

Tuesday, March 24, 2009
1:30 - 2:30 pm

Stephenson Research and
Technology Center
Seminar Room
101 David L. Boren Blvd

Hosted by the
University of Oklahoma
Center for Spatial Analysis
and
School of Computer Science

Bruce Donald Campbell

is a doctoral candidate with the Human Interface Technology Laboratory at the University of Washington, where he works with the Pacific Area Regional Visualization and Analytics Center and the Center for Environmental Visualization. His main research is in facilitating social processes through visualization associated with a geographic extent, specifically emergency response efforts and watershed quality community processes. He has ten years experience with virtual reality systems and helped advise on the expansion of the HITLab in Christchurch, New Zealand. Bruce teaches for both the University of Washington's Industrial Engineering Department and the Rhode Island College of Design where he holds a faculty position in the Web Design and Development program.



Visualizing Social and Natural Processes to Support Better Distributed Cognition



Augmented cognition scientists work on developing improved shared artifacts for use during joint activities with teams of people. Joint activities can involve a man-made focus such as on roads and buildings in a community-wide first response effort, or a natural focus such as on an ongoing watershed quality community process.

In my talk, I describe the psyche of societal members I have met who organize emergency response and watershed quality activities. The embodied mind model suggests that humans need a wide range of external thinking tools in order to embody an internal

model for effective action in both urgent short-term and long-term processes. I discuss various distributed cognition methods for embedding mission-critical knowledge in computer-mediated shared-visualization tools. The *RimSim Response* and *Watershed-to-Ocean* software initiatives aim to design and implement augmented cognition tools for the above targeted audiences.

