# Taking on Social Discrimination and Self-Representation

*By Fox Harrell, Associate Professor of Digital Media*

The fall semester found the Imagination, Computation, and Expression Laboratory (ICE Lab) welcoming a new group of students from CMS and CSAIL, expanding our ongoing projects and laying the foundation for new work. The ICE Lab researches and develops *subjective computing* systems. Subjective computing systems use cognitive science, digital media arts, and artificial intelligence approaches for creative expression, cultural analysis, and social and conceptual change. Our work includes new forms of gaming, interactive narrative, social media, software art, and, most importantly, creative computing forms unanticipated by any of those.

Additional information about our work can be found on the ICE Lab website icelab.mit. edu, which was launched this past semester.

## Recent and Ongoing Projects

### Imagining Worlds

A research direction we are pursuing in interactive narrative and gaming is to develop models of player empowerment and self-expression, as well as *modeling experiences of oppression*. One work are producing in this direction is *Mimesis*, an interactive narrative game that explores a phenomenon of social discrimination. To connect gameplay to real world identity, *Mimesis* uses information about players to construct the player character's personality. In particular, the player character is modeled based on the real-world musical preferences of the player and her/his friends, drawn from their social network profiles. Subsequently, in-game encounters with non-player characters (NPCs) engage the player in situations involving social discrimination in the form of microaggressions, which are covert acts of discrimination that assault, insult and invalidate the experiences of others. We target this phenomenon since microaggressions have been clinically found to have strong cumulative effects on health and happiness, restrict understandings between groups, and are often incorrectly dismissed as minimally harmful, especially when compared to more overt acts of discrimination.

During the fall semester, Professor Harrell led ICE Lab researchers Chong-U Lim, Sonny Sidhu, Jia Zhang, Ayse Gursoy, and Christine Yu, along with the CMS 628/828 class, in the completion of a Flash-based prototype of Mimesis which will soon be made available on the ICE Lab website. A cycle of evaluation and refinement is the next step. Going forward, a version of *Mimesis* will also be developed for iOS, which will add gesture-driven control.

*Mimesis* is one recent outcome of the NSF-supported Advanced Identity Representation (AIR) Project (Harrell, Principal Investigator). ($535,060/5 years, NSF CAREER Award #0952896).

### Imagining Selves

The *AIR Project* more generally develops new models and technology to enable users to more creatively and powerfully represent themselves on computers using characters, avatars, profiles, online accounts, and more. As the major par of this effort, the ICE Lab is refining our AIR toolkit, a set of software tools for modeling computational identity phenomena. The toolkit uses computer science techniques to represent quite subjective social phenomena such as using multiple self-representations can reflect identity phenomena from the real world including self-presenting differently in different communities, attempting to "pass" as a member of another community, or being a central or marginal member of a community.

This past semester I worked with ICE Lab members to continue the empirical qualitative studies piloted last year. In this study, we look at current gaming systems (the Mii Creator, *Elder Scrolls IV: Oblivion*, and *The Sims 3*) to learn more about the ways in which they support or fail to support users' needs and whether any of the current systems result in users being marginalized or stigmatized. The results will inform future development of the toolkit and applications built using the toolkit and the resultant methods will be used hold AIR project systems to the same type of scrutiny. We have completed over half of the study sessions with a new, larger group of participants, and have begun the analysis work. This work will be summarized for journal publication.

### Imagining the Future

In 2012 we shall continue the ongoing development of the AIR Project, including the AIR Toolkit, *Mimesis,* and other interactive projects. In addition to completing an iOS version of the game, we also plan to exhibit the project at a number of upcoming conferences. In 2012, we also plan to make web-accessible versions of the past and present ICE Lab projects.

*Visit ICE Lab online at icelab.mit.edu.*