ThinkSpatial

The UCSB brownbag forum on spatial thinking

presents

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When computers get physical — A Path to "Anywhere Augmentation"

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Abstract: We use the term "Anywhere Augmentation" to describe a powerful general user interface, making augmented reality (AR) overlays readily and directly available in any situation and location. Graphical annotations can be viewed and placed through optical see-through glasses or by using your phone, PDA, or tablet computer as a video-see-through lens. A key question is how to achieve robust spatial registration between the objects in the physical world and their AR annotations. Promising new approaches make use of computer vision in conjunction with various GIS data sources, which are becoming universally available, allowing mobile users to grow and browse a web of volunteered location-based information around them.

Tobias Höllerer is an Assistant Professor of Computer Science at the University of California, Santa Barbara (UCSB), where he co-directs the "Four Eyes Laboratory", conducting research in the four i’s of imaging, interaction, and innovative interfaces. He holds Ph.D. and M.S. degrees in computer science from Columbia University and a graduate degree in informatics from the Technical University of Berlin in Germany. His main research interests lie in augmented reality, 3D displays and interaction, visualization, mobile and wearable computing, and adaptive user interfaces.

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The objectives of the ThinkSpatial series are to exchange ideas about spatial perspectives in research and teaching, to broaden communication and cooperation across disciplines among faculty and graduate students, and to encourage the sharing of tools and concepts. Please contact Don Janelle (ext 5267, janelle@spatial.ucsb.edu) to review and schedule possible discussion topics or presentations that share your disciplinary interest in spatial thinking.