

# TRENDS

in Society and Information Technology

## 2011-2012 Seminar Series



**STEPHEN BARLEY, Stanford University**

**"The Lure of the Virtual"**

Friday, January 27, 2012

3:00 to 4:00 p.m.

6011 Donald Bren Hall

Free and open to the public; no RSVP required.

**ABSTRACT** To understand how virtuality affects work, we need to make better distinctions between types of virtual work. In this paper, we draw on semiotics to distinguish among three types of virtual work – virtual teams, remote control and simulations – based on what a technology makes virtual and whether work is done on, through or within representations. We know the least about simulations, yet they have the greatest potential to change work's historically tight coupling to physical objects. We show how digital simulation technologies in an automobile company prompted a shift from symbolic to iconic representation of vehicle performance. This, in turn, altered workers' dependence on each other and on physical objects, leading managers to confound operating within representations with operating on representations. Accordingly, managers assigned simulations to virtual teams, thereby distancing workers from the physical referents of their models and making it difficult to validate them. The consequences were troubling.

**BIO** Stephen R. Barley is the Richard W. Weiland Professor of Management Science and Engineering, and the Co-Director of the Center for Work, Technology and Organization at Stanford's School of Engineering. He has written numerous articles and several books on the impact of new technologies on work, the organization of technical work, and organizational culture.

[ics.uci.edu/trends](http://ics.uci.edu/trends)



UCIRVINE

DONALD BREN SCHOOL OF  
INFORMATION & COMPUTER SCIENCES  
DEPARTMENT OF INFORMATICS