

Tabletops Beyond the WOW Factor

Understanding User Engagement and Experiences

OVERVIEW

One of the challenges in tabletop interaction design is sustaining users' attention beyond the initial excitement with the technology. In our research, we identify a range of common tabletop interaction types and explore their engagement levels in different contexts with the objectives of designing engaging user experiences for tabletop applications.

APPROACH

We used participatory design and paper prototyping techniques to prototype a total of 12 interaction types. We conducted a preliminary study in which participants were asked to interact with colored objects on the tabletop through these different interaction types.

PHYSICAL ORIENTATION

When standing, occlusion of objects on the table made it harder for participants to be engaged with the table, though they were more likely to engage with others in conversation.

PERSONAL SPACE

Depending on the physical orientation of each participant, they tend to focus on areas that were directly accessible to them, rather than using the whole tabletop surface.

ENGAGEMENT TRIGGERS

Participants' interacting with each other and the application itself created deeper engagement, such as the discovery of new usage for each interaction type, post-hoc instruction and the emergence of creative ideas during the use of each interaction type.



Paper Prototyping



Free Play Activity

FINDINGS

There are some initial insights from our preliminary study. They can be divided into three categories: personal space, physical orientation, and engagement triggers.

FUTURE WORK

Our formal study involves studying people in both task-oriented and creative situations. We will collect physiological, behavioral, and self-report data with the purpose of understanding user engagement when interacting with tabletop applications.

