

Slow Technology: Critical Reflection and Future Directions

William Odom¹, Richard Banks², Abigail Durrant³, David Kirk³, James Pierce¹

Carnegie Mellon University¹

Microsoft Research Cambridge²

Newcastle University³

Human-Computer Interaction Institute

Socio-Digital Systems Group

Culture Lab

Pittsburgh, PA, USA

Cambridge, UK

Newcastle upon Tyne, UK

{wodom, piercej}@cs.cmu.edu

rbanks@microsoft.com

{abigail.durrant,

david.kirk}@ncl.ac.uk

ABSTRACT

Over a decade ago Hallnäs and Redström’s seminal article on *Slow Technology* [6] argued that the increasing availability of technology in environments outside of the workplace requires interaction design to be expanded from creating tools for making people’s lives more efficient to creating technology that could be embedded in everyday environments over long periods of time. Since then, the Slow Technology design agenda has expanded to include issues such as (i) designing for slowness, solitude, and mental rest, (ii) designing interactive systems to be used across multiple generations and lifespans, and (iii) designing for slower, less consumptive lifestyles and practices. This workshop aims to advance the Slow Technology design program by exploring the various practical, methodological and theoretical motivations, challenges, and approaches implicated in doing research and design in this growing space.

Author Keywords

Slow Technology; Interaction Design; Design.

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

Interactive technologies are being designed, produced, used, re-purposed, discarded and destroyed more rapidly than ever before. With these shifts, new concerns have steadily emerged across the design and HCI communities over how the growing presence of interactive technologies in people’s everyday lives—and the values embedded in their design—might shape people’s current experiences and practices as well as the lives of future generations.

In their seminal article on *Slow Technology*, Hallnäs and Redström argue that the increasing availability of technology in environments outside of the workplace

requires interaction design practice to be expanded from creating tools to make people’s lives more efficient to “*creating technology that surrounds us and therefore is part of our activities for long periods of time*” [6, p. 161]. These authors outline a design agenda aimed at inverting values of efficient performance and emphasizing creating technologies that support moments of reflection, mental rest, slowness and solitude. Over a decade later, these issues remain areas of inquiry in the HCI and design communities, and there has recently been a resurgence of work in this area [e.g., 5, 8, 12, 14, 15].

Building on the slow technology design philosophy, Mazé and Redström discuss how crafting artifacts embedded with “computational material” requires interaction designers to “*investigate what it means to design a relationship with a computational thing that will last and develop over time – in effect, an object who’s form is fundamentally constituted by its temporal manifestation*” [9, p. 11]. Mazé and Redström describe the necessity for designers to consider how interactive artifacts might persist and change with people and environments, across time and space. Since this work, issues surrounding how more enduring forms of technologies could be designed have steadily been gaining purchase within the HCI community. There has been a special interest in how technologies and systems might be passed down over multiple lifespans and how technologies might serve future generations [1, 7, 12]. Recently, Friedman and Nathan [4] propose expanding research and design initiatives in the HCI community to consider multiple lifespans. They highlight the need for new methods and approaches to help embrace the inherent complexity in designing for longer timeframes.

In parallel to these works, and often motivated by such concerns, there has been an ongoing interest in the design community to slow down the consumption (and disposal) of designed artifacts and technologies by prolonging their longer-term use (and re-use) across people and communities [e.g., 11, 13, 16, 17]. Additionally, the slow food movement has been used as a metaphor for developing design frameworks to slow consumption of interactive artifacts across design [10] and, more recently, HCI communities [2].

Collectively, the works described above (and many more) illustrate the contemporary re-emergence of research related

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

DIS 2012, June 11–15, 2012, Newcastle, UK.

Copyright 2012 ACM 978-1-4503-1210-3/12/06...\$10.00.

to Slow Technology. The core goal of this workshop is to critically reflect on the work that has emerged since *Slow Technology* was originally proposed, in order to forge understanding of the challenges, limitations and opportunities characterizing the contemporary design space.

Workshop themes

Consumption of objects and technologies: There exist a range of work in the HCI and design communities exploring how emotional attachment to technologies might extend their longevity and increase their value [e.g., 3, 17, 18]. How are existing frameworks of emotional attachment used in designing for longer term interactions with technologies? What are the limitations to this approach? How does design promote reflection on or address current trends of planned obsolescence, both business models and social expectations? And, how might more systemic or service-oriented approaches complement a move towards designing for developing enduring attachment?

Legacy and consideration of multiple generations: As technologies and systems are interacted with over relatively long periods of time, questions of how they will be passed down to future generations are becoming increasingly important [e.g., 1]. In what ways can both digital data and interactive products be designed with notions of sentimentality and persistence across multiple generations in mind? To what extent should interaction designers take into account the responsibility of supporting the lives of future generations into their practice? What are the practical, ethical, and/or moral issues of doing so?

Slowness and reflection: Slow technologies can aim to invert values of efficiency in the service of supporting experiences of pause, contemplation, and reflection. Considered in contrast to efficiency and productivity, what role might “slowness” through design play in contexts including the home, the neighborhood, and the workplace? What kinds of interaction mechanisms and functionalities characterize Slow Technologies? How do they compare or contrast to contemporary consumer technologies?

Infrastructural, engineering and technical concerns: Designing material technologies that can support slowness both raises questions and requires solutions regarding distinct technical challenges. What kinds of new hardware and software will be required for technologies to persist over longer periods of time? How is the durability of information and materials handled effectively and appropriately over time? To what extent can digital data and hardware be designed to endure over time?

Theoretical & ethnographic accounts of slowness: Case studies and theoretical accounts of existing people and practices can help inform the various strands of slow design. For example, how can rich accounts of durable and non-durable practices (e.g., passing down heirlooms; purging basements of unwanted clutter) inform slow technology design practice?

ACKNOWLEDGMENTS

We wish to acknowledge the many researcher and designers too numerous to mention here for their inspiring work in this growing and compelling space.

REFERENCES

1. Banks, R. 2011. *The Future of Looking Back*. Microsoft Press.
2. Buechley, L. 2011. “Slow technology: technology that’s good, fair, and maybe even clean.” University of Michigan Ann Arbor. 10 March 2011. Lecture.
3. Chapman, J. 2005. *Emotionally Durable Design: Objects, Experiences, and Empathy*. Earthscan.
4. Friedman, B., Nathan, L. 2010. Multi-lifepsan Information System Design: A Research Initiative for the HCI Community. *Proc. of CHI '10*, 2243-2246.
5. Fullerton, B. 2010. Designing for solitude. *interactions* 17, 6 (November 2010), 6-9.
6. Hallnas, L., Redstrom, J. 2001. Slow Technology: Designing for Reflection. *Personal Ubiquitous Comput.* 5, 3, 201-212.
7. Kirk, D., Banks, R. 2008. On the Design of Technology Heirlooms. *SIMTech '08*.
8. Leshed, G., Sengers, P. 2011. "I lie to myself that I have freedom in my own schedule": productivity tools and experiences of busyness. *Proc. of CHI '11*.
9. Mazé, R., Redström, J. 2005. Form and the Computational Object. *Digital Creativity*, 16(1), 7-18.
10. Manzini, E., Meroni, A. 2007. The Slow Model: A Strategic Design Approach. *Scienze Gastronomiche*.
11. Odom, W., Pierce, J., Stolterman, E., Blevis, E. 2009. Understanding Why We Preserve Some Things and Discard Others in the Context of Interaction Design. *Proc. of CHI '09*, 1053-1062.
12. Odom, W., Selby, M., Sellen, A., Kirk, D., Banks, R., Regan, T. 2012. Photobox: On the Design of a Slow Technology. *Proc. of DIS '12*.
13. Pierce, J. Paulos, E. 2011. Second-hand interactions: investigating reacquisition and dispossession practices around domestic objects. *Proc. of CHI '11*.
14. Sengers, P., Boehner, K., David, S., Kaye, J. 2005. Reflective design. *Proc. of CC '05*, 49-58.
15. Sengers, P. 2011. What I learned on Change Islands: reflections on IT and pace of life. *Interactions* 18, 2 (March 2011), 40-48.
16. Thackara, J. 2005. *In the Bubble: Designing in a Complex World*. Cambridge: MIT Press
17. van Hinte, E. (ed.) 1997. *Eternally Yours: visions on product endurance*. 010 Publishers.
18. Verbeek, P.. & Kockelkoren, P. 1998. The Things That Matter. *Design Issues*, 22, 20-31.