

Computer Science Seminar Series

National Capital Region

Beyond Context: The Case for Multiscale Design

Speaker: Dr. Evan Barba
Georgetown University
Friday, March 17, 2017
1:00PM- 2:00PM, NVC T3

Abstract

Many of the satellites NASA has launched into earth orbits over the past seven decades have had useful lifetimes of only twenty to thirty years. As these satellites run out of consumable components they become orbital “space junk.” However, much of the equipment on board these satellites would still be functional if consumable resources could be easily replaced. NASA’s new Restore-L mission will be the first to demonstrate the feasibility of using an orbital robot to successfully refuel an orbiting satellite. In this talk I will discuss the work our team has done on the design of one crucial element of this system—the tele-robotic user interface (UI). Despite many years of experience creating user interfaces for experimental and commercial applications, the complexity of both the task and the surrounding social context challenged our team to create new approaches to UI design.

Biography



Evan Barba is an Assistant Professor in the Communication, Culture and Technology Program at Georgetown University, with courtesy appointments in the Department of Computer Science and the Program in Learning and Design. He also co-directs Georgetown’s Technology Design Studio, a collaborative learning environment focused on new explorations of technology-enhanced learning. His interests range widely through systems science, design, computing and education, and he his current list of projects include robotics, user interface design, design and computing pedagogy, mixed reality, and agent-based modeling.