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DISNEY'S KNOWLEDGE MANAGEMENT APPROACH FOR ENHANCED CUSTOMER SERVICE

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ABSTRACT

In this paper, Disney is examined for their implementation of Knowledge Management (KM) solutions to improve customer service. The use of Disney cast members as human capital combined with the knowledge of customer preferences has made the FASTPASS an innovative solution to enhance queuing systems in the Disney theme parks. Although most organizations have not implemented KM initiatives, Disney has combined their technological assets with management science techniques to create an enhanced form of customer service.

We examine Disney's commitment to human interaction for creating "magical moments" along with their ability to capture customers in virtual queues. The combination of these two strategies has given Disney the ability to provide park guests with a pleasurable waiting experience. It is the innovative combination of queuing and human capital solutions that has made Disney a leader in KM initiatives in the service industry.

IDENTIFY STUDENTS' DIFFICULTIES ON LEARNING CONCEPTUAL DATA MODELING

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ABSTRACT

Conceptual data modeling is an error prone process, especially for student database designers. In order to improve the accuracy of data models, the entity-relationship modeling technique has long been accepted by academics and practitioners as an effective tool to help database designers to capture, understand, and represent business data requirements. However, the cognitive abilities of database designers are still the most important determinants for the accuracy of data models.

Empirical studies have showed that the performance of student database designers is significantly lower than that of expert database designers. The results are well-expected because student database designers lack of modeling knowledge of the data modeling technique. However, empirical studies have also shown that the learning process is slow for student database designers to reach the expert level of reasoning processes and modeling performance. This result poses an unanswered question: why student database designers cannot have significantly better performance of data modeling once they have learned the modeling skills?

On the basis of literature review on conceptual modeling, this research proposes that in addition to modeling knowledge, two cognitive variables, domain knowledge and cognitive fit; also significantly influence the modeling performance of student database designers. An experiment is conducted to test the influence of domain knowledge and cognitive fit on the modeling performance of student database designers. On the basis of the research results, this research suggests that an effective instruction design for student data modeling needs to consider the influence of domain knowledge and cognitive fit.

INTRODUCTION

An accurate data model is essential to building a well-functioning database. In developing a database, the data model provides a blueprint and foundation for the structure of the database by showing an abstract representation of the data about entities, their associations and attributes within the intended business (Topi & Ramesh, 2002). If the data model is flawed, the quality of the resulting database will be compromised.

However, conceptual data modeling is an error prone process (Antony & Batra, 2002; Batra, 2005; Batra and Sein; 1994; Sutcliffe and Maiden, 1992), especially for student database designers. In order to improve the accuracy of data models, the entity-relationship modeling technique has long been accepted by academics and practitioners as an effective tool to help database designers to capture, understand, and represent business data requirements (Antony &

Batra, 2002; Batra and Davis, 1992; Batra and Sein; 1994). However, the cognitive abilities of database designers are still the most important determinants for the accuracy of data models. It has been reported that student database designers literally follow the stated requirements to specify entity-relationship models (Batra & Antony, 1994). As a result, the relationships that are not expressed obviously in requirement statements become the main source of errors committed by students (Batra and Davis, 1992; Batra and Sein; 1994; Sutcliffe and Maiden, 1992).

The learning process is slow for student database designers to reach the expert level of reasoning processes and knowledge organizations (Huang, and Burns, 2000; Schenk, Vitalari, and Davis, 1998). With better modeling knowledge expert database designers can use data modeling techniques to perform model-based reasoning more effectively. In addition, expert database designers can reuse rich and well-organized model patterns from their experience (Batra and Davis, 1992; Batra and Sein; 1994; Sutcliffe and Maiden, 1992). As a result, expert data designers show significantly better performance in data modeling than student data designers. Therefore, the research question for this paper is: what are the cognitive variables, in addition to modeling knowledge, that make student database designers difficult to achieve accurate data models.

IMPORTANT COGNITIVE VARIABLES FOR CONCEPTUAL MODELING

The accuracy of conceptual models in general and conceptual data models in particular is determined by the performance of conceptual modelers in understanding and documenting conceptual models. In order to improve the performance of modelers, various modeling techniques have been proposed. Although the contribution of modeling techniques to the performance of modelers has been well recognized, it is unclear why modeling techniques cannot improve student modelers' performance consistently. In order to understand students' performance in conceptual modeling, the cognitive environment of modelers for understanding and specifying conceptual models has become an important area of research. This research categorizes the literature on the cognitive environment of modelers along two dimensions: knowledge availability and cognitive fit of the modelers.

Knowledge Availability

In this section, I will review the influence of modeling knowledge and domain knowledge on the performance of conceptual modeling. On the basis of the review, a research hypothesis is then proposed at the end of this section.

Domain knowledge and modeling knowledge have been suggested as determining factors for the performance of conceptual modeling. Modeling knowledge has long been regarded as an important factor to differentiate expert from student modelers. Modeling knowledge can be divided into syntactic and semantic parts (Koubek, et al., 1989). Syntactic knowledge consists of allowable syntax of a specific modeling language. Semantic knowledge, however, consists of modeling principles that are independent of a particular modeling language (Allwood, 1986). Compared to student modelers, expert modelers with richer semantic knowledge can retrieve and apply more relevant modeling principles, make more critical testing of hypotheses, and finally achieve conceptual models with better quality (Allwood, 1986; Koubek, et al., 1989; Schenk, Vitalari, & Davis, 1998; Vitalari & Dickson, 1983). Modeling knowledge can also be divided into declarative and procedural aspects (Vessey & Conger, 1993). The procedural aspect of a modelingtechnique is more difficult to learn than the declarative aspect. However, the procedural aspect of modeling knowledge is more important in determining the quality of conceptual models (Vessey & Coger, 1993).

On the other hand, Domain knowledge is drawn upon by both expert and student modelers in specifying conceptual models (Sutcliffe & Maiden, 1990; Vessey & Conger, 1993). While understanding problem statements, modelers use domain knowledge to mentally simulate a scenario of the system behavior in order to test the adequacy of the conceptual models, to add assumptions to increase the completeness of the requirements, to test internal and external consistency of the requirements, and to abstract, summarize, select and highlight important information in the problem statements (Guindon, Krasnar, & Curtis, 1987). Without domain knowledge, even expert modelers can only specify high-level conceptual models without details (Adelson & Soloway, 1985). With the availability of domain knowledge, student modelers can reuse the domain knowledge to achieve almost the same level of completeness of conceptual models as expert modelers do (Sutcliffe & Maiden, 1990).

Due to the well-recognition of modeling knowledge as the determining factor for the performance of conceptual modeling, this research treat modeling knowledge as a controlled variable and is focused on the effect of domain knowledge on the performance of conceptual modeling. On the basis of the literature reviewed on domain knowledge, this research suggests a research hypothesis as below:

Research hypothesis 1: Modelers with richer domain knowledge specify conceptual models with higher accuracy than those with poorer domain knowledge.

Cognitive Fit

Conceptual modeling is a structure-building process that translates the ontologies of problem domains into those of modeling techniques. The cognitive gap between a problem domain and a modeling technique can be evaluated by the difference of ontologies used by the problem domain and the modeling technique. An ontology is a conceptual system (Guarino & Giaretta, 1995; Regoczei & Plantinga, 1987) that includes two parts: (1) a set of concepts for describing a problem domain such as entities, relationships, data flows, and agents; and (2) a cognitive structure for organizing the concepts (Marca & McGowan, 1993; Pepper, 1942) such as function orientation, object orientation, data orientation, and control orientation. The difference in ontologies determines how difficult it is for modelers to model a problem domain by a particular modeling technique. In this section, I will review the influence of cognitive fit on the performance of conceptual modeling from two perspectives: modeling techniques, and (2) problem domains. A research hypothesis is then proposed at the end of this section.

(1) Modeling techniques

The main purpose of modeling techniques is to provide notations and procedures to help modelers formalize the domain knowledge of problem domains during the process of conceptual modeling (Sutcliffe & Maiden, 1992). Different sets of criteria have been proposed to evaluate the performance of modeling techniques (Davis, 1988; Roman, 1985; Yadav, Bravoco, Chatfield, & Rajkumar, 1988). However, the most important two criteria are accuracy and completeness because they are the major factors determining the success of an information system development project (Standish Group, 1995; Yadav & Chand, 1989). This research will focus on accuracy, and sometimes, completeness as criteria for the performance of conceptual modeling.

The empirical evidence has shown that modeling techniques can improve the performance of modelers. It was found that modelers who specified conceptual models by model-based reasoning based on modeling techniques could produce more complete solutions than those with partial or no model-based reasoning behavior (Sutcliffe & Maiden, 1992).

Although the contribution of modeling techniques to the accuracy of conceptual models is well recognized, it is unclear how modeling techniques influence the accuracy of conceptual models. The failure of identifying the key features of modeling techniques that determine the accuracy of conceptual models can be attributed to three unsettled research findings: (1) no modeling technique has consistently better performance than any other technique; (2) modeling techniques provide significantly better support for expert modelers than for student modelers; and (3) expert modelers tend to use multiple modeling techniques simultaneously to analyze information requirements. First, there have been several research studies on comparing the performance of different modeling techniques. However, the results are inconsistent. In comparing the effectiveness of data flow diagrams and IDEF for supporting student modelers in specifying information requirements, it was found that data flow diagrams were easier to learn and to use. However, neither of them (DFDs and IDEFs) produced significantly better specifications (Yadav, Bravoco, Chatfield, & Raikumar, 1988). Since object orientation became a new paradigm for conceptual modeling, there has been a debate on which approach, the object orientation or the functional orientation, is a more "natural" way to specify conceptual models (Firesmith, 1991; Loy, 1990; Shumate, 1991). The reported results on the basis of empirical studies were conflicting. Kim and Lerch (1992) reported that expert modelers with object-oriented techniques spent less time in analyzing problem domains and developed better understanding of the underlying problem structures than expert modelers with function-oriented techniques. However, Vessey and Cogner (1994) found that student modelers were better able to apply the function-oriented techniques than to apply the object-oriented techniques. In addition, significant learning effects only occurred for the functional techniques. In sum, no modeling technique can consistently outperform other techniques.

Second, expert modelers can generate more complete conceptual models by model-based reasoning based on modeling techniques. The constructs provided by modeling techniques can help expert modelers focus on important concepts in problem domains. However, empirical studies showed that student modelers have difficulty in identifying important concepts in requirement statements with modeling techniques (Batra & Davis, 1992; Batra & Sein, 1994;

Sutcliffe & Maiden, 1992). Sutcliffe and Maiden (1992) found that student modelers could easily identify system goals and inputs in a requirement statement. But they had poor performance in recognizing system processes, data stores and outputs even though those were explicitly stated in the requirement statement. Batra and Davis (1992) focused on the similarities and differences of database modeling behaviors by entity-relationship diagrams between student and expert modelers. They found that student modelers had similar performance with expert modelers in classifying objects as an entity or an attribute, and in modeling binary relationships. However, student modelers had significantly bigger difficulty in identifying unary relationships and categories. Therefore, the difference in cognitive ability to recognize some concepts and relationships can explain why modeling techniques can improve the performance of expert modelers significantly while provide little help for student modelers. But it is unclear why student modelers have trouble with some concepts and relationships.

Third, even though expert modelers are skilled at modeling techniques, they use multiple modeling techniques, rather than a particular one, in analyzing complex conceptual models(Littman, 1989; Wijers & Heijes, 1990). Littman (1989) conducted several empirical studies to investigate the ways that expert software designers constructed mental representations of problem domains. He found that expert software designers used multiple mental representations to model problem domains. Littman reported that expert software designers identified several modeling techniques that might be appropriate for a problem domainand then selected one that seemed most appropriate. Wijers and Heijes (1990) observed an experiment on constructing a global information model consisting of a functional decomposition, entity-relationship models, and dataflow diagrams. They found that expert modelers had different preferred techniques. In addition, they have strong flexibility in choosing different techniques in analyzing different parts of information requirements. Therefore, the modeling behaviors of expert modelers seem to imply that the performance of modeling techniques depends on the characteristics of problem domains. However, it is unclear what the characteristics of problem domains determine the performance of modeling techniques.

(2) Problem Domains

The research into the relationships between problem domains and modeling techniques argues that the characteristics of problem domains should be the basis for the selection of modeling techniques for conceptual modeling. Vessey and Galletta (1991) believed that the fit between the mode of information presentation and the task would influence the performance of problem solving or decision making. They therefore conducted an experiment of comparing subjects and performance of problem solving by matching two modes of information presentation, table and graph, with two types of tasks, spatial or symbolic. They concluded that subjects' performance of problem solving was improved by matching the problem representation with the task. In addition, the performance would be improved even further if the subjects' skill could match the problem representation and the task. Vessey and Glass (Fall 1994) extended the above findings and argued that cognitive fit between application types and modeling techniques was important for the effectiveness of conceptual modeling. They suggested that taxonomies of

applications and taxonomies of modeling techniques were needed to facilitate matching techniques to application tasks (Vessey & Glass, 1998). To match modeling techniques to application tasks, Sowa and Zachman (1992) provided a framework to categorize modeling techniques on the basis of six dimensions: data, process, network, people, time, and motivation. Opdahl and Sindre (1995) proposed a facet-modeling structure to integrate various modeling techniques. Jackson (November 1994) suggested that future modeling techniques should be more problem-oriented to fit the structures of problem domains rather than solution-oriented.
On the basis of the literature on modeling techniques and problem domains, this research suggest a research hypothesis as below:

Research hypothesis 2: Modelers using a modeling technique that cognitively fits the text structure of the problem statement can specify conceptual models with higher accuracy than those using modeling techniques that do not cognitively fit the text structure of the problem statement.

CONCLUSION

The research result revealed the importance of domain knowledge and cognitive fit for conceptual modeling. Without adequate domain knowledge, modelers cannot perform well in conceptual modeling no matter how good the fit is between problem domains and modeling techniques. On the other hand, a cognitive unfit between a problem statement and a modeling technique will definitely reduce the rate of accuracy in the final conceptual models significantly even with strong domain knowledge support.

There are two important implications identified by this research study: firstly, in comparing different empirical studies, it was confusing that the performance of student modelers varies dramatically form one study to another. On the basis of this research, we can understand that the variability is caused by the different levels of cognitive fit and domain knowledge in the research settings of different research studies. Secondly, an effective instruction design should not only focus on the design of modeling knowledge, but also the design of cognitive fit and domain knowledge.

REFERENCES

References are available upon request.

MODELING TRAFFIC ACCIDENTS AT SIGNALIZED INTERSECTIONS IN THE CITY OF NORFOLK, VA

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ABSTRACT

This study was an attempt to apply a proactive approach using traffic pattern and signalized intersection characteristics to predict accident rates at signalized intersections in a city's arterial network. An earlier analysis of accident data at selected intersections within the City of Norfolk indicated that in addition to traffic volume, other controllable factors contributed to traffic accidents at specific intersections. These factors included area topography, lane patterns, type of road signs, turning lanes, etc. It is also known that administrative factors such as signal types, signal polices, road closures, etc., and maintenance factors such as road conditions, condition of the signals, condition of road signs, etc. also impact road accidents.

The objective of this study was to relate these variables to accident rate and delineate variables that are statistically more significant for accident rate. Data on several topographical variables was collected in the City of Norfolk. These variables included number of lanes, turn lanes, pedestrian crossing, restricted lanes, etc. A linear regression model was used to establish relationship between these variables and the accident rate. The resulting regression model explained 60% of the variability. It also showed that four topographical variables are more important than other variables. These variables include number of lanes, number of turn lanes, presence of median and presence of permanent hazard like railway crossing. However, validation of model showed higher than expected variation. The model developed, in this study, overestimates the accident rate by 33%, thus, limiting its practical application.

INTRODUCTION

The main objective of this research was to study the signalized intersection in a city to delineate intersection geometry and design factors which may be contributing to traffic accidents. The City of Norfolk was selected for this study since it is one of the largest and oldest cities in the Hampton Roads region; and is home to roughly quarter million people. In 2006 the Hampton Roads had the highest crash incidents in the state based on the millions of VMT (vehicle mile traveled) (Nichols, 2007). The City of Norfolk contributed roughly 17% of those crashes with annual traffic accident count of approximately 5,400.

The literature review shows that road design factors could impact traffic safety. Several highway engineering factors like lane widths, shoulder widths, horizontal curvature, vertical curvature, super-elevation rate, median, auxiliary lane, etc. are estimated based on some traffic safety considerations. Additional factors like road signage, vegetation, line sight of signal especially on horizontal and vertical curvature, and number of driveways have also been reported to have impact on the traffic safety. To study the impact of these factors along with traffic control rules, researchers have utilized variety of statistical models. The most often used model is multivariate regression where the dependent variable is generally based on traffic accidents and a set of independent variables including roadway design, traffic control, demographic variables, etc. The negative binomial model is used to account for large variability among the accident rates on different intersections. Research results show relationship exists between the various roadway design and control factors and traffic accidents. Research also indicates divergences on the importance of individual factor on the traffic safety. There is reported difference based on the regional demographic factors indicating regional accident rate differences due to interactions between design/control factors and local driving population. This study was designed to understand the impact of the road design factors on the traffic accident rate in a local area.

This study was preceded by a pilot study conducted in the City of Norfolk for signalized intersections (Maheshwari and D'Souza, 2008). An intersection accident was defined as any accident occurring within the 250' of the intersection. The pilot study results showed that intersection topography/design factors and traffic control rules have positive relationship with the traffic accident rate. These factors included number of driveways, pedestrian crossing, and presence of physical median. Despite indicating number of positive relationships, the pilot study results could not be generalized as the sample size was very small. A sample of ten intersections was selected based solely on the accident rate. Also, the pilot study model was not validated for other intersections in the City. Hence, it was logical to further investigate the impact of topographical and other controllable factors on the traffic accidents with an expanded sample size and validate the model using other intersections within the City.

LITERATURE REVIEW

Automobile accidents contribute to staggering amount of property damage and large number of deaths in United States. According to the Insurance Information Institute, New York (Hot Topic and Issues Update: Auto Crashes, 2006), 42,636 people died in motor vehicle crashes in 2004 alone and an additional 2,788,000 people were injured. There were over 6 million police reported auto accidents in 2004. It is reported that about 50% of crashes occur at the intersections (Hakkert & Mahalel, 1978; National Highway R&T Partnership, 2002). It has been reported extensively in the literature that traffic volume is the major explanatory factor for traffic accidents (Vogt, 1999). However, studies have been carried out showing that design and other related factors contribute towards 2% - 14% of accidents. Ogden, et al., 1994 reported that about 21% of the variation in accidents was explained by variations in traffic flow volume, while the remaining majority of the variation was explained by other related factors. Vogt (1999) provides an extensive review of the factors, which have been considered in past research studies. These factors include channelization (right and left turn lane), sight distance, intersection angle, median width, surface width, shoulder width, signal characteristics, lighting, roadside condition, truck percentage in the traffic volume, posted speed, weather, etc.

Detailed literature review is provided in full length paper.

METHODOLOGY

The approach in this research was to collect and analyze data from the intersections with higher accident rates in the City. Restricting data set to higher accident intersections allows to reduce the variability in the data set. Therefore, it makes generalized linear model (GLM) applicable for the analysis of the data set. The study was conducted for the signalized intersections within the City of Norfolk, VA. The study concentrated on 65 signalized intersections that experienced high accident rates during the period 2001-2004. Thirty of these intersections were selected for the analysis and 10 were used for validation. Rest of the intersections could not be used because of traffic count data for those intersections were not available.

The City of Norfolk has stored traffic accident data in an electronic format for the past 11 years from 1994 to 2004. Only accidents related to single vehicles were considered in the study due to technical limitations of importing multi-vehicle into the available database. The City's accident database was developed from individual police accident reports that included type of accident, road conditions, traffic signs and signal, drivers' actions, vehicle(s) condition, demographic data, nature of injury, and other related information, all of which are subsequently entered in the City's accident database. The traffic accidents without a police report were not included in this database hence those accident were not part of this study. The traffic volume data, Annual Average Daily Traffic (AADT), was obtained from the Department of Transportation, Commonwealth of Virginia. Some of the local and feeder roads traffic count were not available hence those intersections were eliminated from the study.

The physical attributes included number of lanes, type of lanes, type of turn signals, existence of median and shoulder, pedestrian crossing, number of driveways within 250' of the intersection, and other safety features. For each intersection, 56 different physical attributes were collected. The AADT data was collected from the Department of Transportation, Commonwealth of Virginia. A review of data revealed that the certain variables could be eliminated as they were rarely present in the data collected, this included shoulder variables and no right turn signal. This reduced the variable set to 44 independent variables.

The traffic volume for the 40 intersections was computed using the Annual Average Daily Traffic (AADT) data published by the Commonwealth of Virginia. The total AADT for each intersection was calculated by adding traffic (AADT) coming into and leaving the intersection for both highways.

RESULT AND ANALYSIS

Although topographical data for each leg of the intersection was collected, accident data was not available for each leg. Therefore, a composite variable was created for the number of lanes, turn lanes etc. These composite variables were input into the regression model as the independent variables. A list of all independent variables is provided below in Table 1.

Table 1. Independent Variables for the at Intersection Accident Model	
Variable	Definition
AADT	Annual average daily traffic at the intersection
LANE	Total number of lanes at the intersection
TURN	Total number of turn lanes at the intersection
MEDN	Total number of physical median at the intersection (MEDN1+MEDN2+MEDN3+MEDN4)
PEDN	Total number of pedestrian crossing at the intersection (PEDN1+PEDN2+PEDN3+PEDN4)
DRWY	Total number of driveways at the intersection
HZRD	Number of legs with extra hazards at the intersection
EXSF	Number of legs with extra safety features at the intersection
RLFL	Number of legs with restricted left turn signal at the intersection.

The linear regression technique was used in this analysis in which total accident count was used as the dependent variable. Pearson correlation coefficients calculated are shown in Table 2.

Table 2. Correlation Coefficient			
Correlations			
Variable	ACCT	p-Value	Sig at 10%
LANE	.502	0.00475261	Yes
TURN	.559	0.00133763	Yes
DRW	-.006	0.97315647	No
MEAD	.330	0.07532854	Yes
PEDN	-.083	0.66431599	No
EXSF	.024	0.89843575	No
HZRD	.578	0.00081547	Yes
RLTL	-.030	0.87507706	No
AADT	.416*	0.02214094	Yes

Above table shows that five variables: number of lanes, number of turn lanes, presence of medians, presence of hazards and AADT, are significantly (at alpha of 10%) correlated to number of accidents.

The linear model analysis showed that regression accounted for 60% of variability in the accident rate (R-square = .602). The analysis of variance of the regression model shows that the variability explained by the model was significant at less than 1% level. The regression model can be written as:

ACCTOL = 7.246 +0.438*LANE + 3.225* TURN +0.596*MEAD + 0.001*AADT + 13.751*HZRD

Where ACCTOL—Total number of accidents at different intersections.

This result was significantly different than the pilot study result where R-square was 97%. The pilot study indicated that factors like number of driveways and pedestrian crossing were significant whereas presence of extra hazard (railway line, another traffic light with 250', etc.) factors were not significant.

To validate results, the current model was used to predict the total number of accidents in a different set of ten intersections. It was found that the model was predicting higher than the actual number of accidents. This difference between actual and predicted values was on an average more than 33% higher. A t-test was conducted and difference between actual and predicted values was found to be significant with p-value of .003. Table 3 shows the results.

Table 3. Difference between Predicted and Actual Accidents

Street	Actual Accident	Predicted Accidents	Diff
1	46	49.07	3.07
2	49	54.69	5.69
3	42	63.67	21.67
4	17	29.74	12.74
5	35	53.16	18.16
6	37	54.98	17.98
7	21	43.40	22.40
8	12	24.78	12.78
9	36	36.33	0.33
10	38	32.12	-5.88
Total	333	441.95	108.95

DISCUSSION

This study was an attempt to replicate the result of the earlier pilot study. However, the model developed with a larger sample size could not confirm the results of the pilot study. The R-square dropped from 97% in the pilot study to 60%. This was a significant change in the explained variation of the accident rates.

Furthermore, the variables which were found to be significant at the pilot study were not the same in the current model. It was encouraging to see that the presence of pedestrian crossings and number of driveways was significant in the pilot study model, indicating that certain policy decisions can be made based on the results of that model. However, those variables are no longer significant in the current study. It could be due to the fact that pilot study sample size was more homogeneous both in terms of the number of accidents as well as in terms of traffic volume.

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REFERENCE

Reference provided upon request.

U.S. MOBILE TV ADOPTION STRATEGY: IS IT CONSUMER CHOICE?

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ABSTRACT

Although Mobile TV has yet to penetrate the U.S. market with a substantial number of subscribers, it is "the" issue of concern for consumers in eastern Asia and Europe. Several reasons for the slow adoption of Mobile TV in the U.S. market exist including culture, consumer choice, content providers, and most surprisingly, technology commitments by major network operators. However, given the global interest in the technology, the U.S. Market will follow suit but only after a number of trials are successfully tested throughout the country. A U.S. Mobile TV market analysis is given using an overview of recent survey data about potential U.S. users' perceptions of Mobile TV.

BUILDING A SECURE ENTERPRISE MODEL FOR CLOUD COMPUTING ENVIRONMENT

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ABSTRACT

Security is a major concern for enterprises and a good information security framework is essential for the continued success of enterprises that use cloud computing services with vendors. The ISO/IEC 27002 security standard is based on a management systems approach and is the choice of many enterprises for developing security programs. As enterprises are rapidly adopting cloud services for their businesses, measures need to be developed so that organizations can be assured of security in their businesses and can choose a suitable vendor for their computing needs. This research proposes a mechanism for managing security in a cloud computing environment using the ISO/IEC 27002 framework.

THE HUMAN SIDE OF TECHNOLOGY PROJECT PERFORMANCE: EFFECTS OF SATISFACTION, PERCEIVED TECHNOLOGY POLICY, TASK SIGNIFICANCE AND TRAINING

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ABSTRACT

Socio-technical systems theory provides a conceptual foundation for testing five behavioral relationships in a technology-based project environment. Socio-technical systems emphasize work designs that focus on the human side of technology. Data collected from technology development project teams were used to test training, satisfaction and perceived technology policy as independent influences on project effectiveness. Task significance was also tested in the model and found to positively moderate training, but its interaction was insignificant as a moderator of perceived technology policy. These findings contribute to the body of technology and innovation literature and stress the importance of considering human factors in the design and implementation of technological systems.