Jan 1st, 12:00 AM

05. Information Operations Management

Northeastern State University

Abstracts from the 2015 Oklahoma Research Day

Held at Northeastern State University

01. Business Administration

05. Information Operations Management

01.05.01 Comparison of Website Creation Platforms: Weebly.com and Wix.com

William,Rosener *Northeastern State University*

Trying to decide which website builder is better for you? This poster presentation will compare and contrast two popular website creation platforms – Weebly.com and Wix.com. More specifically, this project will compare 1) template designs available, 2) drag and drop structures, 3) user support, 4) steps to exporting a domain name, 5) advertising, 6) popularity, 7) tools, and 8) comparison of pricing. Hopefully, this project will help you decide overall whether Wix or Weebly is the better website creation platform for your needs.

01.05.02 The Benefits of Excel Visual Basic for Applications to the Small Business Owner

Brent,Jay *University of Central Oklahoma*

David,Noel *University of Central Oklahoma*

VBA (Visual Basic for Applications) is a feature included within Microsoft Word, Outlook, Excel, Access, PowerPoint, and Publisher which can be used to enhance all components of the Office product.The purpose of this research project is to show small business owners how they can implement and use Excel VBA within their company to enhance their business processes. Small businesses can create a wizard style user interface with the use of VBA for those dreadful tasks that have to be completed each day by an employee using excel. A benefit of using a wizard style feature to input data into excel is that one can limit the number of possible errors by adding drop down boxes, combo boxes, buttons, etc…Small businesses can also purchase previously created add-ins that are written in Excel VBA. These add-ins provide the small business with the benefits of VBA without having to have someone within the company create it for them. After reading this paper, the small business owner(s) will have an understanding of VBA and the myriad of practical benefits it provides. They will know that users can create custom interfaces that are used in conjunction with macros and custom build functions to build entire applications. With this knowledge the small business owner can implement the features within VBA to their business processes.

01.05.03 Small Business Guidelines for Disaster Recovery in the Cloud

Dao,Ha *University of Central Oklahoma*

Michelle,Hepner *University of Central Oklahoma*

Data loss is the most common business disaster for large and small companies. Data loss can occur due to hardware failure, human error, theft, or natural disaster. A system and data backup plan must be followed to avoid catastrophic consequences to any disaster or failure. Utilizing a cloud backup solution can provide convenient, fast, and reliable online storage for backups but only if the cloud services provider is well-chosen and the recovery plan is well defined. This research study explains how cloud services can help small businesses, discusses common misunderstandings about cloud services, and aims to help small businesses plan their system and data backups as well as their recovery of systems and/or data. This study also includes studying end-user licensing agreements (EULAs) for common cloud services being used today, and interviews with numerous small businesses to assess their knowledge and understanding of cloud services. In addition, cloud service providers in Oklahoma were interviewed to assess when local providers may offer greater benefits than common national or international cloud services provide. Finally, this study also tested system and data backup to a cloud service provider in order to create guidelines for small businesses. These guidelines will help businesses select the best cloud services provider for their disaster recovery plans and guide their expectations regarding cloud performance and reliability.

01.05.04 Learning Styles: Determining their effects in Programming Classes

Misael,Serna *University of Central Oklahoma*

The purpose of this research is to analyze differences in performance due to the learning styles of students in beginning programming classes. We will analyze lecture-based programming courses and hands-on programming courses. We will administer a survey which will include a set of programming problems. We will then analyze the results by comparing the student's performance and the students learning styles. As a result we can gain a more complete understanding of the effect of teaching methodology and learning styles on performance. To collect my data I will select 4 beginning programming classes from the University of Central Oklahoma. Two of these classes will be taught using hands-on experience and the other two through lecture methods. Data will be gathered from participants by handing out surveys which will contain a set of demographic data and programming problems. We will be answering these research questions. To what degree does the teaching methodology affect student performance? To what degree does the learning style affect student performance? The first research question will be answered through a t-test with teaching methodology as the independent variable and student performance as the dependent variable. The second research question will also be answered through a t-test, with learning style preference as the independent variable and student performance. Correlations between dependent measures will be examined.

01.05.05 Guidelines for Small Businesses: How to Select a Cloud Service Provider

Sajana,Shrestha *University of Central Oklahoma*

With increasing publicity and hype for Cloud Computing, there is increasing demand for a wide range of Cloud services. Thus, the number and variety of Cloud services and service providers are abundant. This has created plenty of confusion for small business owners who lack information system expertise but must sift through the huge pool of cloud vendors and their services. To help owner's determine what provider and service is right for their small business, this research provides guidelines for selecting the best cloud solution in terms of reliability, affordability and security for their business. As a part of this research, various small businesses were interviewed in order to understand their knowledge as well as their perception of Cloud service and providers. Similarly, various cloud service providers in Oklahoma as well as online were analyzed according to important business criteria for small businesses such as ease-of-use, encryption, and ownership of cloud data. These guidelines will help the small business community to comprehend essential elements when agreeing to a Service Level or Licensing Agreement with any cloud provider.

01.05.06 Making Products Scarce The Right Way: The Moderating Effect Of The Source Of Scarcity And Brand Identity On Consumers' Valuation

Kenneth,Walker *University of Central Oklahoma*

Thanh,Tran *University of Central Oklahoma*

This project explores how scarcity enhances consumers' perceived value for the product. There are two hypotheses: the first investigates the moderating effect of the type of scarcity (i.e., which is created by limiting the quantity vs. distribution of the product) on the perceived value. The second hypothesis study the moderating effect of the type of brand (i.e., popular vs. private brands) on the perceived value. The finding provides important implications for marketers in designing effective promotion strategies by using scarcity.

01.05.07 Security Program Development: The importance of information sharing within the critical infrastructure.

Martin,McCurdy *Oklahoma State University - Institute of Technology*

The U.S. Department of Homeland Security has emphasized a significant need for protecting our nation's critical infrastructure from cyber-attacks. Until recently, cyber-threats against critical infrastructure were perceived as being constructed by nation-state attacks. Now, cyber-attacks have progressed into individuals or groups causing havoc to the private sector's critical infrastructure. The development of an organization's security program based on information sharing will provide the private sector with an increased awareness. These concepts focus on acquiring context about a threat, assess policies and remediate standardized procedures, and bridge gaps through collaboration among an organization's departments. This analysis will display the various methods that occur in a security program and how these processes are utilized to validate their compliance and fulfill the security scope.

01.05.08 IS Security Strategy When Using the Cloud for Small Businesses

Mohamed,Al Moutaa *University of Central Oklahoma*

IS security is an essential part of small businesses. Using cloud computing for data storage and backup might be the best approach for businesses in Oklahoma. Small businesses have a big impact in the U.S. economy, consisting of approximately 50% of the working population. They are three fundamental models that cloud computing providers offer: infrastructure as service, platform as a service, and software as service. Also, there are three main delivery models: the private cloud where the business has exclusive use of an isolated cloud, the public cloud which is a shared-service environment accessible to any customer, and hybrid cloud which combine the public and the private cloud. It is important for small businesses to be aware of the security aspect of using cloud computing and have an IS strategy when using it. Small businesses have become easy targets for cyber attackers due to their lackadaisical protections. Ninety per cent of small and medium sized businesses in the U.S. do not use data protection for company and customer information and fewer than half secured their company email to prevent phishing scams. There are more than just phishing scams that challenge their security. There is also malware, wireless internet vulnerabilities, online fraud, compromised websites, spear phishing, unauthorized access, and cloud computing risks. The purpose of this research project is to determine the security aspect that small business face and to explore security rec

01.05.09 Design reflection in action for novice conceptual modeling

I-Lin,Huang *Langston University*

Judy,Hsu *Creative Process Research Lab*

Conceptual modeling is a major part of information system development process. During information system development process, systems analysts often analyze users' requirements represented in textual descriptions. Then the systems analysts transform their understanding of the users' requirements into conceptual models. Conceptual modeling introduces the system analysts to a language game that transforms the representation of a given set of information system requirements by natural language into those by the conceptual modeling language. The differences between the two languages have made conceptual modeling a difficult task, especially for novice systems analysts. As a result, conceptual modeling is well-known as an error-prone process. When studying the differences of novice and expert analysts in conceptual modeling, reflection in action is an important skill used by expert analysts to attain deeper understanding of the modeling situation and step out of unproductive blockages. In order to improve novices' modeling performance, this research proposed a scaffolding environment for novices to reflect on their modeling process and hence they will have opportunities to detect and solve their misconceptions. In this research, we identified the opportunities for novice analysts to reflect, self-question, or self-explanation during conceptual modeling, which will then results in better quality of conceptual models