Call for Papers

Journal of Defense Modeling and Simulation: Applications, Methodology, Technology (JDMS)

Special Issue: Immersive Technologies in Support of Military Training and Education

Introduction

The motivation for this special issue is based upon recognition of the fact that the technological disruption caused first by Serious Game (SG) technology is being extended to include the impact of Virtual Worlds both of which clearly have a significant role to play in support of military training and education. The body of evidence demonstrating the effectiveness of these tools as experiential based learning mechanisms is beginning to grow as creative trainers working closely with tool developers make improvements to the technology and pedagogy associated with their use. In many ways, these have been bottom-up initiative as specific training gaps have been filled by trainers who have recognized they could do so in an affordable manner using Commercial off the Shelf (COTS) tools. In the Canadian Army, for example, prototype systems using trial licenses have been so successful that taking them away would result in a significant training shortfall.

Taking a step back from the specific training gaps being filled however, policy makers are left to ponder if the bottom-up implementation of these tools to fill specific gaps is resulting in the best combination of technology and pedagogy to maximize the effectiveness of the overall training being provided. One of the key aspects to developing an effective training program is selecting the best suite of tools to meet the training needs identified. The tools are like puzzle pieces that need to be arranged in a manner that when combined in the right way form a picture that represents an effective set of technologies that will support the overall training program. There are two major challenges that make building this puzzle very difficult. First, the nature of the contemporary operating environment is such that training requirements are dynamic meaning there is no snapshot picture to guide the construction of the puzzle. Second, there are many puzzle pieces (tools) to choose from but every time you look down at them they change shape as creative developers and trainers find new ways to use them. This special edition of JDMS is intended to develop knowledge and improve understanding on how these tools can best be described, developed and applied in support of military training. Potential contributions are sought (but not limited to) the following areas:

- How immersive technologies are being effectively employed in support of military training.
• Anthologies and/or guidelines that will help policy makers and trainers understand the immersive technologies and how their attributes map to specific training requirements.
• The application of immersive technology in support of decision-making training in kinetic and non-kinetic scenarios for small units.
• Creative applications of immersive technology that show promise in support of military training or education.
• Moving beyond training to use these technologies in direct support to operations (battlefield visualization, course of action analysis, mission rehearsal).
• Measuring the level of realism achieved and assessing the degree of immersion (or presence) and ways to determine how much realism is required to meet specific training requirements.
• Understanding how immersive technologies can be considered as part of the training development process including training needs analysis.
• Cost-effectiveness and return on investment for immersive technology in support of military training and education.

Papers submitted should not be concurrently under review at another conference, journal or similar venue.

**Instructions for Manuscript Preparation**

For manuscript formatting and other guidelines, please visit the [Author Guidelines for JDMS](#).

Note: Manuscripts must not have been previously published or be submitted for publication elsewhere. Each submitted manuscript must include title, names, authors' affiliations, postal and e-mail addresses, and a list of keywords. For multiple author submission, please identify the corresponding author.

**Due Dates**

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<tr>
<td>Full papers due</td>
<td>November 30, 2011</td>
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<tr>
<td>Notification of acceptance</td>
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<tr>
<td>Submission of final (revised) papers</td>
<td>May 30, 2012</td>
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<td>Publication Expected</td>
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**Submissions for full paper review**

All manuscripts must be submitted electronically through the paper submission system to the [JDMS Manuscript Submission System](#). Manuscripts must be formatted in single-column pdf format, double-spaced, and use 12pt fonts. In the title page, author(s) must specifically mark that the paper is intended for this special issue as follows: "Immersive Technologies in Support of Military Training and Education".
Final paper submissions

Each final submission must be prepared based on the Simulation journal requirements (see the Author Guidelines for JDMS page).

For questions contact the editor at:

Dr. Paul Roman
Associate Professor
Royal Military College of Canada
Roman-p@rmc.ca