## Scenarios Paper

The alarm set itself last night; it knew when his first class is and how late he was up last night, and also knows how long (on average) it takes for him to wake. When it goes off, the student rolls out of bed. Sensors that detect his movement set the entire apartment in motion.

His personal wearable (with the computing power of a laptop) was set aside on the night-table the night before; Now that he is awake, it's going through his usual morning routine, checking his email and pulling the content of the web-pages that he frequents every morning. Since he isn't wearing the display, it displays on the monitor on his desk. Its discrete light blinks to tell him that he's got an important message waiting to be seen in his queue.

A digital display on the wall above his bed also shows him a colorful, graphical version of his daily schedule. It also notes important things for today and the next few days (his problem set is due tomorrow afternoon, and his best friend's birthday is two days from now). He sees that another friend had requested a dinner date with him that night; since he'd trained his scheduler to put her as high priority, it has already agreed to the date on his behalf and suggested a restaurant that they have both rated highly. He thinks cooking might be a more entertaining option, and sets an active search agent loose to find good recipes for beginners. He then goes to shower, the bathroom being the only truly private place in the house - he has not augmented the room with displays or sensors, and signals are jammed within.

There's a status report in the kitchen, keeping inventories of what is low (he's out of coffee, makes a note on his wearable to remind him to buy more if he happens to walk within a block of one of the shops). As he eats breakfast, he scans the list of recipes that his agent has gathered. After he selects one, the agent compares the ingredients to the rough inventory of what he has around his kitchen, and then appends a list of needed ingredients to his coffee-reminder. His assisting agent also suggests a free time during his day when he might acquire these ingredients; if he wanted to, he could tell it to send an order to the store, and then go pick the assembled groceries up later that day.

Back in his room, when he approaches his closet, a weather report shows up on his digital display. He also gets a warning that the bus is only a few stops away. He quickly dresses and takes off.

At school, as he sits in class, he takes notes on a tablet attached to his wearable. The professor has written a comprehensive set of notes beforehand and projected them on a virtual whiteboard, phasing them in bit by bit as she speaks. If she hits upon an interesting topic that he wants to research later, he feeds it to his active search agent; it will queue up a batch of the most relevant hits. When he has questions, he can note them for later, or raise a question up on the board, particularly if something has been written wrong or is unclear. A light at the lectern will inform the professor and give her the

opportunity to stop at the next pause in her lecture to answer their questions, rather than interrupt her train of thought.

Later, during a meeting with his advisor, he is able to call up the notes he took during their previous meetings and address those topics before they move on. When his advisor mentions similar work being done by some of his peers, his agent notes their names and goes to the website documenting their work; if he wishes, his agent will send a form email to them introducing himself and asking if they'd like to get together and talk shop sometime. It also cues into their wearables; they have apparently expressed an interest in meeting researchers with their shared interests. Now, if they coincidentally end up in the same lab together on-campus, there will be a subtle message on their displays informing them that the other is near.

After he has left his advisor's office, he realizes he still has a question he forgot to ask. He asks his assistant agent to query hers at the next best possible time (as she is in a meeting at the current time); this works more quickly and informally than an email.

His cell starts to vibrate as he walks through the halls. This is not to indicate a call, but rather, that one of his friends is in close proximity. Their cells are all on an experimental campus-network that allows students to categorize their friends and then inform them when they are in close proximity (i.e. the same building). He can gauge by the light of the display that it is one of his best friends, and if he flips the clamshell open, he will be able to see their name(s). A shift to another color warns him that someone he is avoiding – namely, one of his partners on a project – is also in the building. He decides to make a quick exit and head to the grocery store, where his purchases are already assembled and waiting.

Later that night, as he is cooking in preparation for his date, he's cued the entertainment system in with a more romantic setting. His television display (when not displaying an actual television feed) usually displays a frenetic art-piece that responds to his emails and musical choice. He changes it to something more soothing – the growth of a tree and a virtual garden – that will respond to the sounds in the apartment. Recognizing the change in context, his assistant agent lowers the volume of his entertainment system and changes the playlist to something more appropriate than loud rock.

When his friend shows up, his cell knows she's in range long before she's at the door. Once they get to eating and talking, he makes a comment on the subtly-lighted-jewelry she's wearing. It's yet another attempt at social networking technology: a system of bluetooth (feeding into a wearable) and hybrid RFID tags that broadcast a person's interests and have been programmed with their network of friends. People with similar interests or mutual friends will be informed of one and other in close proximity. She recounts the strange encounters she's had in the last week as a result.

When she finally leaves, he throws all of the dishes in the sink and switches back over to his usual entertainment-preferences. He quickly skims through all of the websites and data his agent has queued up on his desktop, and then gets to working on his problem sets.

## Amy Eastment

Though it will automatically set itself once it senses he has gone to bed (lights off, or minimal motion-sensing), he programs the alarm to set itself 10 minutes earlier than it normally would so he can do the dishes in the morning. Eventually, like any college student, he falls asleep at his desk. While he sleeps, his wearable backs itself up onto his desktop.

And thus ends this quite farfetched scenario of almost-debilitating (not to mention quite-distracting) ambient intelligence.

(One thing I didn't touch on here, but that I would be interested in looking at - what kinds of information and personal "touches" would a person leave behind if they died? Having many agents around that have become so familiar with a person's personal habits...a computer wouldn't know that they were gone, and would just keep performing the routines of daily life. How would one "kill" all of these activities at once? Or should they - would this help or hurt the grieving process of their families?)