**Computational Media for Interactive Systems**

Enabled by rapidly evolving computational technologies for creation, dissemination and consumption of digital media, society’s intellectual exchange is increasingly dominated by content generated and disseminated by us, the people of the world. Not only is the creation and dissemination increasingly democratized, the traditional distinction between producer and consumer is also disappearing. The new global exchange is characterized by crowd generation and sourcing, heterogeneity, large, distributed and complex data sets with both real-time and offline content. Spur-of-the-moment, mobile, and ubiquitous read-write access to the exchange in large parts of the world is possible on all manner of computing devices with rich interfaces. These technological and societal shifts are fundamentally changing the relationships between computing, dynamic social groups, and creative work in ways that are still emerging and not yet fully understood. This proposal calls for building a new team across computing and several creative disciplines using strategic new hires that leverage our existing strengths on North Campus to shape, understand, teach, and indeed create via this emerging digital media paradigm.

The Computer Science and Engineering Division will look for two candidates, one focused on taking the flood of rich media content and producing abstractions and representations that are useful for artistic manipulation, and the other focused on developing methods that enable interaction and manipulation of dense media data. The Performing Arts Technology position will focus on issues surrounding the design and development of new interfaces for technology-enhanced instruments that extend the boundaries of musical expression. The School of Art and Design will seek a faculty member whose creative practice focuses on experimental development of computational techniques in order to explore both the creative potential and cultural repercussions of these new technologies. The Taubman College of Architecture and Urban Planning will seek a faculty member focused on knowledge representation and distributed production.