Introduction to the IJELLO Special Series of Chais Conference 2014 Best Papers

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Abstract

The sixth issue of *Interdisciplinary Journal of E-Learning and Learning Objects* (IJELLO) special series includes a selection of best papers presented at the 9th Chais Conference for the Study of Innovation and Learning Technologies: Learning in the Technological Era. The Chais conference 2014 was held at The Open University of Israel, Raanana, Israel, on February 11-12, 2014 and was organized by its Research Center for Innovation in Learning Technologies.

This preface presents the mission and activities of the Research Center for Innovation in Learning Technologies at the Open University of Israel. It describes the objectives and themes of the Chais conference 2014, explains its synergies with IJELLO and the Informing Science Institute, and introduces the papers included in this special selection.

Keywords: instructional technologies, e-learning, technology integration in education, diffusion of innovation, human-computer interaction.

Introduction

Instructional technologies are generally not developed exclusively for learning purposes. However, "Innovation is not what innovators do; it is what customers, clients, and people adopt" (Schrage, 2004). Therefore, emerging, and even well-established technologies, provide plenty of opportunities for innovation in learning and instructional technologies. The Open University of Israel (OUI) is based on distance and blended learning models and, therefore, is committed to the ongoing examination and improvement of its teaching quality, through the integration of innovative learning and instructional technologies. The Research Center for Innovation in Learning Technologies functions as the research arm of the Open University for exploring emerging technologies and developing models and strategies for their integration in teaching and learning. The main objective of the Center is to promote research related to the enhancement of instruction, using innovative learning technologies. The Center consists of a consortium of about fifty faculty members from the various OUI academic departments. The Center conducts a wide range of ongoing academic activities, such as symposia,

workshops, conferences, and research seminars, to encourage collaboration among researchers and to increase the discourse on innovative learning technologies among researchers and practitioners.

The following are some of the fields of research in which the Research Center for Innovation in Learning Technologies is engaged:

- The theoretical foundations of learning, instructional technology, and distance education.

- Integration of innovative information and communication technologies into educational systems.

- Defining and characterizing the variables necessary for developing flexible and adaptive technology-enhanced instructional strategies that accommodate students' individual needs.

- Studying the pedagogical and cognitive contributions of emerging technologies to teaching and learning.

"Learning in the Technological Era" is a series of annual national research conferences on innovation in learning technologies, initiated in 2006 by the Chais Research Center in collaboration with EDEN, The European Distance and E-Learning Network. The Research Center for Innovation in Learning Technologies is committed to continue this important research activity under the name of Chais conference, which commemorates the contribution of the late Stanley Chais, who funded the establishment of the Chais Center, later closed in 2010. The Chais conference contributes to the formation of a community of Israeli researchers in the field of instructional technologies and to the positioning of the Open University of Israel as a leading organization in the study and implementation of learning technologies.

The 700 participants attending the two-day Chais conference 2014 represented most of Israel's universities and academic colleges, as well as organizations and corporations. The opening keynote guest lecturers were Thomas C. Reeves of The University of Georgia, USA, whose talk was entitled "Open learning requires open minds: the challenges of online and blended learning environments for NetGen students and their instructors", and Eszter Hargittai of Northwestern University, USA, with a talk entitled "Differentiated Internet Skills – Sources and Implications". The closing lecturers were Eilon Vaadia of The Hebrew University of Jerusalem, Israel, with "the creative mind and brain-machine interfaces", and Kfir Damari of SpaceIL (http://www.spaceil.com/) "Shooting for the moon – a guide to pedagogical-technological initiatives that make dreams come true".

The purpose of this IJELLO special series of selected Chais conference best papers is to increase the international impact of the Chais conference by distributing high quality papers from the national conference to a worldwide audience. The Informing Science Institute (ISI) is supporting this enterprise for the sixth time. ISI is a natural partner for this mission since it draws together researchers and practitioners of information technologies who seek effective ways to inform clients about sharing their knowledge with others (http://www.informingscience.org/). The informing science transdiscipline studies the informing process, defined as providing a specific clientele with information in a form, format, and schedule that maximizes its effectiveness (Cohen, 1999, 2009; Cohen & Lloyd, 2014; Gill & Cohen, 2009). Instructional technologies are a certain type of information technologies that aim at providing students and other learners with information and tools to enhance their learning. Within the ISI journals, the *Interdisciplinary Journal of E-Learning and Learning Objects* publishes high quality articles on theory, practice, innovation, and research that cover all aspects of E-learning and Learning Objects (http://www.ijello.org).

The first selection in this series was published five years ago and included thirteen papers that studied various aspects of technology integration in teaching and learning, collaborative learning

environments, quality of mobile learning, and motivation for technology use (Eshet-Alkalai, Caspi, Eden, Geri, & Yair, 2009). The following year the selection included nine of the best papers presented at the Chais conference 2010, on the topics of integration of technology in education systems, diffusion of innovation in learning environments, mobile culture, school versus home learning, collaborative learning, and social aspects (Eshet-Alkalai, Caspi, Eden, Geri, & Yair, 2010). The third year, the selection included nine of the Chais conference 2011 best papers, emphasizing the role of teachers in integrating innovative instructional technologies (Geri, Yair, Caspi, Eden, & Eshet-Alkalai, 2011). The fourth selection of the Chais conference 2012 best papers included eight papers that represented varied aspects of learning technologies implementation and use, including innovative technologies for teaching and learning, instruction in technological environments, perceptions of online teaching and learning, cognitive aspects of learning in technological environments, and simulations in instruction and learning (Geri et al., 2012). The fifth annual selection included five best papers of the Chais conference 2013 that addressed assorted aspects of learning technologies implementation and use: effectiveness of open educational resources, evaluation of instruction in technological environments, learning from digital displays and e-books, virtual reality applications for learning, and technology in the service of people with special needs (Geri et al., 2013).

This sixth selection, of the Chais conference 2014 best papers includes five diverse papers with one common denominator: they all present novel aspects of learning technologies implementation and use that have rarely been studied before, as further described in the following section. The Chais conference best student paper award was presented for the third time. Thirteen of the papers that were accepted for presentation at the Chais conference 2014 were candidates for the Best Student Paper Award. This special issue includes extended versions of four of the six finalists of the Chais conference 2014 Best Student Paper Award.

Chais Conference 2014 Best Papers

This year, 106 papers were submitted to the Chais conference 2014. Following the double-blind peer-review process, 36 papers and 41 posters were accepted for presentation at the conference, and were included in the conference's proceedings volume (Eshet-Alkalai et al., 2014). This sixth selection of the IJELLO Special Series of the Chais Conference Best Papers includes five of the most outstanding Chais conference 2014 papers, which have been expanded and modified for publication in IJELLO and have undergone a full review process by the IJELLO Editors and reviewers. The selection opens with the two papers that received the best student paper award, both of which are focused on students, and the selection continues with three papers that examine the impact of technology on teachers in an online environment.

The first paper by David Codish and Gilad Ravid, "Academic course gamification: The art of perceived playfulness", is a co-winner of the best student (David Codish) paper award of the Chais conference 2014. Codish and Ravid examined the influence of game mechanics on perceived playfulness and compared students with different personalities: extraverts and introverts. They investigated immediate feedback mechanics (points, rewards, and badges) as well as comparative feedback mechanics (leaderboards progress bars). Their study was based on two quasi-experiments that involved 160 students, and they found a significant positive moderating effect of leaderboards on perceived playfulness for introverts and a negative significance for extraverts. Thus, Codish and Ravid conclude that an appropriate combination of mechanics should be used, and these may be adjusted as required during the course in order to ensure the effectiveness of educational gamification.

The second paper by Hani Swirski and Ayelet Baram-Tsabari, "Bridging the gap between the science curriculum and students' questions: Comparing linear versus hypermedia online learning environments", is the other co-winner of the best student (Hani Swirski) paper award of the Chais

conference 2014. Swirski and Baram-Tsabari observed that usually there are major disparities between students' science interests and the science curriculum. In order to find ways to increase intrinsic motivation for learning, they collected 5th grade students' anonymous curiosity questions regarding "Natural Resources" and compared two online learning environments (OLEs) that provided the students with information on answers to the questions that were collected from students. The 'linear' environment provided direct answers to the questions, whereas the 'hypermedia' environment provided relevant links and the students had to find the answers by themselves. The 72 students experienced both environments, and their competence, relatedness, and interest levels, were measured by a closed pre/posttest questionnaire. Their findings indicated that the linear environment increased the students' interest levels. Conversely, the hypermedia environment increased their competence levels. In this study Swirski and Baram-Tsabari demonstrate the potential of OLEs for increasing student interest and motivation and emphasize the need to provide different sorts of students with diverse OLEs, as well as providing the same students varied OLEs in order to achieve varied learning goals.

The following three papers investigate diverse aspects of teachers and teaching in a digital world. Efrat Pieterse and Yehuda Peled, "A Chaperone: Using Twitter for professional guidance, social support and personal empowerment of novice teachers in online workshops", investigated using Twitter as an e-mentoring mechanism and as a means for increasing social interaction among teachers who participated in an online induction workshop during their first year of service. Pieterse and Peled performed a content analysis on the 6,914 tweets that were posted during the eight months of the workshop, in addition to conducting two feedback surveys that the participants filled in the middle and at the end of the workshop. Pieterse and Peled discuss the implications and suggest that, on the one hand, their findings indicate the existence of a process of creating a "community of practice", which supports the claim that tweets on Twitter can be an adequate substitute for face-to-face meetings. On the other hand, the neutral evaluations of the Tweets, as measured by the surveys, raised doubts as to the appropriateness of Twitter for interpersonal communication aimed at providing support and empowerment.

The next paper by Orit Avidov Ungar and Irit Emma Iluz, "Levels of ICT integration among teacher educators in a teacher education academic college", was a finalist for the best student (Irit Emma Iluz) paper award of the Chais conference 2014. Avidov Ungar and Iluz probed the integration of Information and Communication Technology (ICT) in the teacher-education program from the perspective of teacher educators and academic officials in an academic college located in a peripheral region of Israel. Their mixed-methods study included closed and open-ended questionnaires completed by 68 teacher educators, as well as 12 semi-structured interviews of academic officials. They distinguished three levels of integration – basic , focused, and creative – that reflect the scope of ICT integration in the context of teacher training. Avidov Ungar and Iluz suggest that their model, which includes key factors that influence ICT integration, may support organizational processes of advancing teacher educators from the basic level to the creative level of implementation.

Closing this selection is a paper by Uri Perelman, "What are the relationships between teachers' engagement with management information systems and their sense of accountability?", that was also a finalist for the best student paper award of the Chais conference 2014. Perelman critically examined the effect of learning Management Information Systems (MIS) on teachers from a perspective of the social construction of technology approach (SCOT). Perelman suggests that the implementation of MIS in schools is related to the global neoliberal discourse, which seeks to increase accountability in educational organizations. His qualitative study was based on semi-structured interviews of a sample of 17 teachers in an Israeli secondary school. His thought-provoking findings demonstrated mixed, as well as contradictory opinions of teachers regarding the impact of the MIS on their authenticity and sense of accountability.

The above papers represent some of the focal themes presented at the Chais conference 2014. Other themes presented at the conference, which were not covered in this special selection included the following: knowledge assessment, mobile learning, Massive Open Online Courses (MOOCs), Facebook in teaching, communities in the cyberspace, traditional versus digital technologies, the effect of technologies on behavior, and technology in the service of people with special needs.

Conclusion and Acknowledgements

This sixth issue of IJELLO's special selection of the Chais conference best papers includes some of the current major issues and trends in learning technologies studies. We hope these papers will be of interest to the readers and will encourage future innovative and synergistic instructional technologies research. We look forward to the next IJELLO issue of the best papers of the tenth Chais conference for the study of innovation and learning technologies. The Chais conference 2015 will be held on February 10-11, 2015, at the Open University of Israel campus in Raanana, Israel.

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