Improving Communication in a Dorm with Interactive Public Displays

Michael H. Fischer

Stanford University

mfischer@cs.stanford.edu

Monica Lam

Stanford University

lam@cs.stanford.edu

Abstract

Interactive public displays that ran social applications were deployed in a dorm for two months. For dorm communication, we found significantly more interactions on the displays than on Facebook or email. The displays, being physically present and viewable to every resident, created a communication channel that was extensively used by the residents. This paper suggests that interactive displays in a dorm foster social content that complements the non-social content of Facebook and email dorm communications.

Author Keywords

information sharing, interactive public displays

ACM Classification Keywords

H.5.3. Group and Organization Interfaces

A New Tool For Dorm Communication Using Interactive Public Displays

Interactive public displays were installed on each of three floors in a dorm to provide a way for residents to share information with each other as has been done in public [1] and corporate [2] settings. The displays were seen by 108 non-freshman coed residents of the dorm. Each display had customizable applications: a quote wall, games, polls, or image displays. Staff used a web-based dashboard to choose applications that fit the day-to-day needs of the

floor and to moderate content. Each display had a unique phone number that residents could text to add content. There were 797 interactions: 323 images, 248 poll responses, 86 dorm quotes, 47 personal aspirations, 24 dorm facts, with the remainder spread between other applications. All of these interactions, especially the photos, quotes, and aspirations, were social and helped build the community. Residents liked the content because it was up-to-date and relevant to dorm social life. A criticism was that the displays could be made more interactive with a touch screen, mobile application, or camera capabilities.

Dorm Communication

During the same time period and with the same residents, we benchmarked how display usage compared to two established dorm communication tools: Facebook and email. A staff member created a Facebook group for the dorm and added all the residents so that it was well publicized. The group got 15 posts over two months: 6 dorm events, 4 shared links, 3 items people lost or were looking to borrow, and 1 dorm photo. The Facebook group was not frequently used. Moreover, only a single photo was posted to the group despite Facebook's photo sharing and commenting features. The 4 shared links and 1 photo were the only instances of people using the Facebook group socially.

Two email lists were set up: one that could be posted to by residents and one that could be posted to by staff. On the residents' list, there were 221 emails: 95 internal announcements (extra food, people looking to go to events together), 76 events happening outside the dorm, 41 items people lost or were looking to borrow, and 9 about homework. For the staff list, 62

emails were sent: 21 official dorm events, 18 dorm logistics, 13 academic newsletters, and 10 house meetings.

For dorm communication, Facebook could not be used for official notices because some residents did not have it. Every resident did have email and it was used as a tool to publish events and logistics but was not used as a tool for social activity. The interactive public displays, however, reached every resident of the dorm and therefore could be used for official communications and social applications. In addition, the interactive displays had more interactions than email and they were also more social in content. The displays were isolated from Facebook and email which prevented residents from forwarding content that was unrelated to the dorm to the displays. This kept posting relevant to the dorm.

Conclusion

We found that interactive public displays deployed in a dorm had more interactions and more social interactions than on Facebook or email. We see this research as being useful in other environments where people are close physically like apartments, hospitals, schools, and cafes, but not (yet) socially.

[1]   N. Memarovic, M. Langheinrich, and F. Alt. Connecting People through Content - Promoting Community Identity Cognition through People and Places. (Prato, Italy), In *Proceedings of Community Informatics*, 2011.

[2]   D. Snowdon and A. Grasso. Diffusing Information in Organizational Settings: Learning from Experience. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems: Changing our world, changing ourselves* (Minneapolis, MI, USA), CHI'02, pages 331–338, New York, NY, USA, 2002. ACM