Graphic Violence: Using Computer Graphics to Reconstruct the Scene of the Crime

Presented by	**Sponsored by:**
Dr. Damian Schofield, Director of HCI	Western New York Chapter
School of Computer Science. SUNY-Oswego	Human Factors and Ergonomics Society

Abstract

Courtroom environments, which have been one of the last bastions of the oral tradition, are slowly morphing into cinematic display environments. The persuasive oral rhetoric of lawyers is increasingly being replaced by compelling visual media displays presenting a range of digital evidence in a convincing and credible manner. The digital age has brought a plethora of novel evidence forms, evidence detection methods, and new means of evidence presentation. In particular, three-dimensional reconstructions of evidence, the CSI style graphics often seen in television shows, offer great potential in the field of forensic science. They can potentially help in the presentation of complex scientific, spatial and temporal data to a non-technical audience.

This presentation will outline the forensic process in terms of the tasks and phases involved, specifically relating to the presentation of evidence represented in a digital media form. A range of examples of where evidence has been presented in courtrooms using digital media (particularly forensic animation and virtual reconstruction technology) will be described and displayed, including work undertaken by Dr. Schofield for the FBI and the Discovery Channel.

About the Speaker

Dr. Schofield is currently Director of Human Computer Interaction at the State University of New York (SUNY) at Oswego. He also works as Technical Director of Virtual Simulation, a consultancy position with Mirarco in Sudbury, Canada. Prior to this Dr. Schofield was the Associate Professor of Computer Games and Digital Media, in the School of Creative Media at RMIT University in Melbourne, Australia. Before his move out to Australia, he was on the management team of the prestigious Mixed Reality Lab at the University of Nottingham, UK. While working in the UK, Dr. Schofield was also on the management boards of both the Visual Learning Lab (a HEFCE centre of excellence) and the Learning Sciences Research Institute (LSRI). Dr. Schofield also remains a director and major shareholder of Aims Solutions Ltd., a UK based company created in 2000, to provide computer graphics visualization services and virtual reality based simulation training products to a wide range of public and private sector organizations.

Dr. Schofield has been involved in research examining the use of digital evidence in courtrooms, particularly virtual reconstructions, for many years. He is specifically interested in the representation and understanding of visual evidentiary information in the courtroom environment. Much of this academic research in the forensic area has concentrated on the investigation of the prejudicial effect of digital evidence, validation and verification procedures, admissibility of digital evidence and the mathematical uncertainty concerned with digital evidence.

Dr. Schofield is regularly used as an expert witness in courts all over the world and has worked on many high profile cases - he has been involved in forensic casework in the UK, Australia, the USA and Malaysia. This work has covered a wide range of forensic visualisation from computational fluid dynamics models to blood spatter patterns at crime scenes, from road traffic accident reconstruction to post-mortem pathology visualisation. A few years ago, he was responsible for the facial reconstruction of an Egyptian mummy for a documentary called Nefertiti Reserected shown on the Discovery Channel. For the last five years he has also been working as a consultant on projects for the Federal Bureau of Investigation (FBI) in the USA.

Details

DATE/TIME: September 22, 2010 @ 6:00pm – 7:00pm. Come at 5:30 for networking. Light refreshments.
PLACE: RIT Building 1 (George Eastman Hall), Room 2372. Walkway to bldg aligns with Eastern edge of Parking Lot E.
        See map at http://facilities.rit.edu/campus/maps/general/RIT-CAMPUS%208.5x11.pdf
COST: Members & Students – no cost; Non-members - $5 payable at the door
RSVP: By September 20, contact Bill Stubler - wfs798@gmail.com