IS Department Seminar

“Tangible Interfaces and Learning in the Age of Digital Everywhere/Everyone”

**Speaker:** Amon Millner
Visiting Assistant Professor of Computing Innovation Franklin W. Olin College of Engineering

**Date:** Tuesday, January 29, 2013  
**Time:** 1:00-2:00 PM  
**Location:** GITC 1403

**Abstract**
As technology-rich societies approach “digital everywhere” status, an increasing number of opportunities exist for average people to engage with computing. A critical area of concern to those in the human-centered computing (HCC) field needs to be ensuring that the notion of “digital everyone” remains prevalent as new computing infrastructures emerge. As an emerging HCC researcher, I design and study tools that enable everyday people to engage with the digital world around them in physical ways – and learn about computing in the process. This talk presents cases in which novices use a system that I designed to help them build their own tangible user interfaces while developing computational thinking skills at the same time. The merits of developing ways of thinking like a computer scientist through collaborative (physical + digital) projects are discussed as they relate to K-12 and college-level education at NJIT and beyond.

**Bio**
Dr. Amon Millner is a Visiting Assistant Professor of Computing Innovation at the Franklin W. Olin College of Engineering. He is also co-founder of a startup called Modkit and a Visiting Scientist at the MIT Media Lab, where he completed his Ph.D. as a part of the Lifelong Kindergarten Research Group. He served as a member of the core design team of the award-winning NSF-supported Scratch programming language. As a lead designer of the Scratch Sensor Board, his work involved designing, deploying, and evaluating a computational construction kit and developing engaging activities that enabled young people from diverse backgrounds to create novel tangible user interfaces. Dr. Millner has worked closely with K-12 learners and undergraduate and graduate students in research and design project settings. He has helped shape the ways in which international networks of innovative learning environments (such as Computer Clubhouses and Fab Labs) engaged youth in design and computing activities. Dr. Millner’s research explores the intersection of human centered computing, tangible user interface design, and the learning sciences. His research and teaching efforts both aim to help designers from all backgrounds seamlessly create artifacts that blend physical and digital materials, and learn in the process – while encouraging their peers to create. Before completing his Ph.D. in Media Arts and Sciences (2010), Dr. Millner earned a M.S. in Human Computer Interactions from Georgia Tech (2003) and a B.S. in Computer Science from USC (2001).