WELL-MET: FOR SMALL GROUPS WORKING ON LONG TERM PROJECTS

Christopher James Ackad
Supervisor: Prof Judy Kay
School of Information Technologies
FACULTY OF ENGINEERING & INFORMATION TECHNOLOGIES

THE PROBLEM

Small-group long-term projects dominate the operation of many workplaces. Some examples are: software is typically created by small teams of programmers over several months or years; a PhD student and their supervisors work as a team for several years; research projects involve a small team working over several years. 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 workplace tabletop and wall displays. These create a natural interface for collaboration, discussion and decision making in meetings. Well-Met supports the meeting by automatically creating 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 tabletops and interactive walls has been as a kiosk in public places (Figure 2).

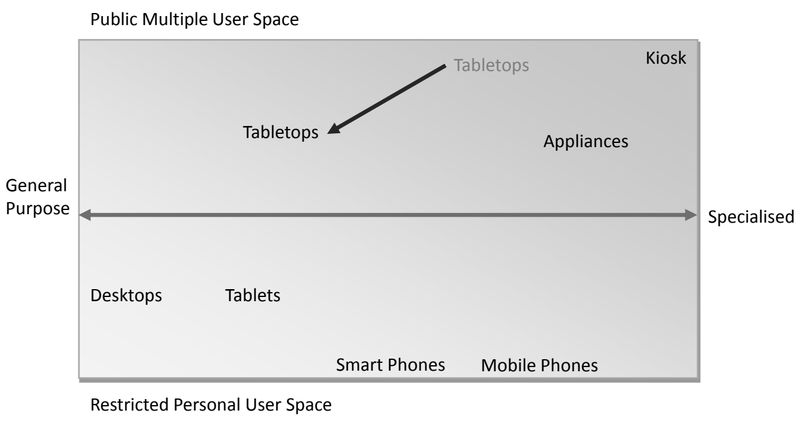

Figure 2: The placement of computing devices in the current digital ecosystem

Well-Met moves towards a new level of NUI interaction:

1. Moves tabletops from a specialised kiosks to richer, more general purpose interaction (The dark arrow, Figure 2).
2. Integrates embedded surface computing devices with a person's other carried devices.
3. Integrates with people's long term digital ecosystem so that meeting decisions and materials are available as needed, between meetings.

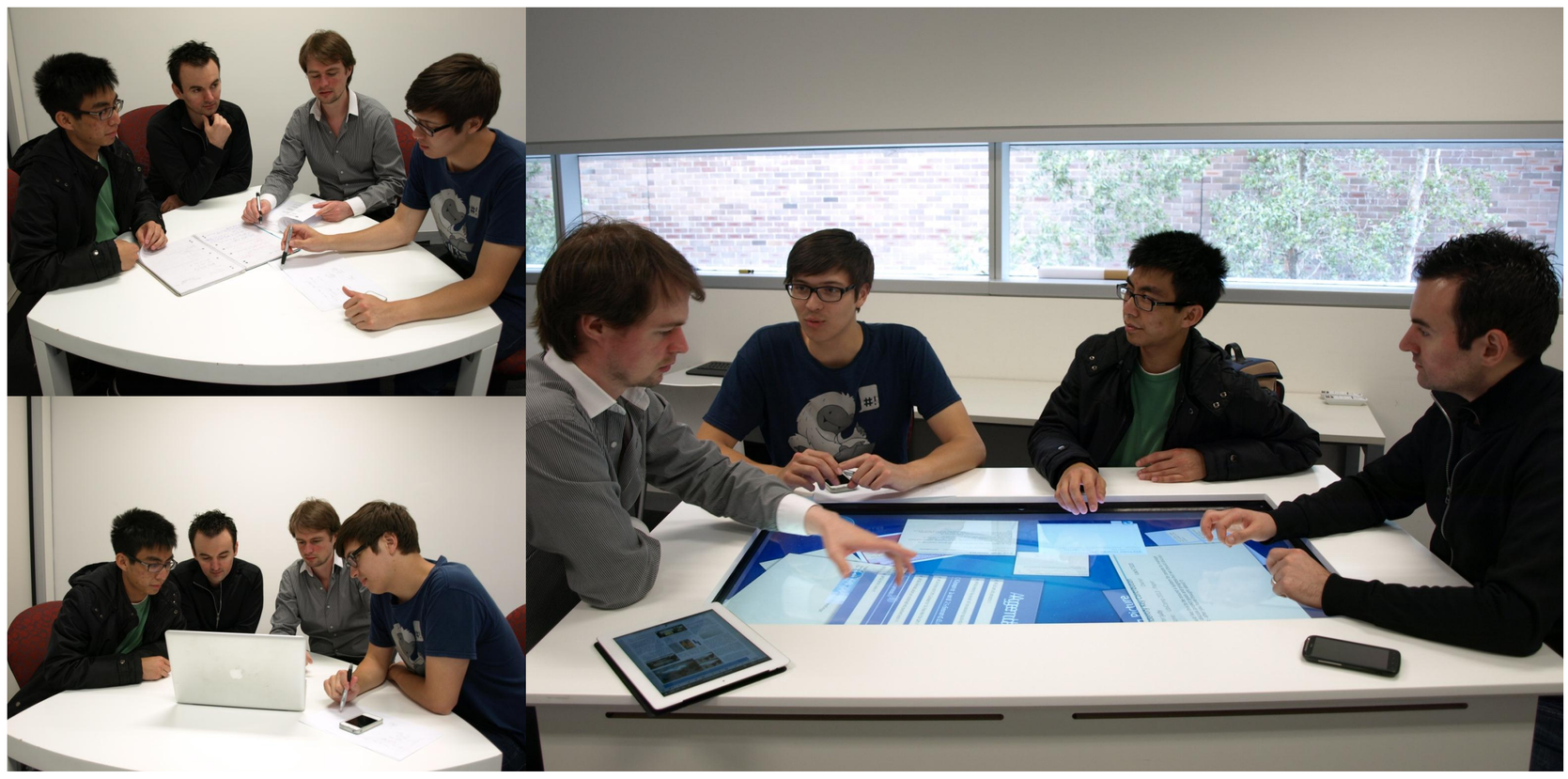

Figure 1: Left – Typical small group meeting with current technologies. Right – Meeting at a tabletop.

APPROACH

Well-Met is a tabletop application (Figure 3) that integrates this interface with a long term digital memory to support small group meetings. By providing a group memory of big picture goals as well the specific action items for a scheduled meeting we aim to improve the effectiveness of these meetings.

Well-Met automatically creates an agenda from a list of selected action items. Each action item has its own history and meta-data, showing the number it times it has been viewed, deferred or altered. These action items are often associated with goals. The Big Picture view shows the major Goals and Milestones for the project, showing the current progress towards them, allowing people to keep track of their progress.

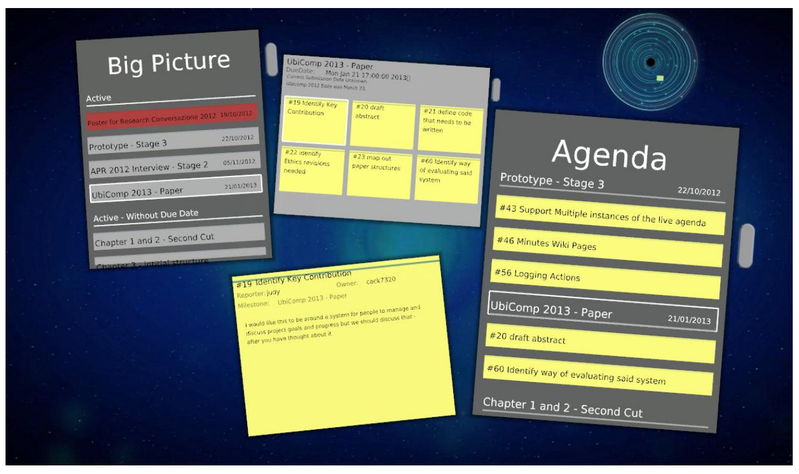

Figure 3: Current Well-Met tabletop application

During a meeting, Well-Met records the discussions and decisions made. It generates the meeting minutes afterwards, updating the changes to each action item history.

Figure 4: Mobile Identification

Well-Met integrates personal mobile devices with embedded technologies such as the tabletop. Figure 4 illustrates how we use mobile phones to store a person's identity, so that the phone is placed on a tabletop, it links the stored identity to the person who is then tracked around the tabletop.

CONTRIBUTIONS

1. Well-Met is the first system that support meetings for long term small group projects, through a tabletop supporting goal and task tracking.
2. It provides seamless user identification at the tabletop, via a mobile phone.
3. It integrates the tabletop with the users personal digital ecosystem to make information from meeting available when and where it is needed.

†"well-met," refers to suitability for the situation as in: the fighter is well met for any foe; Both of them are well met for a happy marriage.

REFERENCES

C. Ackad, A. Clayphan, R. Martinez, and J. Kay. Seamless and continuous user identification for interactive tabletops using personal device handshaking and body tracking. In CHI '12: Proceedings of the 2012 ACM annual conference extended abstracts on Human Factors in Computing Systems (Extended Abstracts), pages 1775-1780, New York, NY, USA, 2012. ACM.

chai computer human adapted interaction research group
CONTACT: christopher.ackad@sydney.edu.au
WEB: http://chai.it.usyd.edu.au/

THIS RESEARCH IS SPONSORED BY
SMART SERVICES CRC