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Book of Abstracts



بدعم من

Effects of using Web 2.0 applications in the E-Business course on .Palestinian student's professional development skills

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Abstract:

Learning styles of the digital native undergraduate student of today are changing rapidly because of ready access to the Internet. Students are no longer dependent on conventional textbooks to gain learning skills and knowledge, and traditional teaching methods must be tweaked to accommodate such changes. The E-Business course offered at Bethlehem University in Palestine during the spring 2011 semester blended Web 2.0 applications (Web2 apps) such as social networks and file sharing through cloud computing to support the changing student learning styles and deliver the E-Business course content effectively without requiring any textbook for the course. The course also included online marketing campaign or Google Adwords through participation of Google Online Marketing Challenge which is offered to any higher education institution around the world. This article evaluates these innovations in terms of Web2 apps skills development of the 59 students taking this course and how skills acquisition influenced their independence in knowledge seeking. A learning experience questionnaire assessed the students' perception and was supplemented by the students' result in a Google online marketing challenge. Results of survey showed that 79.30% agreed that the course did help them develop confidence on their knowledge acquiring abilities. This innovation appears to be effective in motivating students to learn how to utilize new applications on their own. These results should encourage educators to employ Web2 apps relevant to the course content and evaluate their results.

Application of Computer Simulation for Optimizing Branchless Banking Opportunities via Cell Phones

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Abstract:

Mobile Financial Services (MFS) are new phenomena in the world of Mobile Commerce (m-Commerce) which helps customers to interact with a bank via mobile device and makes banking virtually anywhere on a real-time basis a reality. This study investigates the impact of adopting MFS applications on minimizing service channels costs for Palestine Islamic Bank (PIB) in Khan Younis. Two types of models to analyse and evaluate the impact of adopting banking servicing opportunities via cell phones are presented. The first is a computer simulation model used for shedding some light on how inputs may affect the responses of interest. The second depends on the outputs of simulation experiment for finding the optimum combinations of input parameters by following Response Surface Methodology (RSM) assuming certain level of customers representing the early adopters will use MFS.

Mobile Learning Applications

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Abstract

Last decade, mobile technologies have grown from a minor research to significant projects prevailed most of various lifestyles. Beside m-commerce, m-learning was one of most interested projects. Each project has illustrated how this technology can offer a new opportunity for learning that extends within and beyond the traditional teacher-led classroom. In fact, many higher education institutes have developed their own applications or adopted some commercial versions, yet they are successful only when developers understand the strengths and weaknesses of the technology beforehand and integrate technology into appropriate pedagogical practices. This paper aimed to discuss the conceptual frameworks and the prerequisites of designing m-learning applications and resources giving a view of how to design a useful mobile application with limited-capabilities technology in education field. Experienced examples of a good practice in m-learning application are presented also in this paper.

Critical Factors Influencing the Acceptance and Diffusion of E-Government Services: Conceptual Framework

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Abstract:

There are some great innovations in e-government during the past decade, and there is intense competition between some governments and leaders in the supply of services on the internet. Some countries do not want to stay behind in this area, where many governments have developed detailed strategies to realize the e-government systems, but there is a problem facing these governments which lack user acceptance of e-government services. The purpose of this study is to suggest comprehensive model to explore and investigate the Factors Influencing the Acceptance and Diffusion of e-Government Services. The proposed Model will develop based on the related literature. The motivation for conducting this study, that it is the first study in the Palestine, that investigate users needs and expectations, where there is a significant part of e-government literature that investigates various factors that determine intention to use e-government in developed countries, however, there is a dearth of studies that investigate intention to use e-government in developing countries. Consequently, the final modified research model has the power to explain and predict user behavior in developing countries and especially Palestine. A thorough understanding of the model may help practitioners to analyze the reasons for resistance toward the technology and also help them to take efficient measures to improve user acceptance and usage of the technology.

Protection the Copyright in E-Education Process

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Abstract

Today's world, becoming more competitive, every day is demanding from organization the flexibility to adapt themselves to the permanent situations of market change, readiness for ongoing development and guarantee of the quality of products and services. At the same time, Internet, after being used initially as a great source of information exchange, rapidly happen to be used as an important means for providing learning and training services across the whole world. However, such advances have caused series of information system security issues to the face. The complexity of Internet infrastructures, such as in a Web services distributed system, can hide the potential risks of so many security issues, and subsequently become disadvantageous to e-learning users, applications and institutions. The main aim of this research is to provide an approach to protect the copyright of e-courses materials in the e-learning system. This new model will be deployed to protect the copyright of e-courses material from unauthorized distribution, and to protect the e-course material from being modified while transit. The design of model is provided to make the e-learning process more secure for both organization and students alike.

Electric Power Load Short Term Forecasting

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Abstract:

This study, aimed to make a research on Short Term Load Forecasting (STLF) in Palestine, by Fuzzy Inference System (FIS). For this purpose, new modeling-based methods are explored and proposed to forecast Bier-Nabala (as a sample) power electric load one day and one week in advance. Different models have been developed and compared to represent the STLF using the training data, such as, Sugeno Fuzzy Inference System with different optimization techniques including Hybrid and Back-propagation optimization techniques, Sugeno model using the Subtractive Clustering, and finally Sugeno cascaded model using Subtractive Clustering and Hybrid optimization technique. Real historical data profiles for two years (2006 and 2007) have been used to develop and test these proposed models. These data profiles were provided by Jerusalem District Electric Company (JDECO), and the Palestinian Meteorology Office (PMO).

Two kind of models have been developed, namely: the Single Input Single Output (SISO) and Multiple Input Single Output, (MISO).

In the SISO model, the time parameter was considered as an input, while in MISO model, three inputs have been considered namely: time, high temperatures, and low temperatures. For the two kinds of models, the power load was the output.

Different models for SISO and MISO have been developed using the training data, such as:

- Sugeno Fuzzy Inference System FIS with different optimization techniques including Hybrid and Back-propagation optimization techniques
- Sugeno model using the Subtractive Clustering,
- Sugeno cascaded model using Subtractive Clustering and Hybrid optimization technique.

The forecasting performance has been improved by the MISO cascaded models, while maintaining all other factors including MFs types and numbers, and cluster radius.

The developed models have been integrated with a stand-alone application with Graphical User Interface, GUI. The developed Electric Power Load Forecasting System (EPLFS), EPLFS can be accessed online to predict the power load. The preliminary and promising results indicate the suitability and adequacy of the developed models depending on the Fuzzy approach to solve the short term load forecasting using the time and weather variables.

Academic Researcher Information Extraction from the WEB (ARIEW)

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Abstract

Web is a large and growing collection of texts. This amount of text is becoming a valuable resource of information and knowledge. To find useful information in this source is not an easy and fast task. People, however, want to extract useful information from this largest data repository.

Academic Researcher Information Extraction from the WEB (ARIEW) is a framework for automatic collection and processing of resource related to researchers' information in the World Wide Web. ARIEW retrieves and extracts information about researchers from many servers in the Web and combines them into a single searchable database. This paper discusses the background and objectives of ARIEW and gives an overview of its functionality and implementation of ARIEW system used to construct specialized database about researchers. The intention is to develop the system to integrate it with other applications for Advanced Document Management. The system can be utilized in the process of automating conference organization and its usage in real world applications.

Automatic Essay Scoring

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Abstract:

An Automated Essays Scoring (AES) system has been developed. The idea behind the proposed AES is to grade the essays by identifying the main keywords in the essays and their synonyms, and processing these keywords using modelling approach-based techniques including Fuzzy Logic, Clustering, and Neuro-Fuzzy. Currently, the developed AES can identify up to 15 keywords, each of which has up to 4 synonyms. A 100-word history essay has been used to test the AES. 1080-data sets have been constructed using 13 questions. The obtained average correlation coefficient between actual and predicted marks has a value of 0.9963 for training and 0.9937 for the testing data sets. Whereas, the Mean Absolute Percentage Error (MAPE) average value obtained is 0.0404 for the training and 0.0405 for the testing sets. These preliminary promising results demonstrate the adequacy of adopting the modelling techniques in solving the automated scoring systems. Further investigation is currently accomplished to take the order of words and negations issues into account.

Improving Software Quality Through Requirements Elicitation

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Abstract:

Today's IT challenge is to deliver, as quickly as possible - and within a fixed budget, quality, business-critical software systems that can support business initiatives in a changing business environment, this means that three factors should be maintained to produce the desired software, these would be cost, quality and time.

Most project management efforts concentrate on meeting time and cost constraints, passing over the quality factor, research in software development industry shows that the major problem facing software development isn't crossing time and budget limits (though it's a big issue), but it's the production of software systems that won't be used as they don't address vital business needs, this is definitely a quality issue.

This paper focuses on improving the quality of a software products through improving the requirements elicitation process, it employs the results of a research conducted in two local software houses to reveal the relationship between software quality and requirements elicitation process as the road to producing better software, it also discusses two issues that may lead to failure in elicitation process (bad communication and requirements volatility).

A Comparative Study of Statistical and Data Mining Algorithms for Prediction Performance

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Abstract:

The aim of this study is to perform a comparison experiment between statistical and data mining modelling techniques. These techniques are statistical logistic regression, data mining decision tree and data mining neural network. The classification as a popular part of data mining, used in designing prediction models, is selected to be the main theme of comparison. The comparison will evaluate the performance of these classification techniques in terms of measuring the overall prediction percent agreement for each technique. The ratio of the binary values of the dependent variable in the training dataset and the population is used on the three techniques to find the effect of this ratio on the prediction performance.

For a given data set, the results show that the performance of the three techniques is comparable in general with small outperformance for the Neural Network. An affecting factor that makes the prediction accuracy varied is the dependent variable data distribution (distribution of "0"s and "1"s). It is seen that, for all of the three techniques, the overall prediction percent agreement is increased when the distribution of "0"s and "1"s is larger. This means that the overall prediction accuracy of the ratio 1:4, for example, is better than the ratios 1:2 and 1:1. On the other hand, the prediction accuracy (not the overall) of "0"s and "1"s is comparable when the ratio is small. For example the 1:1 ratio is better than 1:2 and 1:4 ratios in predicting the dependent variable values for "0"s and "1"s but not for the overall prediction accuracy.

N+1 Decision Trees For Attack Graph

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Abstract:

Attack Graph is very useful technique for administrator to map the system vulnerabilities, the information mapped are attack's goals and paths.

In this paper we introduce a novel way to draw an Attack Graph, by using Decision Tree to preprocessing the vulnerabilities information collecting from government institution using NNESSUS tool. Decision Tree is a supervised learning classification technique represent paths and text in the nodes and on the edges for verifying the easy understand vulnerabilities. The tree used is very useful in the way of generating the graphs. The graphs are N+1: N for each attribute and one for full graph. This way simplify the way the administrator to learn the situation by minimize the size of graph and then evaluate the system vulnerabilities.

Runtime Replica Consistency Mechanism For Cloud Data Storage

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Abstract:

A cloud computing is becoming increasingly popular; cloud storage services attract more attentions for their high security and availability with a low cost. Cloud storage is expected to become the main force of the future storage market. As a key technology of cloud computing, replication faces new challenges, especially replica consistency. The intrinsic characteristic heterogeneous of cloud applications makes their consistency requirements different where the consistency requirement of certain application changes continuously at runtime. This paper presents a runtime replica consistency mechanism for cloud data storage to achieve a dynamic balance between consistency and performance. Evaluation result show that the propose mechanism guaranteeing the consistency and decrease the overhead.

Possibility of Applying Green Communications in Palestinian Cellular Networks

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Abstract:

Due to the large deployment of wireless networks, energy efficient networks have attracted the attention of researches in recent years. The main challenging aspect is the development of policies and protocols for enabling energy saving. Green Communication is a key idea in this direction. It mainly focuses on network design that enables activation of resources on demand. This paper studies the possibility of applying the green communication idea in Palestinian cellular networks. Detailed simulation experiments have been conducted using real traces from Palestinian cellular operators. We present simulation results that demonstrate the amount of energy saving when green communication is applied. Further, we demonstrate the effect of green communication on Quality of Service experienced by cellular users.

Comparison Study of Adhoc Networks Routing Protocols Using NS2

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Abstract:

Adhoc networks are the next step in the evolution of wireless architecture, delivering wireless services for a large variety of applications; they are very useful in emergency search-and-rescue operations, in the applications where the persons wish to quickly share information, and data acquisition operations in inhospitable terrain. Ad hoc wireless networks are increasingly gaining importance due to their advantages such as low cost and ease of deployment . In recent years, a variety of new routing protocols targeted specifically at this environment have been developed like Destination-Sequenced Distance-Vector (DSDV), Dynamic Source Routing (DSR), Ad Hoc On-Demand Distance Vector Routing (AODV). In this report, I will present a comparison study of the performance of these routing algorithms in ad hoc networks under the IEEE 802.11s specifications

Developing New Methods To Find The Number Of RAM Chips In The Memory Decoding To Construct The Required Memory Size

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Abstract

Integrated -Circuit random access memory RAM chips are available in a variety of sizes. If the memory unit needed for an application is larger than the size of one chip, it is necessary to construct an array of RAM chips which includes a combined number of RAM chips. The problem here is how to determine the dimensions of the array of RAM chips. This paper develops new methods to find the number of RAM chips in the array of RAMS in order to obtain the required memory size.

Selectivity Estimation Technique for Wikipedia

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Abstract:

Extensible Markup Language (XML) rapidly establishes itself as the de facto standard for presenting, storing, and exchanging data on the Internet. However, querying large volume of XML data represents a bottleneck for several computationally intensive applications. A fast and accurate selectivity estimation mechanism is of practical importance because selectivity estimation plays a fundamental role in XML query performance. Recently proposed techniques are all based on some forms of structure synopses that could be time-consuming to build and not effective for summarizing complex structure relationships. To overcome this limitation, we propose an innovative selectivity estimation algorithm, which consists of (1) the path tree synopsis data structure, a succinct description of the original document with low computational overhead and high accuracy for processing tasks like selectivity estimation, (2) the streaming selectivity estimation algorithm which is efficient for path tree traversal. Extensive experiments on both real and synthetic datasets show that our technique achieves better accuracy and less construction time than existing approaches.

A social network algorithm for detecting communities from weighted graph in Web Usage Mining system

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Abstract:

Web Usage Mining is the process of discovering user's navigation pattern and predicting user's behavior. The quantity of the Web usage data to be analyzed and its low quality are the principal problems in WUM. Several algorithms of data mining have been applied in order to extract the behaviors of the Web sites' users. In this present work, we have implemented a community detection technique in WUM process that is based on the modularity function and we have organized the preprocessed data as a weighted graph. The obtained results illustrate the aptitude of the proposed algorithm to determine a pertinent design of the web site from the discovered communities.

Applying Data Mining Technology in Modeling and Predicting Number of Students in Bedia Center

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Abstract

In this paper we will apply the Data Mining Technology in taking decision process. We will use Regression Model technique which is used to predict the value of a response (dependent) variable from one or more predictor (independent) variables where the variables are numeric.

In this case study we will predict and estimate the number of students growth in Bedia Educational Center which is branch of Al-Quds Open University. The estimation is based on the main resource of data which is the historical data for those students were enrolled in Salfeet Educational Region; it is also another branch for Al-Quds Open University. This prediction and estimation based on simple linear regression modeling technique. The reason of using this technique is the steady increasing in the number of students at the university in general and at Salfeet Educational Region in specific. This case study will give the decision makers at Al-Quds Open University view about the number of students in the future, which help them to take the right decision for the situation of Bedia Educational Center.

Cell Phone Jamming Device

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Abstract:

There is no doubt that cell phones nowadays are considered a necessity, since people need to be connected almost at all times, except for certain situations where phones are disruptive such as mosques , churches, university lecture room , libraries, meeting room, movie theatres and worship places, ...etc.

Our Mission is to avoid cell phone noise when it's disruptive and get silence in places were silence is appreciated, without having to ask the people to turn off their devices or set them on silent mode.