The International Society of the Learning Sciences

What is ISLS?

The educational challenges of our world are increasingly global, requiring interdisciplinary problem solving, knowledge building, and collaboration involving multiple forms of expertise for better understanding the complex phenomena of learning and for guiding the design and improvement of learning environments for valued outcomes. The International Society of the Learning Sciences (ISLS) is the leading professional society for academics, professionals and students who seek to advance the sciences and practices of learning, broadly speaking, with special attention to how they may be augmented by technology.

ISLS brings together those interested in learning experiences across schools, homes, workplaces and communities, and who seek to understand how learning and collaboration is enabled by knowledge, tools and networks, and multiple contexts of experience and layers of social structures.

Learning Sciences (LS) investigations include fundamental inquiries on how people learn alone and in collaborative ways, as well as on how learning may be effectively facilitated by different social and organizational settings and new learning environment designs, particularly those incorporating information and communication technologies (ICT), as in computer-supported collaborative learning (CSCL).

ISLS provides a forum for dialogues concerning all aspects of the learning sciences and computer-supported collaborative learning through our conferences, publications, web sites, social networking sites, committees and other member services. We promote ISLS-related education and mentoring with conference-associated tutorials, workshops and outreach activities, and seek to facilitate informal access to a broad range of individuals and organizations involved in building on the traditions of CSCL and LS.

Who are members of ISLS?

The society is widely interdisciplinary and includes members from six continents, providing opportunities for collegial interaction across national boundaries in this field. ISLS brings together individuals who self-identify with disciplines including anthropology; artificial intelligence; cognitive science; computer science; educational sciences; information sciences; linguistics (particularly sociolinguistics and computational linguistics); neurosciences; organizational science and systems science; philosophy; psychology (particularly educational, developmental, and social); sociology and other fields. Each of these disciplines provides unique and informative perspectives that collectively contribute to deepening our understanding of how people learn, with and without technologies — and toward establishing evidence-based guidelines for improving the practices of learning and education in new and even transformative designs, utilizing a variety of methodologies including design studies of all kinds, such as user-experience design, instructional design, visualization and modeling design and policy research.

The ISLS community unites the best of design disciplines, social science research, technological research and practitioner disciplines in a global community that seeks to be discipline spanning and integrative across methodological traditions as its members conduct empirical studies of learning processes and environments in an encompassing sense, ranging from interactive technology-enhanced learning environments to face-to-face informal learning among peers. ISLS is committed to application in context (not only in laboratories), to rigorous empirical research (not simply philosophy), and to design and application (not only theory). The

technologies involved in LS and CSCL studies are broad in scope, with examples including augmented reality, computer-supported collaborative learning, immersive games and virtual worlds, mobile social media, programming, online communities, robotics, simulations and modeling, video cases, and visualization. Studies of learning processes range from learning by analogy, apprenticing, argumentation, categorizing, collaborating, critique, design, dialog, examples, exploration, imitation, inferring, inquiry, instruction, modeling, networking, playing, predicting, questioning, reflection, teaching, and tinkering — among others.

Members of ISLS are committed to the preparation of future leaders and professionals of our fields and promoting the uptake of LS knowledge among those who could benefit from its insights in their professions and policies. ISLS makes available to students, postdoctoral researchers and young faculty a variety of professional development opportunities suited to the challenges and needs at different phases of one's career.

The ISLS is devoted to expanding the impacts and relevancies of the field and its exciting potentials for high-quality contributions to transforming the future of learning and collaboration, and will continue to lead in the interdisciplinary investigation of learning, teaching, education, learning materials and environments, and associated technology innovations.

What kinds of topics do ISLS members study?

The range of topics that are studied by ISLS community members is as broad as the topics of learning and education, but prototypical research questions and topics include:

- How can collaborative learning be effectively mediated by technology
- How can inquiry-oriented learning in disciplines such as mathematics and the sciences be guided with technology-enhanced learning environments
- How do students collaboratively construct knowledge and understanding
- How can intelligent tutors that help people learn complex subjects such as mathematics and foreign languages be designed and evaluated
- How can we foster mindful learning and metacognition so that learners are more strategic and effective when they seek to learn something new
- How to provide the right levels of assistive guidance in collaborative and online learning to foster self-regulation in learning
- How to teach not only for factual memory and procedural skills but for adaptive and flexible understanding that can be used beyond formal schooling and throughout life
- How does learning vary when its participants are in the same or different times (synchronous/asynchronous) or spaces (distributed/local)
- How can teachers productively create teaching and learning environments that support the needs of learners of diverse linguistic, cultural and economic backgrounds
- How can the capabilities of interactively visualizing data be incorporated in learning environments so as to make difficult subjects in science, technology, engineering, mathematics, the social sciences and the humanities more accessible and learning more coherent
- How can the creation and use of computational models of the physical and social worlds by learners become an integral part of educational practices

- How can the energies and motivations that accompany a learner's interests be matched with learning resources to enable productive learning pathways
- What forms of CSCL organization and interaction make for productive online learning communities
- How can productive co-design partnerships between educational practitioners and researchers be fostered for scaling and sustaining innovative learning environments
- How does the physical embodiment of learning (e.g., gesture, gaze, pointing) contribute to learning processes and strategies

Why should I join ISLS?

Our knowledge on how people learn increases rapidly. As a researcher and professional in learning-related fields, joining ISLS can facilitate *lifelong learning* and *knowledge networking* with a global community of LS and CSCL people, organizations and resources. The ISLS was created to unify the best aspects of the communities engaged by the Computer-Supported Collaborative Learning conferences and the International Conference of the Learning Sciences. It supports sustained connection among colleagues around the world through the ISLS web site, email lists, networking groups, the annual ISLS conferences, and a collection of publications designed to help monitor the pulse of the growing global learning sciences community and its achievements.

Other benefits of membership include announcements of events of interest to the community, conference discounts, book discounts from publishers, jobs listings, newsletter, educational opportunities, journal subscriptions, and a voice in an organization that will help inform policy related to education, training, and learning.

ISLS sponsors an annual conference — in alternating years, the *International Conference of the Learning Sciences (ICLS:* http://www.isls.org/icls.html*)* and the *International Conference on Computer-Supported Collaborative Learning (CSCL:* http://www.isls.org/cscl.html). These conferences attract approximately 500 attendees to stimulating programs of frontier theory, research and methodology tutorials, workshops, technical presentations, posters, demonstrations and community building. The sites of these conferences have been global, commensurate with ISLS membership, with a sampling of recent venues including Chicago IL, USA (ICSL-10), Rhodes, Greece (CSCL-09), Utrecht, Netherlands (ICLS-08), New Brunswik NJ, USA (CSCL-07), Bloomington IL, USA (ICLS-06), Taipei, Taiwan (CSCL-05), Santa Monica CA, USA (ICLS-04), and Bergen, Norway (CSCL-03).

The ISLS also has organizational contacts with other major educational research organizations such as the American Educational Research Association (AERA) and the European Association of Research on Learning and Instruction (EARLI).

Our flagship publications are *The Journal of the Learning Sciences* (JLS: http://www.tandf.co.uk/journals/authors/hlnsauth.asp), now in its 20th year of publication, and *The International Journal of Computer-Supported Collaborative Learning* (iJCSCL: http://ijcscl.org/), a journal recently founded by the ISLS to meet the needs of researchers of collaborative learning with technology. ISLS members choose which of the two journals they would like to receive as part of their membership, and they are able to subscribe to the other through ISLS, if desired, at a greatly discounted rate.

The primary aim of **iJCSCL** is to promote a deeper understanding of the nature, theory and practice of the uses of computer-supported collaborative learning. ijCSCL addresses the uses of

CSCL in education, business and society in general, as well as the psychological, social and technological impact of CSCL on individuals, groups and society. A main focus is on how people learn in the context of collaborative activity and how to design the technological settings for collaboration. iJCSCL is published by Springer, recognized worldwide as a leader in scientific and professional publications.

JLS provides a multidisciplinary forum for the presentation and discussion of research on education and learning, and seeks to foster new ways of thinking about learning that will allow our understanding of cognition and social cognition to influence educational practices. JLS articles typically draw on such diverse fields as cognitive science, educational psychology, cognitive psychology, anthropology, educational and socio-cultural studies and are based on rigorous analyses that present new insights on how people learn with a fundamental focus on understanding the processes, tools, and contexts, as well as outcomes, of learning in its myriad forms inside and outside of schools. JLS is published by Taylor & Francis, with over two hundred years publication experience.

For any stage of your career, we encourage your involvement in the ISLS as a major mechanism for knowledge networking in the learning sciences, for presenting your scientific work and for benefitting from the dialog about concepts, theories, methodologies and focus for the future of the learning sciences field.

Where can I be active in the ISLS?

Joining the ISLS is an important beginning. In addition to the included journal subscription, members receive the ISLS newsletter, the ISLS job postings service, and occasional opportunities to become involved in the field (e.g., the US National Aeronautics and Space Administration conducted a competition for ISLS members to partner with the NASA Virtual Design Center.) Conferences include mentoring pre-workshops for doctoral candidates and postdoc/early career scientists. After joining the society, attending ISLS-sponsored conferences and participating in committees is an excellent way for you to become involved, grow your professional community, and learn about and contribute to the newest developments in this exciting interdisciplinary field.

Acknowledgements: We thank Roy Pea, who led the composition of the ISLS statement and the officers, board and committee members who contributed to this process.