

Cueing Appropriation

A position paper for CHI 2005 *Designing Technology for Community Appropriation* workshop.

Brooke E. Foucault

Intel Corporation

5200 NE Elam Young Parkway, HF3-96

Hillsboro, OR 97124

brooke.e.foucault@intel.com

INTRODUCTION

Without doubt, engaging users in the design and appropriation of community technology is not only empirically interesting, but also important as technology plays an increasingly important role in communities large and small. Researchers and practitioners have taken great care to limit the technical barriers to appropriation, and have developed clever, playful solutions that enable even the most novice users to appropriate technology devices and systems.

However, tech-savviness is not the only barrier to appropriation. There are important cultural and social barriers to engagement, interaction, and appropriation, especially when considering community-based technologies. Many users are simply not culturally or socially comfortable with manipulating technology and repurposing it to suit their own needs. For these users, appropriation seems inappropriate, selfish, or even destructive. As technologies move into the public domain the perception of ownership, or lack thereof, can prevent otherwise willing users from manipulating a community device or system. While they may quite readily and adeptly appropriate personal technologies, community technologies are “off limits,” unless permission to re-design is explicitly given or implied.

We first encountered this socio-cultural resistance to appropriation during our ElderHaven project (described below) when we interviewed individuals about sociability in retirement communities. Although they were keenly interested in creating opportunities for social interaction, most of our ElderHaven project participants shied away from even using, much less appropriating, community technologies because they did not feel that they were allowed to do so. Even the simple act of changing the channel on the community television to a preferred program was avoided because of a perceived lack of permission. Interestingly, community management *wanted* residents to use the television and placed it in the common area in hopes of encouraging congregation and social interaction. In fact, management frequently changed the channel looking for a program that residents would watch together.



Cultural and social conventions may intimidate potential users of technology for community appropriation.



Subtle cues can imply permission to appropriate community technologies, without prescribing specific uses.

By contrast, a community bulletin board was among the few artifacts that residents did appropriate. Many residents posted personal photographs, news clippings, and comics for others to enjoy. They did not hesitate to reposition or remove items from the board, and it quickly transformed from a place for community announcements to an interpersonal communication tool for the residents. Most surveyed the board and its various postings daily looking both for community information, and also postings and notes from their friends. The difference between the television and the bulletin board was an implied permission to change and adapt the device. Although both were located in community spaces, and both were placed there by management to encourage community sociability, the bulletin board had cues that appropriation was allowed, while the television did not. Namely, the bulletin board was well stocked with spare push pins, blank paper, and even a pair of scissors to encourage community members to post and manipulate information, while the television did not even have a remote control available for changing channels. As it turns out, the simple cues on the bulletin board, such as spare push pins, gave an implicit permission that enabled the kind of appropriation that the community management had hoped for.

As designers and developers of technologies for community appropriation we should take care to accommodate social and cultural barriers to engagement with our systems by incorporating explicit or implied permission cues. The cues should not prescribe how a system should be adapted; instead they should merely suggest that it is okay to do so. Just as push pins can indicate that a bulletin board is for public use, digital cues for appropriation can encourage otherwise shy users to appropriate technologies as they see fit. Through clever and sensitive design, we can encourage users, who may otherwise be intimidated, to take advantage of opportunities to appropriate community technology. In doing so, we will broaden the range and diversity of potential users and increase the depth of the experiences that community technologies provide.

ELDERHAVEN

The ElderHaven project aims to aid and ease the transition into older adulthood with thoughtfully designed domestic technologies. Specifically, ElderHaven's focus is on simple, near-term solutions to improve the social and emotional lives of elders as they adjust to age-related changes and declines. Our main focus to date has been on using technology to increase opportunities for socialization, particularly among elders living in retirement communities.

In our most recent study, we spent several weeks in a Portland, Oregon area retirement community observing and interacting with the residents. As discussed above, although many residents expressed a desire to make more friends and find opportunities for social interaction, few engaged in behaviors to facilitate such opportunities. In particular, the large community space, intended for social gathering and

mingling, was rarely used. Based on our interviews, we believe that these elderly residents, and likely most older adults, are users that need cues to indicate that appropriation of community spaces and technologies is allowed and encouraged.

In the next phase of our project, we intend to explore a variety of cueing mechanisms, and work with residents to develop technologies for appropriation that encourage playful interaction and socialization. Our hope is to introduce several technologies into this retirement community, and one day to develop technologies for appropriation for a variety of elderly community spaces.

ABOUT THE AUTHOR

Brooke Foucault is a design researcher for Intel's User Centered Design (UCD) group where she uses a variety of qualitative and exploratory research techniques to identify new users and new usages for Intel silicon technology. She joined the UCD group in September of 2003, after earning her BS and MS degree in Communication Technology Research and Human Computer Interaction from Cornell University in Ithaca, NY.

Currently, Brooke is directing a research program investigating health and wellness users and usages that has included research in the US and Asia with pregnant women, elders, and amateur athletes. Her other research interests include affective computing, urban computing, participatory design techniques, and children's technology.



Brooke with flamingos at the Bronx Zoo.