Program and Abstracts

9th International LAMS and Learning Design Conference

“Innovation in Learning Design”

26th-27th November 2014

Nanyang Technological University, Singapore

Co-hosted with the
Lee Kong Chian School of Medicine
Program and Abstracts of the
9th International LAMS & Learning Design Conference

Innovation in Learning Design

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Program and Abstracts

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Welcome

Welcome to all our delegates to the 9th International LAMS & Learning Design Conference held at Nanyang Technological University, Singapore on November 26th & 27th, 2014, co-hosted with the Lee Kong Chian School of Medicine, a partnership between Nanyang Technological University and Imperial College London.

We were pleased at the response to the call for proposals and the special focus given to "Innovation in Learning Design". The variety of papers and presentations in the program should provide an interesting conference for all delegates.

We are pleased to welcome Paul Gagnon as a Keynote Speaker – Paul has significant experience with e-learning, particularly with LAMS over many years in Singapore. This complements the work of our second Keynote Speaker, Prof James Dalziel, who will provide an overview of new directions for LAMS, and discuss the “Developing Scenario Learning” teaching strategy. Taken together, these two keynotes should provide a fascinating insight into new ways to use LAMS and Learning Design that foster active engagement with students in the teaching and learning process.

A special thank you once again to the Review Committee for giving their time to assess presentation proposals and to peer review submissions for the conference proceedings. We gratefully appreciate their time and very thoughtful comments. Special thanks to Leanne Cameron for leading the editing of the conference proceedings, to Ernie Ghiglione for webpage construction and conference organisation and to Renee Vance for her tireless logistical and practical support and to Macquarie University (on behalf of the LAMS Foundation) for support. Special thanks also for the assistance from the team at LKCMedicine – particularly Paul Gagnon and Huaqing Hong – and from NTU Centre for IT Services.

We hope you have an informative and enjoyable time at the conference, and look forward to interesting discussions and collaborations in the future!

Professor James Dalziel

on behalf of the Conference Organising Committee
Acknowledgements

Conference Organising Committee

The LAMS Conference Organising Committee would like to thank all the authors, presenters, reviewers, sponsors, technical support team and other conference helpers, for their time and efforts in ensuring the conference came to fruition. We would also like to thank Paul Gagnon and colleagues at the Lee Kong Chian School of Medicine and other staff at Nanyang Technological University for their generous assistance in organising the conference and for the use of the venue.

Professor James Dalziel
Leanne Cameron
Renee Vance
Ernie Ghiglione

Review Committee

Chris Alexander, The University of Nicosia, Cyprus
Sue Bennett, University of Wollongong, Australia
Leanne Cameron, Macquarie University, Australia
Gráinne Conole, Leicester University, UK
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## Conference Program

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Declara is a personal learning technology company based in Palo Alto, California. Declara’s online social learning platform learns how users interact through the use of semantic search, machine learning algorithms, and recommendations to deliver personalized suggestions on potential collaborators and resources for projects.

Declara, founded in 2012, operates on the premise that learning does not only happen in schools but continues for a lifetime in which people need to constantly master skills. Its technology platform uses semantic search and recommendations to surface the right content at the right time for individuals, making learning more personalized and discovery oriented. This enables individuals as well as entire communities to learn, making everyone smarter. The Declara platform is used by Educational Services Australia for teacher education and SNTE, Mexico’s largest teachers union, to train 1.6 million teachers and administrators. These communities are already seeing an improvement in the acquisition of new learning skills.

www.declara.com

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Keynote Presentations

Opening Keynote

Learning Design with Team Based Learning in Mind

Paul Gagnon  
Lee Kong Chian School of Medicine

Abstract

A key factor in successful in online learning is the ease with which selected technologies support the design, development, delivery and evaluation of the learning experience. Ten years after its auspicious beginnings LAMS remains a significant technology in the rapidly evolving and competitive online learning narrative. This presentation will highlight (i) why LAMS remains a powerful part of any educator’s toolkit, and (ii) its power and flexibility in support of the Lee Kong Chian School of Medicine’s mission innovations around the successful integration of technology, curriculum and pedagogy to promote a mobile, paperless TBL pedagogy.

Biographical notes

Mr Paul Gagnon is the Director of E-Learning & IT Services at the Lee Kong Chian School of Medicine. He is a pioneer in the integration of E-Learning Systems to support a blended learning pedagogy. His first successful integration was LAMS within the Blackboard Learning Management System at Nanyang Technological University. Most recently, and notably, is his rollout of ‘The LKCSoM TERASA Learning Framework’, short for Technology Enhanced Resources, Activities, Support and Assessment. TERASA guided the design, development and deployment of the Lee Kong Chian School of Medicine’s (LKCSoM) integrated E-Learning Ecosystem to support a mobile and paperless pedagogy.

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Next Steps for LAMS and Developing Scenario Learning with Branching

Professor James Dalziel
LAMS/Macquarie University, Australia

Abstract
This presentation explores the next steps for the LAMS software in terms of both functionality and pedagogical goals. It also explores the teaching strategy “Developing Scenario Learning”, particularly its application to scenarios that allow for different pathways, leading to different developments in scenarios depending on student choices. The presentation will provide an illustration of this approach using the “branching” feature of LAMS, and discuss a pedagogical template for applying Developing Scenario Learning with branching to different topics.

Biographical notes
Prof James Dalziel is the Director of the Macquarie E-Learning Centre Of Excellence (MELCOE) in Sydney, Australia, and also a Director of the LAMS Foundation and LAMS international Pty Ltd. He is known nationally and internationally for his research into and development of innovations in e-learning, and technical standards. James has directed and contributed significantly to e-learning projects such as the Meta-Access Management System project (MAMS), The Collaborative Online Learning and Information Services project (COLIS) and LAMS.

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Abstracts

1. Clinical Classrooms - reflections on the choice of technologies when creating a new blended learning experience

Bronwen Dalziel, Iain Gosbell, Slade Jensen & Björn Espidido
School of Medicine, University of Western Sydney, Australia

This research paper (E1) is included on the USB.

This study analyses how technology supported the roll out of a new teaching approach for medical students, in order to improve engagement with traditional lecture content. A flipped classroom approach was implemented during the teaching of Infectious Diseases and Immunity using a modified Team Based Learning (TBL) learning design. Students first viewed a set of online lectures, followed by a face-to-face session called a Clinical Classroom. In the Clinical Classroom students participated in team based quizzes and discussions. Students were surveyed on six occasions to collect data on how this new approach helped their learning and staff reflected how their assumptions changed over the course of their teaching. Medical students generally valued having their lectures divided into smaller sections and placed online, followed by the clinical classroom. There were some limitations with the technology (such as lack of access to the questions after the class), which will be addressed in future iterations of the course.

Biographical notes
Dr Bronwen Dalziel works as a Senior Lecturer in Medical Education at the University of Western Sydney. She coordinates the Scientific Streams for Years 3 to 5 (eLearning) and is leading a curriculum mapping project "A Roadmap for Learning: a first year online learning support system". The mapping project has been extended to cover all of the learning outcomes of the MBBS course (Years 1 to 5). Her current research focus is in Learning Design, looking at
creating reusable templates for the development of content for online modules and measuring the benefits of a 'flipped classroom' model.

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2. Integrating LAMS with E-Learning applications to deliver and drive Innovation in Education

Alan Loe & Lauren Hwang  
*Lee Kong Chian School of Medicine*

We aim to deliver a comprehensive presentation of LKCMedicine’s key technological learning infrastructure, with an emphasis on the Team-based Learning (TBL) Sessions. We will be discussing various E-Learning-related issues including the pedagogies behind the TBL Sessions, the development of E-Learning applications to incorporate an integrated learning environment as well as the infrastructure needed to support such technology-driven lessons in the face of the changing world.

**Contact**

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3. Building LAMS supported blended-mode borderless learning communities: Challenges in promoting thinking skills and attitudes for sustainable living

Khar Thoe Ng¹, Linda Toh² & Boey Mei Li³
¹SEAMEO RECSAM, Penang, Malaysia
²SMK Penang Free, Penang, Malaysia
³SMK(P) Sri Mutiara, Penang, Malaysia

Global learning in the borderless world is often linked with participatory inquiry knowledge construction involving contextual problem-solving activities using interactive digital tools for blended learning. In line with the increase in interest towards e-learning incorporating investigative activities to promote thinking skills and sustainable living among lifelong learners, RECSAM also explored the blended mode of training with R&D activities emphasizing knowledge exchange and peer coaching in Communities of Practice (CoP). This presentation includes recently developed learning designs integrating blended mode lesson activities supported by the ‘Learning Activities Management System’ (LAMS), with activities such as ‘Noticeboard, Share resources, Assessment and Web conferencing’. Two secondary science and social science lesson ideas illustrated using flowcharts will be discussed, i.e. ‘Drinking Water’ and ‘Climate Change’. The authors will also share the issues faced in developing these lessons, including challenges to promote thinking skills and attitudes for sustainable living. Among the aspects of LAMS used to promote thinking skills included the feature of ‘Noticeboard’ to pose scenario, and ‘Mind map and Task list’ to elicit students’ pre-/post-lesson knowledge. ‘Noticeboard and Image’ were also used to share resources related to promoting sustainable living. Lessons learnt and future direction of LAMS-based activities will be discussed.
Biographical notes
Dr. Ng Khar Thoe is a Science Education Specialist at R&D Division, Southeast Asian Ministers of Education Organisation (SEAMEO) Regional Centre for Education in Science and Mathematics (RECSAM), Penang. Her work experience includes Science/Maths teacher, programmer, research officer, part-time tutor/lecturer, visiting professor foreign research fellow, consultant and module writer. She involved in many in-service training courses and R&D programmes with more than 120 publications in refereed/non-refereed journals, reports/proceedings and books. She won several awards/fellowships at regional/international levels. She was the founder and coordinator for the 1st to 5th SSYS congress, also initiated blended learning hub in SEARCH for science and mathematics researchers.

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4. Implementation of LAMS in Team Based Learning (TBL) in Engineering, Science and Business

Hock Guan, Ong¹; Byunghoon, Lee²; Chee Lip, Gan¹,²; Redante Delizo, Mendoza³*
¹ Temasek Laboratories @NTU, Nanyang Technological University, Singapore
² School of Materials Science and Engineering, Nanyang Technological University, Singapore
³ Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

Team based learning (TBL) is an effective pedagogy to develop problem solving and interpersonal development skills in students. It is important to have an infrastructure that can support the educator’s teaching strategies that has the capacity to capture the real time learning progress during the students’ activities.

This paper discusses the implementation of LAMS to enhance TBL. We demonstrate the LAMS-based sequence for both engineering and business modules. The facilitator acquires access to student performance based on the real time capturing of results during the learning process by monitoring the students’ conceptual understanding. Features such as gates can be setup at intervals within TBL to allow the facilitator to supervise the pace of the class.

We also look at the branching feature where laboratory sessions can be conducted in alignment with the lessons delivered to different groups of students at different periods of time. The facilitator can subdivide the class into a smaller number of teams that can be accommodated within the laboratory capacity.

We also demonstrate how LAMS facilitated the feedback gathering within TBL through an innovative feedback network. Initial feedback from the students support the view that peer-to-peer learning is occurring within the context of LAMS-based TBL.
Figure 1. TBL grouping sequence using LAMS. Students’ laboratory sessions progress can be monitored as shown in the boxes.

Biographical notes
Associate Professor Gan Chee Lip is a faculty member from the School of Materials Science and Engineering, NTU, where he has been involved in undergraduate and graduate students teaching for the past 11 years. He has been involved in a few initiatives such as improving student engagement in lessons through usage of clickers, enhancing peer interaction in the technology-enhanced learning spaces, and most recently, Team-Based Learning for the Renaissance Engineering Programme. He also chairs the NTU Teaching Council which oversees the peer review and overall teaching appraisal of faculty going for promotion and tenure.

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Material Science and Engineering
Temasek Laboratories @NTU
Nanyang Technological University
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Biographical notes
Dr Red is a medical doctor by training and a pathologist by practice. His unusual predisposition is a product of liberal arts, business- and public administration and medical education. He left medicine for the love of teaching in 2005 and has never looked back. Currently, as a Deputy Director for Pedagogical Practice, he is in-charge of disseminating Team-Based Learning, the pedagogy of choice at NTU’s Lee Kong Chian School of Medicine to the rest of the university. He
also holds workshops on Collaborative Learning, and assists in the training future professors in the art of teaching.

Contact
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5. Is LAMS an efficient second language teaching and learning tool?

Luca Policastro  
*Universita degli Studi di Genova, Italy*

*This research paper (E1) is included on the USB.*

The development of blended and e-learning is pushing researchers to explore new technologies and their scope for well-defined didactic contexts. The goal is to allow learning designers to ascertain whether the technology deserves to be used, after an accurate evaluation of its strengths and weaknesses. This paper reports an experiment conducted at the University of Genoa (Italy) in 2013, in which I designed, ran, monitored and evaluated a Spanish course for Italian students on LAMS. In the following paragraphs, I will report its results basing my conclusions on my direct observations and traits detected in students’ behaviours throughout the experience.

**Biographical notes**

Dr Luca Policastro graduated in Modern Literatures and then in Journalism at the University of Genoa (Italy, 2005 and 2008), where he received an European PhD in Languages, Cultures and ICTs (2014) with a thesis on strategic language learning in e-learning contexts. He developed a pre-doctoral research stay at the Universitat Oberta de Catalunya (Barcelona, Spain, 2013).

His interests and research areas are: inter-linguistic similarity; strategic language learning; self-regulated learning; design and evaluation of e-learning courses; Computer Assisted Language Learning; radio automation and audio editing software.

**Contact**

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6. LAMS Adoption by Singapore Polytechnic

Yap Chin Hooi  
*Singapore Polytechnic, Singapore*

Abstract

**AY2011 LAMS Initiative**

In Year 2011, Singapore Polytechnic started an e-learning initiative using LAMS as an enabler for lessons design in the e-way. In Year 2011, we have shared on our experiences in teaching, setting up a Community of Practice and the adoption of LAMS.

**Adoption Outcome of LAMS in SP**

Then in Year 2012, a Stage of Concern questionnaire was designed comprising of 35 questions and teachers were required to complete the questionnaire. The completed questionnaire was then analysed and a paper was written about the teachers’ concerns. The paper tries to answer three questions, which were:

- What are the concerns that teachers have with regards to using LAMS?
- Do the levels of concern differ amongst teachers who have been introduced to LAMS?
- Does school culture play an important role in determining the level of concern or is it just a matter of ignorance?

Ultimately we will need to decide for ourselves how we would want to adopt an e-learning strategy with tools like LAMS to engage with students and motivate them on their journey of learning and self-discovery. Arends (1988) in his book “Learning to Teach” argues that teachers have to make the change from just delivering notes to engaging and motivating students in their studies.

**References**

Biographical notes
Yap Chin Hooi has worked in Singapore Polytechnic for six years since 2008. His special interests include e-learning with ICT and the development and testing of blended and on-line learning courses. Chin Hooi has completed his M.Ed. (UNSW) and completed his research paper on e-learning particularly in the usage of LAMS. Chin Hooi holds two e-learning awards from the institution. He is currently the manager for Edu-tech (Educational technology) team for PACE (Professional and Adult Continuing Education) academy. One of his objectives is to advise and assist lectures to adopt LAMS in their curriculum for e-learning.

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7. LAMS@NTU

Chin Hock & Mohamad Ridwan Bin Othman

Nanyang, Technological University, Singapore

Abstract

In NTU, the flipped teaching or flipped classroom methodology have been applied for the past 1-2 years resulting in various Technology Enabled Learning (TEL) courses co-developed with Faculty. In these courses, our approach have been to leverage on the Learning Activity Management System (LAMS), an innovation learning design tool. We piloted its use in the part-time Electrical & Electronic Engineering and Mechanical Engineering Bachelor degree courses in August 2013. It was later extended to the Renaissance Engineering programme, an integrated co-terminal engineering programme which admits only a handful of elite engineering students at NTU.

After the positive feedback garnered and the continued push for good learning design to be the main driving force for our TEL courses, LAMS was used unprecedently in NTU for a large cohort - the Introduction to Sustainability: Multidisciplinary Approaches and Solutions and the Absolute Basic for Career modules. About 3,200 students from the College of Engineering and the Nanyang Business School were enrolled.

In this presentation, we will be sharing our experiences and the challenges in designing these courses and reaching out to a huge audience and making it a reality.

Biographical notes

Chin Hock is a Learning Technologist with the Learning Solution and Applications Section in CITS. He is currently working with the learning designers and various faculty in the development of the TEL courses and managing a team of multi-media designers. Over the past 2 years, he has successfully co-delivered and rolled out more than 10 blended learning modules including the Massively Open and Online Courseware (MOOC) at NTU. Currently, he is also a facilitator in the monthly LAMS workshop.
Contact

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Biographical notes

With more than 15 years in the education, elearning and educational technology industry, Ridwan is both an educator and learning technologist at heart. He has taught for more than 5 years at the tertiary level and understand the pedagogical and logistical challenges to engage and motivate the learners of today. As a learning designer and learning technologist for more than 15 years, he understands the technical side of implementing learning tools to enhance learning and teaching. Bringing these two experiences together, he has managed to successfully design, conceptualise and develop various online, offline and blended learning courses and programmes that are effective and sustainable. He has also conducted training for educators in Problem Based Learning; Intrinsic Motivation of Learners; Facilitation Skills and Using Educational Technology tools to enhance teaching and learning.

He currently heads the Learning Solutions and Applications Section in CITS at NTU and leading the design and development of more than 30 different online and blended learning modules for NTU, annually, with more than 800 hours of learning content, some of which will be opened to the public, in the form of MOOCs. He is leading the section to complete more than 15 different educational technology innovations and initiatives for NTU to enhance learning and teaching in this University and aligning them with the strategic goals of NTU.

Contact

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8. LAMS and Declara Integration

Ernie Ghiglione & James Stanbridge

*LAMS & Declara*

Abstract
Declara’s online social learning platform learns how users interact through the use of semantic search, machine learning algorithms and recommendations to deliver personalized suggestions on potential collaborators and resources for projects.

The integration with LAMS allows Declara to create, deliver and evaluate LAMS lessons within the Declara personal learning environment. LAMS lessons can be suggested by Declara’s recommendation engine as learners interact with the system to create meaningful learning patterns.

In this presentation we share the details on how we believe LAMS & Declara should be integrated to leverage the advantages of both systems.

Biographical notes
Ernie Ghiglione is the LAMS Project Manager now at LAMS International, and previously at MELCOE, Macquarie University. He has previous experience in various open source projects in e-learning. He has developed parts of the .LRN Learning Management System, especially the Learning Object Repository, content delivery platform, one of its assessment engines, the IMS Content Packaging, IMS Metadata and SCORM implementation.

Prior to managing e-learning projects, Ernie led large enterprise software development in the US, the Netherlands and India for five years. He holds an MSc, BSc Management Information Systems from New York University and a Master of Software Engineering from the University of Sydney.

Contact

**Ernie Ghiglione**
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Biographical notes
James Stanbridge is Vice President of Declara in Asia overseeing Declara’s Asia operations and expansion into the marketplace. James comes to Declara from Microsoft where he spent 13 years covering a variety of business units in all areas across Asia ranging from cloud services to technical operations and product management.

He is currently the CTO of a Singapore based NGO fighting human trafficking (http://touchsalabai.com) and travels to Cambodia to support Sala Bai, a school for young women who are at risk of trafficking (http://www.salabai.com) James is from Hertfordshire, England. He lives in Singapore with his wife and two children.

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9. LAMS in the Cloud: Scaling LAMS using Amazon Web Services (Case Study)

Ernie Ghiglione & Vincent Quah
LAMS & Amazon AWS

Abstract
In this presentation we present the technical infrastructure to support a robust and scalable architecture for LAMS based on Amazon Web Services. In this particular case, we introduce the LAMS architecture for the Lee Kong Chian School of Medicine based on their responsiveness and reliability requirements. The aim of this presentation is demonstrate how to use cloud services (Amazon AWS) to build cost effective, reliable and scalable infrastructure to deliver education services.

Biographical notes
Ernie Ghiglione is the LAMS Project Manager now at LAMS International, and previously at MELCOE, Macquarie University. He has previous experience in various open source projects in e-learning. He has developed parts of the .LRN Learning Management System, especially the Learning Object Repository, content delivery platform, one of its assessment engines, the IMS Content Packaging, IMS Metadata and SCORM implementation.

Prior to managing e-learning projects, Ernie led large enterprise software development in the US, the Netherlands and India for five years. He holds an MSc, BSc Management Information Systems from New York University and a Master of Software Engineering from the University of Sydney.

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Biographical notes
Vincent Quah is currently the Business Development Lead, responsible for the Education, Research and Not For Profit sectors, covering the Asia Pacific region for Amazon Web Services. He has been involved in the education and research field for the past 20+ years and has held many different roles – educator, curriculum and instructional designer, e-learning consultant – driving regional and global education projects, programs and business. He has had extensive experience working in the Asia Pacific region, in particular, working on large-scale regional/state/national projects. He is passionate about the use and impact of technology on education and research. His primary focus now is to work with customers to support and assist them in achieving their goals and in solving problems.

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10. New LAMS Developments

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*LAMS*

**Abstract**
What’s on store for the next releases of LAMS? In the educational dimensions of the software, there will be simpler and more intuitive ways to create learning designs based on proven patterns. There will also be better support for learners’ mobile experiences, including new responsive user interfaces and a new look and feel.

In terms of technology, the next LAMS release will include a major technical upgrade with important changes to its underlying infrastructure, including a significant upgrade to the LAMS server’s use of Java. Early testing of this upgrade has demonstrated significant improvements in content delivery, reliability and scalability.

**Biographical notes**
Ernie Ghiglione is the LAMS Project Manager now at LAMS International, and previously at MELCOE, Macquarie University. He has previous experience in various open source projects in e-learning. He has developed parts of the .LRN Learning Management System, especially the Learning Object Repository, content delivery platform, one of its assessment engines, the IMS Content Packaging, IMS Metadata and SCORM implementation.

Prior to managing e-learning projects, Ernie led large enterprise software development in the US, the Netherlands and India for five years. He holds an MSc, BSc Management Information Systems from New York University and a Master of Software Engineering from the University of Sydney.

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Conference Proceedings List of Papers

Papers are available on the USB drive distributed with conference materials, or on the conference website.


The LAMS 2014 Conference Program Committee confirms that Research papers (E1) accepted for this publication:

- Meet the definition of research in relation to creativity, originality, and increasing humanity’s stock of knowledge;
- Are selected on the basis of a peer review process that is independent, qualified expert review; double-blind reviews conducted on the full articles, prior to publication;
- Are published and presented at a conference having national and international significance as evidenced by registrations and participation; and
- Are made available widely through the Conference web site

Research Papers (E1 Publications)


Contributed Paper (E2 Publication)

**LAMS Basic Training Workshop**

The workshop is provided in addition to the main conference program. Separate registration is required.

**Intended audience**
Lecturers, academics and students who would like to design and implement LAMS sequences for any educational context. Familiarity with the basic LAMS tools is not necessary as workshop participants will be walked through the design and authoring procedures.

This workshop is designed for teachers, instructors and students from any educational context, who have little or no practical experience with LAMS.

**Maximum number of participants**
20 participants

**Workshop description and aims**
The overall aim of the workshop is to provide a general overview of what LAMS is. The workshop aims to explore ways in which LAMS can support collaborative and individualised approaches to learning in the classroom. We look at the basic functions of LAMS and reflect on design, construction and implementation issues. Participants will have the opportunity to practise designing using all the LAMS tools, but in particular the newer LAMS tools. There will be also be a brief introduction to the LAMS Community site and the resources that are offered.

The workshop will be highly practical with participants having ample opportunity to explore the Learner, Monitor and Authoring interfaces in LAMS. There will be a number of ready-made sequences available for participants to look at and/or adapt.

**Outcomes for participants**
During the workshop participants will:

- Discuss learning and teaching issues and results from various trials;
- Participate as a learner in an introductory LAMS sequence;
- Author a sequence in LAMS;
• Explore various existing sequences and discuss pedagogical approaches;
• Explore the monitoring environment;
• Evaluate LAMS as a tool for facilitating e-learning;
• Examine the place of LAMS in e-learning;
• Learn about the integration of LAMS with other Learning Management systems.

Prerequisites
Familiarity with using the Internet, and basic computer skills. No prior experience with LAMS is necessary for this workshop.
**LAMS Advanced Training Workshop**

The workshop is provided in addition to the main conference program. Separate registration is required.

**Intended audience**
Teachers, academics and students who have designed and implemented LAMS sequences for any educational context. Familiarity with the basic LAMS tools, LAMS authoring and monitoring will be assumed.

**Maximum number of participants**
15 participants

**Workshop description and aims**
The workshop can be tailored to the needs and backgrounds of participants, but overall will be a mix of practical activities using LAMS, and reflection on the pedagogical issues which arise when designing for online and blended learning environments. Throughout the workshop examples from a range of educational contexts will be used for demonstration and analysis.

The workshop aims to explore ways in which LAMS can support collaborative and individualised approaches to learning. We go beyond the basic functions of LAMS and reflect on design, construction and implementation issues. Participants will have the opportunity to practise designing using all the LAMS tools, but in particular the newer LAMS tools.

**Outcomes for participants**
During the workshop participants will:

- Explore, analyse and run examples of LAMS sequences designed and implemented for higher education and K-12 contexts;
- Design a LAMS activity using the advanced tools and/or the optional and grouping tools;
- Discuss the learning and teaching issues arising in relation to the design and implementation of collaborative activities;
• Evaluate for themselves the scope of LAMS as a technology to promote and develop rich learning environments.

• Explore and adapt pedagogical templates such as Problem-Based Learning, Role Plays, Predict-Observe-Explain, and Developing Scenario Learning

Prerequisites
Familiarity with the basic LAMS tools, LAMS authoring and monitoring is recommended. Participants are welcome to bring along their own examples of LAMS sequences for discussion and development.
Workshop Presenters

James Dalziel (Advanced Workshop Leader)
James is the Director of the Macquarie 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 such as the Meta-Access Management System project (MAMS), The Collaborative Online Learning and Information Services project (COLIS), and the Learning Activity Management System (LAMS) project.

Ernie Ghiglione (Basic Workshop Leader)
Ernie Ghiglione is the LAMS Project Manager now at LAMS International, and previously at MELCOE, Macquarie University. He has previous experience in various open source projects in e-learning. He has developed parts of the .LRN Learning Management System, especially the Learning Object Repository, content delivery platform, one of its assessment engines, the IMS Content Packaging, IMS Metadata and SCORM implementation.

Prior to managing e-learning projects, Ernie led large enterprise software development in the US, the Netherlands and India for five years. He holds an MSc, BSc Management Information Systems from New York University and a Master of Software Engineering from the University of Sydney.