Seeing Through Augmented Reality

Steven Feiner
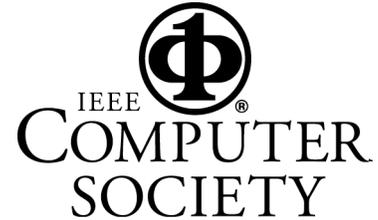
Augmented reality is a special kind of user interface technology – using 3D display technology to overlay a synthesized world on top of the real world. It's more than a video game.

Researchers have been actively exploring augmented reality (AR) for over forty years, beginning with Ivan Sutherland's pioneering development of the first optical see-through head-worn display. Now, even as research continues to forge ahead, AR has also become the province of commercial applications, Super Bowl ads, and nascent companies whose business plans and names celebrate it. In this talk, Steve Feiner will share his thoughts about where AR has been, where it is now, and where it might be headed in the future. Some of the themes that are important:

- Ubiquity, exemplified by the ability to interweave content seamlessly and pervasively with our environment, in ways that are sensitive to our physical and virtual context.
- Heterogeneity, in which we benefit from the complementary advantages of a diverse set of interaction devices and displays.
- Collaboration, both symmetric among equals, and asymmetric among participants with differing computational abilities, devices, and goals.

The talk will illustrate the talk with examples from work being done by Columbia's Computer Graphics and User Interfaces Lab.

Steven Feiner is Professor of Computer Science at Columbia University, where he directs the Computer Graphics and User Interfaces Lab. His research interests include human-computer interaction, augmented reality and virtual environments, 3D user interfaces, knowledge-based design of graphics and multimedia, mobile and wearable computing, computer games, and information visualization. Steve is coauthor of *Computer Graphics: Principles and Practice* and of *Introduction to Computer Graphics*, received an ONR Young Investigator Award, and together with his students, has won the *ACM UIST Lasting Impact Award* and best paper awards at *ACM UIST*, *ACM CHI*, *ACM VRST*, and *IEEE ISMAR*. His lab created the first outdoor mobile augmented reality system using a see-through display in 1996, and has pioneered experimental applications of augmented reality to fields such as tourism, journalism, maintenance, and construction.

Date: Thursday, January 20, 2011, 8:00 pm.
           (Refreshments and networking at 7:30 pm.)
Place: Small Auditorium, Room CS 105
           Computer Science Building, Princeton University
           Olden St. between William St. and Prospect Ave. +40.3502,–74.6522
Information: Dennis Mancl (908) 582-7086, Jan Buzydlowski (610) 902-8343
On-line info: **http://www.acm.org/chapters/princetonacm**

All ACM / IEEE-CS meetings are open to the public. Students and their parents are welcome. There is no admission charge, and refreshments are served.

A pre-meeting dinner with the speaker is held at 6:00 p.m. at Ruby Tuesday's Restaurant on Route 1. Please send email to **princetonacm@acm.org** in advance if you plan to attend the dinner.