

## **Crowdsourcing Deep Thoughts: Meeting the Challenges of In-depth Language Understanding Systems for Smarter Social Media**

Speaker: Dr. Jamie Macbeth, *Clemson University (Postdoc), UCLA (Ph.D.)*

Date and Time: January 16 (Friday), 2015 – 11:00am-12:00pm

Location: 1012 NERC

### **Abstract:**

Intelligent systems driven by natural language input are well-positioned to meet the challenges of intervening against abuses of social media (such as cyberbullying), and providing resources for victims. However, the language processing problems posed in these situations appear to be “Google proof”: algorithms that scrape Wikipedia or other large text corpora for surface-level language properties (e.g. frequencies or co-occurrences of words) perform poorly. This talk will discuss work to build systems that understand natural language in-depth in support of these applications. Our approach is based on a traditional symbolic method that represents deep semantics as complex combinations of simple, primitive social acts, but uses crowdsourcing to collect these commonsense knowledge structures of human experience in a scalable and inexpensive way. I will also briefly discuss efforts to apply cognitive walkthroughs to usability issues in software engineering environments.

### **Biography:**

Dr. Jamie C. Macbeth is a postdoctoral fellow in Clemson's Human-Centered Computing Division, working under Dr. Larry Hodges in the Virtual Environments Group. Previously he was a postdoctoral research associate with the Humans and Automation Laboratory and CSAIL at MIT. He holds a Ph.D. in Computer Science from the University of California, Los Angeles, where he was a GAANN fellow. He earned an M.S. in Physics from Stanford University, and a B.S. in Physics from Brown University. His broad interests include human-computer interaction, human factors of software engineering, and natural language understanding. He is a member of ACM, AAAI, and IEEE.