Motivation
Doors are more than entrances to rooms, they are entrances to a person’s time and attention. People can mediate access to themselves by choosing whether to leave their door open or closed when they are in their office. Doors also serve as a medium for communication, where people can exchange messages with passersby. These qualities make the door an excellent location for designing solutions that help people better manage their time and attention. In this work, we present a study of doors, derive design insights from the study, and realize these insights in implementations deployed in our workplace.

Door Observations
During our design study we found many interesting artifacts. These are a few of the many we observed.

From Observation To Design
In the second phase of our effort, we mined our observations for design insights. We found that our design effort might be applied in the following areas:
• Exploring the effect to interrupt
• Exploring the temporal communication between inhabitants and visitors (e.g., daily schedule)
• Augmenting aesthetic expression on doors
• Selectively publishing information (e.g., a professor’s schedule is shown only to her students)
• Tracking exchanges between inhabitants and visitors
• Developing new affordances for interruption
• Acting in the flow of information between inhabitants and visitors

Future Work and Implications
Though our initial deployment of the Door Projector and Remote Door Awareness systems shows promise, it is clear that more work is needed. The following presents several areas that need to be addressed.

Implementation
The Door Projector does not currently support interaction with the surface of the door. Instead, users must run software from personal machines in order to interact with the door. We would like to explore the use of computer vision techniques to recognize when a user touches the door. We believe that free-form interaction will improve the usability and utility of the door system.

Field Studies
The Remote Door Awareness visualizations need to be tested on larger groups. The current work has only investigated use with a handful of individuals. With additional numbers we can study how our system might affect social networking and group cohesion.

Outstanding Issues
Privacy issues are also an area of major interest. While the awareness systems provide knowledge to a wider audience, it is important to examine whether this affects the inhabitants (i.e., does it increase interruptions to the point where it is no longer useful).

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