

Call for Papers

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Special Issue on

“Overcoming the technological hurdles facing virtual worlds in education: the road to widespread deployment”

Since the educational use of virtual worlds is mostly a pedagogical practice, it's only natural that most current studies on this field focus on educational know-how: how actors in the educational process can employ these technologies. A large body of literature on this subject has been developed in recent years. However, studies focusing on educational practices tend to use a static view of technology – as a product used “as is” or as a product designed and developed for a specific purpose. In such studies, the technological perspective is focused merely on the identification of limitations or restrictions imposed by the features of the specific virtual world being used, and this is particularly noticeable in panoramic views of the field.

However, from a technological viewpoint, virtual worlds are artifacts, the result of development processes, the concrete rendering of knowledge, generating new knowledge and new processes: they are not mere static facts. Under this perspective, this special issue calls for contributions towards an updated understanding of the technological challenges that virtual worlds face when applied to education and training, and towards an identification of research directions to overcome them. As a starting point, three fields are suggested as open for contributions, albeit contributors may suggest others:

- 1) **the matter of making the technology available to educational actors** – no access, no use;
 - a) networking support – how to overcome lack of bandwidth, widespread firewalls, peer-to-peer worlds, etc.;
 - b) software used – it's no longer a desktop-only world: heavy client software everywhere is a problem, requirements on graphics cards and correct driver installation is not viable for deployment on large numbers of school computers, not to mention access via smartphones, tablets, or even smart TVs;
 - c) interconnecting virtual worlds – it's ridiculous that we can travel from Web site to Web site, server to server, and cannot do the same between virtual worlds, taking student groups and activities across diverse landscapes, hosted by diverse companies and other organizations, but rather have to live in the BBS era before the widespread Internet.
- 2) **the matter of content production, in support of advanced interactions** beyond plain dialog;
 - a) by technology experts – simulations, environments, etc., should be interchangeable between virtual world platforms, a school shouldn't be locked in to the fact that a simulation was developed in a particular virtual world and cannot be transferred to a different platform. If Web sites can move between different types of servers and databases, often only requiring a few changes, why should virtual world simulations and environments require entirely new development efforts? At least 8 different groups are

working on standards, from IEEE to private companies, and clearly research effort is needed to break the current technology lock-in status;

- b) by non-experts – other than Second Life/OpenSimulator and OpenCroquet/Cobalt, creating virtual world content by non-experts is often a challenging experience for anything beyond simple 3D model import. And even for Second Life/OpenSimulator or OpenCroquet/Cobalt, we're often talking only about models. What about actions? What about preparing a scenario complete with character choreography for a lesson on foreign language or a training course on customer welcoming? Better tools are needed to enable educators to write scripts, model behaviors, and share them with other educators;
- 3) **the matter of large scale deployment** of these technologies, by integration in current information systems, enabling them to be used regularly and commonly by educational actors in general, not just occasionally or only by those with more enthusiasm.
- a) Powerful as they may be, we cannot envisage an easy adoption of virtual worlds if educators and learners need to struggle to link them to the current and future tools used in educational activities. More is needed than just connecting online fora with Second Life or associating an avatar with an LMS account. Educators should find it as easy to specify that an activity takes place at a specific virtual world location, as they find it easy to setup a WebQuest or a WebForm.
 - b) It should be easy to track which students have performed which activities, which students are struggling, which activities are ready, how are they progressing; it should be easy to pick a virtual object and provide it to all your students – whenever you need it, for whatever class – and control that from the Web, rather than have to use a 3D environment to do 2D tasks; it should be easy to share a virtual object in Facebook, ask for help on Twitter, Google+ an accomplishment, place a video on YouTube with your team development; It should be easy to conduct an after-action review of a virtual class or virtual team effort, without having to deploy a military-grade, large-scale simulation system.
 - c) It should be easy to store ready-made choreographies of virtual world actors and events, for providing students and educators with ready-to-deploy contexts, for storing events for later analysis, and for archiving purposes in support of administrative and legal requirements.

Important dates

Submissions due: 30 November 2013

First decision: 1 February 2014

Revised manuscripts due: 1 April 2014

Feedback on revised manuscripts: 1 June 2014

Final manuscript due by the authors: 30 July 2014

Final manuscript sent to the publishers: 30 September 2014

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Special Issue Guest Editors

Prof. Leonel Morgado

Department of Engineering

University of Trás-os-Montes e Alto Douro

Vila Real, Portugal
e-mail: leonelm@utad.pt

Leonel Morgado is Assistant Professor with Habilitation, at the University of Trás-os-Montes e Alto Douro, in Portugal, where he lectures on research methods, programming, social media, and the use of virtual worlds. His main research interest is the use and development of virtual worlds as tools for learning and business, which he pursues since 2000, focusing on multi-user platforms since 2006. He authored over 100 papers, in journals, conferences, and as book chapters, and led or participated in various projects on virtual worlds, funded by both public and private organizations. Before pursuing an academic career, he was business and technical manager of a hardware import, distribution, and retail company, terminologist for the localization teams of MS Office 97 and Oracle InterOffice, language consultant for IBM/Lotus, a coordinator of Web-development and software-deployment teams, and manager of a cooperative extension team fighting the digital divide in rural villages.

Prof. Christian Gütl
Technical University of Graz
Graz, Austria
e-mail: cguetl@iicm.edu

Christian Gütl is chief researcher at the Technical University of Graz; adjunct research professor at Curtin University in Perth, WA and Universidad Galileo in Guatemala; he received the "venia legendi" for applied computer science in 2009; he is head of the Advanced Media Technology Group, project manager of several large industry and research projects, author of more than 150 peer-review book chapters, journal and conference proceedings publications. Research areas: information search and retrieval; digital business ecosystem; e-learning & e-assessment, immersive environments; virtual worlds for learning and knowledge transfer; initiator and coordinator of research collaborations and student exchange programs on virtual 3D world topics with MIT, Curtin University and University of Sydney (Australia); he is also involved in the open source community of Wonderland, the iLAB initiative of MIT CECI; the iED Initiative (European Chapter) he is also initiator and co-chair of ViWo workshops.

Prof. Baltasar Fernández-Manjón
Department of Software Engineering and Artificial Intelligence
Complutense University of Madrid
Madrid, Spain
e-mail: balta@fdi.ucm.es

Dr. Baltasar Fernández-Manjón is a full professor (catedrático) in the Department of Software Engineering and Artificial Intelligence (DISIA) at the Complutense University of Madrid (UCM). Dr. Fernández-Manjón has been associate professor (1998-2011) and the Vice Dean of Research and Foreign Relationships at the Computer Science School of this university (2006-2010). In 2010-2011 he has been Visiting Associate Professor at Harvard University and Visiting Scientist at LCS-MGH. He leads the Complutense e-learning research group <e-UCM>. He is IEEE Senior Member. He is the former Academic Director of the Computer Science School of Centro de Estudios Superiores Felipe II (Aranjuez, Spain) (2001-2006). He received a Bachelor in Physics (major in Computer Science) and a PhD in Physics from the UCM. He is member of the IFIP Working Group 3.3 "Research on the Educational uses of Communication and Information Technologies" and of the

Spanish Technical Committee for E-learning Standardization (AENOR CTN71/SC36 "Tecnologías de la información para el aprendizaje"). His main research interests are e-learning technologies, educational uses of serious games, application of educational standards, and user-modelling, having published more than 100 research papers on these topics. He is associate editor of IEEE Transaction on Learning Technologies. He is also co-organizer and program committee member of several conferences (e.g. DIGITEL, ICALT,) and associate editor of several special issues about e-learning (e.g. Computers In Human Behaviour, Simulation and Gaming). He is involved in different EU projects (e.g. GALA, SEGAN, CHEMURG) and other projects about technology transfer with industry (INDRA, ATOS, CEPAL, Germinus XXI, Technosite-ONCE). He also act as R&D evaluator and reviewer for the European Commission (i.e. IST, eContentPlus, ETEN) and Spanish research programmes (e.g. ANEP, ACAP, ANECA).

Submission guidelines

The manuscripts should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to Educational Technology & Society and during the review process. The manuscripts must be within 7000 words (including everything - title, author names, affiliations, abstract, keywords, main body, references, appendices - everything). Please carefully follow the author guidelines at <http://www.ifets.info/rev.php?pub=true> while preparing your manuscript. To get familiar with the style of the journal, please see a previous issue at <http://www.ifets.info/>.

All manuscripts should be in MS Word format and submitted via email to the Guest Editors at leonelm@utad.pt; cguetl@iicm.edu; balta@fdi.ucm.es. All manuscripts will be subject to the usual high standards of peer review at ETS Journal, through a double blind review.

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