AN INTERDISCIPLINARY APPROACH TO THE STUDY OF BATTLEFIELD SIMULATION SYSTEMS

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There are numerous advantages for conducting computer simulations that model wartime operations, which underlie the popularity in implementing them. Among them are: the ability to easily model the variables the researcher is interested in, the ability to control the experimental scenario, and the ability to add or change variables as the need arises. A simulation environment's success may be enhanced by considering questions not normally at the center of simulation research. We consider a case study: situation awareness and how it may be useful in validating the effectiveness of new sensor technologies; the role cognitive psychology has in measuring situation awareness and how it may be compared to the Joint Urban Operation (JUO) exercise.

This paper will propose an interdisciplinary approach to the study of battlefield simulation systems, Joint Semi Automated Forces (JSAF). It will show that the approaches and implementation of these systems up until now have been grounded in the computer science discipline. We will explore what cognitive science has to say about the simulation driven approaches. Integrating the viewpoint of fields such as cognitive science can provide valuable insights as to the effectiveness of these approaches by substantiating the validity of the system and increase the fidelity of the synthetic to real life experience.
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