
Design, Influence, and Social Technologies: Techniques, Impacts, and Ethics

Joshua Introne

Center for Collective Intelligence
MIT
jintrone@mit.edu

Karen Levy

Department of Sociology
Princeton University
kelevy@princeton.edu

Sean Munson

School of Information
University of Michigan
samunson@umich.edu

Sean Goggins

The iSchool
Drexel University
outdoors@acm.org

Rick Wash

Telecommunications, Information
Studies, and Media
Michigan State University
wash@msu.edu

Cecilia Aragon

Human Centered Design &
Engineering
University of Washington
aragon@uw.edu

Abstract

Our actions and opinions—what we know and believe, how we behave and make decisions—are embedded in and shaped by webs of social relationships. Small individual actions that flow within networks can lead to broad systemic dynamics that fundamentally impact how societies function economically, socially, and culturally.

Social technology provides a set of affordances that makes it easier for individuals to manage this web of relationships and the information that flows through it. But designers can configure and make use of the same affordances to influence user behavior. As much of the connected world races to adopt social technology, we have a responsibility both to understand its impacts and to develop ethical guidelines for its use, as its impacts could be profound.

Keywords

Social informatics, persuasive interfaces, social networks, social media, value-sensitive design.

ACM Classification Keywords

K.4.m. Computers and Society: Miscellaneous

Copyright is held by the author/owner(s).

CSCW'12, February 11–15, 2012, Seattle, Washington, USA.

ACM 978-1-4503-1051-2/12/02.

General Terms

Design, Human Factors.

Design and Social Technology

Mediating technology can be seen as a form of influence through which the designer, intentionally or unintentionally, guides her users to some end. This perspective, which acknowledges the fact that values and judgments are embedded in artifacts via the design process, provides a starting point for this workshop [3].

Applying a value-sensitive design perspective to social technology is especially important and uniquely challenging. Three aspects of social technology work together to create this saliency: the power of social information to influence individuals, pervasiveness of the technology, and the potential for local behaviors to aggregate to create large-scale emergent dynamics.

Individual impacts – From Solomon Asch’s conformity experiments to more recent studies of online health activity [1], it is clear that our connections can influence how we behave. As such, technologies that harness or provide a platform for social connections present an especially vital arena in which to examine the roles of power and influence.

Pervasiveness - In May 2011, about 700 million visitors collectively spent more than four billion hours on Facebook [2]. If the technology we design is playing such a significant role in the lives of so many people, we would do well to know how its design is influencing their behavior, as well as how this may impact people who cannot or choose not to participate in its use.

Aggregate dynamics – Designers of social technology create affordances and system-wide policies that affect the manipulation of and information flow through local social connections. Together, these local manipulations can lead to emergent dynamics for the entire connected system that may or may not be desirable [4].

One goal of this workshop is to lay the groundwork for a research program to study design and influence in social technology. To this end, we have solicited contributions that address three areas: techniques that influence individual behavior and/or aggregate dynamics; impacts of such approaches and means for analyzing impacts; and the ethical considerations when developing social technology that influences behavior.

The explosion of social technology continues unabated, driven by a myopic market that seeks only to induce revenue-generating behaviors. There is no principled guidance for technology creators. We hope to bring the research community together to consider how social technology might change the world, and shepherd its development so that the outcomes are desirable.

References

1. Centola, D. The spread of behavior in an online social network experiment. *Science* 329, 5996 (2010), 1194.
2. Efrati, A. Google Notches One Billion Unique Visitors Per Month. *Digits*. <http://blogs.wsj.com/digits/2011/06/21/google-notches-one-billion-unique-visitors-per-month/>.
3. Friedman, B. Value-sensitive design. *interactions* 3, 6 (1996), 16–23.
4. Pariser, E. *The Filter Bubble: What the Internet Is Hiding from You*. Penguin Press HC, The, 2011.