

THE PROBLEM

Small-group long-term projects dominate the operation of many workplaces. Some examples are: small teams of programmers develop software over a period several months or years; a PhD student and their supervisors work as a team; research and student projects involve a small team working over a long period. Meetings are critical for the success of long term team projects.

People typically meet around tables. They may use paper or computers to discuss their project progress and to plan, as in Figure 1. Well-Met[†] provides a new level of scaffolding to improve the effectiveness of such meetings. It creates a new form of interaction at a digital tabletop and wall display, evolving from traditional meeting interaction. These create a natural interface for collaboration, discussion and decision making in meetings. Well-Met supports the meeting by generating the agenda, capturing key decisions and discussions and making all these available as part of each team members personal digital ecosystem.

Surface computing, or natural user interaction (NUI), transforms walls and tables into interactive devices. To date, the dominant uses of tablespots and interactive walls has been as a kiosk in public places (Figure 2). In recent years there has been a trend of interactive tablespots used in the education sector, to promote learning, collaboration and team building.

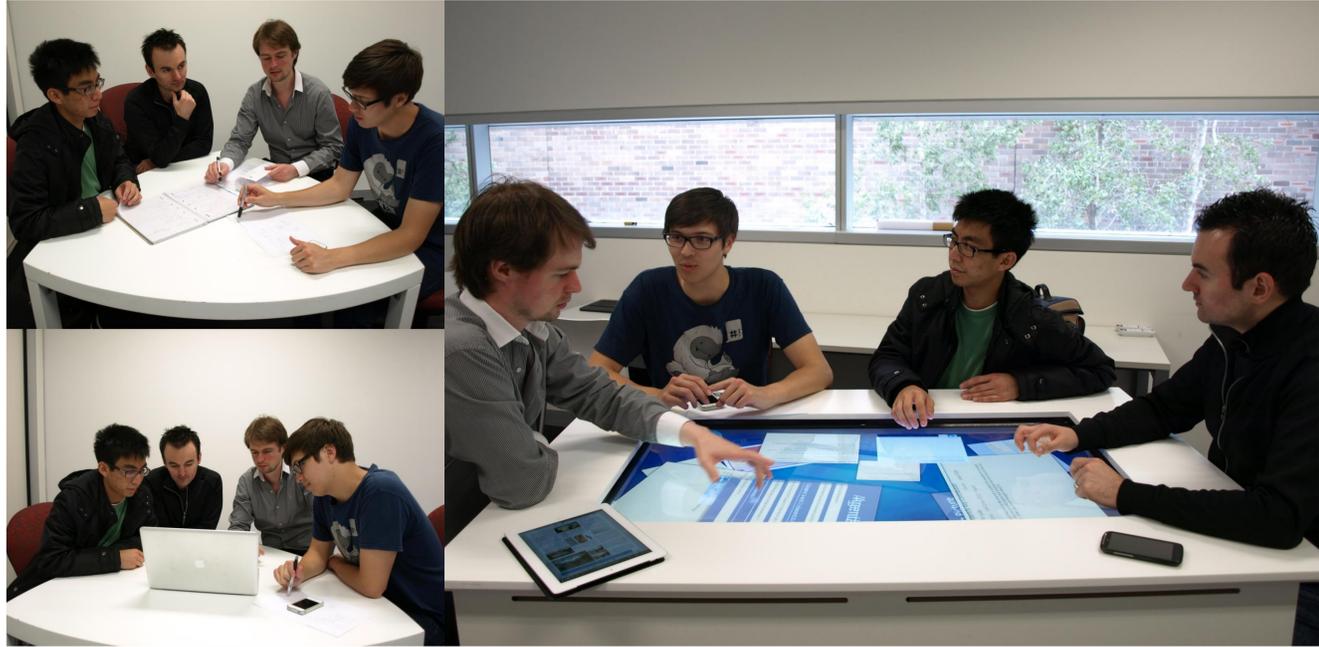


Figure 1: Left – Typical small group meeting with current technologies. Right – Meeting at a tabletop.

APPROACH

Well-Met is a tabletop application that provides a simple and powerful interface for small group meetings. The technology supports interfacing with long term digital memory to integrate with existing workflows and aid with information access outside of the meetings.

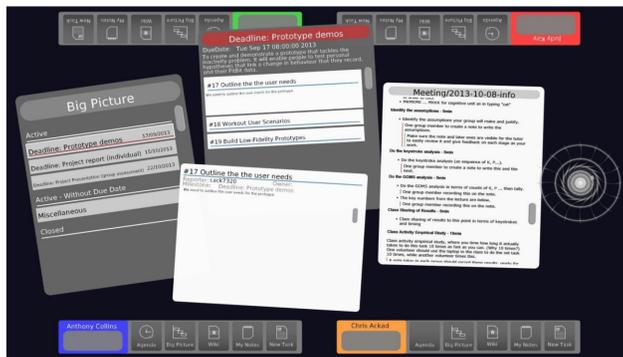


Figure 3: Well-Met Big Picture, Milestone, Tasks and Document access

It provides users with tools such as the Big Picture (Figure 3). The Big Picture shows the major milestones for the project and the current progress towards them. Deadlines for milestones are highlighted, which allows users to keep track of their work and allows for access to, and the creation of actionable tasks.

Well-Met automatically generates an on-screen agenda from a pre-planned meeting page that is stored in the long term memory (Figure 4). The agenda items have a time associated with them, and a simple visualisation on the agenda object keeps people informed on the meeting progress. During a meeting, Well-Met records the discussions and decisions made. It creates the meeting minutes and populates the next planned meeting agenda page.

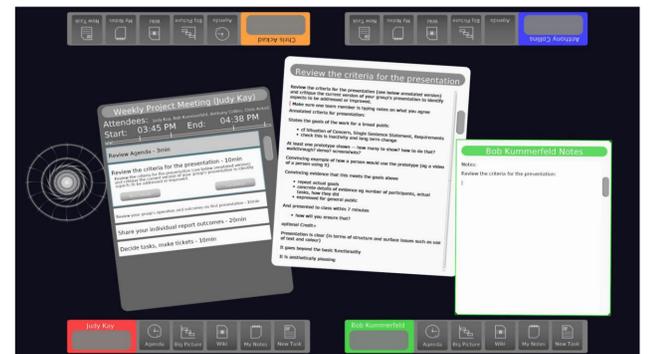


Figure 4: Well-Met Agenda and Notes

Well-Met incorporates direct access to long term memory (such as direct wiki access) to retrieve documents and access information from previous meetings. Well-Met support personalised notes which are created during these meetings and are linked directly to the minutes that are generated.

In conjunction with tools like Collaid, a Kinect based user tracking tool, Well-Met implicitly identifies user actions on the tabletop, providing a seamless and unobtrusive user experience. Tools like Narcissus allows people to view their activity post-meeting, providing them a level of reflection on their contribution to the project.

CONTRIBUTIONS

1. Well-Met is the first system that support meetings for long term small group projects, through a tabletop supporting individual meetings, project and task management.
2. It integrates the tabletop with the users personal digital ecosystem to make information from meeting available when and where it is needed.

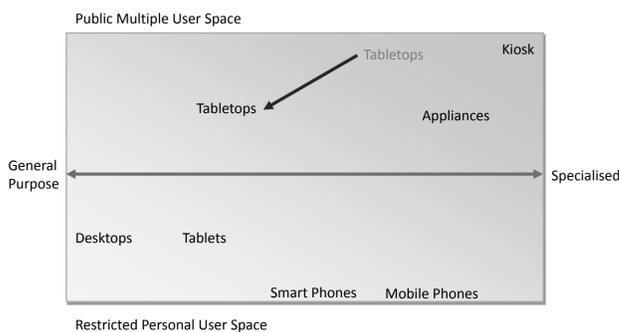


Figure 2: The placement of computing devices in the current digital ecosystem

Well-Met moves towards a new level of NUI interaction in the following ways:

- Moves tablespots from a specialised kiosks to richer, more general purpose interaction (The dark arrow, Figure 2).
- Integrates with people's long term digital ecosystem so that meeting decisions and materials are available as needed, between meetings.
- Providing informative visualisation to allow people to track their times in a meeting.