Personal Data

Full Name :   Damian Schofield
Qualifications :   B.Sc. (Hons), Ph.D., PGCAP

Date of Birth :   13th August 1966
Place of Birth :   Bridlington, Yorkshire
Nationality :   British

Marital Status :   Married

Dr. Schofield is currently Director of Human Computer Interaction (Full Professor) at the State University of New York (SUNY) at Oswego, a position he has held since November 2009. He also currently Adjunct Associate Professor of Forensic Computing at Edith Cowan University, Perth, Western Australia – Dr. Schofield began this visiting professor position in November 2011.

Prior to his move to America, Dr. Schofield held the position of 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 Lecturer in the School of Computer Science at the University of Nottingham, UK and a member of the management team of the prestigious Mixed Reality Lab, based at the University of Nottingham. 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. For a number of years (2006 – 2010), Dr. Schofield retained the title of Technical Director of Virtual Simulation, a consultancy position with Mirarco, a research organisation attached to Laurentian University in Sudbury, Canada. For many years (2003 – 2009) he worked as a consultant on projects for the Federal Bureau of Investigation (FBI) in the USA. Between 2002 – 2007 Dr. Schofield was the Chief Technical Officer on a large project for the Bill and Melinda Gates Foundation developing HVI and AIDS awareness resources (in a digital format) based on the experiences of sex workers in Kolkata, India.

Dr. Schofield has been involved in research examining the use of digital evidence in courtrooms, particularly virtual reconstructions (using computer games/graphics technology), 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. He is recognised internationally as a leading academic in this field.

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, Europe, Australia, USA, India 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 Resurrected shown on the Discovery Channel.

Qualifications

B.Sc. Engineering (Honours: First Class)	Staffordshire University, UK	1988
Ph.D. (Artificial Intelligence)	University of Nottingham, UK	1992
Post-Graduate Certificate of Academic Practice	University of Nottingham, UK	2000
Post-Graduate Certificate in Management Studies	Institute of Leadership and Management, UK	2003

Work Experience

Visiting Assoc. Prof. of Digital Forensics	Edith Cowan University, Perth, Australia	2011 – Present
Director of Human Computer Interaction (HCI)	State University of New York, Owsego, USA	2009 – Present
Technical Director (Virtual Simulation)	Mirarco, Laurentian University, Canada	2006 – 2010
Assoc. Prof. of Computer Games and Digital Media	School of Creative Media, RMIT, Australia	2005 – 2009
Lecturer (Computer Science)	University of Nottingham, UK	2002 – 2005
Lecturer (Engineering)	University of Nottingham, UK	1998 – 2002
Research Coordinator (Aims Research Unit)	University of Nottingham, UK	1992 – 1998
Technical Developer (Programmer)	BP Minerals, London	1988 – 1989
Production (Shift Boss)	Gencor, South Africa	1986 – 1987
Surveyor (Opencast Mine)	JPB Engineering, Staffordshire, UK	1985 (4 months)
Operator (Coalmine)	Parkside Colliery, NCB, UK	1984 (8 months)

Directorships / Board Experience

Director (Currently Non-Executive)	Aims Solutions Ltd., Nottingham, UK	2000 – Present
Founding Board Member	Visual Learning Laboratory, UK	2003 – 2005
Board Member	Mixed Reality Laboratory, UK	2002 – 2005
Board Member	Learning Sciences Research Institute, UK	2001 – 2005

Research Highlights

The opportunity to work with many leading academics has allowed Dr. Schofield to diversify his work. He has been fortunate enough to have worked on, and been associated with, a large number of cutting edge projects, such as:

- A large project (US$ 1.3 million) for the Federal Bureau of Investigation (FBI) where a team of academics collected three-dimensional scanned data from over 3000 volunteers and investigated facial shape and its use in biometric identification.
- Working with a team of archaeologists, anthropologists, Egyptologists, radiologists, forensic scientists to create a facial reconstruction of a mummy based on x-rays taken in the tomb (believed to be Queen Nefertiti)[1].
- Working with the World Health Organisation and the United Nations I was the chief technical officer of a team developing multi-media resources for HIV/AIDS awareness in India - funded by the Bill and Melinda Gates Foundation (US$ 1.2 million).
- Large scale, multi-player, pervasive gaming, where 'real' players interact with 'virtual' online players using mobile networked devices. These games were toured around the world and run in a number of cities, including London, Tokyo and New York[2].
- Working with the Australian Federal Police, I was responsible for developing a simulation of a terrorist attack on a major train station in Sydney, Australia, as part of the large Juries and Interactive Virtual Evidence (JIVE) project (A$ 750,000).
- Working with an international team of forensic scientists and classical scholars to biometrically identify the faces of statues of Roman emperors by laser scanning sculpture in museums all over Europe.
- A range of projects using NAO robots including robot theatre performances, robot empathy and disseminating health information to children.
- Developing augmented reality iPad/iPhone to visualise and interact with chromosthetic paintings, a synesthesia like way to convert a visual image to an audio signal and to see music as a visual representation.

Dr. Schofield has published over 200 academic papers in journals and at international meetings. He has also published numerous magazine articles and has been invited to speak at a many prestigious forums. He is on the organising committee of a number of national and international conferences and has delivered many short courses for various organisations. Dr. Schofield has successfully supervised 16 PhDs to completion and also supervised numerous Masters level research projects. He has acted on external examiner for 12 PhDs in Europe, Australia and the USA.

Journal Publications (2010 – 2016)

Evison, M., Dryden, I., Fieller, N., Mallet, X., Morecroft, L., Schofield, D., Solomon, C. and Vorder Bruegge, R., Key Parameters of Face Shape Variation in 3D in a Large Sample, *Journal of Forensic Science,* Volume 55, Number 1, January 2010.

Schofield, D. and Lester, E., Virtual Chemical Engineering: Guidelines for E-Learning in Engineering Education, *Seminar.Net – International Journal of Media, Technology and Lifelong Learning,* Volume 6, Issue 1, 2010

Lester, E., Schofield, D. and Chapman, P., Self and Peer Assessment and Dominance during Small Group Work using Online Visual Tools, *Seminar.Net – International Journal of Media, Technology and Lifelong Learning,* Volume 6, Issue 1, 2010

Schofield, D. And Dasys, A., The Use of Virtual Simulators for Emergency Response Training, *Journal of Emergency Management*, Volume 8, Number 2, pp 45-56, 2010.

Schofield, D., Playing with Evidence: Using Video Games in the Courtroom, *Journal of Entertainment Computing*, Volume 2, Issue 1 (Special Issue: Video Games as Research Instruments), pp 47-58, 2011.

Schofield, D., Experiences with Virtual Learning: Using 3D Interactive Systems for Education and Training, Journal of 3D Interactive Systems, *Society of Brazilian Computing*, Volume 3, Number 1, pp 18-26, 2012.

Schofield, D., Seeing is Believing : Graphical Evidence and its Effect on the Viewer, *Evidence Technology*, July-August, pp 15-19, 2012.

Schofield, D., Mass Effect : A Chemical Engineering Education Application of Virtual Reality Simulator Technology, *Journal of Online Learning and Teaching*, 2012.

Schofield, D. and Fowle, K., Visualising Forensic Data: Evidence Guidelines (Part 1), *Journal of Digital Forensic, Security and Law*, Volume 8, Number 1, pp 73-90, 2013.

Schofield, D. and Fowle, K., Visualising Forensic Data: Evidence Guidelines (Part 2), *Journal of Digital Forensic, Security and Law*, Volume 8, Number 2, pp 93-114, 2013.

Schofield, D., Virtual Education: Guidelines for Using Games Technology, Journal of Information Technology Education, Volume 13, 25-43, 2014

Tanner, P., Karas, C. and Schofield, D., Augmenting a Child's Reality: Using Educational Tablet Technology, Journal of Information Technology Education, Volume 13, 45-54, 2014

Ivancic, D., Schofield, D. and Dethridge, L., A Virtual Perspective: Measuring Engagement and Perspective in Virtual Art Galleries, *The International Journal of Arts and Technology*, Volume 18, Number 4, 2015.

Saber, K. and Schofield, D., Demographic Analysis of Smartphone Application Usage Related to eHealth, *Journal of Software Engineering and Simulation*, Volume 3, Number 4, pp 1-7, 2016.

Schofield, D. and Dethridge, L., Making Robot Movies: An Innovative International Academic Collaboration to Teach Transhumanism, *International Journal for Innovation, Education and Research*, Volume 4, Number 9, pp 35-49, 2016.

Schofield, D., The Use of Computer Generated Imagery in Legal Proceedings, *Digital Evidence and Electronic Signature Law Review*, Volume 13, pp1-13, 2016.

Dunagan, J. and Schofield, D., Creating Fitts' Law Predictions for a Touchscreen Tablet, *International Journal of Information and Communication Technology Research*, Volume 6, Number 11, 2016.

Schofield, D., Waiting for a Robot Godot: Theoretical Musings on Cyborg Theatre, International Journal of Contemporary Humanities, 1(1), 2016.

Schofield, D. and Young, D., Waiting for a Robot Godot: A Cyborg Theatre Case Study, International Journal of Contemporary Humanities, 1(1), 2016.

Book Chapters (2010 – 2016)

Goodwin, L., Evison, M.P. and Schofield, D., Image Quality and Accuracy in Three 3D Scanners, Chapter 2, Computer Assisted Forensic Facial Comparison: Research and Technical Reference, *Taylor and Francis,* New York, pp 11 – 34, 2010.

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[1] The documentary, *Nefertiti Resurrected*, first shown on the Discovery Channel in Sept. 2003 and since repeated on a many television stations worldwide.
[2] For further information see the MRL web site (http://www.mrl.nott.ac.uk) or the Blast Theory web Site (www.blasttheory.co.uk).

Goodwin, L., Schofield, D., Evison, M.P. and Lester, E., Effect of 3D Rotation on Landmark Visibility, Chapter 6, Computer Assisted Forensic Facial Comparison: Research and Technical Reference, *Taylor and Francis,* New York, pp 89 - 100, 2010.

Schofield, D., Evison, M.P. and Goodwin, L., Influence of Lens Distortion and Perspective Error, Chapter 7, Computer Assisted Forensic Facial Comparison: Research and Technical Reference, *Taylor and Francis,* New York, pp 101 - 118, 2010.

Schofield, D., Virtual Evidence in the Courtroom, in Yang, H. & Yuen, S. (eds), The Handbook of Research on Practices and Outcomes in Virtual Worlds and Environments, *IGI Global: Hershey*, 1(10), pp 200 - 216, 2011.

Davy-Jow, S.L., Decker, S.J. and Schofield, D., Virtual Anthropology: Applications of Advanced Computer Graphics Technology to the Identification of Human Remains, in Yang, H. & Yuen, S. (eds), The Handbook of Research on Practices and Outcomes in Virtual Worlds and Environments, *IGI Global: Hershey*, 1(11), pp 217 - 235, 2011.

Schofield, D., Using Simulators for Training, in Yang, H. & Yuen, S. (eds), The Handbook of Research on Practices and Outcomes in Virtual Worlds and Environments, *IGI Global: Hershey*, 1(15), pp 289 - 306, 2011.

Schofield, D. and Mason, S., Using Graphical Technology to Present Evidence, Chapter 7, Electronic Evidence, Third Edition, ed. Mason, S., *Lexis-Nexis*, 2012.

Anderson, M., Schofield, D. and Dethridge, L., Ways of Viewing and Interacting : User Experience in a Virtual Art Gallery, Virtual Environments: Developments, Applications and Challenges, ed. Bates-Brkljac, N., *Nova Publishers*, January 2013.

Ivancic, D., Schofield, D. and Dethridge, L., The Effect of Perspective and Presentation : User Experience in a Virtual Art Gallery, Virtual Environments: Developments, Applications and Challenges, ed. Bates-Brkljac, N., *Nova Publishers*, January 2013.

Anderson, M., Schofield, D. and Dethridge, L., New Ways of Seeing: Evaluating Interactive User Experiences in Virtual Art Galleries, Analyzing Art, Culture, and Design in the Digital Age, ed. Mura, G., *IGI Global: Hershey*, 2015.

Tavares, T. A. and Schofield, D., Interaction Design for Convergent Medias and Devices: A Multisensory Challenge, Convergent Divergence - Cross-Disciplinary Viewpoint on Media Convergence, ed. Lugmayr, A., Zotto, C. Z. and Lowe, G. F., *Springer-Verlag: Germany*, 2015.

Schofield, D., Displaying the Bomb on the Train: The Challenge of Preparing Visual Evidence, in Juries, Science and Popular Culture in the Age of Terror, ed. Tait, D. and Goodman-Delahunty, J., *Palgrave Macmillan: Basingstoke, England*, pp 123-143, 2016.

Evison, M., Iwamura, E. S. M., Guimaraes, M. A. and Schofield, D., Forensic Facial Reconstruction and its Contribution to Identification in Missing Person Cases, Chap. 26, Handbook of Missing Persons, eds. Morewitz, S. and Sturdy Colls, C., *Springer-Verlag: Germany*, pp 427-441, 2016.

Conference Publications (2010 – 2016)

Dasys, A., Vasak, P. and Schofield, D., A Century of Mining Visualization: Moving from 2D to 5D, *Proceedings of the SME Annual Meeting*, Phoenix, Arizona, 21st - 28th February 2010.

Schofield, D. And Dasys, A., Training Using Virtual Environments: The Problems of Organizational Knowledge Creation, *Proceedings of the SME Annual Meeting*, Phoenix, Arizona, 21st – 28th February 2010.

Schofield, D., Advanced Technology in the Courtroom: Developing Guidelines, *Proceedings of the Conference on Justice Environments,* Sydney, Australia, 20th - 22nd May 2010.

Schofield, D. And Lester, E., Learning in a Virtual Environments Should there be Guidelines?, *Proceedings of the World Conference on Educational Multimedia, Hypermedia and Telecommunications (Ed-Media)*, Toronto, Canada, 28th June – 2nd July 2010.

Schofield, D., Why Doesn't it Look Like it Does on Television? The Presentation of Forensic Evidence Using Digital Technologies, *Keynote Paper at the 8th International Conference on Digital Forensics,* Perth, Australia, 30th November – 2nd December 2010.

Schofield, D., New Developments in the Presentation of Digital Evidence, *Proceedings of the Annual General Meeting of the Australian and New Zealand Forensic Science Society (ANZFSS),* Perth, Australia, 3rd December 2010.

Schofield, D., Scan It, Render It, Present It: What's the Problem ?, *Keynote Paper at the 5th International Conference on Forensic Metrics (SPAR Track),* International Association of Forensic and Security Metrics (IAFSM), Houston, Texas, 21st March – 24th March 2011.

Schofield, D., Accuracy Problems in the Measurement of Facial Biometric Data, *Proceedings of the 5th International Conference on Forensic Metrics (SPAR Track),* International Association of Forensic and Security Metrics (IAFSM), Houston, Texas, 21st March – 24th March 2011.

Fowle, K. and Schofield, D., Visualising Forensic Data: Investigation to Court, *9th Australian Digital Forensics Conference*, SECAU Security Congress, 5th-7th December 2011, Perth, Australia.

Schofield, D., Lorenz, K., Davy-Jow, S. and Anderson, M., Roman Portraiture and Biometric Identification, *Proceedings of the British Computer Society Conference on Electronic Visualisation and the Arts*, 10th-12th July, pp 165 - 173, London, UK, 2012.

Kern, B. R., Tavares, T. A. and Schofield, D., User Interface Evaluation Experiences: A Brief Tour Between Usability and Communicability Testing, *Proceedings of the Interaction South America Conference*, 1st -3rd November, Sao Paulo, Brazil, 2012.

Schofield, D., Don't Depend On Your Eyes When Your Mind Is Out Of Focus: Manipulating the Viewer in the Courtroom, *Proceedings of the Conference on End-to-End 3D : Capture, Process, Deliver*, SPAR International, Colorado Springs, Colorado, April 15-18th 2013.

Kern, B. R., Tavares, T. A. and Schofield, D., User Interface Evaluation Comparison, *Proceedings of the Computer Human Interaction (CHI) Conference*, 27th April – 2nd May, Paris, France, 2013.

Schofield, D., Mass Effect : Using Computer Games Technology for Education and Training, *Proceedings of Conference on Instruction and Technology*, 27th May – 30th May, Cornell University, 2014.

Schofield, D., A Virtual Education: Guidelines for Using Games Technology, *Proceedings of Informing Science and IT Education (InSITE),* 30th June – 4th July, Wollongong, Australia, 2014.

Tanner, P., Karas, C. and Schofield, D., Pop Culture: Augmenting a Child's Reality, *Proceedings of Informing Science and IT Education (InSITE)*, 30th June – 4th July, Wollongong, Australia, 2014.

Nunes, A., Cutler, D., Tavares, T., Maritan, T. and Schofield, D., Testing User Interfaces FOR and WITH Accessibility: Breaking Down Barriers to Evaluate and Use Systems, *IHC2014, Proceedings of XIII Brazilian Symposium on Human Factors in Computing Systems*, 27th – 31st October, Foz do Iguaçu, Brazil, 2014.

Tanner, P., Lyra, D., Tavares, T., Schofield, D. and Graci, C., Chromesthetic Painting Interactions: A Synesthetic Approach to a Multimedia Exhibition, *WebMedia 2014, Proceedings of XX Brazilian Symposium on Multimedia and the Web*, 18th – 21st November, Joao Pesoa, Brazil, 2014.

Schofield, D. Why Doesn't it Look Like it Does on Television? Using Established Technologies in New and Exciting Ways, Keynote Presentation, *WebMedia 2014, Proceedings of XX Brazilian Symposium on Multimedia and the Web*, 18th – 21st November, Joao Pesoa, Brazil, 2014.

Schofield, D., Waiting for Cyborg Godot, Digitorium: Digital Humanities Conference, 3rd – 5th March, Birmingham, Alabama, 2016.

Dethridge, L. and Schofield, D., Sci-Fi Movies 101: An International Online Collaboration and Research-led Production (Starring Robots), Proceedings of the Australian Screen Production Education & Research Association (ASPERA) Annual Conference 2016: Screen Production Research: The Big Questions, Canberra, Australia, 5th – 7th July 2016.

Full publication list available at: **https://www.researchgate.net/profile/Damian_Schofield/contributions**