Presentations

Motivating Japanese college students in autonomous learning: The future potential of LAMS

Kumiko Aoki

Open University of Japan, Japan

In Japan, low motivation and apathy of many college students have been issues of concern recently. Many reasons can be considered for such an attitude of Japanese students: college life being considered as the moratorium between the hard school life and work life; low expectation of potential employers in terms of students' academic achievements in colleges; dominance of lecture-style classes where students are passive learners; and prevalence of the assessment methods in which retention of factual knowledge is tested rather than students' attainment of deep learning. Especially in regard to the last two points, the dominance of lecturestyle classes and assessment methods need to be reconsidered to improve teaching and learning in Japanese higher education. The major reason why the lecture-style classes prevail in Japanese colleges and universities is because throughout the majority of one's school life, students have never been given the chance to be responsible for their own learning; thus, they don't really know how to be autonomous learners. At the same time, teachers, who have been trained in such educational systems, don't really know how to lead classes without giving lectures. In my opinion, LAMS can shift teachers' and students' focus from content to activities. By designing teaching and learning, not around content, but activities, students can actively engage in their own learning. In addition, LAMS can visualize learning activities that help teachers design their classes in terms of activities rather than content to cover. In this presentation, the potential of LAMS in changing teaching and learning practices of higher education institutions in Japan will be discussed.

Biographical notes

Kumiko obtained her Master's degree in Communication from the University of Wisconsin - Milwaukee and her Ph.D. in Communication and Information Sciences from the University of Hawaii. After her doctoral work, Kumiko was Assistant Professor of Information Technology at Rochester Institute of Technology from 1995 to 1998 and Assistant Professor of Communication at Boston University from 1998 to 2003. She is currently Associate Professor at the Center of ICT and Distance Education (formerly the National Institute of Multimedia Education), the Open University of Japan (OUJ). Her current research interests include learning designs, quality assurance of e-learning, organizational aspects of distance education, and the use of ICT for fostering intercultural competence.

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Curriculum content for small business management modules

Maria M. Bounds

University Of Johannesburg, South Africa

This study investigates the curriculum of Small Business Development with special reference to modules dealing with the small business such as Growing of a Small Business, Small Business Marketing and Small Business as natural port of entry. The study concludes with a generic curriculum framework and suggestions from small businesses to bridge the gap between the higher education and the business world.

Biographical notes

Maria is a Lecturer in the Department of Business Management at the University of Johannesburg. She joined the Department of Management of the Vista University as a lecturer in 2000. She has published various Business Management textbooks and teachers guides for grade 7 to grade 12. She was the Internal Moderator and examiner for secondary education grade 12 in Mercantile Law and Business Economics for Gauteng Education Department, IEB, Mpumalanga and Free State. Learning Area Committee for Economic and Management Sciences on District and Provincial Level. Her research focuses on the interaction between education and curriculum development.

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Pre-service teachers' perceptions of LAMS and Moodle as Learning Design technologies

Matt Bower & Maximilian Wittmann

Macquarie University, Australia

As open source educational systems both LAMS and Moodle provide a range of tools that can be used to support the development of pre-service students' learning design capabilities. Sixty-eight teacher education students were surveyed to gauge their perceptions of each of these systems as frameworks for designing learning experiences. Responses indicated that the majority of students appreciated that different tools were suitable for different purposes. An unexpected outcome of the research was the different levels of learning design thinking that the survey questions revealed, ranging from highly developed to misconstrued.

Biographical notes

Matt's work spans the fields of Computer Science Education and Technology Based Learning. After several years of high school teaching specialising in Mathematics, he returned university to complete his Master of Education (Online Education) and a degree in computing. Matt designed, built and lectured in the online Graduate Diploma of Information Technology course for the Division of Information and Communication Sciences at Macquarie University. He is now an Information and Communication Technology lecturer for the School of Education at Macquarie University and has recently completed his thesis entitled "Designing for Interactive and Collaborative Learning in a Web-Conferencing Environment".

Maximilian is currently working on his Phd at the Department of Computing, Macquarie University. He completed a bachelor with honors in Computer Science at the same department. His research area is Computer Graphics Education. Other topics of interest include general Computer Science Education, Computer Games and Virtual Reality.

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Implementing effective Learning Designs: An update of an ALTC Competitive Grants Program project

Leanne Cameron

Macquarie University E-Learning Centre Of Excellence, Australia

This presentation we will provide an update on progress of the ALTC project to implement a learning activity planning tool which can be used by academic staff to tailor exemplary learning design examples to meet the individual lecturer's and/or course co-ordinator's particular requirements, whilst providing them with the underlying pedagogical principals involved in the Learning Design. The LAMS Activity Tool has been tested and is now considered quite stable. Key members of the project team have gradually refined the template to a point where a basic structure for adding new exemplar learning design templates has been developed.

Biographical notes

Leanne is currently working with MELCOE (Macquarie University's E-Learning Centre Of Excellence) in Sydney, Australia. She is managing a number of research projects including the planner project described in this presentation that will provide a scaffold to help new university lecturers and teachers develop effective Learning Designs. Until April 2007, Leanne was working with the Australian Centre for Educational Studies at Sydney's Macquarie University. Prior to that Leanne spent a number of years working as a teacher in both primary and secondary schools and as Technology Trainer for the Department of Education's Training & Development Directorate.

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Examining the impact of object owners' anonymity on learners' participation rate and critical thinking in an asynchronous online discussion environment

Wing Sum Cheung , Khe Foon Hew and Aloysius Foo National Institute of Education, Singapore

This paper reports a case study in Singapore that examined the impact of object owners' anonymity on learners' participation rate and quality of critical thinking in an asynchronous online discussion (AOD) environment. Results suggested that when there was anonymity, more participants tended to post their comments and viewpoints in the online discussions, as well as showed more evidence of in-depth level of critical thinking. Suggestions for future research are provided.

Biographical notes

Wing Sum Cheung is an Associate Professor at the National Institute of Education, Singapore. His research interests include design and develop e-learning environments.

Khe Foon Hew is an Assistant Professor at the National Institute of Education. He is interested in studying the use of various pedagogical approaches and tools in online learning environment.

Aloysius Foo is a graduate student in National Institute of Education, Singapore.

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Key factors for an integrated, multi-learner e-learning environment using the PENTHA ID Model

Luisa dall'Acqua GSi Edu-Research Group, Switzerland

Today we live in a society characterized by multiple reference points and a dynamic knowledge, continuously subject to reviews and discussions. It is necessary a new model of person, manager of own space and identity. The here presented Instructional Design model uses a socio-cognitive constructivist approach and allows a multi-perspective view of the learning process. It proposes a flexible design that includes rapid prototyping and an educational environment, able to: increase productivity and operability, create conditions for a cooperative dialogue, develops participatory research activities of knowledge, observations and discoveries ("ecological" learning environment), customizing the learning design in a complex and holistic vision of learning / teaching processes. In particular, it examines the conditions that make a learning environment "adaptive". Finally, the LAMS implementation will be analysed to verify how it supports : a) coaching /tutoring solutions with the finality to adapt the learning path; b) the teacher/author in advanced monitoring and planning activities, and dynamically redefined course activities; c) the student, in a dynamic, collaborative and synergistic construction of "significant knowledge" in a multi-learner environment.

Biographical notes

Luisa dall'Acqua is a College Teacher in Philosophy in Italy. She has a PhD in Institutional Sociology, Master MU2 in E-learning, Masters Degree in Philosophy and is earning a PhD in e-Learning and Knowledge Management (area). With a long didactical and research career, she actively collaborates with GSi Edu-Research Group of Lugano (Switzerland) in advanced e-Learning and Knowledge Management Projects.

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Using a template for LAMS in a medical setting

Bronwen Dalziel University of Western Sydney, Australia

Glenn Mason

Macquarie University, Australia

James Dalziel

Macquarie E-Learning Centre Of Excellence

Using LAMS to create 250 hours of online content for a medical school has allowed for much reflection on the use of templates and Learning Design. Whilst a LAMS template was initially thought to provide the best pedagogical guidance necessary for the clinicians designing content, it was soon found to be too restrictive for the different ways of teaching the medical topics. The first 75 hours of content (13 case studies) were created with a wide range of teaching styles, and with little reference to the details of the original LAMS template. Analysis of common themes in the case studies showed that a higher and looser level of structure could be applied to all of the sequences as three broad themes: the clinical case: the scientific basis of the disease: and current research or ethical considerations around the topic. Concurrent with these themes was the application of three pedagogical categories that ensured each Learning Objective was adequately taught: the teaching and learning point; a concept check; and feedback. This structure was used in the creation of an eStoryboard for each case study and has been used for retrospective analysis of cases for pedagogical soundness and for planning of future content in the course.

Biographical notes

Bronwen is currently a Senior Lecturer in Medical Education at the University of Western Sydney. Prior to that she worked at LAMS International, primarily on the creation of a LAMS library of sequences based on British K-12 curriculum. She has a PhD in Science (genetics of obesity) from the University of Sydney.

James is the Director of the Macquarie University E-Learning Centre Of Excellence (MELCOE) in Sydney, Australia, and also a Director of the LAMS Foundation and LAMS international Pty Ltd. James is known nationally and internationally for his research into and development of innovations in e-learning, and technical standards. He has directed and contributed significantly to e-learning projects.

Glenn is an Educational Designer and is part of a joint UWS/Macquarie University team working on an ALTC-funded project on the development of online medical modules in the basic sciences for UWS medical students. He has a degree in Philosophy and an MSc in Computer Science and Natural Language Processing both from the University of Essex (UK) and an MA in e-Learning from the University of Technology, Sydney. Prior to his current role, Glenn worked for the Royal Australasian College of Physicians and Sydney University on medical education projects. He has extensive experience in commercial web development including working for media organisations such as Forbes and Choice as a web and database programmer.

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Interactive lecture podcasting: Probing the impact of dialogue design in LAMS

Eva Dobozy

Edith Cowan University, Australia

This paper discusses the potential utility of interactive lecture podcasting in LAMS, which is based on a preliminary examination of the data of a curriculum innovation study. The case was a teacher education (TE) unit that produced unexpected student learning behaviour. An analytic induction methodology, in conjunction with educational data mining techniques, was used to analyse the data. The purpose of the study was to better understand one specific aspect of students' active participatory learning behaviour, vital for their success in higher education (HE): willingness to engage in online peer-to-peer dialogue. The paper closes with a suggestion for more systematic monitoring of HE students' online learning behaviour.

Biographical notes

Eva has worked in Swiss and Australian schools and higher education institutions. Her special interests include problem-based learning with ICT, student learning engagement and the development and testing of interactive blended learning tasks. Eva has been part of several ICT-related projects testing the feasibility of interactive lecture podcasting and online academic learning support. More recently, she has been studying students' utilisation of flexible learning provisions and engagement with LAMS activities. She is widely published and her latest coauthored book: Psychology applied to teaching (2009) is used in higher education across Australia. Eva was awarded the Early Career Award from the Western Australian Institute for Educational Research in recognition of her ability to generate new knowledge about the impact of democratic, learner-centric pedagogical practices on students' learning experiences.

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Apache Wookie and LAMS

Luke Foxton

Macquarie University, Australia

This presentation is all about a new tool in development that brings the power of the Wookie W3C widgets (http://getwookie.org/) into LAMS.

Wookie is an open-source Apache project in development. It provides a framework where widgets developed under the W3C widget specification (http://www.w3.org/TR/widgets/) can be installed into a library and from there, embedded seamlessly into web applications (like LAMS) using plugins. Using this framework, theoretically any widget installed into the Wookie library can be embedded into a LAMS activity without the need for further integration in LAMS, opening the door to countless web tools, games and collaborative activities developed by independent parties. Apache Wookie also implements the Google Wave Gadget API enabling synchronous, collaborative Widgets such as games, chats and surveys.

This presentation will include a demonstration of the current progress, as well as in-depth discussions about how it Wookie works in LAMS.

Biographical notes

Luke has been working in LAMS in various roles for three years. He started at LAMS as an intern, handling Junior System Administrator tasks while completing his Software Engineering degree at Sydney University. Over the years he has branched out into many roles including installer development, integrations, LAMS core development, tool development, Gradebook and tool adapters. Luke continues to work as a Java developer for LAMS, fixing bugs and creating new features for future releases.

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LAMS and andragogy: A Case Study

Paul Gagnon

Nanyang University, Singapore

This presentation will present a working model for scalable, affordable and rapid content development to support adult training in industry. This model reflects a progressive orientation towards a more interactive androgogy, based on a synthesis of three existing platforms: LAMS, Blackboard and AcuConference..

Biographical notes

Paul is the Senior Deputy Director in the Centre for Educational Development at Nanyang Technological University. He is responsible for Courseware and Content Development. His research interests include how to successfully morph existing effective F2F pedagogical practices to online learning environments, the role of online pedagogical agents, and the relevance of the latest research in Cognitive Psychology and Cognitive Neuroscience to advance online teaching and learning. He has led teams in pioneering (i) effective online course development and delivery, (ii) the use of Content Management Delivery Systems, (iii) mobile learning applications, and (iv) the use of synchronous Virtual Classroom technology.

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Quality learning design in four easy steps

Jo Jenson eWorks, Australia

The Australian Flexible Learning Framework recently released a Learning Design Tool which has been created to take the hassle out of learning design. This product allows users to create their own learning materials.

The Learning Design Tool allows you to save, review and modify your work; and includes a mapping feature, so you can easily see your progress through each of the four stages.

The four learning design stages are:

- Create an overview Develop an initial plan of what you would like your learning design to achieve, including qualifications it may feed in to, which industry it will support, and the job roles the training will target.
- Describe your learners Consider factors including age, special needs, educational background, and the reasons for training.
- Choose your learning design Prioritise factors such as level of guidance, engagement and learner freedom in order to identify the most appropriate design.
- Finalise learning design Follow an 11-step process to finalise your learning design, including resources, assessment and activities.

The Learning Design Tool was released as a Beta version in October 2009. This presentation will highlight the feedback received through the engagement of a global community and outline the proposed development of the final product. At the end of the session you will appreciate the rationale that supports each of the stages, understand the proposed final product and see first-hand an application that provides a framework for your learning design. This session will benefit those who produce learning design materials, provide support to a graphic design team, manage learning design projects and teachers who are required to produce their own learning materials.

Biographical notes

Jo is experienced in managing a range of learning solutions – from stakeholder briefing to engagement, Instructional design, and evaluating learning outcomes - to a diverse range of client groups. She has developed a strong understanding of instructional design principles and has been successful in producing interactive and innovative learning solutions.

Jo is a key member of the E-learning Development Team at e-Works, with responsibility for ensuring the educational quality of e-learning resources and programs developed and managed by the team at e-Works – including Flexible Learning Toolboxes. One of her key projects is the Learning Design Tool.

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Google Wave: The next big thing in online learning and collaboration?

Jarrod Johnson

Pedare Christian College, Australia

This presentation will introduce delegates to the newly released tool.

Biographical notes

Jarrod is a Science Teacher, Year Level and Personal Project Coordinator and a pioneer in Pedare's transition to an online learning environment. He utilises modern interactive and online teaching methodologies to deliver highly engaging Science and Mathematics classes

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LAMS in an AGQTP context

Peter Kent ACT Department of Education, Australia

Clint Codey ACT Department of Education, Australia

LAMS is currently being utilised by teaching staff in the Australian Capital Territory through the Australian Government Quality Teacher Programme (AGQTP).

The AGQTP professional learning projects must address one or more of the following priority areas:

- pedagogy
- · whole-school innovative teaching approaches, and
- Innovative use of ICT across the curriculum.

LAMS has proven more than capable at addressing all of the priority areas and has been adopted into areas as diverse as Arts, Languages, Business Studies and Science.

Within the ACT AGQTP program the collaborative nature of the tools provided within LAMS was extended through greater access to digital resources (Scootle – The Le@rning Federation). This allowed teachers the opportunity to promote higher levels of intellectual quality, create a quality learning environment and make explicit to students the significance of and in their work in a manner consistent with the NSW Quality Teaching Framework.

Numerous methods and models of delivery have been explored and vigorously discussed by the AGQTP participants and this workshop will display the results of several of the projects in the context of the Quality Teaching Framework.

Biographical notes

Peter Kent is the Assistant Manager of the Learning Technologies Section of the ACT Department of Education and in the role has a strategic systemic responsibility for the design and delivery of professional support to support the implementation of learning technologies within schools. In 2005 the team of teachers that Peter led was award an Australian Government National Award for Quality Schooling for their integration of Interactive Whiteboard into Richardson

Primary. Peter has authored two teacher reference books on the topics of the integration of ICT into curriculum and pedagogy.

Clint Codey is currently the ICT consultant to the Australian Government Quality Teaching Program (AGQTP) within the ACT Department of Education. In this role he has supported the implementation of LAMS within the ACT schools involved in the AGQTP initiative. Clint has extensive experience in the innovative implementation of ICT within curriculum and pedagogy. In 2008 Clint was awarded the Microsoft Innovative Teachers Award for the ACT.

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The UKOER Programme - An interim report on key challenges to date

David Kernohan University of Bristol, UK

Sheila MacNeill University of Strathclyde, UK

Please note: Sheila will be presenting from Sheffield but will be available online to take questions.

The JISC and the Higher Education Academy are currently funding a total of 29 institutional, subject and individual projects in making a wide range of educational materials openly available under creative commons licenses. This one-year pilot programme is the first step towards substantial UK investment in open educational resources. Projects range from institution-wide projects, to multi-institution subject consortia, to individual academics working in institutions.

The funded projects are expected to demonstrate a long-term commitment to the release of OER resources. As such, they are working towards the sustainability of

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open resource release via the adoption of appropriate business models. Supporting actions may include modifications to institutional policies and processes, with the aim of making open resources release an expected part of the educational resources creation cycle within institutions.

This presentation will discuss a number of common and emerging issues that the projects are facing e.g. intellectual property rights, metadata, syndication of content, use tracking and embedding processes into institutional practice. The presentation will also outline the range of support being offered to the programme.

Biographical notes

David Kernohan manages the programme on behalf of the organisations involved, Sheila MacNeill works for the JISC Centre for Educational Technology and Interoperability Standards (CETIS) and, with colleagues, advises the programme on technical issues.

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Sheila MacNeill

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An investigation of adult learners' collaborative learning and selfregulation on online learning effectiveness

Horng-Ji Lai National Chi Nan University, Taiwan

The purpose of this study was to investigate the influence of adult learners' collaborative learning and self-regulation on online learning effectiveness. Participants were 217 adult earners from the department of Information Management in a cyber university located at southern Taiwan. Learners completed at least two online courses during a semester, and one of the online courses' modules included a section of learning design activity. Learners' were required to design a lesson plan on small group basis. A questionnaire which consisted of three scales (collaborative learning, self-regulated learning, and online learning effectiveness) was administered to collect participants' responses. The research results showed that both collaborative learning and self-regulation have significant effects on online learning effectiveness. Analysis of the data revealed that two factors of collaborative learning (task structure and incentive structure) and four constructs of self-regulation (searching relevant learning information, controlling learning pace, improving self-efficacy, and looking for learning partners) were significant predictors in predicting adult learners' online learning effectiveness. Among the six factors, task structure, searching relevant learning information, improving self-efficacy, and looking for learning partners appeared to be the significant elements in determining their online learning success based on the research findings. Practical implications, learning activity design in particular, were discussed in this study.

Please note: This is a pre-recorded presentation.

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The scalability of LAMS

Jun-Dir Liew

Macquarie E-Learning Centre Of Excellence, Australia

LAMS 2.3 was released on 25 May 2009. Among it's improvements were a significant increase in startup times and memory usage. This talk will cover how this was achieved in terms of the technical frameworks used, and the consequences for performance and future development. Current work on upgrading to JBoss 5 will also be covered, which will be the basis of the next major release of LAMS 2.4.Mathematics Lessons for Slower Learners in Secondary Schools in the Caribbean using the LAMS Platform

Biographical notes

Jun-Dir is currently a member of the LAMS project as system administrator and developer. His contributions include work on LDAP authentication, Moodle integration, and the administration module. He holds a Bachelor of Computer Engineering from UNSW.

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Using a learning model interactive whiteboard

Yuan-Chen Liu, Tzu-Hua Huang & Wei-Chun Hsu National Taipei University of Education, Taiwan

Li-Ling Wu, Liyuan Elementary School, Taiwan

The purpose of the study is to explore the impact of recognition, spelling and comprehension in English words on elementary school students in Taiwan by

using three different pedagogies for the sight words instruction and also to compare the performance of these different English teaching strategies. The participants were fifth graders in three different classes drawn from a primary school. After the experiment, these students all progressed obviously in the posttest. Results meant that the 'Sight Words' can help primary school students to recognise, spell and comprehend English words in reading. The effects would be most outstanding if the sight words operate in coordination with look and say approach for low-performed team students and learning vocabulary through reading for high-performed part students.

Biographical notes

Tzu-Hua Huang is a senior research fellow in Graduate School of Curriculum and Instruction at the National Taipei University of Education in Taiwan. He has a particular interest in e-learning and computer curriculum .Yuan-Chen Liu is a professor in Graduate School of Educational Communications and Technology at the National Taipei University of Education in Taiwan. His research focuses on network teaching strategy and intelligent computer assisted learning. Guan-Ting Yan teaches in Da An elementary school for years, and she is great at computer science. Wei-Chun Hsu studies in Graduate School of Computer Science, National Taipei University of Education, Taiwan. He masters in computer programming and management information system.

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LAMS, Forums and Learning Design

Glenn Mason

Macquarie University, Australia

Bronwen Dalziel

University of Western Sydney, Australia

In the paper the perspectives of learner-learner and learner-teacher interaction, knowledge construction and social presence will be used to illustrate the different ways of approaching the evaluation and analysis of the teaching and learning that takes place in asynchronous online forums in a higher education context. This will be combined with a discussion of some Learning Design issues that have arisen as a result of the implementation and use of forums within the LAMS (Learning Activity Management System) environment. We will end by suggesting that to successfully implement collaborative forms of teaching and learning, it is important to have an understanding of the nature of learning as it takes place in forums as well as an awareness of how the structural position of forums in LAMS sequences can potentially contribute to improving the educational value of forums.

Biographical notes

Glenn is an Educational Designer and is part of a joint UWS/Macquarie University team working on an ALTC-funded project on the development of online medical modules in the basic sciences for UWS medical students. He has a degree in Philosophy and an MSc in Computer Science and Natural Language Processing both from the University of Essex (UK) and an MA in e-Learning from the University of Technology, Sydney. Prior to his current role, Glenn worked for the Royal Australasian College of Physicians and Sydney University on medical education projects. He has extensive experience in commercial web development including working for media organisations such as Forbes and Choice as a web and database programmer.

Bronwen is currently a Senior Lecturer in Medical Education at the University of Western Sydney. Prior to that she worked at LAMS International, primarily on the creation of a LAMS library of sequences based on British K-12 curriculum. She has a PhD in Science (genetics of obesity) from the University of Sydney.

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Learnspire - A learning framework for design and development of elearning

Brian Mayne TAFE NSW. Australia

LearnSpire is a learning framework for use with the development of e-learning resources that is particularly suited to the vocational education area. The learning framework works around six dimensions:

- previewing
- defining
- connecting
- interacting
- applying
- reflecting
- checking

Each dimension with its associated design elements offers a specific way of enhancing learning and boosting learning potential. Benefits from the learning framework include:

- provides a ready-made personal outline for learners to engage with the learning and deepen their understandings
- acknowledges each learner's individual context
- encourages active participation of learners

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- encourages learners to articulate to themselves and their peers what they are learning
- encourages learners to be self-critical and reflective.

Use of the learning framework disaggregation of the content/assets will lead to:

- multiple means of engagement tapping into learners' interests, as well as challenging and motivating them
- multiple means of representation offering learners various ways of acquiring information/knowledge or practising a skill
- multiple means of accessing assets providing learners with alternative pathways for studying.

Biographical notes

Brian is currently a Senior Learning Design Officer with the Centre for Learning Innovation. He has considerable experience in the development and production of flexible delivery resource materials, having been involved with TAFE Online projects, and in educational publishing of both print and electronic resources for TAFE NSW – Community Services, Health, Tourism and Recreation Curriculum Centre and OTEN.

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LAMS documentation

Jeremy Page

Macquarie E-Learning Centre Of Excellence, Australia

In this presentation we will explore the different options available to LAMS users for obtaining support for LAMS, as well as demonstrating the extensive user and technical documentation available through the LAMS Wiki and the LAMS Community.

Biographical notes

Jeremy is currently employed at MELCOE as Junior Educational Developer, working on the Pedagogical Planner within LAMS, and is the resident documentation and animation 'guru'. He began working with MELCOE in 2006 after completing the Technology in Education course at Macquarie University. He has recently completed his Bachelor of Arts degree.

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OPUS One - An artificial intelligence - multi agent based intelligent tutoring and adaptive learning environment

Attilio Pedrazzoli

GSi Edu Research Group, Switzerland

This presentation proposes a concept for an Intelligent Adaptive Learning Environment (IALE) based on a holistic Multidimensional Instructional Design Model, applied on OLAT, an open source, Java LMS, developed at the University of Zurich, to support student and/or groups defined as "Learning Entities" (LE). The concept is based primarily on an Artificial Intelligence – Tutoring Subsystem, used to identify, monitor and adapt the student's learning path, considering the students actual knowledge, learning habits and preferred learning style. The proposed concept has the peculiarity of eliminating any didactical boundaries or rigid, implied course structures (also known as unlimited didactical freedom). Relying on "real time" adapted profiles, it allows content authors to apply a dynamic course design, supporting tutored, collaborative sessions and activities, as suggested by modern pedagogy. The AI tutoring facility (eTutor), coupled with the LMS, is intended to support the "human tutor" with valuable LE performance - / activity data, available from the integrated "Behaviour Recorder Controller" (BRC), allowing to confirm or manually modify actions suggested by the eTutor. The student has the option to select the level of tutoring interventions or switch to a "subject matter" exercise mode if desired and permitted. The concept presented combines a personalized level of surveillance, learning activity- and/or learning path adaptation suggestions to ensure the students learning motivation and learning success.

Biographical notes

Attilio has a PhD in Aerodynamics and Avionics, MSc. In Computer Science and Information Technology, specialized in "Complex System Architecture" and "Artificial Intelligence Frameworks". Throughout his career he has been engaged at Control Data Corp, Cay Computer Systems and AT&T doing Mainframe R&D. For over 15 years he was involved in the Area of Pilot Education and Flight Simulator research activity for commercial Pilots at BOEING Corp. Today he is the Owner of GSi Intl. and Gsi EDU Research in Switzerland, a Company dedicated to develop advanced eLearning platforms based on "Open Source" system components.

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Contributed Paper Abstracts

In-service teachers' learning in weblog-based learning environment: A case study

Quek Choon Lang

Nanyang Technological University, Singapore

This study sets to investigate the learning of 25 in-service teachers through their self-created Weblogs. The blog serve to document their reflections in a professional development course. The learning design provides teachers' initial exploration of instructor's Weblog and podcast, their designing of individual Weblogs to record on-going reflections and linking to their peers' Weblogs for collaborative learning during the course. They are required to read and comment on each other's reflections daily. The teachers' articulation of technological, pedagogical and social affordances of Weblog as an open learning space. They also identified personal experiences and regular updates of resources were characteristics found in quality learning Weblogs in this case study.

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Mathematics lessons for slower learners in Secondary Schools in the Caribbean using the LAMS platform

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This paper explains how teachers/facilitators and students/learners can work together on the Learning Activity Management System (LAMS) platform to facilitate conceptual learning in mathematics, with the primary view of assisting slower learners in the Caribbean region. It is a monumental undertaking to teach or be a facilitator to thirty to forty students (15-16years old) after three years of secondary education and simple tasks of applying the four rules on fractions cannot be conceptualized and simplified. There is not enough time using face to face learning to ensure that these concepts are attained in order to write a high stake examination. It is therefore essential to have such students engaged in diverse processes of constructing their own concept representations. Teachers are encouraged to prepare students to visualize concepts during their study time. It is hoped that with this new design and approach to learning that mathematical instruction would be transformed and that, as students and teachers move towards a fresh and innovative paradigm shift, students will truly be responsible for their own learning and teachers can act as facilitators and motivational specialist.

Biographical notes

Steve has been a Computer Science and Mathematics teacher for 23 years in Trinidad and Tobago. He received a Bsc. Degree in Computer Science, with a minor in mathematics, from Central State University, Wilberforce, Ohio in 1985. He is currently pursing a Masters degree in Instructional Design and Technology with the Open University of Malaysia.

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