

# Dr Michael Meredith

## Curriculum Vitae

Research Associate  
Department of French / Humanities Research Institute  
The University of Sheffield, Sheffield, UK  
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### Education:

The University of Sheffield, Ph.D (“*Adapting and Reconfiguring Human Figure Motion Capture Data through the Application of Inverse Kinematics and Biomechanics-Based Optimisation*”). 2006  
The University of Sheffield, Software Engineering BEng 2000

### Research Grant Positions

Research assistant on an EPSRC funded project called Pegasus to deliver a grid-enabled interface for sharing and displaying in real-time selected virtual reality exhibition material to a distributed audience. Jan 2008 – Dec 2008  
Knowledge transfer partnership assistant on a DTI grant (with Tribal Technology plc) to provide software (called *Kiosque*) to feature at an exhibition about Froissart’s Chronicles of the Hundred Years’ at Leeds Royal Armouries in December 2007. July 2007 – Dec 2007  
Research assistant on an EPSRC/JISC/Arts & Humanities e-Science Initiative and the UK e Science Core Programme funded project called *Virtual Vellum*. The project aim was to research and develop tools for viewing and manipulating high-resolution images to assist arts and humanities scholars. June 2006 – Nov 2006

### Publication History

Martinez Lazalde, O., Maddock, S., Meredith, M., "A Constraint-Based approach to Visual Speech for a Mexican-Spanish Talking Head", International Journal of Computer Games Technology (accepted)  
Martinez-Lazalde, O., Maddock, S., Meredith, M., "A Mexican-Spanish Talking Head", The Third International Conference on Games Research and Development 2007 (CyberGames 2007), pp. 17-24, 2007  
Meredith, M. and Maddock, S., "Approximating Character Biomechanics with Real Time Weighted Inverse Kinematics", Computer Animation and Virtual Worlds, Vol. 18, Issue 4-5, pp. 349-359, 2007  
Meredith, M. and Maddock, S., "Inverse Skinning", CVMP 2006 (The 3<sup>rd</sup> European Conference on Visual Media Production), pp. 163-172  
Meredith, M., "Adapting and Reconfiguring Human Figure Motion Capture Data through the Application of Inverse Kinematics and Biomechanics-Based Optimisation", PhD Thesis, The Department of Computer Science, The University of Sheffield, UK, March 2006  
Meredith, M. and Maddock, S., "Adapting Motion Capture using weighted Real-Time Inverse Kinematics", ACM Computers in Entertainment, Volume 3(1), Jan/Mar, 2005  
Meredith, M. and Maddock, S., "Individualised Character Motion Using Weighted Real-Time Inverse Kinematics", Proc. GAME-ON 2004, pp. 57-64 (*Best paper of the conference*)  
Meredith, M. and Maddock, S., "Adapting Motion Capture using weighted Real-Time Inverse Kinematics", Proc. GDTW 2004 (The 2<sup>nd</sup> annual international workshop in Computer Game Design and Technology), pp. 120-129 (*Best paper of the conference*)  
Meredith, M. and Maddock, S., "Using a half-Jacobian for real-time inverse kinematics", Proc. CGAIDE'04 (The 5th International Conference on Computer Games: Artificial Intelligence, Design and Education), pp. 81-88  
Meredith, M. and Maddock, S., "Real-Time Inverse Kinematics: The Return of the Jacobian", Department of Computer Science Research Memorandum CS-04-06, University of Sheffield  
Meredith, M. and Maddock, S., "Motion capture file formats explained", Department of Computer Science Technical Report CS-01-11, University of Sheffield

### Professional Activities

- Reviewer for the Journal of Virtual Reality and Broadcasting (JVRB)
- Invited speaker at the Second Workshop on Service-Oriented Computing in the Humanities (SOCH), Dec 2007
- Invited speaker at a Chamber of Commerce day at Sheffield University, October 2007
- Invited by AHeSSC, White Rose Grid and EPSRC to demonstrate at All Hands 2007 conference

- Session chair at CASA 2007 (The 20<sup>th</sup> international conference on Computer Animation and Social Agents), June 2007
- Presented and delivered prototype collaborative software tools at the AHRC-sponsored Access Grid seminar on Texts and Databases (24<sup>th</sup> Jan 2007) and VR (28<sup>th</sup> February 2007), PI: David Shepherd, HRI, University of Sheffield
- Organiser of the AHRC-sponsored Access Grid seminar on visualisation for the access and data grid, Humanities Research Institute, Dec 6, 2006
- Invited demonstration of *Virtual Vellum* at “The Arts and Humanities: A rich source of Knowledge for Commerce?” workshop, organised by members of York University, October 31<sup>st</sup> 2006
- Presentation of *Virtual Vellum* to the Shahnama Persian MSS (Books of the Kings) project, Faculty of Oriental Studies, University of Cambridge
- Invited demonstrator and presenter with Professor Peter Ainsworth on the Arts and Humanities e-Science Support Centre and White Rose Grid stands, UK e-Science All Hands meeting, East Midlands Conference Centre, Nottingham, Sept 2006
- Invited demonstrator and presenter with Professor Peter Ainsworth for the Arts and Humanities e-Science Support Centre at Digital Resources for the Humanities and Arts (DRHA), Dartington, Sept 2006
- Attendance at Arts and Humanities e-Science Support Centre, ICT Methods Network and AHDS expert seminars: Oxford and London, 2006
- Reviewer for Eurographics 2006
- Invited talk to Codemasters about my PhD research