14th International Conference on
e-Society 2016

CONFERENCE PROGRAM

08:30-19:00 Welcome Desk

09:45-10:00 Session O – Opening Session
(Room: Tejo 2)

OPENING SESSION
Profs. Piet Kommers and Pedro Isaías

10:00-11:00 Session KL1 – Keynote Presentation
(Room: Tejo 2)

INFORMATION SOCIETY EVOLUTION AND EFFECTS
Dr. Anthony Brooks, Aalborg University, Denmark
Abstract
The evolution and effects of the information society can be exemplified via many threads, both in hard and soft science, according to ones' discipline and field. In this contribution, the speaker's three decades of applied research acts as a vehicle to demonstrate development and impact via directly and creatively applying technical advances to affect life quality at a societal level. Illustrated is how empirical research successfully reaches beyond the walls of academia to directly affect individuals, groups and communities across abilities and ages. Developments that have led to patented commercial product, national and international projects, and industry start-ups (including impactful third party research investigations) form the basis for discussion. Beyond this, a wider more generic perspective reflects on product adoption that illustrate todays' contemporary e-society tendencies where recent influx and uptake of consumer-targeted artificial reality products point to society's desire for alternative sensory experiences. Posited is how aligned with this desire there is a need for new ethical considerations in research as was found in the speaker's research at the end of the 20th century. The keynote will close with video examples that directly address such ethical issues to promote further discussions and analogies.

11:00 – 11:30 Coffee Break

11:30-13:00 Session FSP 9.1
eLearning // Other
(Room: Tejo 2)
Chair: Andrew Rothwell

EXPLORING THE EFFECTS OF OPENNESS TO EXPERIENCE AND THEORY OF CONSUMPTION VALUES ON ONLINE LEARNING ADOPTION (F013)
Boonlert Watjatrakul
Abstract
Personality traits and perceived product values are increasingly used to explain how people adopt innovative technologies. However, their relationships and effects on online learning adoption are ill-defined. This study investigates one of the common personality trait –openness to experience– and the value dimensions of theory of consumption values –functional (quality and monetary) value, social value, emotional value, epistemic value, and conditional value– to understand students' intentions to adopt online learning. The study used a structural equation modelling technique (SEM) to analyze the data gathered from university students. The results indicate that students who are highly open to experience pay attention to monetary value and conditional value of online learning. Students, who perceived online learning as a quality method of learning (quality value), an interesting method of learning (emotional value), and an online learning community (social value), will have good intention to adopt online learning. Interestingly, the results contend that the five values of theory of consumption values are interrelated and contributed to online learning adoption differently. This study provides guidance to universities for planning and developing online courses/programs that will be considered valuable by students who are open to new experience leading to the increment in online learning students. The analysis results and implications for theory and practice are discussed. The paper concludes with the study limitations and directions for future studies.

EXPANSION OF HIGHER-EDUCATION ENROLLMENT RATIO USING AND E-LEARNING PLATFORM WITH OPEN-SOURCE SOFTWARE:MÉXICO (S097)

Mariano Gamboa Zúñiga, Luis Arturo Ortíz Arellano, Jano U. López Rodríguez and Ángel Vega Villalobos

Abstract

In Mexico, the percentage of higher-education enrollment is approximately 35% of the population. Consequently, the Mexican Government, within the context of National Development Plan 2006-2012, proposed the creation of the Open and Distance-Learning University in order to increase the higher-education enrollment ratio in the country.

Thus, the Secretary of Public Education of Mexico requested the Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV-IPN) to develop a technological platform with the following features: scalability, reliability, portability, built on a layer-based model, interoperability, high-availability (n + 1), with an average response time of three seconds, high capacity, based on an Open-Source platform (Open Source LMS-Model), with a Service Oriented Architecture (SOA), and a student-centered service model.

This article presents a model of technological pedagogical, and administrative collaboration between academics and Cinvestav, a project-development road map, the architecture of the technological platform, the layer model, the Service Oriented Architecture, the workplace environments, and the high-availability technological infrastructure that allowed the creation of an educational offer of 12 bachelor degrees and one Higher Technician Certificate, as well as the School Management System, with more than 220 success cases. It also presents the national and international distribution of Mexican students.

This project placed Mexico within the countries that actively use communication and Information Technologies in education. The technological platform developed to meet the required service levels evolved from a cluster-based solution to a platform of repeatable virtual classrooms that ensures a suitable response time. From 2009 to 2013, this platform was used by approximately 200,000 Mexican students living in Mexico and 86 different countries, and was even capable of supporting 76,000 students enrolled with a 50% attendance.

USING NARB BASED WEB PRESENCE TO EDUCATE ABOUT POLITICAL CLIMATE: THEMEDIAWATCH.COM (S114)

Ananda Mitra, Vibodh Parthasarathi and Sanjay Mamani

Abstract

There is an increasing availability of unstructured textual data in the depositories of big databases that are constantly produced and updated. Such unstructured data, such as tweets from journalists and their followers play the role of narrative bits – narbs – in creating specific stories about an individual, group or institution. A selection of narbs emanating from a set of followers of the tweets of prominent journalists in India are analyzed using the theoretical foundation of the narrative paradigm to demonstrate how analytic protocols adapted from Latent Sematic Analysis and Natural Language Programming can be used to political outcomes.

A CASE STUDY OF TECHNOLOGY LEADERSHIP BY SCHOOL PRINCIPALS IN THE USA; IMPLICATIONS FOR PREPARATION AND TRAINING (S057)

Susan M. Klimczak and Gregory M. Hauser

Abstract

The purpose of this study was to investigate the frequency and extent to which principals' implement educational technology leadership in three school districts in the largest Midwestern metropolitan area of the USA. The study also identified and explained the factors that influence these perspectives. A mixed method sequential explanatory research model was utilized to collect quantitative and qualitative data. Technology leadership was measured based a modified version of the Principals' Technology Leadership Assessment (PTLA). Data from the quantitative phase of the study were analyzed using descriptive statistics. Data from three focus group interviews were analyzed to identify codes and themes. These data were then triangulated to inform findings and recommendations for practice.

13:00-14:30 – Lunch Break

14:20-15:35 Session FRP 9.2
Privacy Issues
(Room: Tejo 2)
Chair: Dirk Frosch-Wilke

SECURE AND TRUSTWORTHY REMOTE JAVASCRIPT EXECUTION (F120)

Carlos Serrão and Diogo Rocha

Abstract

Javascript is used more and more as a programming language to develop web applications in order to increase the user experience and application interactivity. Although Javascript is a powerful technology that offers these characteristics, it is also a potential web application attack vector that can be exploited to impact the end-user, since it can be maliciously intercepted and modified. Today, web browsers act as worldwide open windows, executing, on a given user machine (computer, smartphone, tablet or any other), remote code. Therefore, it is important to ensure the trust on the execution of this remote code. This trust should be ensured at the JavaScript remote code producer, during transport and also locally before being executed on the end-user web-browser. In this paper, the authors propose and present a mechanism that allows the secure production and verification of web-applications JavaScript code. The paper also presents a set of tools that were developed to offer JavaScript code protection and ensure its trust at the production stage, but also a proxy-based mechanism that ensures end-users the un-modified nature and source validation of the remote JavaScript code prior to its execution by the end-user browser.

BIG DATA PRIVACY CONCERNS IN THE LIGHT OF SURVEY RESULTS (F099)

Jędrzej Wieczorkowski and Ilona Pawełoszek

Abstract

Big Data may be understood as data sets whose sizes exceed the capacity of conventional database tools. The Big Data resources may include business transactions, e-mail messages, photos, surveillance videos and activity logs. Big data can be analyzed with the aim to draw informative results that lead to better decisions and strategic business moves. Although Big data could benefit many areas of social life and business, it also raises privacy concerns.

The paper discusses the issue of privacy and threats related to using big data technologies, especially personal data processing, video surveillance and monitoring the internet users' behavior during different activities. The aim of the paper is identification of subjective perception of privacy violation related to mass personal data processing. For this purpose the authors present the questionnaire survey results that was conducted recently among the students of Warsaw School of Economics.

BEWISER AN EU FUNDED PROJECT TO PROMOTE CLUSTERING AND CYBERSECURITY (R095)
Michael Walsh
Abstract

Building Enterprises – Wireless and Internet Security in European Regions (BeWiser) is an FP7 funded Regions of Knowledge project. Grant agreement 319907. The Regions of Knowledge (RoK) initiative raises the capacity of regions to invest in and carry out Research and Innovation activities through innovation-driven clusters. These clusters consist of businesses (in particular SMEs), regional and local authorities and academia. The activity contributes to the Europe 2020 "Innovation Union" Flagship Initiative which links Structural and Cohesion Funds to Research and Innovation. The 2012 RoK call supported transnational cooperation of clusters that contribute to one or two Europe 2020 Flagship Initiatives: Research and Innovation aspects of the "Digital Agenda" and the development of technologies relevant for the implementation of "Resource-Efficient Europe." This paper provides an account of the work and achievements of seven ICT clusters in BeWiser project.

15:40-16:30 Invited Talk
(Room: Tejo 2)

ADAPTATION IN APPLIED VIDEO GAMES: FROM PLAYER MODELLING TO DYNAMIC GAME ADJUSTMENT AND ENHANCED PLAYABILITY
Prof. Boyan Bontchev, Department of Software Engineering, Sofia University, Bulgaria
Abstract

Serious video games are widely applied in education, health, safety and training and, thus, help modern e-society in building efficiently knowledge, problem-solving and soft skills, creativity and conceptual thinking. However, though their proven social and cultural impact, applied games require relatively high production costs and offer lower perceived quality compared to the contemporary entertainment games. One promising solution of this problem is creation of adaptive applied video games, which identify implicitly specifics of each individual player (learner) during the game and use them to adjust dynamically some game tasks and features for fitting best that individual. Therefore, adaptive video games need solid modelling of player competences, emotions and styles, in order to achieve better player experiences and, hence, an enhanced overall playability.
The invited talk discusses modern trends and challenges in recent development and application of adaptive video games. It goes through theoretical behavior player models describing dynamic processes of player behavior and emotions during playing the game, and organizational models of player describing properties, attributes and facets of player's competences. There are discussed possible interconnections among them with time and model space constrains useful for affect-based game adaptation. The speech presents briefly the key ideas and results of the European project ADAPTIMES (ADAPTIve player-centric serious video gaMES), where measuring player's performance and playing styles is combined with recognition of player's emotional states and applied for adapting dynamically features of game mechanics, dynamics and aesthetics in order to improve player's engagement, immersion, excitement, and challenge.

16:30-17:00 – Coffee Break

17:00-18:30 Session FP 9.3
Information Management // Other
(Room: Tejo 2)
Chair: Anthony Brooks

PLATFORMS OF DIGITAL COMMUNICATION TO THE EDUCATION (F123)
Marcelo Mendonça Teixeira, Cristiane Domingos de Aquino, Marcelo Brito Carneiro Leão, Ivaldir Honório de Farias Júnior, Raphael Flanklin, Ricardo Neves Júnior, Gustavo Barros Lins, Micaías Paiva and Nivaldo Marques da Silva Júnior
Abstract

Contemporaneously, the multimedia interfaces are being used as an educational interface in virtual learning environments responsible for the divuling of various cultural activities on schools or universities, with programs dedicated education, culture and entertainment. In other words, this is a new way of learning and cultural production to those with access to cyberspace, characterized by mutual interaction, where each member is involved in building the cooperative relationship, affecting each other of reciprocal way. The present paper features a conceptual approach concerning the foundations of Web Radio, Podcast, Vodcast and Weblog, showing the main differences theoretical and technical between the concepts and their educative potentialities in cyberspace. The methodology used is empirical descriptive based on qualitative data survey in papers, PhD dissertations and Master's theses, books and Internet, collected on the first semester 2015.

USING BUSINESS INTELLIGENCE SYSTEMS FOR ENTERPRISE ARCHITECTURE VISUALIZATION (F053)
Dirk Frosch-Wilke and Sina Tuchtenhagen
Abstract

In today's business the optimization of the alignment between Business and IT can be assessed as a critical success factor for enterprises. For this reason the business management of an enterprise and the Enterprise Architecture Management (EAM) of the company should be integrated in a more consistent way to minimize application proliferation and to avoid information system silos. One possibility for achieving this is to provide and to visualize all necessary management information in only one IT-tool. In the enterprise management context Business Intelligence (BI) systems are information integrators which allow visualization and analyses of high quality and integrated business data. Also EAM systems have to collect, to manage and to visualize information from one or various sources. In this paper we demonstrate how information needed by EAM can also be modelled, stored, and business friendly visualized within a BI system. Thus, we demonstrate how Enterprise Architecture Visualization can be managed by a BI system.

INTELLECTUAL PROPERTY AWARENESS OF SULSIT STUDENTS: SURVEY RESULTS AND CURRICULA REFLECTION (F061)

Tereza Trencheva and Stoyan Denchev (presented by Bella Tetevenska)

Abstract

Intellectual property is directly related to the information that contains in its objects. In other words, Intellectual property is the ownership of information containing in intellectual products and their creators have full ownership of them. Developing with an unusually rapid pace, the Internet is a phenomenon not only in geographical but also in socio-legal sense. Internet is changing the familiar socio-economic paradigms and Intellectual property law is no exception to this. Problems studied in this paper are gaining currency in order to increase the role and importance of the Internet which has become an integral part of the look of the modern student society. The fact is that students are the largest group of our society which benefits research products and materials on the Internet. This paper presents a sub-study which is a result of a survey that explores the attitudes of young people, students, respectively, to the protection of Intellectual property in the digital space. The survey is part of the empirical study "Intellectual Property Protection on the Internet", conducted among the students in nine Bulgarian universities accredited in the educational and professional field "Public Communication and Information Science". The State University of Library and Informational Technologies (SULSIT) is one of these nine universities as one of the main universities in Bulgaria, accredited in the mentioned yet professional field. In SULSIT the survey covered students from six different Bachelor programs at the Faculty of Library Studies and Cultural Heritage (FLSCH) and was conducted in the period October-November 2012. The target group consists of 190 effectively completed the questionnaire students of the Faculty. The analyses of the results outline two problem areas which need more attention from the academic staff and further improvements: 1st of them is the effectiveness of intellectual property training at the FLSCH of SULSIT (based of different IP courses); 2nd of them is the attitude of SULSIT students about intellectual property protection issues (based of a complex of question, combined in a profile).

HOLISTIC PLAYER MODELING FOR CONTROLING ADAPTATION IN VIDEO GAMES (F124)

Boyan Bontchev

Abstract

Adaptation to player's context is crucial issue in player-centric video games. It is realized at run time according to measurable player behavior and, hence, provides a huge potential for creating an augmented player experience with higher level of fun and satisfaction. Adaptation mechanisms applied to player-centric games have proven success in generating more pleasurable and immersive gameplay for entertainment games and better learning for serious games. The present holistic player-centric model is suited for adaptation control for any type of video game but especially for applied games where gameplay should fit performance, emotional state and style of individual learner. The outlined preliminary results of a case study with such an applied adaptive video game proves that adaptation of game mechanics, dynamics and aesthetics based on player´s performance and emotions model provides enhanced learning experiences.

17:00-19:00 Tutorial
(Room: Lima & Sado)

INFORMATION RETRIEVAL FROM THE INTERNET AND WWW, USING SEARCH BY IMAGE: A TUTORIAL

by Prof. Paul Nieuwenhuysen, Vrije Universiteit Brussel, Belgium

Abstract

This tutorial workshop is based on a continuing investigation of the power, applicability, usefulness and limitations of search by image through the Internet. In this relatively new method for information retrieval, a query does not consist of text, but of an image file. The search results lead to images on the WWW and also to related texts.

19:00-19:30 Welcome Cocktail

Sunday 10th, April 2016

08:30-15:30 Welcome Desk

09:10-09:50 Session SP 10.1
eHealth
(Room: Tejo 2)
Chair: Boyan Bontchev

TRACKING AND MONITORING PATIENTS AND ASSETS IN SAUDI ARABIA' HEALTHCARE ENVIRONMENT (S069)

Awad Al Rasheed Al Yami, Anthony S Atkins and Russell Campion

Abstract

The Saudi healthcare system still faces a number of challenges despite numerous initiatives that have been taken by the Ministry of Health and relevant healthcare authorities. Most of these challenges relate to the underutilisation of electronic health (e-Health) strategies, and the development of a national system for health information. This paper looks into current issues and barriers in Saudi Arabia healthcare environment. The paper descries the collections and analysis of quantifiable data to support tracking and monitoring of patients and assets in Saudi Arabia's healthcare environment. The paper also compares current practises with a proposed system for an e-Health framework using Radio Frequency Identification (RFID) and ZigBee technologies. A survey was conducted on respondents from Saudi Arabia to ascertain the need of tracking and monitoring in a hospital environment. The survey results indicated that implementing tracking system will help in tracking patients as they move about the facility, enabling them to be quickly located for scheduled treatments or procedures.

THREE SYSTEMS FOR PERFORMING REMOTE-ECHOGRAPHY THROUGH AN INTERNET CONNECTION ON GEOGRAPHICALLY ISOLATED PATIENTS (S054)

Philippe Arbeille, Kathryn Zuj, Arnaud Saccomandi, Elise Andre, Eric de la Porte and Monica Georgescug

Abstract

Objective: To evaluate the performance of tele-echography for routine use in isolated medical centers. Methods: Three tele-echography systems were used for deep (abdomen, pelvis, fetus organs) and peripheral organs (carotid arteries, leg vasculature, muscle): (a) a robotic arm holding an echographic probe, (b) an echograph with motorized probe, both controlled from the expert center, (c) remote guidance where the operator at the patient site hold and orientate the probe assisted by an expert via videoconference. Results: These methods were tested in the same medical center 60km away from the University hospital. A total of 340 remote echographic examinations were performed (41% teleoperated, 59% by remote guidance). The average examination time (15 to 25min) depended on the method used, anatomy, and echogenicity of the patient. The motorized probe and the robotic arm allowed the full control of the probe orientation necessary for obtaining correct deep organ views and provided diagnoses in 97% of cases. Similarly, the motorized probe was also used for superficial organ examinations. The use of remote guidance was sufficient for superficial vessel examinations and provided diagnoses in 98% of cases but was not adequate for deep organ examinations. Discussion: Both teleoperated systems provided control of the probe orientation for obtaining appropriate views of deep organs but the motorized probe (430g; 400cm3) was much more ergonomic than the robotic arm (3.5kg; 40x35x40cm3). Remote guidance was appropriate for superficial blood vessels; however, the motorized superficial probe was better for the assessment of small structures. The ability to control the echograph functions and settings made the remote echography quicker and more accurate.

10:00-11:00 Invited Talk
(Room: Tejo 2)

THE GOV INDICATOR: LEARNING FROM GOOD PRACTICES OF THE EU GRUNDTVIG LLP PROJECT OPENGOVEU 2013-2015

by Drs. Mark Verhijde, Interim Programmamanager En Adviseur Stedelijke Ontwikkeling, The Netherlands

Abstract

In this article we introduce and apply the GOV typology in order to analyze various e-Government tools, websites and interactive methods of the EU-project "Open Government in Europe". In many ways these so-called 'Good Practices' (GP) are state of the art examples of open data, e-government tools and innovative relationships between governments and active citizens in Europe. Rich though the examples may be, comparing and evaluating them is not easy, while learning from them or using a specific example in one's own situation is quite difficult. The proposed indicator GOV, while allowing for three distinct GOV strata, hugely improves the options for meaningful comparison between Good Practices and learning from them. Furthermore, with the GOV typology we observe a difference between the patterning of Good Practices, mainly found in GOV 1.0 and GOV 2.0 strata, and the subset of selected 'Best Practices', which tend to clustering in the GOV 2.0 and GOV 3.0 strata. Thirdly, due to the GOV indicator we have a better understanding of the workings of the Good Practices, especially the options of interaction between given GOV strata. The Dutch GOV 2.0 case "Research on Civic Initiatives, DIY's & Liability" illustrates such behavior, resulting in additional GOV examples, with clear indications of push and pull strategies due to attitudes of governments and citizens and thus providing a solid argument for interaction.

11:00 – 11:30 – Coffee Break

11:30-13:10 Session FSP 10.2
eGovernment /eGovernance
(Room: Tejo 2)
Chair: Paul Nieuwenhuysen

E-GOVERNMENT READINESS, BUSINESS ENVIRONMENT AND ENTREPRENEURSHIP –THE EFFECT DEPENDS ON THE INCOME LEVEL OF THE COUNTRY? (F022)

Gustavo De Oliveira Almeida and Deborah Moraes Zouain

Abstract

E-government initiatives can help to improve the business environment and the creation of new businesses. The present article has as its main goal to measure the impact of change of the index of e-readiness of e-Government (and its
sub-indices) on ease of doing business, in the new business rate and the perception of corruption in countries of high, medium and low income, in order to test whether the effects depend on the income level. The study used a panel data (repeated measures), with four points (years 2008, 2010, 2012 and 2014), with three periods of change (2008/2010, 2010/2012 and 2012/2014), with data the following databases: Doing Business Report of the World Bank, the United Nations Survey on e-Government, Corruption Perception Index of Transparency International and World Bank's Survey on Entrepreneurship. Data were analyzed using mixed linear models procedures with fixed and random effects. The data suggest that different models should be used to understand e-government relationship with other variables, controlling for income level effects, since the effects are diverse and depend on the income level. Indications for future research are presented.

NATIONAL IDENTIFICATION SYSTEMS & IMPLICATIONS IN EGOVERNANCE (F024)

Yogesh Chandra Srivastava, Narjis Shahzad and Abhishek Srivastava

Abstract

The recent turn of events after 9/11 has led to a changing rationale around National Identification systems. Even citizens of those countries such as the US and UK, who had been staunch opponents of identification systems have conceded to great extent on the need of such a system in recent years.
From a sustainability view point, there are large scale Economic and Social impact to the countries that are planning or currently undergoing implementation of such a system. In 2007, there were over 43 countries across the world, either developed or less developed that have implemented such system or are in the process of doing so. Today there are approximately 103 countries that have deployed some kind of government issued identification system. When large scale deployment of such system that incur substantial costs in the range billions of dollars, require a supporting legal policy, social acceptance, and have deep impact on human liberties, the sustainable aspects of such schemes require critical attention.
This paper discusses the National Identification Program in the following aspects:
    A critical analysis from the Technical, Commercial, Organizational and Social (TCOS) model of implementing such system
    Managing stakeholder relationships and its importance in the success of this system
    The resource advantage argument that favors implementation of such a program by nations
    Differences in viewing the problem and the continuation of sustainability debate between the developed and the developing nations

eGovernance has been evolving over the decade. Having acknowledged the presence of web and conveying relevant information to the public i.e the Information stage, the next stage of Interaction has given the citizens the ability to deal with the government saving time and making relationships. In many countries the eGovernance systems have evolved to levels where transactions in their entirety can be competed without having to leave the comfort of one's home or office. However, if the ultimate goal is to save time, simplifying processes and drive up efficiencies, the challenge of dealing with multiple entities and contacts need to be resolved. Societal and democratic processes cannot be built on anonymity or moving targets. A one point of contact saves money and time as well as boosts the satisfaction of customers along with productivity. National Identification Systems or online systems that can meet such requirements can play an important role in the "Transformation" of eGovernance.

ITALIAN DIGITAL GOVERNMENT: INSTITUTION, NOT TECHNOLOGY (S075)

Riccardo Cognini, Marco Maccari and Alberto Polzonetti

Abstract

The subject matter of digital government, and of digital services in general that are linked to it, represent the object of a continuous monitoring in order to evaluate their evolution over the time. In particular, the digital infrastructure gap can be assessed according to the circumstances in broadband connectivity services that are either totally absent or insufficient in several respects. In this paper it is suggested that, in order to make Internet become a real social and market institution, a Digital Government should, therefore, put forward a technological architecture model, as well as a model for public services and market exchanges.

E-GOVERNMENT: CONSULATE GENERAL OF PORTUGAL IN MACAO AND HONG KONG (S118)

Sílvia O. S. Ferrão, Vítor Sereno, Manuel Ricardo Silva and Carlos Wilson

Abstract

This paper describes an exploratory case study on e-Government area held at the Consulate General of Portugal in Macao and Hong Kong. Through several meetings with key players in the Consulate of processes were outlined some improvements in order to make the most efficient Consulate, effective and close to the citizens. With this vision was intended to respond more promptly to all requests of the citizens attending the constants problems reported. We created a Facebook page and a new Online Booking System (OBS). At this time, the Facebook page of this Consulate (of Portugal) is the one that has more followers in the world (from those analyzed) and the new OBS proved to be a crucial key to reducing the enormous waiting lists previously existing and significant advantages for citizens. This project proves that there is still much work to do in this diplomatic representation but that can be a model to be followed by other diplomatic missions in the world.

13:00-14:30 – Lunch Break

14:30-15:20 Session FSP 10.3
eSociety and Digital Divide
(Room: Tejo 2)
Chair: Boyan Bontchev

CREATING INCLUSIVE USER INTERFACES: TOWARD A COMPREHENSIVE INCLUSIVITY EVALUATION (F060)

Faisal Hammad, David Wastell and Thomas Chesney

Abstract

This research proposes a new inclusivity measurement called the 'Inclusivity Metric', to measure whether the website or online service suitable for use by older users, users with disabilities, as well as able-bodied users and computer literates. The Inclusivity Metric will use a set of constructs and will calculate the Inclusivity Score for the online service, providing a number value for the design team to rate and evaluate their design. This metric can aid designers to adjust their designs to be mindful of the users who fit in the categories mentioned above instead of just following a generic design guidelines, thus bridging the digital divide by allowing a wide range of users to engage with the business or government conveniently on the internet rather than in person or on the phone, which will in turn reduce costs and work load from workers. This metric can also be used as tool for usability testing to insure that the design is easy to use for as many users as possible without compromising on the functionally of the online service.

THE UNIVERSITY LIBRARY AS AN E-LEARNING SUPPORT CENTER IN THE PROCESS OF HIGHER EDUCATION (S106)

Irena Peteva, Bella Tetevenska and Stoyan Denchev

Abstract

The purpose of this academic research paper is to outline new possibilities for successful integration of university libraries in the educational models related to knowledge economy. The evolution of classical functional library models is presented as an inevitable result of the transformation of typical learning models towards the modern E-learning ones. This change is related to the fast development of the contemporary information and communication technologies and the positive pressure that they exert worldwide. Furthermore, the total globalization has a great impact on this irreversible process. The identification of the interaction areas between the university libraries and the alternative educational models is based on a few factors, such as: the conceptual instruments of the General Applied System Theory; the applied technology of so-called architecture approach and the ideas of re-engineering of the classical model of university libraries. The role of the integrated e-learning environment for university students is presented in the dynamic development of the university library's functional model, the intensity and the growing volume of library and information resources in the European research and educational area. The achieved results can be defined as a practical application of the theoretical basis of the new E-learning models. The convergence of the university libraries as E-learning support centers and the creation of prognostic model of successful university education processes provides a basis for dynamic social changes and is a projection of the different educational models upon the modern society.

15:45 – Conference Tour and Dinner

08:30-13:00 Welcome Desk

09:00-11:00 Session FP 11.1
eLearning
(Room: Tejo 2)
Chair: Przemyslaw Polak

RESPONSE TO THE CHALLENGING REFUGEE INFLUX: A POTENTIALLY INFINITE FAMILY OF SERIOUS GAMES FOR LEARNING OF FOREIGN LANGUAGES PLAYFULLY (F064)

Oksana Arnold, Torsten Bosecker, Tim Hume and Klaus P. Jantke

Abstract
The contemporary influx of refugees is a challenge to Europe. Methods and technologies of the e-Society are needed to master a wide spectrum of problems ranging from refugee registration when entering the European Union through issues of transportation and housing to all aspects of daily life at the final destination. Human communication plays a crucial role. Language learning is an urgent problem for hundreds of thousands of refugees. Fast progress in small steps is required. Meme media technology is appropriate for the design of small and flexible software tools. A generic digital games concept has already been designed. The core implementation is available on the web and runs on mobile devices such as tablets and smartphones, on conventional desktop PCs and on special purpose devices such as interactive learning tables. The core implementation allows for a very flexible and fast exchange or modification of contents to fit varying needs. Based on this core implementation, a games suite of variants for different educational scenarios is under development.

MANAGING THE EXPERTISE IN A SOCIAL E-LEARNING ENVIRONMENT (F082)

Paolo Avogadro, Silvia Calegari and Matteo Dominoni

Abstract
In the blended learning paradigm, an aware use of the technologies as well as the introduction of social aspects, allows learners to be more active during their own study and to be more involved in the practices of collaboration and knowledge sharing. In this scenario, the identification of an expert among the learners assumes a key role. An expert has a better overview of the topic and is able to discriminate between relevant and irrelevant information. In addition, an expert plays an active role during the practices of study with the other peers. Quantifying the value of expertise on specific topics is considered a complex task especially with the advent of the "social learning management system" (hereafter "Social LMS"), where the standard methods based on the analysis of textual information are not sufficient to manage the socialization aspect. Our intention is to go beyond these methods by exploiting the social features in order to constrain expertise. In this paper, different roles such as the formal one (e.g., grades), the social one (e.g., social evaluation of peers) and the editorial one (e.g., the skills acquired in the workflow for the creation of informal material) are combined in order to obtain a clear characterization of the concept of expertise within a Social LMS. From this innovative treatment with roles, there is an augmented vision of the spectrum related to the kind of learners according to their actions on the flows of information within a social e-learning platform. For instance, the standard view of expertise ranges from novice (or newbie) to expert while in this case one has to take into account the anti-expert (i.e., troll) whose action degrades the flows of knowledge.

A MODEL OF BLENDED MOOC STUDENT ENGAGEMENT (F113)

Fadiyah Almutairi, Su White and Leslie Carr

Abstract
Massive Open Online Courses (MOOCs) are those that are delivered, usually by leading universities, with a promise to provide free high-quality education to an unlimited number of learners. They offer a new opportunity for blended course design, where instructors can integrate MOOC content within campus course components and activities. This kind of blended learning will help 'face-to-face' instructors use the time for meaningful discussions, identifying and clarifying misconceptions or mentoring students in a group project. This study aims to propose a new measurement that can be used to measure student engagement in the blended-MOOC course design. The well-established National Survey of Student Engagement (NSSE) and Student Engagement Questionnaire (SEQ) were selected as a framework of a model to measure student engagement in a blended-MOOC context. The model has 11 indicators that provide information about distinct aspects of student engagement. The use of this model was confirmed by a panel of 20 expert practitioners. A trial evaluation using the model was conducted as a pilot study of 13 students who had taken a course in the blended MOOC format. The contribution of the study will be to improve the general understanding of the impact of the MOOC systems in higher education and identify benefits specific to learners.

BLENDED LEARNING AND THE MBA: HYGIENE FACTORS, MOTIVATORS AND LIMINAL SPACES (F116)

Andrew Rothwell

Abstract
This paper presents an evidence-based approach to blended learning development on an MBA in a research intensive UK university. Although blended learning MBA's represent a small proportion of comparable programmes, there was recognition that current provision did not meet either student needs, or expectations. Results indicate a body of students with high expectations, incorporating their constant connectedness and a desire to learn in liminal spaces with smaller learning objects in a variety of media. At the same time physical facilities and other aspects of learning support can be 'hygiene factors' which can influence student dissatisfaction. This paper reports an important step on a journey towards developing a programme based on a range of learning strategies, emulating best practice and relevant to the travel, work and study habits of our learners. It contributes to understanding contemporary MBA student expectations, matching these to blended learning strategies, and recognition of the potential of 'liminal space' in learning as a space in between other events, where learning is facilitated by problem-based approaches through a variety of media.

11:00-11:30 – Coffee Break

11:30-12:20 Session FSP 11.2
New Media and E-Society
(Room: Tejo 2)
Chair: Piet Kommers

INFORMATION SAVING PRACTICES AN INTERNATIONAL SURVEY (F087)
Przemysław Polak

Abstract
The pervasiveness of the Internet and new electronic devices has changed significantly information searching practices. However, little is known about users' further behaviors: methods of storing and using information. The purpose of the study is to examine the actual behavior of users when they intend to use in the future the information retrieved from the Internet. The study was conducted at four universities from four different countries. Although the most popular action taken is to make a copy on a disk or other electronic device, the significant percentage of respondents print interesting content, particularly if printing is easy available and not expensive. On the other hand, some participants do not take any action assuming that they can always find the required content again.

BRIDGING THE DIVIDE: E-SOCIETY OR ECOSYSTEM? AN ANALYSIS THROUGH DIGITAL-MEDIA ART (S072)
Pedro Alves da Veiga

Abstract
More than buzzwords, the "digital divide" and "e-society" have come to represent a growing problem and an unstoppable tendency in our world. Their definition isn't static. Both problem and tendency are constantly evolving, shifting scope and bringing more variables to the table. If the digital divide was once a question that concerned mainly governments, its scope has evolved and the decisions that influence its evolution are no longer centralised. In this article I use the
digital-media art paradigm to present a model I believe will provide possible insights to answer the question of "how to effectively bridge the divide", as well as come to represent the future thriving b-society (blended-society) where the digital divide will mutate and evolve, increasingly requiring attention and solutions lest it will threaten the depth and scope of the very e/b-society that feeds it. Why art? In the words of the poet (Oppenheim, 1911) "Our lives shall not be sweated from birth until life closes; Hearts starve as well as bodies; give us bread, but give us roses!". Art-as-roses evolves according to periods and social contexts, it becomes a model of sociability, relating artists, audience, medium and technology. Departing from the natural sciences model of ecosystem, where several entities reach a balance in order to thrive as a collective, I believe that there should be a similar balance among virtual and material key players, on and offline, for the e/b-society to prosper, and what is happening in the digital-media art world is very significant.

12:20 Best Paper Awards Ceremony and Closing Session
(Room: Tejo 2)

Profs. Piet Kommers and Pedro Isaías