

International Society of the Learning Sciences



www.isls.org

Newsletter #6 April 2007

Mark your calendars: CSCL 2007, July 16-21, 2007 @ Rutgers

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Upcoming ISLS

conferences:

- **CSCL 2007, July 16-21, Rutgers University, New Jersey**
<http://www.isls.org/cscl2007/>
- ICLS 2008, June 24-28, Utrecht, the Netherlands
<http://edu.fss.uu.nl/ICLS2008>

Conference watch:

- CogSci 2007, August 1-4, Nashville, Tennessee, USA
- EARLI 2007, August 28-September 1, Budapest, Hungary
- ESERA, August 21-25, Malmö, Sweden

Report by Gerry Stahl.

The CSCL 2007 conference is fast approaching. Make the most of your trip to CSCL 2007. Come early and participate in the pre-conference events!

The main conference will be preceded by two-and-a-half days of pre-conference events. The morning before the conference opening, Naomi Miyake will present a half-day tutorial "Introduction to CSCL."

Fourteen workshops on a wide range of topics are scheduled for Monday, Tuesday and Wednesday morning. These are great opportunities to meet people interested in these aspects of CSCL and to get into the spirit of the conference ahead of time. During the rest of the conference, you may get to better know the people you meet in the pre-conference and get ideas about which conference presentations to attend.

The workshops will follow a variety of formats; read their descriptions on the conference website for details. They each focus on a timely issue of CSCL theory, methodology, technology, analysis or pedagogy.



**Mice,
Minds,
and Society**

CSCL PRE-CONFERENCE EVENTS

MONDAY, JULY 16

CSCL and Inquiry Learning, Karsten Stegmann
Karsten.Stegmann@psy.lmu.de

Linking CSCL Design Patterns to Authentic Educational Case Studies, Yannis A. Dimitriadis
yannis@yllera.tel.uva.es

Chat Analysis in Virtual Math Teams, Gerry Stahl
Gerry.Stahl@drexel.edu

The Third Metaphor of Learning, Jerry Andriessen
J.E.B.Andriessen@fss.uu.nl,
[morning only]

Video Wikis and Media Fluency, Erik Blankinship
erikb@mediamods.com,
[afternoon only]

TUESDAY, JULY 17

Languages and Platforms for CSCL Scripts, Armin Weinberger
Armin.Weinberger@psy.lmu.de

Wiki Research: Knowledge Advancement and Design, Andreas Lund
andreas.lund@uv.uio.no

Authoring Frameworks for Integrating Collaborative Learning Technologies, Turadg Aleahmad
turadg@cs.cmu.edu

Networked Learning and CSCL, Christopher Jones
C.R.Jones@open.ac.uk,
[morning only]

An Interactive Session Using a Tool to Support Distributed Conversations around Digital Video, Robb Lindgren
robblind@stanford.edu,
[afternoon only]

WEDNESDAY, JULY 18

Verbal and Nonverbal Communication Channels in CSCL Conferencing Environments, Katrin Allmendinger & Rosanna Guadagno
katrin.allmendinger@iao.fraunhofer.de, rosanna@ua.edu

Coding CSCL Conference Video Archives To Expand Community Memory, Ricki Goldman
ricki@nyu.edu

Assessment of Group and Individual Learning through Intelligent Visualization, Andy Hurford
hurfor@mac.com

Collaborative Technology Supporting Cognitive Skills for Ethics in Communication, Tom Murray
tmurray@cs.umass.edu

Tutorial: Introduction to CSCL, Naomi Miyake
nmiyake@sist.chukyo-u.ac.jp

Visit <http://www.isls.org/cscl2007/> for more up to date information.

July 16 - 21, 2007

Computer Supported Collaborative Learning



CSCL 2007

KEYNOTE SPEAKERS

Dr. Gerhard Fischer

University of Colorado- Boulder

**"Designing Socio-Technical Environments in Support of
Meta-Design and Social Creativity"**

Dr. Diana Laurillard

University of London

"The Pedagogical Challenges to Mobile Collaborative Technologies"

Dr. Jeremy Roschelle

SRI International

"Can CSCL Make a Global Contribution?"

For more information: <http://isls.org/cscl2007>



RUTGERS
Graduate School of Education



ICLS 2008: June 24-28, 2008, Utrecht University, The Netherlands

Update by Paul Kirschner

ICLS2008 is gearing up and is right on schedule. As you know, Utrecht University will host the 8th International Conference of the Learning Sciences in Utrecht, The Netherlands from June 24 to 28, 2008.

The theme for the conference is **"International Perspectives in the Learning Sciences"**.

The conference organization is proud to announce that - more than a year in advance - an all-star line-up of keynotes has already been finalized. We are going with a combination of single and double keynotes so as to present as many different views on the use and importance of the learning sciences in a changing and interconnected world.

The opening keynote will be given by Yrjö Engeström - Director of the Center for Activity Theory and Developmental Work Research at the University of Helsinki. The title of his presentation is: Beyond Design Experiments: Interventions for Expansive Learning

Interspersed throughout the conference are three keynote panels on Knowledge Acquisition and Construction in Cultures and Societies, namely:

PANEL 1: GAMES IN EDUCATION AND SOCIETY

◆ *The Game of the Future*

Mark Overmars
Center for Advanced Gaming and Simulation,
Utrecht University

◆ **Pop Cosmopolitanism, Cognition, and Learning on the Virtual Frontier**

Constance Steinkuehler,
University of Wisconsin-Madison

PANEL 2: LEARNING SCIENCES AND TEACHING

◆ **Conceptualizing systemic contextual differences for design research: Insights from International comparative studies of pedagogical practices and technology use**

Nancy Law,
Information and Technology Studies,
Faculty of Education,
University of Hong Kong

◆ **Pedagogical Benchmarks: Does the Homo Sapiens Need More Than Just Good Teaching?**

Theo Wubbels,
Department of Pedagogical and Educational Sciences,
Utrecht University

PANEL 3: LEARNING SCIENCES AND TECHNOLOGY: SOCIAL SOFTWARE AND/OR SCRIPTING THE LEARNING PROCESS

◆ **The Folksemantic Web: Tools for a Human-Centered Approach to the Semantic Web**

Shelley Henson,
Center for Open and Sustainable Learning,
Utah State University

◆ **Internal and external scripts: Interplay of discourse, cognition, and instruction in computer-supported collaborative learning**

Frank Fischer,
Ludwig-Maximilians-Universität,
Munich, Germany

There will also be an exceptional closing duo-keynote on the effects of learning and education on society:

◆ **Is Educational Investment in the Poor a Good Public Investment?**

Henry Levin
William Heard Kilpatrick
Professor of Economics and Education at Teachers College, Columbia University and, Director of the National Center for the Study of Privatization in Education.

◆ **Key Elements for a Framework to Understand and Conceptualise the Social Outcomes of Learning**

Richard Desjardins,
Associate Professor in the Economics of Education, Danish University of Education
Coordinator of a joint OECD CERI and INES Network B research project entitled the Social Outcomes of Learning.



The Dom Tower, which dates back more than six centuries, at 112 metres literally forms Utrecht's high point

ICLS 2008

June 24-28, Utrecht,
The Netherlands

<http://edu.fss.uu.nl/ICLS2008>



Traditional Dutch costumes



Amsterdam, "Brewers' Canal"
© Copyright: DutchAmsterdam.nl



The Neude at night, characteristic of the rich nightlife of Utrecht



Netherlands windmills

Kaleidoscope SIG on Computer Support for Collaborative Learning

By Barbara Wasson, University of Bergen, Norway

In 2006, an agreement was reached to associate the KAL CSCL SIG with the ISLS CSCL Community, and be known as the *Kaleidoscope SIG of European CSCL Researchers*. The agreement offered KAL SIG members free membership in ISLS in 2006, a hardcopy of the first issue of the *ijCSCL* and free on-line access for 2006. The registration fees for CSCL 2007 will include ISLS membership for 2007. According to Gerry Stahl, one of the editors of the *ijCSCL*, this initiative has led to over 50 new memberships in ISLS.

To join the KAL CSCL SIG please contact anina.wiesiollek@psy.lmu.de

For more information please visit:

<http://cscl.noe-kaleidoscope.org/>

Upcoming events include:

CSCL Workshop "Orchestrating collaborative learning activities in a technology enhanced classroom"

Alpine Rendez-Vous 2008

The Kaleidoscope Network of Excellence CSCL SIG has over 380 members covering all the countries participating in the network. Instigated in 2004, the KAL CSCL SIG recognises the multidisciplinary nature of the field of CSCL including the design of learning environments, the design and implementation of technological artefacts, and methodologies and theoretical frameworks for analysing and supporting learning activities. It pulls together individual Kaleidoscope researchers with diverse interests to focus on understanding collaborative learning in different types of environments. The theoretical framing for understanding the relation between learning, artefacts and tasks includes the various traditions from the socio-cultural, the cognitive, the computational approaches. The CSCL SIG has the primary goal to structure the European Research Area of CSCL and to ensure its sustainability.

Governed by a board of 10 members, the CSCL SIG engages its members in a number of activities. In addition, we facilitate Ph.D. students by offering courses and/or workshops through the KAL Virtual Doctoral School, by providing a set of CSCL resources, and by providing grants for participation in international conferences and workshops.

A selection of the main achievements since 2004 include:

Over 120 members participated in the **CSCL SIG Symposium** that took place in October, 2004 in Lausanne, Switzerland. The programme included 2 keynote speakers, 11 paper sessions with 28 paper presentations, 5 workshops and an initial meeting of the Ph.D. forum. The **CSCL SIG workshop** comprised 3 invited talks

and 3 presentations at the network-wide Kaleidoscope Symposium in July 2005.

The CSCL SIG participated in the European IST 2004 event with a **Panel**, entitled *Facilitating and enhancing collaborative learning with innovative IT*, <http://www.noe-kaleidoscope.org/pub/researcher/resources/video/ist/ist.html>

The CSCL SIG organized **three workshops** and a panel at the CSCL 2005 conference in Taipei, Taiwan. "Computer-supported scripting of interaction in collaborative learning environments" was conducted by Armin Weinberger, while Pierre Dillenbourg was in charge of "Dual Interaction Spaces". The panel session "What is the place of computer science research in CSCL?" was organized by Pierre Tchounikine.

In 2005 members of the CSCL SIG offered VDS courses on "Scripting of computer-supported interaction" in Tübingen, Germany and "State of the Art of Technology Enhanced Learning" in Oulu, Finland.

The CSCL SIG funded a series of three workshops in 2005: "Multiple Technologies and Tools for Supporting CSCL" organized by Sanna Järvelä, in November in Oulu, Finland; Berner Lindström and Sten Ludvigsen were in charge of "Analysis of interaction and learning" in December in Gothenburg, Sweden; and "Methods for evaluating learning and computer supported collaboration" was conducted by Eileen Scanlon, in November in Milton Keynes, UK.

The *CSCL Alpine Rendez-Vous*, a set of autonomous events organized at the same place at the same time, was launched as an initiative to create a sustainable series of sci-

entific meetings in Europe. The 2007 Rendez-Vous, attracting 180 participants, was held in Villars, Switzerland offering 4 parallel workshops before a rendez-vous day followed by an additional 4 workshops, see <http://craftwww.epfl.ch/events/alpine/>

To honour and stimulate high quality CSCL research, design and development in Europe, three awards were established in 2006. Award categories (and 2006 winners) are:

•European CSCL Award for Excellence in the Field of CSCL Research and/or Development

Hans Christian Arnseth and Sten Ludvigsen (University of Oslo, Norway) for their paper "Approaching institutional context: Systemic versus dialogic research in CSCL" that appeared in the first issue of *ijCSCL*.

•European CSCL Award for Excellence in the Field of CSCL Technology

Davinia Hernández Leo and Miguel L. Bote-Lorenzo (University of Valladolid, Spain) for the development of "Collage" and "GridCole".

•European CSCL Award for Excellence in PhD Research

Hannie Gijlers and Ton de Jong (University of Twente, Netherlands) for "Confronting Ideas in Collaborative Discovery Learning".

The CSCL SIG supports the Kaleidoscope TeLearn Archive (see <http://www.telearn.org/>), which is the first International Open Archive in Technology Enhanced Learning.

In 2006 the KAL CSCL SIG was opened for non-KAL researchers.

The International Journal of CSCL in 2007

By Gerry Stahl & Friedrich Hesse, Executive Editors

The start of a second year of *ijCSCL* marks a significant step forward in the history of the CSCL research field. The journal is not just a venue for academic papers, but a medium of discourse about new directions and new understandings within an active community exhibiting diverse perspectives.

The journal has not merely persisted for a full year/volume; it has been adopted by the CSCL community as an important voice. Almost a hundred papers have been submitted to the journal from around the world, covering all aspects of CSCL theory, methodology, technology and practice. A total of two hundred researchers have volunteered to be reviewers, including the illustrious Editorial Board of 42 people. Many of the submitted papers expand on exceptional presentations from CSCL conferences, workshops and research labs. The paper that won the "European CSCL Award for Research" at January's CSCL SIG Rendez-Vous was published in *ijCSCL*.

Like a meeting or a conference, a journal can provide a place to communicate what is going on in a community. However meetings and conferences permit certain kinds of informality and direct interaction with the audience. So it is natural to concentrate on meetings and conferences when a field like CSCL is starting to develop. When a journal become part of the community's communications, more formal ways of presenting assumptions, theories

and outcomes start to take prominence. Journal articles reflect more mature research efforts, more intense peer review and more rigorous editing than conference papers.

During the first year of *ijCSCL*, a highly engaged Editorial Board and additional reviewers from the field did an exceptional job of carefully reading the submitted papers and providing deep and detailed constructive advice to improve the papers. Virtually all published papers went through extensive critique and revision. Although it may not be visible to most readers, all papers had clearer organization and stronger arguments as a result of the review process—even though they may have been based on conference papers or dissertations that had already benefited from a great deal of review and editing. In addition, the many papers that could not be published in *ijCSCL* each received several detailed reviews, helping their authors to learn from the experience and to understand what was needed for future publication. In such ways, the journal also serves as a means for mutual assistance within the community—for community-based collaborative learning.

A number of workshops on topics in CSCL proposed developing special issues for *ijCSCL*. These were not topics solicited by the *ijCSCL* Editorial Board, but arose out of the work and concerns of practitioners. They are themes which "flashed" up in the field through a kind of spontaneous combustion of hot topics, stirred

up by experiences in the wild. Responding to these openly and welcoming such suggestions has been a way for *ijCSCL* to give voice to the concerns of the field in a timely and flexible way and to stay at the leading edge of a rapidly evolving discipline.

This year, *ijCSCL* begins to publish papers on these "flash themes." Reviews of papers on these themes are being coordinated by Associate Editors of *ijCSCL* (as indicated in parentheses below). Issues in 2007 will include papers on flash themes that emerged from European workshops:

- Scripting in CSCL (reviews coordinated by Barbara Wasson)
- Methods for Evaluating CSCL (reviews coordinated by Claire O'Malley)
- Graphical Support for CSCL (reviews coordinated by Daniel D. Suthers)

In the first issue of 2007, two papers on the theme of "Learning in Communities" are published. They arose out of a workshop by that name organized at Penn State University (USA). This issue of *ijCSCL* also features articles that explore importing quantitative methodologies into CSCL, in combination with complementary qualitative approaches. The theme of methodology is one that permeates discussions of CSCL and will probably play a role in every issue of *ijCSCL*, along with papers on CSCL technology, theory and pedagogy.



Issues in 2007 will include papers on flash themes that emerged from European workshops:

Scripting in CSCL
(reviews coordinated by Barbara Wasson)

Methods for Evaluating CSCL
(reviews coordinated by Claire O'Malley)

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(reviews coordinated by Daniel D. Suthers)

Training the future Learning Scientists

1. Learning Sciences at your institution

In our last newsletter issue we solicited contributions from established Learning Sciences programs around the world. We asked contributors to comment on three main issues:

1. Learning Sciences at their own institution.
2. The interdisciplinary preparation needed by future Learning Scientists.
3. The main challenges a Learning Scientist faces today.

We present the first contributions here, and extend our invitation to representatives of other established LS programs for publication in the Fall 2007 newsletter.

To send your contribution please email elenakyza@gmail.com



Nanyang Technological University, Singapore
<http://eduweb.nie.edu.sg/LST/home/default.asp>

The Learning Sciences Lab (LSL) was formed in early 2005 with US \$4.8 million initial funding from the Singapore Ministry of Education (MOE) and the National Institute of Education (NIE). It is the first centre in Asia devoted to conducting research based on theory and research perspectives from the learning sciences. The LSL is currently complemented by a Masters in Education (with a minor in learning sciences). We envisage that in the next 3 to 5 years, a full fledged Masters program may be possible. We also aim to expand our student numbers for our PhD (by research) program, both locally and internationally. Moreover, we are planning for a number of tie-ups or MOUs with foreign universities in order to strengthen our learning sciences programs. The LSL now has 22 faculty staff and 34 research assistants/ associates, and is committed to conducting research "to foster deep student learning with technology-enabled pedagogical practices for cultivating 21st century knowledge and skills through learning sciences research in Singapore schools". With this mission in mind, to date the LSL has funded 30 research projects oriented towards its four signature models, namely: New Literacies, Science as Systems, Knowledge Building, and Mathematics and Problem Solving. In 2007, LSL has received US \$7.2 million funding to continue the learning sciences research in Singapore classrooms. With the launch of the Interactive Digital Media (IDM) for Education research fund by the Singapore National Research Foundation (NRF) and the MOE, LSL also started two new Signature Models: Teacher Education, and Online Society and Community to study the impact of IDM on teaching and learning as well as teacher professional development to prepare teachers for students' learning in IDM environment.

University of Wisconsin –Madison, USA
<http://www.education.wisc.edu/edpsych/gradprog/gradprog.htm#LS>

The University of Wisconsin graduate program in The Learning Sciences was created in 2003 as an area within the Department of Educational Psychology, recently ranked by US World and New Reports as #1 in the US. Although relatively new, our learning-sciences program has solid foundations in previous graduate training programs within the department. Historically the department offered graduate programs in both learning and cognitive science. These graduate programs were eventually blended into a single program with the name Cognitive Science Applied to Education, emphasizing both a strong affiliation with what Howard Gardner termed "the mind's new science" and a focus on studying learning in formal and informal *educational* contexts. The emergence of the International Society for the Learning Sciences as a major interdisciplinary organization and intellectual force influenced us to rename our program in 2003 to emphasize our close alliance with the philosophy, goals, journals and methods of that professional community. We continue to offer training in cognitive science and its traditions of experimentation and quantitative methodology, but we do this alongside the study and design of socio-technical learning environments and training in and use of design-based research and a range of qualitative methods.

Training the future Learning Scientists

1. Learning Sciences at your institution

University of Nottingham, UK
<http://www.nottingham.ac.uk/lrsi>

The Learning Sciences Research Institute at the University of Nottingham was founded in 2002. It is a collaboration between three founding departments: Psychology, Computer Science and Education. It grew out of a research centre within Psychology that had received 10 years of funding from one of the UK's national research councils (ESRC) and had supported interdisciplinary research in learning science, including a PhD program. When the external funding period ended we wanted to continue the research and training by developing an inter-departmental institute. This received financial support from the University and has recently received a further injection of funding to support the appointment of a new Director (Mike Sharples came to LSRI from Birmingham), core research and support staff and new lab and teaching facilities. Our research themes are wide-ranging and include global and distance learning (we have a partner institute in Ningbo, China), learning cultures and contexts, mixed-reality learning technology, playful and game-based learning, visual thinking and learning, collaborative learning, designs for mobile and informal learning, as well as research on fundamental learning processes. We support two masters degrees, one in ICT in Education and the other in Interactive Systems Design, as well as around 20 PhD students. We also support post-doctoral training - we have 4 LSRI-funded post-docs as well as a number of researchers who are employed on external research grants - and we have a program of visiting and honorary research fellows.



University of Michigan, USA
<http://www.umich.edu>

The University of Michigan does not have a "formal" program in Learning Sciences, though we have many faculty in our School of Education, School of Information, Department of Psychology, and Department of Computer Science who are active in the Learning Sciences community (and these faculty are well represented in the recent Cambridge Handbook of the Learning Sciences). Students interested in Learning Sciences-related topics can study in any of the four schools/units named above, and receive either a Ph.D., and M.A., or an M.S. degree. The Learning Sciences themes pursued by our faculty are broad, representing more or less the entire spread of the field. Cross-campus interest in Learning Sciences has been growing, especially among our central administration. This is in part due to the recognition that as the worlds of education and professional practice grow ever more complex, there is a need to study learning and teaching using interdisciplinary perspectives and within real-world contexts, both of which are strengths of a Learning Sciences perspective. In the next year, Michigan will capitalize on the strength of our faculty in the Learning Sciences area and form an Interdisciplinary Certificate Program that will be administered by the Rackham School of Graduate Studies.



Training the future Learning Scientists

2. The interdisciplinary preparation needed by Learning Scientists

In our last newsletter issue we solicited contributions from established Learning Sciences programs around the world. We asked contributors to comment on three main issues:

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We present the first contributions here, and extend our invitation to representatives of other established LS programs for publication in the Fall 2007 newsletter.

To send your contribution please email elenakyza@gmail.com



University of Nottingham, UK

<http://www.nottingham.ac.uk/lsci>

Learning scientists need training in a variety of methodologies and techniques that cross disciplinary traditions. In particular, they also need experience and training in doing 'real-world research' - i.e., grounded in particular contexts - and in communicating with a variety of different audiences (e.g., teachers, policymakers, designers, as well as researchers). We attempt to foster this by ensuring that our PhD students are co-supervised by at least two academic staff from different departments, appropriate to the research topic. We also actively support the carrying out of research projects in schools, museums, workplaces and so on. We also run a series of seminars, a reading and publishing group (RAPPERS - run by our post-docs) and a programme of taught courses on interdisciplinary research methods.

Nanyang Technological University, Singapore

<http://eduweb.nie.edu.sg/LST/home/default.asp>

There is a range of interdisciplinary professional and conceptual toolkits current as well as future learning scientists will need. Learning scientists involved with design research in classrooms and school-settings will need familiarity with and integration of multiple theoretical and methodological perspectives of how people learn (including both students and teachers), assessment, program evaluation, professional development, educational administration, organizational change, epistemology, and the design of technology-based learning environments.

If the future learning scientists want to do work on innovations in classrooms and school-settings then they need to work on large-scale projects, so that they are able to understand the bigger picture of reform and education. They also need to be able to carry out their own independent investigations into the impact of an innovation on student learning.

What also needs to be recognized is that the trajectory of most learning scientists took years to develop the necessary interdisciplinary understandings, and most function by virtue of teams that have the interdisciplinary knowledge, not individuals who have all the interdisciplinary knowledge. This might require a re-thinking of graduate education, reward structures for junior faculty, and a change in traditional views of the academia.

Of course, there is also the need for smaller-scale learning sciences research that might explore theoretical issues of centrality in the field or investigate pedagogical innovations that may or may not be enhanced by existing or emerging technologies. Also, many, if not all, of the larger-scale projects in the field initially started as smaller scale "high-risk, high-gain" types of projects that were exploring theoretical frontiers in the field.

Training the future Learning Scientists

2. The interdisciplinary preparation needed by Learning Scientists

University of Michigan, USA
<http://www.umich.edu>

Learning Sciences students need to be exposed to major views on learning, including developmental, cognitive, social, and computational perspectives and how these perspectives play out in different contexts. Learning Sciences students need a broad range of methodological preparation, including qualitative and anthropological techniques for the study of learning "in the wild" and policy-informing techniques like survey design, multilevel modeling, and test design. Perhaps of the greatest importance, Learning Sciences students need to be aware of how these different approaches to the study of learning "fit" together within multi-method research approaches such as design-based research.

University of Wisconsin –Madison, USA
<http://www.education.wisc.edu/edpsych/gradprog/gradprog.htm#LS>

The Learning Sciences is a design-oriented field involving many disciplines (e.g., cognitive and developmental psychology; video games and educational technology studies; linguistics; social foundations; education in specific disciplines), methods (e.g., experimental design; quantitative modelling; qualitative approaches such as case study and ethnography; design-based research with mixed methods) and problems (e.g., design of museum exhibits, games, online learning communities). Learning science programs and students must find appropriate balance between depth and breadth of training. Every successful doctoral trainee should fully master at least one major discipline, method, and design specialty. Yet without adequate strength across multiple specialties, one might be limited in future choices and could not be an effective collaborator.

Our five-year degree program has a number of strategies designed to help graduate students gain appropriate levels of depth and breadth. Beyond minimum course requirements in foundational disciplines and qualitative and quantitative methods, students are guided to specialize through selection of advanced elective courses, a minor, a preliminary exam topic, and eventually a dissertation topic to match interests and career goals. Students acquire a problem focus through participation in research apprenticeships beginning in the first year and culminating in completion of first- and second-year research projects in collaboration with a faculty mentor. To achieve breadth in training, students may apply for admission to a doctoral training program that integrates perspectives from educational psychology, curriculum and instruction, educational leadership, policy studies, and special education. The learning sciences community also meets weekly for seminars on a range of topics and featuring guest speakers from around the country and here in Madison who work in various fields.

Learning-sciences students gain significant educational and work experiences through research appointments on faculty members' funded research projects, most of which are housed within the Wisconsin Center for Education Research. WCER occupies the same building with The Department of Educational Psychology and is one of the oldest, largest, and most reputable research centers in the world. WCER helps situate our graduate training within a strong interdisciplinary community of scholars and offers graduate students additional formal and informal opportunities for interaction with students and faculty from multiple fields.

During their graduate training, students receive graduate and undergraduate teaching experiences through mentored teaching assistantships and instructorships offered through The Department of Educational Psychology.

These contributions were sent by:

Barry Fishman
 University of Michigan

David Hung Wei Loong
 Nanyang Technological University

Claire O' Meilly,
 University of Nottingham

Sharon Derry
 University of Wisconsin –Madison



Training the future Learning Scientists

3. The main challenges a Learning Scientist faces today

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University of Nottingham, UK

<http://www.nottingham.ac.uk/lrsi>

The challenge for training future learning scientists is to give them skills in a variety of techniques and methodologies without sacrificing depth of knowledge and experience in any one of them. There is also a cultural challenge for such scientists in that their future academic careers are likely to be in single discipline departments. So, concretely, the challenge for PhD students is to build up a credible list of publications in at least one of the core disciplines to make them 'marketable', since most universities in the UK are organised by traditional departments. There is also a challenge for the academic staff (faculty) contributing to such institutes to be rewarded and recognised for their interdisciplinary research, when there are so many pressures to assess research activities according to traditional disciplines.

The challenge for all of us in the learning sciences community is in fostering an ability to work across disciplines without sacrificing the benefits that come from particular disciplinary perspectives and methods - to avoid being 'Jacks of all trades and masters of none'. However we also need to enable new disciplines to emerge, and new perspectives and methods to develop from these endeavours, and new kinds of question to be researched. We need, I feel, to be both multi- and inter-disciplinary in order to retain sound critical analytic perspectives as our discipline(s) develop. So I don't see the challenges for training disappearing - and I think that's healthy. Another challenge is to be able to support large scale research that can demonstrate real impact - the equivalent of "big science" for our fields. The new NSF sciences of learning centers in the USA are very exciting in this respect.

Nanyang Technological University, Singapore

<http://eduweb.nie.edu.sg/LST/home/default.asp>

If one is doing work that involves innovations in classrooms and school-settings, then the main challenges are:

- How to train and support the infrastructure required to do work of significance.
- How to handle the long time that it takes to get projects up and running before student learning outcomes can be expected to be impacted.
- How to publish frequently, given the nature of the work that learning scientists tend to carry out.

For learning scientists who are involved with designing technological innovations, what might be called "learning environments of the future," there are additional special challenges. The formation robust learning sciences and technology research and development teams often requires special expertise (and flexible interpersonal skills) in areas such computer science and artificial intelligence, professional 3D graphics, advanced computational modeling, and content and pedagogical expertise in the relevant subject domains addition to the more "typical" learning scientist's skill sets such as mentioned above.

Training the future Learning Scientists

3. The main challenges a Learning Scientist faces today

University of Wisconsin –Madison, USA

<http://www.education.wisc.edu/edpsych/gradprog/gradprog.htm#LS>

Phenomena such as the information technology revolution, globalization, increasing trends to outsource high-level cognitive tasks, and the need to participate effectively in diverse collaborative organizations addressing complex world problems are changing educational goals. Requirements increase for learning scientists to enter work environments requiring collaboration with experts from multiple fields, pursue several career paths addressing different problems, and to interact and work with people of diverse backgrounds including those from outside academe. Such changes create new demands: learning scientists must prepare for a diverse, technical, problem-oriented world that does not yet exist, which makes it imperative that they become self-directed, lifelong learners who can thrive and participate in collaborative environments with ever-changing disciplinary boundaries.

University of Michigan

<http://www.umich.edu>

The inherent conflict between the interdisciplinary nature of Learning Sciences scholarship and the (sometimes) rigidly disciplinary thinking within higher education and many scholarly fields continues to be a challenge to Learning Scientists, especially at the beginning of their academic careers. It is difficult to learn how to work both within and across particular disciplines, and make sure that one's work is sufficiently well "grounded" in particular disciplines so that promotion and review committees understand how to read the work.



Announcing ENCORE:

A new wiki community for the exchange of open resources

Many research groups in the learning sciences have produced tools, materials or other resources that they would like to share with other researchers. The notion of an exchange has been popular for almost two decades, and there have been numerous repositories that link to such materials and index them for searching.

Based on our own experiences of sharing our own open source materials, we have developed a new online community to provide a dynamic wiki format for the creation of support pages and the formation of collaborations between researchers.

What happens when a graduate

student from a European lab decides to make use of Web-based tools developed in an American lab? Typically, the student writes e-mails back and forth with the originating lab, including the technology staff, and so on. Eventually, the student might succeed, and even expand on the innovation. ENCORE is designed to support such exchanges, capturing the knowledge required to support researchers as we adopt and extend one another's resources.

ENCORE is a wiki community, built on the powerful Confluence platform, and is supported permanently by the Education Commons at The University of Toronto. It offers supports for social identity

(called "Tribes"), a searchable library of *Resources* (including social tags) presented in wiki format so that any ENCORE member can add to those pages, and *Collaborations* which offer private wiki spaces to sub-groups within ENCORE.

Several labs are already adding wiki pages to support their resources. We hope the ENCORE community will grow to include a wealth of resources, but more importantly in the growth of community knowledge that surrounds those resources, captures their conditions for success, and extends them to new conditions and adaptations.

For more discussion, to see the existing resources and collaborations, or to JOIN, go to:
<http://www.encorewiki.org>

CogSci meeting 2007: Cognitive Science in the Real World

By Mitchell J. Nathan and Vladimir Sloutsky

CogSci 2007

[“CogSci in the Real World”](#)

August 1-4

Nashville, TN

Member poster abstracts due April 16

For more information, see

[http://
csep.psyc.memphis.edu/
/cogsci07/](http://csep.psyc.memphis.edu/cogsci07/)

CogSci 2007 is the annual meeting of the [Cognitive Science Society](#) for basic and applied cognitive science research. We encourage researchers from across the world to submit their best work and to attend CogSci07 to hear the latest research from the world's preeminent cognitive science scholars. This year, we highlight [CogSci in the Real World](#).

The conference will be held in [Nashville](#), Tennessee at the [Gaylord Opryland Hotel](#), August 1-4. Vanderbilt University is hosting an opening reception on August 1st for all conference attendees.

Plenary speakers include: [Walter Kintsch](#) (University of Colorado);

[John Laird](#) (University of Michigan); [2007 Rumelhart Prize Winner Jeffrey L. Elman](#) (University of California, San Diego); and 2006 Heineken Prize Winner [John R. Anderson](#) (Carnegie Mellon University).

The 2007 program is still being set, but in 2006, we had tutorials and workshops on a variety of themes of interest to the ISLS community, including: the cognitive science of gameplay, studies of artificial life, modeling techniques, new methodologies (e.g., eye tracking), and affective computing. In 2006, papers were organized into a variety of thematic sessions that included topics on Action and Embodied

Cognition, Bilingualism, cultural impacts of cognition, implicit learning processes, distributed cognition in healthcare, social interaction, learning and instruction, metaphor, non-verbal behavior, music and cognition, the emerging Learning Sciences, and many others.

There is still time to submit applications to present posters for members of the [Cognitive Science Society](#), and people can join at the time of submission. One-page abstracts are due April 16, 2007. Research in the Learning Sciences and education that interconnects with Cognitive Science is strongly encouraged.

The Collaborative Knowledge Building Group (CKBG)

Qwerty. Journal of technology and culture, www.ckbg.org (IT, EN, FR)

The Collaborative Knowledge Building Group (CKBG) was born from the need to create a community where ideas could be shared among researchers interested in computer-supported learning environments. This project aims to give an answer to those who are interested in collaborative learning procedures supported by technological tools. The community is supported by Knowledge Forum, an on line environment created by OISE University of Toronto research group, co-ordinated by Marlene Scardamalia and Carl Bereiter. The goals of the project are to:

- Promote a virtual space where Italian researchers can discuss and solve problems concerning the application of new technologies;
- Promote researchers' co-operation;
- Co-operate with different Knowledge Building communities from other countries;
- Realise education tools and find new education methodologies for different educational levels

Qwerty is the commonly accepted name for the computer keyboard. When typewriters were first introduced, the keys were arranged in alphabetical order. However this order meant that people typed so quickly such that the keys soon became entangled. To counter this, the keys were displayed in random order and typing speeds accordingly slowed down. In later years, despite the fact that the problem of speed had been completely overcome, the keyboard retained its random order. In our view, this represents an excellent metaphor for the entanglement of culture and technological tools. We regard computer-based technologies as cultural artefacts, representing different depths in the daily work and study activity of individuals, social groups, and institutions. We believe that different models of computer use and activity within online environments mediate social interaction. As such, the relationship between culture and technological tools is becoming more and more com-

plex and now provides an opportunity for determining new models of cognitive, psychological, and social interaction. Qwerty arises from a growing awareness of the need to develop research and reflection on the impact, effects and nature of technology use and, as such, is intended to be a genuinely cross-disciplinary forum. The journal is a publication of the CKBG, an organisation that boasts of a wide reputation within Italy, in addition to a variety of co-operative alliances at international level.

The journal is published bi-annually in Italian, French.

Editorial Board:

Maria Beatrice Ligorio
(University of Bari, Italy)
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International Society of the Learning Sciences

Job Announcements

☑ Want to make an impact? Consider SRI. SRI's Center for Technology in Learning (CTL) anticipates several open positions in 2007 for Learning Scientists. The Center for Technology in Learning is a unique environment that seeks to span the spectrum from basic research through to large-scale impact. One exemplar of this approach is CTL's research with the SimCalc project, which has proceeded from small scale design experiments to large scale experimental designs. Results from one random-assignment experiment with over a hundred

teachers -- to be released soon -
- seek to provide the solid evidence that policy makers increasingly demand. CTL seeks also seeks an impact through work with some of the world's most important philanthropic foundations and with market-leading educational technology companies. Some additional foci of work in recent years has been:
- linking informal and formal learning
- designing innovative assessments of science learning
- building online teacher communities

- analyzing the role of social networks in teacher learning
- envisioning the future of wireless and mobile technologies with colleagues from all over the world.
We expect to have openings particularly for learning scientists with a specialty in science or mathematics education (K-12); or an interest in technology-enhanced assessment; or a track record in developing innovations for learning. See what we're doing at <http://www.ctl.sri.com> Feel free to contact Jeremy.Roschelle@sri.com.



www.isls.org

Newsletter #6

The international journal of
Computer-Supported
Collaborative Learning
(ijCSCL)
is now available at
<http://www.springer.com/journal/11412>

Become a recruiter for the NASA Selene project.

Learn about the moon through engaging gameplay. The Selene project is part of an ongoing effort to find innovative ways to engage teenagers and young adults while providing valuable instruction.

The Selene project is a NASA initiative to inspire today's youth toward learning science, technology, engineering, and math careers. Kids will play an experi-

mental game designed to teach them science while assessing the level of cognition promoted by the gameplay. Join us in this exciting venture by becoming a recruiter for youth participants. You will be responsible for recruiting up to 20 youth between the ages of 13 and 18, obtaining parental consent, and disseminating provided information. Only a minimal time investment is required. Help give

today's youth a head start in learning valuable scientific concepts for the betterment of tomorrow.

Learn more about becoming a recruiter by e-mailing selene@cet.edu or calling 304-243-2479. Be sure to provide all necessary contact information. More information about this project is available at <http://selene.cet.edu>

The ISLS newsletter is published twice a year (Spring, Fall).

Please send items for inclusion in the newsletter to
Elena Kyza at
elenakyza@gmail.com.

CSCL 2007 important dates and deadlines

April 4, 2007 - Conference Registration Opens

May 31, 2007 - Deadline for Reserving On-campus Student Lodging

May 31, 2007 - Deadline for Early Registration

June 1, 2007 - Late Registration Begins

June 9, 2007 - Last day to Register for Conference

July 16 - 18, 2007 - Pre-Conference Workshops, Doctoral Consortium, Tutorials

July 18 - 21, 2007 - CSCL Conference in New Jersey

If you are not currently a member of ISLS, your conference registration fee will include a one-year membership in the Society. When registering you may select the journal you wish to receive: (1) Journal of the Learning Sciences - Or-(2) The International Journal of Computer Support for Collaborative Learning

The Journal of the
Learning Sciences now
accepts manuscripts on line at
[https://
www.editorialmanager.com/ils/](https://www.editorialmanager.com/ils/)

For more job announcements please visit the news section of the ISLS website

[http://www.isls.org/
news.html](http://www.isls.org/news.html)



<http://www.isls.org/cscl2007/>

