario, ideal for using in a business-oriented CIS curriculum.

Microsoft provides two databases for AW. The first is an online transaction processing (OLTP) database utilized for supporting and automating the day-to-day business processes of the organization. The OLTP database is made up of over 70 tables grouped into the following schemas: Person, Human Resources, Sales, Production, and Purchasing,

The second is a data warehouse that can be used in conjunction with Microsoft's Sql Server Analysis Services (SSAS) for online analytical processing (OLAP) and data mining, thereby providing decision support capabilities. The data warehouse is subject-oriented and composed of several Fact and Dimension tables. Two primary subjects in the data warehouse include retail sales and internet sales. There are also other subjects centered on other functional areas in AW's business structure.

Both of these databases can help fulfill important educational needs of an information systems program. I've used these databases in three courses: (1) a traditional 300-level database course, (2) an advanced web application development course (our capstone), and (3) an elective business intelligence course.

The main educational objectives of the database course include the typical gamut of skills, including (but not limited to) entity-relationship (ER) modeling, relational database design, normalization, and extensive use of SQL for data definition and manipulation. The advanced web application course focuses on designing and implementing server-side web applications with database back-ends, and utilizing cloud-based web services. The BI course covers advanced database queries, XML processing, data visualization, data integration/warehousing, online analytical processing (OLAP), and data mining.

In this presentation, I will describe in detail how the AW database and data warehouse are used to fulfill the educational objectives of these three courses.

The presentation will include discussion of how the various features of the AW database and data warehouse can be used to teach about and provide practical student experience with the following items:

- Cross-functional applications
- Sales and customer relations management
- Purchasing and supply chain
- Human resources
- Production and manufacturing
- Supertype/subtype entities ("business entities" and their variants)
- Advanced database design, manipulation, and query
- Hierarchical representations of relational data
- Data quality validation



- Data visualization
- Data integration and warehousing
- OLAP
- Data mining and predictive analysis
- XML processing (utilizing XML fields in AW)
- Security (hashed passwords, preventing Sql Injection)

The presentation will include an in-depth analysis of the structure and content of the AW database and data warehouse, as well as specific examples, exercises and projects for the three courses (database, advanced web development, and BI).



POSTER CONTEST LEADS TO COLLABORATIVE EFFORT

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ABSTRACT

This spring, two courses were brought together on a project to produce posters on the topic of Information Security Awareness. Although the posters were never officially submitted, Educause's 2013 Information Security Awareness Poster Contest guided the project. The requirements were to "explain information security problems and specific actions college and university students can take to safeguard their computers, mobile devices, or personal information" (1).

Students in an Information Security class each came up with their own proposal for a poster. From those initial proposals, students were placed in groups and then each group selected one proposal to work on. The five topics that came out of this were: Mobile Security Weaknesses, Mobile Device Security, Being Safe Online, Log Off When You're Done, and Turn Your Firewall On.

Students in a Multimedia Authoring Studio class were then each assigned to a group and acted as design consultants. The designers first worked with a conceptual design from the team to assess message and content. Over the next three weeks the groups collaborated to produce a final "contest-ready" 24 x 36 poster.

By its very nature, collaboration is an iterative process. The most successful groups were those who were able to work together to reach a shared goal, noting that cooperation from all team members was necessary. As Straus puts it, "you are collaborating when you have to get the support and agreement of others before you can take action" (3). Some researchers have even proposed that group collaboration may improve the individual creativity of its members (4).

The collaborative effort resulted in a positive experience for both classes because of the interdisciplinary nature of the project. Students in the Information Security class were able to use their expertise to communicate a specific security message applicable to the broader community. Students in the Multimedia Authoring Studio class were able to use their design talents to guide the process to deliver the message in the most succinct way. Neither class had the knowledge or expertise to complete the project without the help of the other class. The main challenges for the students were with scheduling and defining clear project boundaries. However, because of shared stakes and rewards, groups were finally able to come together to delineate roles, establish trust, and learn to effectively communicate and function as a team to produce successful posters.

Keywords: Collaboration, Group Work, Cooperative Learning, Security, Engagement, and Interdisciplinary

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SOCIAL LEARNING THEORY AND SOCIAL MEDIA: EXPLORING INFORMAL PERSONAL LEARNING ENVIRONMENTS (IPLE) FOR PROFESSIONAL DEVELOPMENT

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Keywords: Social learning theory, informal learning, Personal Learning Environments, social media, professional development, communities of practice, digital media literacy

This study investigates social media as a delivery system for informal Personal Learning Environments (iPLE) for professional development including sharing information, knowledge acquisition, and feedback. A three-level pedagogical framework will be used to measure how well social media motivates participants; initiates a community of practice; and documents new skill sets.

The NMC Horizon Report: 2013 K-12 Edition states that while digital media literacy continues to rise in importance in every discipline, the lack of formal training and professional development for K-12 teachers to support these skills is a challenge. Informal learning opportunities for teachers can be helpful in providing quality learning experiences to overcome the void. These same opportunities may also be generalized to other professional development and skill building activities using social media as a delivery system for informal Personal Learning Environments (iPLE) (Dabbagh & Kitsantas, 2011).

In this study, social media will be used to create iPLE through communities of practices where teachers share resource discovery, knowledge acquisition, and feedback on ideas. Zimmerman's (2000) three-level pedagogical framework for using social media to create iPLE will be used to determine how effective social media is for motivating teachers to set goals and learn more about digital media literacy; participating in a community of practice; and integrating new skill sets into their professional work.

The International Association for Computer Information Systems community shares the latest research in practice and pedagogical topics that focus on how information systems are used to support organizations or enhance the educational process. Because this study investigates aspects of social learning theories associated with those systems, and addresses how to make use of them to create informal personal learning environments for professional development through social media, feedback from participants at the annual conference will be extremely valuable in determining if the research is generalizable to other populations.

The study, which is being conducted May – August 2012, capitalizes on an existing need for teachers who are exploring the use of primary source materials in their instruction. Twice a year, in-service workshops are held to demonstrate how to search and find relevant materials for teaching regional and national history. The overwhelming response from teachers on the evaluation surveys is that they enjoy the workshops, but do not have time to go through digital collections, like the Library of Congress and the National Archives, looking for useful content. They want to use primary sources, but they do not want to spend hours looking for items of interest.

Teachers participating in this professional development study will use Pinterest boards to design lesson plans for teaching regional history and incorporating primary source materials into classroom instruction. Teachers will suggest themes from the curriculum and archivists will curate items onto Pinterest boards. In return, teachers will share how they used these collections, what they added to the collections, and how the experience impacted their instructional practice.

Fifteen teachers will be selected for the study based on the content available to support their theme and instructional needs, their agreement to develop lesson plans for the shareable repository, and their willingness to participate in action research to measure the effectiveness of using Pinterest to support their professional development. Data collected from this study will examine the degree to which self-regulated learning strategies, and the level of participation in the community of practice, impact the quality of the curated boards on Pinterest and the lesson plans submitted to the shareable repository.

The action research component will include 3 focus groups with 5 teachers in each group, a one-on-one interview, and an anonymous survey to determine if Pinterest was an effective tool for resource sharing, knowledge acquisition, and feedback; if the community of practice impacted the teachers' willingness to continue adding content to the sharable repository and Pinterest boards; and if the overall quality of the work products improved over time.

Results of the study will be determined by the following:

- Feedback indicating that the social media tool (Pinterest) as a delivery system for informal personal learning was useful;
- Lesson plans that are well thought out and make good use of the primary source materials;
- Teachers inviting their colleagues to use the content on boards developed for them;
- Teachers adding to the content on their curated boards;
- Other teachers (not participating in the study) repinning curated content to their pages; and
- Teachers reporting an increased desire to use primary sources in their instruction.

Implications of this study will include tracking the use of social media for motivating participants to set goals; participate in a community of practice; and integrate new skill sets into their professional work. The research design will need to consider motivational beliefs and learning styles, as iPLEs are based on individual needs. Results of such studies will be useful in determining how effective social media is as a delivery system for informal professional development.

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IT-OUTSOURCING: EMERGING COLLABORATIVE PARTNERSHIPS

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Abstract

The early stages of IT outsourcing are characterized as predominantly arms-length transactions between clients and vendors. However, while IT outsourcing practices during late 80's and 90's have encompassed routine, transaction-based type activities such as program coding and help desk activities, a growing portion of recent outsourcing contracts are related to higher-level, knowledge-based IT activities such as business processes and ERP. Forging collaborative alliances has become a significant part of IT sourcing strategy of modern organizations (Fish, K. E., & Seydel, J. 2006). Clients and vendors became more open to sharing knowledge and joint collaboration in creating systems and providing services (Cederlund, et. al., 2007). The shift to strategic collaboration has elevated benefits of IT outsourcing beyond the limits of arms-length transaction and, when implemented properly, provides both clients and vendors greater rewards than merely lower development costs.

This work-in-progress research explores major theoretical perspectives that provide insight into the emerging trend of inter-firm collaboration in IT outsourcing partnerships. The proliferation of collaborations and alliances in IT outsourcing beginning in the late 1980's has coincided with greater investments in information technology (IT), modular designs, common digital standards, and use of electronic networks (Rai et al. 2006; Straub et al. 2004; Wareham et al. 2005). The emergence of digitally enabled inter-organizational networks has expanded the range of possible cooperative arrangements from which firms can derive value. This has led many partnering firms to become nodal entities in a global ecosystem, to rapidly tap into resources across corporate and geographic barriers, and to provide services that are increasingly complex and customized (Prahalad and Krishnan 2008).

Inter-organizational collaboration may include the sharing of tacit knowledge in the joint creation of new systems and services, rather than just developing computer code for a fee. This research explains how various theoretical perspectives provide different insights into formation of strategic alliances in IT outsourcing. Research and practical implications will be discussed.

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RAPID SOFTWARE CHANGES – FACULTY OPINIONS RELATED TO CHANGE MANAGEMENT

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KEYWORDS: Software changes, management of technology, change management, faculty perceptions, qualitative feedback

INTRODUCTION AND PROBLEM STATEMENT

Over the course of 18+ months, the authors' university implemented five major software changes (Digital Measures, Banner, Gmail, Moodle, and LiveText) that impacted almost all facets of faculty responsibilities. With each additional change, the researchers anecdotally noticed more “grumbling” from the faculty. The researchers wished to gather faculty perceptions to each of the software changes concerning both technology acceptance and change management activities within the university. The technology acceptance model and expectancy theory in relation to IS/IT have been researched since the late 1980s [2, 3, 5, 7, 11]. Change management literature frequently references studies of information systems or technology adoption [1, 4, 6, 9, 10]. The continuing literature focus on both these areas suggests that organizations are still not getting things right in all aspects of software upgrades (management of technology).

BASIS OF THE STUDY

The researchers developed a survey to capture faculty opinions, requesting demographic information, self-evaluation of technology adoption speed, whether/how long respondents had been teaching online, and opinions for each software change as to its effectiveness, ease of learning and use, peer perceptions, need for the change, training provided, and use of each system in the respondent's current position. Additionally, open-ended questions were provided in each section to solicit written comments respondents wished to share related to technology acceptance and/or change management. The survey was reviewed for validity of questions and modified prior to distribution as an online survey accessible through Google forms. A 38.2% response rate was achieved. Analysis based on gender, age, and total years of teaching experience can be found in a different publication [8]. This current paper focuses on additional analysis from the larger study not previously published, including quantitative analysis of responses of those experienced with online teaching versus those who were not, using t-tests, analysis of variance, and Pearson correlations to identify significant differences. Qualitative feedback provided in response to open-ended questions is also discussed in this paper.

IMPLICATIONS AND CONCLUSIONS

Of the 123 respondents, almost three-fifths viewed themselves as in the top third of those adopting new technology. Approximately three-fourths had taught either hybrid or fully online courses previously. Based on previous online teaching experience or not, analysis of variance, t-tests, and correlations revealed a few significant differences in relation to difficulty in learning, usefulness, and whether the technology change was a mistake for the university. Analysis of qualitative feedback in written comments showed that a number of faculty did not believe the categories in Digital Measures sufficiently align with the university's documented standards used for annual evaluations, reflecting some deeper problems regarding the annual evaluation process. Overall Gmail comments presented positive feedback, citing not only a good change because of monetary savings for the university, but also good improvements in functionality, accessibility, and ease of learning. Faculty comments concerning the switch to Banner ERP system frequently focused on high cost for a less than perfect system even though faculty recognized the need to upgrade software, ineffective training for faculty, lack of online help system, and difficulty of interface and procedures in aspects such as the financial module for budgeting and requisitions. The LiveText (an assessment of student learning software) qualitative responses were mostly negative, not from issues such as difficulty in learning and using, but from deeper issues related to the process of assessment of student learning and related procedures on campus. Finally, when comments related to Moodle course management system were analyzed, a few acknowledged the budgetary need to switch. However, most comments focused on perceived weaknesses when compared to the

previously used Blackboard CMS, such as weaknesses in some functionality and difficulty in learning. These findings suggest that some of the later software adoptions in the 18-month period were not as easy to use or beneficial from the faculty perspective. More attention to sound change management strategies in any future software upgrades or additions should contribute to reducing negative faculty perceptions.

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ANALYZING AND DISCUSSING THE IMPACT OF OPEN ACCESS PUBLISHING

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Abstract

How does one define open-access publishing? What are the implications of the debate between libre vs. gratis open access? What are the new economic models for "Green" and for "Gold" open access? What are the licensing issues, and why does it matter?

Business models

Author-pays is just one of many possible income sources to sustain publishing. Large publishers are more likely to charge a fee to authors (or their institutions) for each article, though smaller publishers do also. In addition, large publishers often cover expenses with membership fees or paid advertisements. Small publishers tend to draw income from sponsorships, subscriptions, as well as article-related fees for processing, reprints, etc. To pay the bills, there are several business models which apply to journals, as well as other kinds of publishing like books and apps:

Traditional Publishing (Toll Access) — The reader/user pays. This was the common model until recently. Payment is proportional to demand, though the actual payment was often paid indirectly, via universities and libraries. Even in the past, this model did not work well for relatively esoteric fields with low demand (e.g., some areas of academic monograph publishing).

Author-pays Publishing — Pioneered in scholarly communications by BioMed Central and then copied by PLoS, Hindawi, and now many others including Sage, Wiley, BMJ, and AIP. This turned the traditional model upside down. There are potential conflicts of interest, since the author is the actual customer, but journals can maintain rigorous editorial policies. This works well for narrowly defined communities, where authors and readers work in close collaboration.

Institutional Sponsorship — Examples are repositories at colleges and universities. MIT's DSpace repository is paid for out of MIT funds, and the California Digital Library's eScholarship service is a budget line for the University of California. Any institution (e.g., a governmental agency) may decide to sponsor a repository or publication program. Anything which is paid out of the operating costs of a parent or separate organization. This includes grant support.

Marketing Services — This can include running advertisements, as well as cross promotion. For example, free content drives traffic to web sites, and can also lead to donations or purchased of print versions or other related materials. Advertising support runs the risk of corrupting editorial values, as trade magazines are notorious for receiving kickbacks from advertisers. Another problem is that much scholarly publishing serves audiences that are too small or too highly specialized to attract much interest from marketers.

"Freemium" Publishing — Some portion of a service can be made available for free, but other parts will require payment. This is common online. For example, sign up for a free account at LinkedIn, but if you want additional features including broader access to other LinkedIn members, you must subscribe to the professional (meaning paid) version. You can store your files and share them with DropBox, but once the files stored exceed a limit, you will be charged by the amount of storage you require. You may read abstracts of scientific articles as much as you want without cost, but if you want to read the entire article, you either have to purchase the article or subscribe to the journal.

Open access means that readers have free access. But who pays for the operational costs of running a publication? Often it's the authors, though there are several common business models. How much are authors paying? What do they think about it? And what are some other business models to sustain journals and other kinds of digital content?

Implications of the Study

This project will extend the open access publishing research by examining the factors that influence the use of open access publishing venues. This should be of interest to the IACIS members and its organization as it continues to publish and fund its future publications. Dr. Tom Seymour is Editor-in-Chief, of the International Journal of Management & Information Systems and looks forward to the session discussion on this topic.

THIRD PARTY MANAGED SUPPLY CHAINS – MOVING FROM AGILE TO EFFICIENT SUPPLY CHAIN

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ABSTRACT

Supply chains are continuously evolving. Due to the complexities of global supply chains and volatility of demand for consumer and innovative products a new group of intermediaries are managing the sourcing and manufacturing facilities for retailers. We explore the impact of the intermediaries in supply chains.

Keywords: Information Technology (IT), Ethics, IT and Ethics

INTRODUCTION AND EXPANDED ABSTRACT

Demand volatility for consumer products such as toys, fashion apparel etc., is a well-known problem and it presents one of the most difficult challenges for retailers. Factors such as rapid changes in technology, fashion trends, economic conditions etc., contribute to the volatility (Xiao and Jin, 2011). Furthermore, these unpredictable demands are highly concentrated in very short selling windows, and are subject to intense competition in innovation and pricing (Wong et. Al 2005). Therefore, companies dealing with consumer products would ideally like to trigger the entire design-make-ship cycle only when a clear demand is available and have the products delivered with a very short lead time which is often much shorter than the production-ship cycle (Stevenson and Spring 2009). Supply related uncertainties also present significant challenges. As sourcing of raw materials and manufacturing facilities have become globally dispersed, many factors such as political unrest, climate related issues and other unpredictable factors such as the recent collapse of garment factory buildings in Bangladesh have added to supply related uncertainties. Various supply chain management and postponement strategies have been widely discussed (and are being developed) in the literature and adopted in practice to transform manufacturing practices operating under this environment.

Due to the complexity of managing a global supply chain, many firms have shifted away from a hierarchical, one-dimensional supply chain entity to a fragmented network. This has created opportunities for a whole new set of supply chain services. Bitran, in 2007, argued that such a fragmented state is not sustainable and the period of disintegration will be followed by reintegration facilitated by an independent third party. This independent third party, referred to here as Supply Chain Manager (SCM), works as a buffer between the retailers (or brand managers) and the suppliers (i.e, raw material sources, manufacturing facilities and logistical companies), manages the complexities and mitigates the uncertainties in the supply chain. Companies such as Li & Fung of Hong Kong, which maintains a global network of more than 7500 suppliers or Flextronics, which has globally dispersed vertically integrated electronics design, engineering and manufacturing facilities, are examples of SCM. A SCM appears as a virtual supplier to downstream customers and a virtual customer to upstream suppliers in the chain (Banerjee and Golhar, 2012; Golhar and Banerjee, 2013).

Lee (2002) defined four major types of supply chains (Efficient Supply Chains; Risk-Hedging Supply Chains, Responsive Supply Chains and Agile Supply Chains) based on the demand and supply uncertainties. Only the agile (i.e., reacts speedily to sudden changes in demand or supply) supply chains are expected to provide companies operating in a volatile environment with sustainable competitive advantage. Smart companies such as H&M, Mango and Zara have become Europe's most profitable apparel brands by building agility into every link of their supply chain.

A SCM would like to reduce its cost by procuring raw materials and booking manufacturing facilities early. A late order from retailer forces the SCM to initiate the production process early to meet its contractual obligation. The SCM has to develop an optimal production strategy considering cost escalation associated with expedited production – distribution schedule, and balance it against the cost of over/underestimating demand from retailers. Recent studies

(Banerjee & Golhar, 2012; Golhar & Banerjee, 2013) presented analytical models to solve for the optimal production plans for a SCM under different conditions.

In this paper we posit that, while an agile supply chain is the most desirable strategy for a volatile supply chain, the introduction of a SCM to manage the global supply chain and in that process become a virtual supplier for the retailer, will make the supply chain

appear more like an efficient supply chain for the retailers. It is obvious from the extant literature that an efficient supply chain is more profitable and better managed than an agile supply chain under similar cost parameters. The paper will present some initial analytical models and share some results in support of the argument that a third party managed global supply chain is a more desirable alternative for retailers operating in a volatile environment.

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MEASURING AND REPORTING STUDENT LEARNING IN I.S. PROGRAMS

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Basis of the Study

Legislatures, accrediting bodies, recruiters, and even students now expect or require that academic programs measure and report student learning in ways beyond grades on transcripts. Programs offering degrees in IS, MIS, CIS, IT, CS, and other majors served by IACIS participants are no exception; for example, accreditation standards of the ABET/CAC, AACSB, and HLC all contain such requirements. Thus, it is imperative for IACIS participants to be well informed on these requirements and mechanisms for fulfilling them (Kelderman, 2012), (Field, 2010), (AACSB, 2013), (ABET/CAC, 2013), (HLC, 2013).

Study Description

Two case studies are presented, each describing the experiences of a different information systems program in measuring and reporting student learning. Each program's is represented via answers to the following questions:

- **Build or Buy:** Should a custom assessment mechanism be developed, or should a standard mechanism be purchased (Terenzini, 1989)? What options are available (ICCP, 2013)?
- **Embedded or Independent:** Should the assessment be embedded in courses throughout the curriculum or should it be conducted independent of the courses where students study the content (Sloane, 2000)?
- **Internal and External:** What unique assessment needs are associated with internal stakeholders' continuous improvement efforts on the one hand and with documentation required by external stakeholders on the other (McMillan, 2013)?
- **Efficiency:** How did the two programs address efficiency issues associated with the design, development, implementation, and maintenance of their assessment mechanisms (Herman, 1992)?
- **Effectiveness:** How did the programs address effectiveness issues such as instrument reliability, instrument validity, and data reporting (Astin, 2012)?

Implications and Conclusions

The authors discovered some unavoidable tension between the needs of internal stakeholders and those of external stakeholders. Internal stakeholders such as students and faculty tend to favor custom-developed assessment instruments on the assumption that they could be better customized to appropriately reflect program idiosyncrasies. External stakeholders such as recruiters, university administrators, and accreditors tended to favor standard instruments on the assumption that they would enable better cross-program comparisons. Both assumptions are found to be questionable in significant ways. Both internal and external stakeholders professed concern with issues of efficiency, but this concern was expressed in quite different ways by each group. The authors were unanimous in concluding that a standard instrument built on a model IS curriculum provides the best overall program assessment.

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ISSUES OF LOCATION-BASED SERVICES SYSTEMS

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ABSTRACT

Due to the enhancement of global positioning technologies and cellular triangulation techniques, the mobile communications which provide consumers with unparalleled accessibility to the wireless networks and localized services have grown at marvelous speed during the past ten years. More recently, radio frequency identification and near field communication technologies have contributed to the growth of a number of mobile services including location-based services, which provides geographical positioning information through location sensitive applications to obtain value-added services. Location-based services systems can be used in many fields including location-specific advertisement, path tracking, product location tracking, location information, and private emergency services. The market of Location-based services has exponentially increased in Asia, Europe, and the U.S. since 2006.

This paper intends to present current findings from an analysis of functions and characteristics of location-based services systems and suggest future use of location-based services systems and solutions for issues of the systems.

Keywords: Location-based services, global positioning technology, radio frequency identification, near filed communication

THE ROLES OF INTRINSIC MOTIVATION TO INTENTION: COMPUTER ENJOYMENT AND PLAYFULNESS

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Keywords: TAM, intrinsic motivation, playfulness, curiosity, self-efficacy

INTRODUCTION

The adoption of information technology involves internal motivations. These internal motivations includes perceptions of potential benefits and degree of difficulty. Both aspects are well examined under the TAM research paradigm. This research focus on the influence of affect feelings, particularly enjoyment and playfulness, on adoption decisions of technology. This research proposes that computer enjoyment and playfulness will have influence above and beyond the impact of perceived usefulness and perceived ease of use on intentions to adopt. This study will also examine the antecedents of computer enjoyment and playfulness, such curiosity and self-efficacy. This study is important topic to IACIS conference participants since this study could advance current understanding about IS research on intrinsic motivation constructs but also closely related to discussion topics of the IACIS international conference such as behavioral issues in MIS/IT.

THE STUDY

Intrinsic motivations are people's internal desire to engage in an activity for its own sake. Two examples of intrinsic motivation have been studied in the IT adoption literature, computer enjoyment and computer playfulness. Computer enjoyment is about "the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Davis, Bagozzi and Warshaw, 1992). Computer playfulness is "the degree of cognitive spontaneity in microcomputer interactions" (Venkatesh, 2000). These two concepts have been studied in IS adoption, and the results showed mixed findings, particularly when their relationships with perceived ease of use are examined. This study will propose computer playfulness as an antecedent to perceived ease of use and computer enjoyment as antecedent of intention to use. Curiosity and self-efficacy are proposed as antecedents of computer playfulness and enjoyment.

Data would be collected from through questionnaires and interviews. Quantitative data will be summarized and analyzed through structural equation modeling techniques. The instruments for designated constructs will be validated through a nomological network approach. Interview data can reveal additional insights and would provide a context for the study. Contributions and limitations of the research will also be presented.

IMPLICATIONS

This study expands the research of theory of technology adoption to shed new lights on the role of intrinsic motivation constructs such as computer playfulness and enjoyment. The roles of curiosity and self-efficacy are examined through their impact on computer playfulness and enjoyment. This study is important to IT providers and system designer since the results of this study could help them understand intrinsic motivation feelings and in turn improve their service and business strategy.

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SELF-SELECTED TEAM FORMATION USING SOCIOMETRIC POPULARITY NORMALIZATION

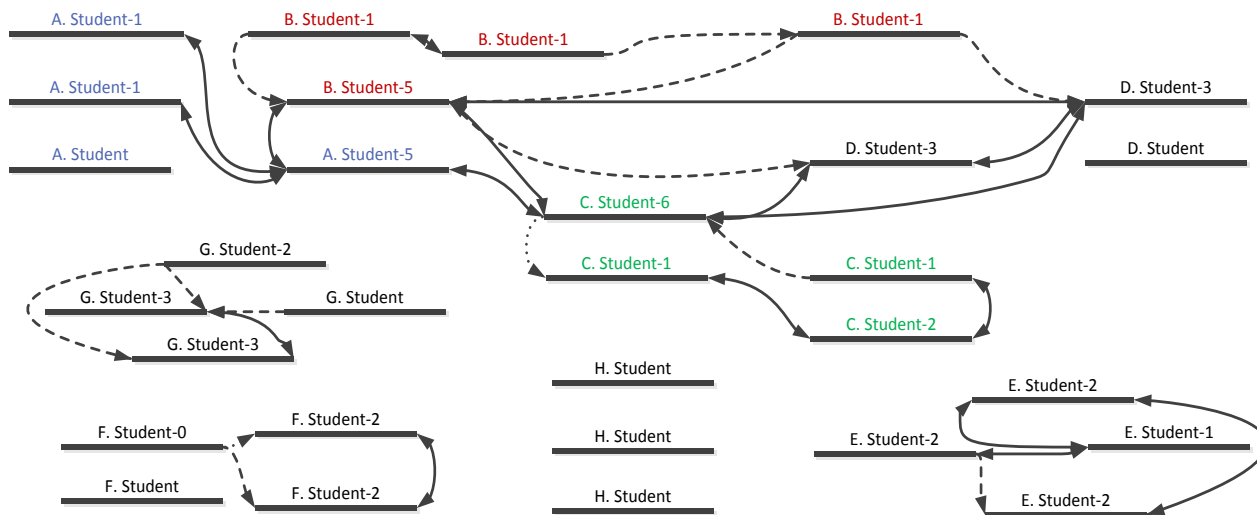
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Proposed Study

Studies show that self-selected student teams are related to student satisfaction (Chapman, Meuter, Toy, & Wright, 2006; Matta, 2011) because of their inherent predisposition for good collaboration. While letting students self-select teammates may shift the onus team creation to the student, in reality it creates more issues. For instance, students tend to cluster based on characteristics such as aptitude, culture, goals, or popularity characteristics (Parkhurst & Hopmeyer, 1998). Additionally, students often want to belong to teams that are expected to perform better. Presence of such clustering in the classroom can lead to unbalanced outcomes (Anderson, 1970), performance and student dissatisfaction (Mahenthiran & Rouse, 2000). This pilot study illustrates a technique of creating teams using normalized sociometric popularity, in which the extent of liking between peers is measured and standardized across student teams, while still maintaining the essence of self-selection.

Basis of Study

Data is collected using a survey in a systems programming class of 30 students. The survey requests students to supply the names of peers they would like to work with. Team sizes range between three to four students. Preferences (requests for each student) are private, and are aggregated (using an Excel sheet) to form sociometric popularity scores for each student. These scores are then graphed using mind-mapping diagram with the following diagramming conventions. Unidirectional peer preferences are indicated using a dashed line with an arrowhead showing directionality of interest, whereas reciprocal peer preferences are indicated with using solid lines with dual arrowheads. Popularity score is therefore coincident with the arrowhead count for each student, and listed as a suffix with the student's name. On completion of team assignments, student names are prefixed with letters indicating their final team assignment. The diagram below shows these conventions.



Discussion

Findings show an expected dispersion of students with a median of two peer preferences, ranging from no preferences to five or six, with three students being highly popular. At least one large interconnected network of student (preferences) runs across the class. The process used for team formation will be elaborated in the presentation of this article, and is outlined in the table shown below. The process is one of optimization, i.e. attempting to homogenize sociometric popularity across the class, while minimizing disruption of student preferences.

Step	Process	Teams/Students
1	Eliminate the independently balanced groups (i.e. they have four students, unconnected to other groups, contain no foci of sociometric popularity)	Teams E, F, & G
2	Identify and mark students with high sociometric popularity aggregate scores.	A.Student-5, B. Student-5 C.student-6
3	Identify foci with low sociometric popularity <i>directly connected</i> to the marked students, and add	Students with score 1 added to teams A, B & C
4	Group unconnected students with remaining marked students	Student added to A and D
5	Group remaining unconnected students	Team H formed

Assumptions and Implications

It is assumed that students will provide sufficient data to aid team formation. Students are permitted to also list incompatibilities (none in this study), which is simply accounted as a negative scores during aggregation of popularity scores.

Conclusions

Self-selected teams are one of the most popular methods for creating teams (Vaidyanathan, Sabbaghi, & Debrot, 2010), yet techniques to resolve issues surrounding this approach have been difficult to find. One solution: normalization of sociometric popularity scores has been known to reduce and asymmetric performance outcomes between teams (Titkova, Ivaniushina, & Alexandrov, 2013).

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**ACCESSING THE QUALITY OF MENTORSHIP BY PROFESSIONAL MENTOR FIRMS WITH A SIMULATED IT
CONSULTING STUDENT PROJECT**

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ABSTRACT

Corporate recruiters want new hires that are broadly equipped for the various responsibilities they will face in the modern workplace. This includes some experience and comfort with business analysis, exposure to real-world case studies, and development in their communication, presentation, and interpersonal skills[4]. To allow computer information systems (CIS) students to acquire these experiences and skills our institution offers an IT Consulting elective course that contains a strong mentoring element. We will examine the perceptions of the mentors and mentees to gain an understanding of the relationship established during this simulated IT consulting activity and to establish if our IT Consulting elective equips students for the responsibilities of the modern workplace.

Keywords: Mentoring, IT Consulting, Skills and Experience

INTRODUCTION

Scholars and practitioners agree that mentoring has the potential to provide instrumental, career and psychosocial functions [2]. Mentoring may include such activities as direction and goal setting, guidance and advice, advocacy and sponsorship, transfer of knowledge and expertise, role modeling, protection and assistance, exposure and networking, socialization, coaching, motivation, and opportunities for leaning and skill development.

Over the last two years over 40 professional IT consultants have participated in our IT Consulting class and have served as mentors to our student consulting teams as they completed a simulated IT consulting project. Twelve student teams of three students each are assigned a professional mentor firm. Mentor firms are composed of two or three professional consultants from IT consulting firms found in our geographic area. The mentor firm guides the student team through a consulting project, which in this simulation is a proposal that is in response to an authentic Request for Proposal (RFP) and a system implementation plan that contains the vision, objectives, project scope, project schedule with milestones, cost projections and report items specific to the given project.

RESEARCH METHODOLOGY

A survey will be distributed to the professional consultants that have served on the mentor firms. The survey will seek to identify what mentor activities each performed during the simulated consulting project and to determine if the mentor found the activities successful. Also, a survey will be distributed to the 72 CIS program graduates that participated as students in the IT Consulting class over the last two years. We hope to assess the quality of the mentoring activity and to determine if our IT Consulting elective prepares our CIS program graduates for the responsibilities of the modern consulting workplace. Measures of most interest are mentoring behavior, mentorship quality, program characteristics, interaction frequency, and outcome of the relationship [3] [1].

IMPLICATIONS FOR THE STUDY RESULTS

Over the last 10 years we have positive feedback from students, alumni and recruiters that our IT Consulting elective is beneficial to our CIS program. But during this time we never fully explored the numerous components of the class, which includes mentoring, a simulated consulting project (response to an RFP), and participation with small and large project teams. This study will assess the mentoring component of our unique IT Consulting class, enhance the CIS education literature by describing and sharing the design of our IT consulting class, and provide a format for discussing methods of mentorship in the CIS classroom.



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**DOES CO-TEACHING PROVIDE EFFECTIVE DELIVERY OF CONTENT? AN INTERDISCIPLINARY APPROACH
TO TEACHING MIS/CIS/BUSINESS APPLICATIONS**

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ABSTRACT

Advancements in technology have spurred a convergence in disciplines as front and back office integration has become critical to support competitive advantage. In an academic environment, this has forced a re-thinking in the learning objectives and goals established by curriculums. In addition, technology has served as an enabler or “backbone” to many disciplines, especially Business disciplines. For CIS/MIS or other technically oriented students, a broader awareness of technology application and technology commercialization in a business venue is now required. For traditional business administration students, an awareness of the technology infrastructure needed to deliver competitive advantage is critical. This suggests that traditional teaching methodologies are not best suited to fit these new needs required by 21st century students. A pilot study that captured student perceptions and general satisfaction measures is shared to investigate potential contributions of a co-teaching initiative that took place at a medium sized Pennsylvania university. The results suggest that potential improvements in teaching methodologies can be supported with an interdisciplinary approach. Additionally, a framework is offered to explain and operationalize the co-teaching opportunities from a technical/business applications perspective. Implications of the proposed framework are illuminated from a curriculum standpoint.

Keywords: Team teaching, Co-teaching, Information Systems, Business, Interdisciplinary

INTRODUCTION

Business and technology have traditionally been viewed as separate disciplines with little crossover or understanding of each area. Students lack the ability to understand the other’s importance and application of skills from each other’s discipline. As a result, teaching across disciplines has been used to provide knowledge and expertise to bridge the gap of knowledge and understanding in relation to real world applications. According to Fenollera, 2012, team or co-teaching “may be defined as two or more people who agree to share a belief system that each of the co-teaching team members has unique and needed expertise” [2]. Additional literature, including Perry & Stewart, 2005, states that “There is a growing interest in collaboration amongst teachers at all levels [3]. One of the most intensive collaborative experiences is “team teaching” a course with one or more colleagues.” Interdisciplinary team and co-teaching provides greater depth of knowledge and exposure to students who normally would not have the opportunity to learn technical aspects of business and business aspects of technology. Technology drives business and employers today are requiring graduates to be knowledgeable of technology and business decision making and the impact that each has on the other. In their paper, Dhar and Sundararajan discuss the role of technology in business and the need to train our future managers on the technologies that drive their businesses [1]. Topi, et al, 2010 states that “the availability of curriculum models enables local academic units to maintain academic programs that are consistent both with regional, national, or global employment needs and with the common body of knowledge of the IS field” [4]. Finally, Trauth, et al, 1993, asks the question, “Are colleges and universities responding fast enough to the business and technology changes that have redefined the role of Information Systems in today’s organizations?” [5].

IMPLICATIONS AND CONCLUSION

The co-teaching pilot proved that there is a need for innovative teaching methods in order to provide proper preparation for entrance into the current business environment. Additional research and teaching approaches may be considered to strengthen the effectiveness of co-teaching and the efforts of meeting the training needs of 21st century students and organizations.

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THE WEB CONTENT ACCESSIBILITY CHALLENGE: MEETING OUR RESPONSIBILITY

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ABSTRACT

The internet has opened up a world of possibilities for communication and for convenience; but for those with disabilities, especially sight or hearing impairments, it can be very frustrating when the web content is not accessible. Tim Berners-Lee, inventor of the World Wide Web, has said, “The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.” The Internet gives disabled people the chance to acquire an unprecedented level of independence, however, too many web sites fail to provide an adequate level of accessibility [1]. This study will provide the results of a survey sent to a number of different midwest businesses to determine their level of awareness regarding web content accessibility and to learn of their plans to meet ADA 508 guidelines. IACIS participants need to be aware of this growing need for online accessibility. People who struggle with physical challenges often cannot perform at their best because of needless obstacles with online content. A report from the World Health Organization in 2011 indicated that there are 285 million who are visually impaired and there are 48 million with some type of hearing loss. A national study reported that 20% of the population has some type of disability and 10% have a hidden disability such as PTSD and Traumatic Brain injury. (www.census.gov/prod/2012pubs/p70-131.pdf and [www.disabled-world.com/disability/types/invisible/.](http://www.disabled-world.com/disability/types/invisible/)) This presentation will provide the awareness data along with suggestions on how to make web content more accessible.

Key Words: Handicapped accessibility; Disabled people; ADA Litigation; Internet access; Web sites; Internet; Laws & regulations

The Study and Survey

During the past few years we have witnessed supporters for disabled Americans declare that companies have a legal obligation to make their online websites as accessible as their brick and mortar stores. For those retail sites that are not accessible, law suits have been filed in order to force these sites to install the digital version of wheelchair ramps and self-opening doors. The National Federation of the Blind and the National Association of the Deaf have won legal victories against companies such as Target Corp. and Netflix Inc. Both companies settled the cases after federal judges rejected arguments that their websites were beyond the scope of the ADA in 2007. Target's refusal to make its Web site more accessible to the blind has fueled a high-profile court battle that is causing many companies to quietly upgrade their Web sites in the hopes of avoiding negative publicity and legal liability [3]. This study will survey organizations from a variety of industries in order to discover what companies are doing to make their web sites accessible to internal and external customers as well as to learn what is their level of awareness and compliance in regards to the ADA Section 508 law.

Implications and Conclusions

The results will be of interest to the attendees and these results will be compared to the results of studies over the past five years. In conclusion there will a discussion indicating what companies can do to start insuring web content accessibility [3]. Lack of awareness is usually the issue along with time constraints [4] but attention needs to be given to accessibility not only because of possible lawsuits but also because there can be potential business benefits.

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SAP ENTERPRISE SOFTWARE INTRODUCTORY COURSE: A NEW PARADIGM

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ABSTRACT

Many different course delivery approaches have been tried, since the introduction of SAP enterprise software into the curriculum of colleges and universities in the late 1990's, many different approaches have been tried. Different data sets have been used to support these approaches. More recent developments have provided additional alternatives to the design and delivery of this introductory course. These developments provide the opportunity to consider different approaches to the course delivery. This paper considers an alternative delivery approach.

When faculty embarked on the integration of SAP enterprise software into the curriculum, the leading and typical approach was to attend SAPAG's training courses. They learned delivery methods and obtained materials for course delivery. The results were courses that focused on the details of SAP Enterprise Central Component (ECC) transactions. Especially, this was learning about individual transactions by following detailed instructions on executing the transactions. That is, this was a keystroke focus on SAP transactions [1, 2, 4]. The inclusion of more transactions into a course was considered to be a more robust course. A typical student assignment was to follow the keystrokes of a prepared document for a transaction set, emulating the SAPAG training. Students would record some values for documents created. Frequently, the keystroke instructions were submitted with an arrangement to record values for grading completion of the assignment. Students considered such courses to be easy, because you just followed these keystrokes. This method started with the SAP Interactive Demonstration and Evaluation Systems (IDES) data that is used by SAPAG in delivering its various training courses. Faculty made improvements on this by focusing on different training data sets that include Fitter Snacker, Fly-A-Kite, Skateboard, or Global Bike. Global Bike 2.11 (GBI 2.11) [3] is the current version of a dataset that is created with the support of SAPAG under its University Alliance Program (UAP). This provides a broader and more comprehensive development of a common dataset for use in teaching courses. The keystroke transactions sets were simplified and expanded to meet different perceived approaches to teaching various transactions. However, this is still a transaction-keystroke approach. Some recent developments include the use of different data that students use in the transactions so this is more than just following the keystrokes. A limitation of each of these training data sets is they are implemented with a unique and independent SAP ECC client, where that client is a separate data set. While expanded transactions improve understanding, they still emphasize individual transactions, such as customer order to cash (CO2C) or purchase order to payment (PO2P) [1, 2, 4].

A more recent development is the ERPsim simulator created and supported by HEC Montreal [3]. This brings a focus on entering data that represent business decisions, such as product price. The ERPsim simulator runs the underlying individual transactions and provides summary data in SAP ECC reports with competition among student teams operating different companies through SAP ECC. ERPsim also employs its unique client data set. Now, the ERPsim summary data can also be downloaded to Excel spreadsheets or database software such as Access. The data is then analyzed by students and new decision values are entered. This development allows students to engage in a more managerial decision making use of the SAP ECC software. The decision making requires critical thinking with the reports providing information to support this decision making. An introductory SAP course can be designed around the ERPsim simulation with this higher level application for decision making.

In an introductory course, foundational individual business transactions are explored with the various client data sets. It is usually desirable to do this so students understand the basics of enterprise software navigation and business processes. Each data set is established using a different business scenario. That is, a different company manufacturing or distributing different products with different organization structures and business units. The ERPsim simulations with their higher level transaction use one of three different client data sets which depends on the particular ERPsim simulation selected. This variation among client data sets and business scenarios across the different flavors of business scenarios imposes a hurdle in student learning. A typical method of course delivery is to use one client for navigation and lower level business transactions in exploring these fundamental concepts as one continuous section of the course. Completion of the lower level transaction is the key event whereby the ERPsim simulation begins with its business analytics and higher level decision making focus. Students typically need to adjust to these business scenario variations within a single introductory course.

An alternative to the commonly used approach of basic business transaction with one client followed by an ERPsim is to begin with and use only an ERPsim simulation. This clearly emphasizes a focus on business analytics and decision making. However, there is a reduced level of the exploration and understanding of the fundamental transactions, such as those for CO2C and PO2P. Transactions at this level are the source of the data for analytics and decision making. The ERPsim does not include their direct exploration to show the details underlying the data for business decision making. Such an understanding is often a desirable learning objective in exploring the capabilities of enterprise software represented by SAP ECC.

A new paradigm is the combination of both the individual transactions, such as those of a CO2C and PO2P, with the analytics and decision making furnished through ERPsim. This can be accomplished by examining and exploring exercises for transactions, such as the CO2C, PO2P, and bill of material (BOM), within in the ERPsim client. Testing of the Advance Manufacturing ERPsim simulation supports the completion of these fundamental transactions with transactions sets implementing the same transaction as the GBI 2.11 chapters 2, 4, 5 and 6. Yes, the data are different for the transactions in the ERPsim: however, they are the same transaction. The result is a course that both allows students to gain an understanding of a transaction, such as CO2C, and of the impact of processing a number of customer orders to determine the overall impact on a company, such as a sales summary report. Both of these are necessary to gain a sound, broad understanding of the use of SAP enterprise software, or any other enterprise software, within an actual business environment. Three different course formats are available for consideration in delivering an introductory SAP Enterprise Software course. Faculty need to assess each of these and determine the approach most appropriate for their educational program and course objectives. Those options have been presented herein. Future work should be additional testing and exploration of GBI 2.11 transaction sets within the ERPsim simulations to determine and reinforce the extent of this integration and its effectiveness. An outline of a course design for this delivery integrated, single ERPsim client method is presented.

Keywords: SAP, Enterprise Software, ERP Software, SAP introductory course

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THE RELATIONSHIP BETWEEN ENABLING FACTORS OF KNOWLEDGE MANAGEMENT AND KNOWLEDGE MANAGEMENT PRACTICES: A CASE STUDY AT A PUBLIC UNIVERSITY IN OMAN

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ABSTRACT

Knowledge management was about interventions in the organization knowledge base, which by definition included individual and collective intellectual assets that help an organization to perform its' tasks. It created a new working environment where knowledge and experience can easily be shared and used by people more effectively and efficiently. Knowledge management has been considered as a pre-requisite for higher productivity and flexibility in both private and public sector. In the present dynamic and fast changeable environment, the need for organizational knowledge management is obvious. Nevertheless, in several circumstances the application of individual knowledge management becomes significant. The objectives of the research were to identify the level of knowledge management practices, and the relationship between enabling factors of knowledge management and knowledge management practices in education sector. The enabling factors (i.e. independent variables) that are studied in this research are organizational culture, leadership, technological infrastructure, commitment, and communication climate, meanwhile knowledge management practices (i.e. dependent variable) consisted of knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination and knowledge application. A public university in Oman was chosen as a case for this research. The quantitative approach was employed in this research whereby the self administered survey questionnaire with five response Likert scale has been used as a method for data collection where 1 for "Strongly agree" and 2 for "Strongly disagree". A total of 139 respondents were collected from four different levels of management, namely managers, directors, deputy managers and acting managers. The data analyses were carried out using statistical package SPSS version 10.0, and the statistical tests such as descriptive statistics (e.g. frequency, mean and standard deviation) and correlation analysis (e.g. Pearson correlation coefficient, r) and multiple regression has been performed. The descriptive statistics are used to describe the level of knowledge management practices and the five enabling factors of knowledge management. The correlation analysis is used to examine the relationship of the enabling factors and knowledge management practices. Moreover, the multiple regression is used to determine the main enabling factor influence the knowledge management practices.

The findings showed that the level of knowledge management practices was at a moderate level ($\mu = 3.6325$). Further the findings revealed that the five enabling factors consisting of organizational culture, leadership, technological infrastructure, commitment and communication climate have significant relationship with knowledge management practices and contributed 0.57 percent variance explained to knowledge management practices. The organizational culture appeared to be the main enabling factor with $\beta = 0.333$ (a significant level of 0.005). Based on these findings, the university should encourage and facilitate knowledge sharing between employees, and create a climate of trust and openness in the organization so that employees can present and share what they think and know openly. In this regard, employees should be given time, resource and support to pursue their ideas. This will enhance desire and flexibility to innovate and drive learning process at the university. The university should also develop the organizational culture among its' employees and take the responsibility for the learning and knowledge management practices in its environment and realized the influence of enabling factors in promoting competitive advantage.

Keywords: Knowledge management, Enabling factors, Knowledge management practices, University

USING STRENGTHSFINDER TO PREDICT STUDENT PERFORMANCE IN INFORMATION SYSTEMS AND STATISTICS COURSES

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Proposed Study

Several studies have examined factors that may predict academic success in quantitative and information systems courses. Research has focused on a variety of predictors ranging from SAT scores, grade point averages, to measures of student learning styles and statistics anxiety. In the business world, many organizations have utilized self assessment techniques such as Myers-Briggs to help employees examine how their personality type influences their perceptions and decisions. In recent years, another self assessment test, Strengthfinders, has become a popular tool for examining a person's strengths, or "personal themes" that impact tendencies to develop certain skills more easily and to excel in certain positions. In this study, we focus on an exploration of the relationship between student strengths, based on the results of the Strengthfinders assessment, and student performance in Information Systems and Statistics coursework.

Basis of Study

The subjects of the proposed study are undergraduate students enrolled in a Business Statistics course at a private university in the Midwest region of the United States. All students complete the Strengthfinders assessment during class. As is customary in examining the results of the assessment, the top five strengths of each student are collected as the basis for examination. The categories of each strength (strategic thinking, influencing, relationship building, and executing) will be another basis for examination.

The authors intend to examine the results using descriptive statistics and multiple regression to measure the relationships between strengths and course performance. First, comparison of means for student performance metrics (grades, test scores) will be performed to explore differences among strengths and categories of strengths. A correlation analysis will also be performed to examine relationships between individual strengths and performance metrics, between strength categories and performance metrics, and to assess collinearity among strengths. A multiple regression analysis will be performed to examine equations to explore combinations of strengths and other variables that can predict student performance in information systems and statistics courses.

The authors view the study as exploratory in nature. While individual strengths, particularly those in the "executing" category may intuitively seem to be consistent with academic performance, there is no conclusive study on which to base any expectations for results. To date the authors have collected 62 student data points. Because the strengths are so diverse, there are too few observations to make conclusive inferences at this point in the study. Over the coming months, additional students will complete the assessment, allowing the authors to perform the analysis and share the results.

Implications

The results of this study could identify the Strengthfinders assessment as an important tool for student advising, for identifying students who may excel or require assistance in quantitative or information systems courses, or guidance for students in their choice of academic field or career. The results would also form the basis for subsequent research on the efficacy of Strengthfinders as a means of predicting academic performance across various disciplines.

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UNDERSTANDING PROPER PEDAGOGY FOR NATIVE AMERICANS TRANSITIONING TO A FOUR YEAR PUBLIC INSTITUTION

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ABSTRACT

Keywords: Native American, Pedagogy, Higher Education, Teaching Modalities

PROPOSED STUDY

As far back as early 2008, a public 4 year university and a tribal two year college have been discussing a collaborative agreement for the 4 year institution to provide on-going education in effort to allow Native American students the opportunity to earn a bachelor's degree in business. While an agreement was signed and celebrated, it has taken until summer 2013 for the first course to be offered for interested students.

While it is exciting to see the collaborative efforts come to fruition, there are potential challenges that are important to acknowledge and understand in order to prepare course delivery accordingly. By doing so, the students should have an appropriate learning experience that will maximize their skills, knowledge and overall talents. Learning styles differ as the philosophy of Native American learning is very visual and has been successful through discussions and storytelling [1]. It will be important to discuss the content of the course and apply the concepts to events or experiences of the students.

The summer 2013 cohort from the 2 year tribal college enrolling in a course offered by the 4 year institution will be offered in a unique modality. The course is Project Management in MIS and will be delivered 3 days a week from 1:00 p.m. – 4:00 p.m. for 5 weeks. The instructor will travel to the tribal college on Tuesdays, the students will travel to the four year institution on Wednesdays, and class will be held online on Thursdays. While the professor teaching the course is given the flexibility to teach the online component synchronous or asynchronous, based on her research, she chooses to arrange for synchronous teaching minimally the first 3 weeks and likely throughout the five week session.

This research is important to the IACIS organization in order to better understand preparation for different learning styles, whether they are culturally based or otherwise. By researching the proper pedagogy based on learner needs, and continuous evaluation throughout the course session, we can improve on the successes of our students.

BASIS OF THE STUDY

The basis of the study is to understand various pedagogical theories to encourage the best learning experience for various groups of diverse learners. In particular, this study will focus on Native American students with a 2 year degree from a tribal college transitioning to a public 4 year institution offering a bachelor's degree.

Through a review of literature and discussions with prior professors of Native American students, this professor will prepare the content for delivery in a Project Management class with strategies that will encourage engagement and learning for the students. As part of the student orientation, the instructor has prepared questions for introduction and discussions on the first day of class. Based on these discussions, it is hopeful that the instructor will understand the background of the students and their preferred learning styles.

CONCLUSION

The Professor of this class has a rubric she will follow, Standards Performance Continuum for Effective Pedagogy [2], to allow ongoing evaluation of the professor's performance. At the end of the course, there will be a focus group to determine the preferences of the Native American students. This will provide the students an opportunity to discuss what supported their learning as well as the challenges they encountered. These lessons learned will be discussed with other professors teaching this cohort for continuous improvement.

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CONSUMER-TO-CONSUMER E-COMMERCE: FACTORS INFLUENCING BUYER'S TRUST

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Keywords: C2C e-commerce, Internet Safety Training, Trust, Seller Opportunism, Information Asymmetry

Introduction

C2C e-commerce is increasingly being utilized by individuals to buy and sell products to and from one another. With this increase in use comes the need for specific studies regarding C2C e-commerce. Many research studies have been conducted in the B2C area of e-commerce. However, different factors have been found to influence C2C e-commerce than those found in B2C e-commerce (Jones & Leonard, 2008). One example of this is the level of anonymity that is found in C2C e-commerce that is not B2C e-commerce (Wu, et. al, 2011). This adds complexity and must be considered studying C2C e-commerce (Greiner & Wang, 2011; Rauniar, et. al, 2009). This study develops and tests a model of buyer's trust in C2C e-commerce. Examining previous trust models, perceived web site quality, third party recognition, fear of seller opportunism, information asymmetry, and Internet safety training are proposed to influence buyer's trust. Additionally, the age the individual first started using a computer is proposed to moderate the relationship between Internet safety training and buyer's trust. The IACIS conference is an appropriate venue to discuss this topic as the participants in the conference are leading academic information systems and technology professionals.

Data and Findings

While there have been previous studies regarding C2C e-commerce trust, those studies have not specifically addressed buyer's trust for the factors we are addressing. Additionally, trust is a complex factor (McKnight, et. al, 2002; Pavlou, et. al, 2007); taking previous trust findings and expanding them to address additional variables is needed. Therefore, the research model in this study can help sellers in C2C e-commerce to better understand what influences a buyer's trust. Using this information, the seller can appropriately present himself to increase his transactions. Furthermore, an understanding of buyers in C2C e-commerce can help to expand one's understanding of information system design expectations and can be used to attract further buyers through additional website features.

Undergraduate students in a Southwestern U.S. university were used as subjects for this study. They were selected based on their enrollment in an introduction to MIS course. Drennan et. al (2006) stated that university students are the majority of online users. These students are the most connected, experienced, and frequent users of the Internet. Therefore, they are a good representative sample to be used in this study. Participants were asked to indicate on a seven-point Likert scale their agreement with questionnaire statements regarding their perceptions of C2C e-commerce. The findings indicate that all variables significantly influence buyer's trust in C2C e-commerce, except Internet safety training and the moderation of age of first computer use.

Implications

Buyer's trust in C2C e-commerce was found to be impacted by perceived web site quality, third party recognition, fear of seller opportunism, and information asymmetry. Therefore, C2C e-commerce sellers should strive to present a trustworthy web site and gain third party recognition. In addition, they should find ways to reduce the perception of opportunism and information asymmetry. This may include extensive descriptions and pictures of the items being sold. Ultimately, this could improve the seller's volume of transactions using C2C e-commerce.

Conclusion

C2C e-commerce has continued to show differences in regards to B2C e-commerce. Due to this, the proven B2C e-commerce models may not necessarily be used to understand C2C e-commerce. New models must be created to determine and explain the factors influencing this area of e-commerce. This study provides additional insight into the area of buyer trust in C2C e-commerce. The findings can be used to build upon and increase the body of research for this very distinct stream.

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APPLICATION OF STRATEGIC GROUP MAP AS A STRATEGIC KNOWLEDGE MANAGEMENT TOOL

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Strategic group map is a tool of great practical use that allows to identify groups with different perspectives. Being aware of the differences in strategies may be key to predicting the changes that may occur in the sector due to the movement of individual companies or entire strategic groups. This allows to get the right knowledge for making the right decisions and concrete policy actions. In this presentation, we assert that strategic group map can be used as a strategic knowledge management (KM) tool to process information in making decisions. We show this by presenting a case study, which confirms that the strategic KM tool allows processing of sector information to knowledge of the expected strategic changes in the industry. Conclusion and recommendation for further research complete the presentation.



ASSURANCE OF LEARNING, TECHNOLOGY PROFICIENCY, AND ASSESSMENT

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Keywords: technology proficiency, SAM 2010, Microsoft Office, pedagogy and learning goals for freshman

In a recent conversation with a member of AACSB's Blue Ribbon Committee, charged with the revision of existing business school accreditation standards, two things stood out. First, as would be expected, is the issue of faculty sufficiency. But perhaps even more important was the renewed and enhanced emphasis on assurance of learning – assurance of learning based on well-defined learning goals and assessment strategies. For many years AACSB has recognized the importance of technology as both a critical success factor in the career of a business school graduate, and as a critical component of an undergraduate education. The way technology proficiency has been defined as well as the methodology used to measure this construct has changed significantly over the years. Gone are the days of teaching the basics of computer hardware and software – not to mention BASIC programming – in the foundation MIS course. Today we teach students the importance of using technology as a strategic competitive advantage, the use of desktop productivity tools in a problem-solving context, and the changing role of the business technology professional. These lofty goals however, do not preclude the need for students to have a basic proficiency with the mundane tools of word processing, presentation software, spreadsheets and data bases. In fact these goals rely on a level of proficiency with these applications. There is no question that many of our students bring in some level of rudimentary skills in these applications from high school. Our experience however is that the skills these students bring with them are nowhere near what can be described as “proficient”. So how do we systematically plan and deliver a curriculum that guarantees this minimum level of proficiency? And perhaps more importantly, how do we measure its effectiveness?

In this technology proficiency context, this paper lays out the experiences of MIS faculty at a small, private, comprehensive university in their efforts to create a set of learning goals; to develop a set of topics designed to support these learning goals; to implement the delivery mechanism to teach these topics; to create assessment strategies to measure student performance; and finally how to “close the loop” on what is learned from the assessment. The paper briefly surveys strategies that other business schools are using to accomplish this goal, and then details the differences, pros and cons, of our approach. Specifics of the program are discussed along with testing methodologies used for evaluation. Touch points between this program and upper division business courses are discussed. The planned evolution of the program is discussed as it pertains to learning goals and focus.

In conclusion, technology proficiency by definition will always be a moving target. The importance of hitting this target however will not diminish over time. As software and hardware become more sophisticated, as complex “big iron” applications migrate to the desktop and as knowledge workers demand access to more and more sophisticated technology environments, threshold levels of technology proficiency will change. It is critical that business schools have a strategy and a mechanism to address this change.

INFORMATION TECHNOLOGY: THE NEW DIMENSION OF A MODERN BUSINESS

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Abstract

This paper discusses challenges of businesses in the 21st century and analyzes social trends in the use of technology, digital influence on business, globalization and outsourcing, cloud computing, service industry, and the recent phenomena of Intelligence driven business. Technology and Data-Intelligence Driven business are defined as the principle dimension of a modern business for sustainability.

Keywords: Information Technology, Business Dimensions, Big Data, Outsourcing, Service Industry

Introduction

Business world is not limited to buying, selling, or bounded by a geographical area. Business dimensions are more than production, marketing, or accounting. Information Technology has fundamentally altered societal expectations, global perspectives, and the way in which business organizations and corporations conduct their day-to-day business operation. In fact, over the last century, no technology like digital technology has had such a dramatic impact on society, in the productivity rate, and revolutionizing the conduct of a business. The industrial use of electricity was not harnessed until a century after its discovery (Crafts 2004). Likewise, the impact of general purpose technology for steam and electric power did not become a reality until a century later. No technology like computer and telecommunication technology has had such an enormous impact on other industries within a short period of time. The Technology has created a new segment of the economy - - the information service segment.

We define business dimensions as the essentials, entities or processes that are vital for sustainability of a business. Without these essential, a business will not survive. In order to conduct a successful business and survive in the 21st century, the business organizations are dependent on the technology as the principle dimension. Other dimensions include Innovation, Leadership, Service, Responsibility, and Globalization.

- Information Technology
- Innovation
- Management and Leadership
- Servicing
- Responsibility
- Globalization
- Information and Intelligence



Data is a piece of fact, action, or event that is recorded on a regular basis. A modern organization gathers, stores, analyzes, and uses mass of data every day. Information is perception and representation necessary for any kind of action. Information is the main ingredient for any analysis, evaluation, and decision making. Without information, one cannot deliver a desired outcome. Information is needed at all levels of organization. Of course, information is only useful if it is germane, relevant, and meaningful for the purpose. The recent phenomenon of Big Data collection, processing, and storing has proved that data has a tremendous impact on business operations. Businesses organizations are already utilizing Big Data concepts for operational activities, strategy setting, planning, and particularly for marketing.

Big Data includes huge and diverse amount of raw data, both structured and unstructured. Raw data does not provide information. Tools have been developed to merge and harmonize different types of data, and convert it to useful information. Some applications of Big Data technologies are used for developing Web Sites, particularly Social Media and gaming applications. Analytics, such as data mining, multi-dimensional analysis, and data visualization are used for structured data. But analytics are not sufficient for unstructured data. Most traditional tools and current processors are too slow and cumbersome for processing Big Data.

Computer Technology Impacts in Business, Challenges of the Challenges of the 21st Century

- Societal Trends in the Use of Technology
- Globalization and Outsourcing
- Outsourcing Computer resources -- Cloud Computing
- The need for IT Professionals
- The Service Industry
- Data-Intelligent Driven Economy

Challenges of the 21st Century

Societal Trends in the Use of Technology

Technological evolution has fundamentally reshaped the American way of life in all aspects, work, education, social, and cultural. Processor-equipped devices that provide Internet connection are becoming the norm. A few years ago, accessing the Internet with a 50k modem was considered a luxury, but by 2006, 78% of U.S. home Internet users had high-speed access, and by 2009, 90% of them. In 2000, there was no wireless internet connection, but by 2009, more than half of internet users use WiFi. Today, school age children spend more than 6.5 hours a day with various media and 87% of U.S. teens ages 12-17 use the Internet. (Nielsen//Net Ratings. Forbes Dec. 12, 2009). More than half of them regularly contribute content to the Web: blogs, photos, videos, music, stories, artwork, etc. More than half have also created their own web page and web site. During a very short period of time, since 2009, the applications have been through several generations. The common use of Big-Data by social media or websites includes identifying the location of the buyers for target marketing, group buying, and mobile targeted ads.

- 2009 Internet era
- 2010 Mobile devices era
- 2012 Social Media era
- 2013 Data-Intelligent Driven Economy

- Identify location information
 - Twitter now allows information from where a tweet is sent
 - Facebook has announced intentions to support location information
- Group Buying:
 - Allows group/volume discounts and deals, E.g. GroupOn, Living Social, Massdrop
- Point of sale Marketing and Mobile Ads
 - The technology allows to catch a customer near the point of sale
 - Google Acquired Mobile Ad Network AdMob for \$750 Million
 - Apple's new iAd platform
- Mobile Payments
 - Applications allow customers to pay wherever, however, or right on the spot

Attention Business: Trends Watch Right Now

References will be provided upon request



DATA WAREHOUSING CONCEPTS AND ARCHITECTURE

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ABSTRACT

Data warehousing is a necessary element of decision support systems, which has increasingly become an emphasis in the database industry. The subject of data warehousing encompasses tools, architectures and algorithms for bringing together selected data from multiple databases or other information sources into a single repository known as a data warehouse. A data warehouse is well suited for direct querying or analyzing data patterns. In recent years data warehousing has become a well-known buzzword in the database industry. However, with the growth of information to exponential capacities, traditional database retrieval query mechanism and statistics analysis method does not meet current industry needs. Such an issue creates a need for solutions which can overcome limitations and advance future storage capabilities. This paper provides an overview of data warehousing, BI (Business Intelligence), and OLAP (On-line Analytical Processing) technologies with an emphasis on the new requirements. This overview is then followed by a look at the back end tools for extracting, transformation and load technique, multidimensional data models, front end client tools for querying and data analysis, server extensions for efficient query processing, and metadata management tools for managing the data warehouse. Finally a look back at the origin of data warehousing, its development over time, and a look into what the future may hold for data warehousing is discussed. Although the concept of data warehousing is prominent in the database industry, organizations continue to invest heavily. This type of informative paper stands to be a useful tool to optimize knowledge for powerful and efficient data warehousing systems which can be implemented in any kind of industry and with any type of database.

**PANEL - WORKSHOP
TEACHING BUSINESS ANALYTICS/INTELLIGENCE –
HELPFUL TOOLS & RESOURCES
(DATASETS PLUS TOOLS FROM IBM, MICROSOFT, SAP, SAS, AND TERADATA)**

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Key Words (Business Analytics, Business Intelligence, Data Mining, Big Data)

This workshop/panel session is intended for faculty teaching business analytics/business intelligence (or who plan to teach business analytics) and who wish to access to real-world systems and data. More specifically, the workshop/panel targets faculty interested in enhancing their courses and curricula by using large datasets plus enterprise business analytics and business intelligence resources from IBM, Microsoft, SAP, SAS and Teradata.

Teaching Business Analytics/Business Intelligence–Tools & Resources (Datasets plus tools from IBM, Microsoft, SAP, SAS and Teradata) -- This practical session is designed for faculty who currently teach or are preparing to teach Business Analytics/Business Intelligence. The session includes information, examples, and exercises related to resources and tools needed to teach Business Analytics/Business Intelligence. Importantly, the session provides faculty participants with a forum to discuss (as well as utilize) enterprise-level skills and understanding that will be needed for knowledge workers into the future.

Participants will not only learn about available resources for their classes and students, but will be given access to these resources for their future-oriented, analytics classes. Included are topics such as creating introductory business analytics, statistics, data analysis, and data mining exercises. Finally, access to resources (including large datasets – Acxiom Demographics, Dillard’s Department Stores, Sam’s Club, and Tyson Foods SAP R/3 dataset) by faculty and students world-wide will be described. Workshop leaders will describe various faculty developed networks and resources (various datasets, business problems, and data warehouse infrastructures built using these datasets) as well as their availability for use in a variety of courses.

Workshop Agenda -

- *Business Analytics/business intelligence* – Discussion of Business Analytics, Big Data, Statistics, Business Intelligence, and Data Mining
- *System Demonstration and Examples* -- Data Warehouse/OLAP, Business Analytics, and Data Mining - examples using IBM SPSS Modeler, Microsoft Data Tools, and SAS Enterprise Guide/Miner
- *Available Business Analytics Resources* include
 - o Faculty Networks (IBM Academic Initiative, Microsoft Enterprise Consortium, SAP University Alliances, SAS, Teradata University Network (TUN))
 - o Enterprise Systems Business Analytics Resources at the Sam M. Walton College of Business
 - Platforms –IBM SPSS Modeler, Microsoft Data Tools, SAP Business Objects, SAS Enterprise Guide/Miner, and Teradata.
 - Large Scale datasets – Acxiom Demographics, Dillard’s Department Stores, Sam’s Club, Tyson Foods, and others
 - Available Classroom Resources – PowerPoint Slides, Cases, and Assignments
- Workshop leaders and participant “brainstorming” regarding other relevant problems, classroom use, as well as access by participants for their classes



MOOC's: The Day the Academe Died?

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ABSTRACT

The potential impact of MOOC's (massively open online courses) on higher education has been hotly debated over the last few years. With the perfect storm of public disenchantment with the cost of higher education, the inability of students to land substantive employment upon graduation, faculty producing less student credit hours and their seeming disinterest in classroom engagement, traditional location-based education is under increasing fire additionally fueled by this "disruptive innovation". This panel/discussion session will provide an open forum for discussion of the truths, urban legends, challenges and opportunities such a disruptive innovation provides to us as MIS faculty.

Keywords: MOOC's, higher education, disruptive innovation, MIS faculty

PANEL SESSION GOALS

To kick off the panel/discussion session, Dr. Wilson will present some of the opinions held by our constituents on the present state of higher education, specifically related to business education and of course, MIS Faculty professionals. This, along with some of Wilson's observations from 17 years as an administrator will set the stage for an open discussion on how MIS faculty/departments can best respond to the future uncertain environment.

Attendees will be encouraged to share opinions and facts and discuss all topics relevant to this new potential College 2020 scenario (e.g., Fried, 2013). The goal of the discussion will not be to try to predict when a potential cataclysmic revolution will take place, but to contemplate proactive strategies that will ensure MIS faculty's continued participation in a value-added way for the sure-to-evolve higher education landscape.

The goal of the discussion/panel will be to provide faculty with an enhanced idea of the challenges and opportunities that face us for the next decade or so as higher education is radically transformed. This in turn will help us all retain our relevance and remain vital participants in the new higher education landscape of 2020 and beyond.

TEACHING EXCELLENCE IN INFORMATION SYSTEMS EDUCATION

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PANEL

Keywords: Teaching Excellence, Best Practices, Information Systems (IS) Education

When asked to define ‘excellent teaching’ many educators and students alike often respond by adopting Supreme Court Justice Potter Stewart’s remarks about obscenity – “I can’t define it, but I know it when I see it” [3]. Yet, in academia, educators are often asked to articulate ‘teaching excellence’ for myriad reasons including promotion materials, review/accreditation processes, annual reviews, development plans, improved performance, and award proposals [5]. While the exact definition of ‘teaching excellence’ may vary, there are many common attributes shared by excellent instructors [1, 2, 4, 6]. The purpose of this panel presentation is to discuss teaching excellence in information systems education.

The panel seeks to encourage critical reflection and promote teaching excellence within the profession by identifying aspects of excellent instruction. The following areas provide a framework for panel discussions: (a) discuss and define teaching excellence, (b) highlight best practices in information systems environments, and (c) share strategies for documenting teaching excellence.

The panel content will consist of current and respected research as well as the combined administrative, teaching, and learning experiences of the panel members. Panel participants have over 150 years combined teaching experience in a variety of educational environments and modalities including face-to-face, online, and interactive broadcast. Panel members have received numerous awards for their teaching practices, innovations, and educational leadership.

This interactive panel presentation should prove useful to educators who are dedicated to improving teaching practices in alignment with their personal philosophy, interests, and strengths. The panel seeks to serve as a springboard for discussion about teaching excellence in information systems education.

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**USING CLOUD-BASED ENTERPRISE TECHNOLOGIES TO ENHANCE PROJECT MANAGEMENT: ACADEMIC
VERSUS PRACTITIONER'S PERSPECTIVE**

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ABSTRACT

Crowdsourcing leverages the wisdom of crowds to solve complex problems. Collaboration provides a mechanism for teams to work together to achieve specific goals. Web 2.0 technologies such as wikis, blogs, RSS feeds, tagging and discussion forums provide a platform for team members to instantaneously share information, co-create design and produce user generated content.

Cloud computing eliminates distance between team members via an assortment of technologies including instant messaging, video-conferencing, and Web 2.0 tools. Cloud computing can also provide a project platform that includes policies, procedures, standards, guidelines, integrated project management processes, tools, techniques, templates, project assets library, best practices, learning assets, lessons learned or next practices. Using a combination of these tools and processes can create game changing innovation strategies for a project team.

There is an emerging service sector that provides full project management support via the cloud. For a company to decide if cloud-based project management is a solution for them an analysis is required, but our investigations have indicated that in many cases Software as a Service (SaaS) cloud solutions are advantageous [5]. Cloud-based tools, in particular, lend themselves to asynchronous processes that a rapidly evolving domain like information technology requires. Software development using an agile development methodology can benefit from team members being able to work asynchronously.

A study conducted in Belgium on the use of social media by project managers [6] asked the question: "Which Project Management Body of Knowledge (PMBOK) knowledge area would be better controlled by using social media tools?" The respondents chose the communication aspects by almost double the percentage of the second place knowledge area. When asked about the main benefits, the associated percentage of affirmative responses were Quality of Sharing and Collaboration (62%), Quality of Communication (55%), Saving Time (47%), Quality of Information (20%), and Accuracy of Information (10%). The author concluded that many project managers are active in social media but not for professional reasons. The question remains as to how it is trending and will social media have a beneficial impact on the work product.

Keywords: **Cloud Computing, Social Media and Project Management, SaaS, Data Security, Data Integrity**

AUDIENCE

The audience for this panel includes those who want to understand the practical aspects of academic research and how new technologies can be deployed in efforts to improve the effectiveness of existing practices and disciplines.

PANEL AGENDA

Each panelist will provide a brief overview from their research or occupational perspective. They will debate the selected topics, contrasting their viewpoints, followed by questions from the attendees.

The topics for discussion are:

1. How are the conclusions of academic research transferable to the practitioner of the art of project management?



2. What are the specific innovative practice implementations that make cloud computing an enhancement to project management? Describe how new technologies provide for innovation in project management as opposed to just facilitation.
3. What positive and/or negative impacts do social media and collaboration tools have on the project manager and the project team's ability to set expectations and manage perceptions?

The panelists bring diverse and compelling perspectives to the topics. Dr. Seay is an academic who teaches code development skills and is highly engaged in both legacy and newly emerging technologies. Dr. Watson spent decades deploying technology enabled business process change projects. Ms. Washington consults in the areas of collaboration and the use of social media within organizations.

EXPECTED OUTCOMES

Participants will learn how project teams at IBM, federal government agencies and the commercial sector have infused innovation into project management through a series of case examples. They will be able to take these examples back to their organizations for review and possible proofs of concept.

PANELISTS

Dr. Cameron Seay is an Assistant Professor of Information Technology in the School of Technology at North Carolina Agricultural and Technical State University in Greensboro, North Carolina. His research focus is on “enterprise systems,” or an enterprise-centric view of computing resources, cloud computing, and information technology pedagogy.

Dr. Seay's most recent work involves mainframe-based virtualization of Linux, open source virtual desktops, and using the Raspberry Pi as a virtual desktop. He is a founding member of the Enterprise Computing Community, which is the leading academic entity with a focus on enterprise systems. He holds a doctorate in educational psychology and master's degrees in business, information systems, and economics.

Montressa L. Washington is a Senior Managing Consultant and Service Area Manager in the Strategy & Transformation Organization & People Public Sector practice based in Washington, DC. She joined IBM upon receiving her MBA from Johns Hopkins University with concentrations in International Business and Marketing. She also has a B.A. in English from the University of Maryland, College Park.

Montressa specializes in guiding clients through the implementation of collaborative and Web 2.0 tools such as Innovation Jams, wikis, blogs, and collaborative spaces. A 16 year consulting veteran, she has expertise in change management, communication planning, business transformation, process design, technology assimilation, business analysis and training design and development. She is an IBM certified business transformation consultant and serves on the IBM Consulting Certification Board as an assessor.

Dr. Rudy J. Watson serves as Associate Chair of the Information and Technology Systems Department and Program Director of Technology Management courses in the Graduate School at the University of Maryland University College. He is a PMI Certified Project Management Professional with over thirty-seven years of broad and diverse experience in information technology, including thirty-three years with IBM.

Dr. Watson was instrumental in developing and managing the Executive Leadership Foundation's Technology Transfer Project which assisted twelve Historically Black Colleges and Universities in integrating open source and state of the art technologies into business, computer science, and engineering curriculum. He holds a Ph.D. in Logistics, Technology and Project Management from The George Washington University.

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PANEL DISCUSSION
FINDING YOUR RESEARCH VOICE: GETTING STARTED ON YOUR INFORMATION SYSTEMS RESEARCH
AGENDA

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Fred Kohun, Robert Morris University, kohun@rmu.edu

This panel will discuss techniques to get started in establishing and maintaining a research agenda. Panelists will provide insight into identifying research topics and research colleagues, what to consider in publishing your research and ways to manage an active research agenda. In particular, this session is intended to help newer faculty get started on the path to promotion and tenure, however it may also be informative to experienced faculty looking to restart or expand their research agenda. After a brief presentation, the session will be open to questions and discussion.