from video capture at site visit

24:41 rem
MEM
01:13.93
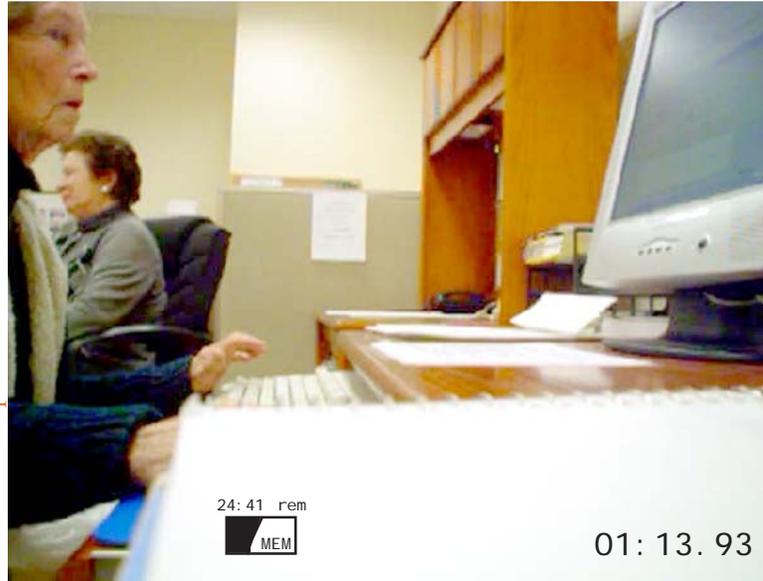
COMPUMOOR SOLUTIONS PROJECT

SCHOOL OF INFORMATION
MANAGEMENT & SYSTEMS
UNIVERSITY OF CALIFORNIA, BERKELEY

observation exercise

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For my first observation exercise, I drove to the Rossmoor retirement community (in Walnut Creek, California, just 20 minutes east of Berkeley) and observed residents at the Rossmoor Community Center. The Center is a small, business-sized room off the main hallway of the Rossmoor Clubhouse. The Clubhouse is made up of many rooms with unique activities (for example, a room for administrative tasks, a room for playing card, the reading room, etc). There are windows along the Computer Center wall, allowing those passing the room in the hallway to see inside. (See Image 1 for more details).

Upon my arrival, I first introduced myself and explained the exercise. There were two volunteers in the room: one working on the "administrative only" computer (or so it seemed based on the configuration of the room) and the other volunteer making photocopies for Rossmoor residents. Both assistants were 65+ women but similar in age, and seemed to have certain roles (one taking care of their computer and one photocopying.) After my introduction, I sat down in the corner, and looked over the guidelines of the Center. I thought a few guidelines were important to note: "no commercial use of the computers—no buying, ordering, etc" and their required 15 minute maximum use of the computers notice (only enforced it seemed if someone was waiting). During my first few minutes there, I walked around the room and noted all the outlets, tables, chairs, printers, and positions of the computer desks and the "non-computer" desks. (Again, see Image 1 for details.)

There were some interesting qualities with the room configuration. First, all desks faced a wall, with the exception of the "L" shaped secretary desk that I call the "administrative only" computer station, used exclusively by one of the center volunteers. The workstations arrangement in the room is likely due to the small size of the room, but what was also noteworthy of the arrangement was that both volunteers could see every computer screen from their respective spaces.

Image 1

Key

swivel chair

sliding chair

workstation w/ computer

power/ethernet connection

printer

Hallway

photocopy machine

Residents only computers

My location
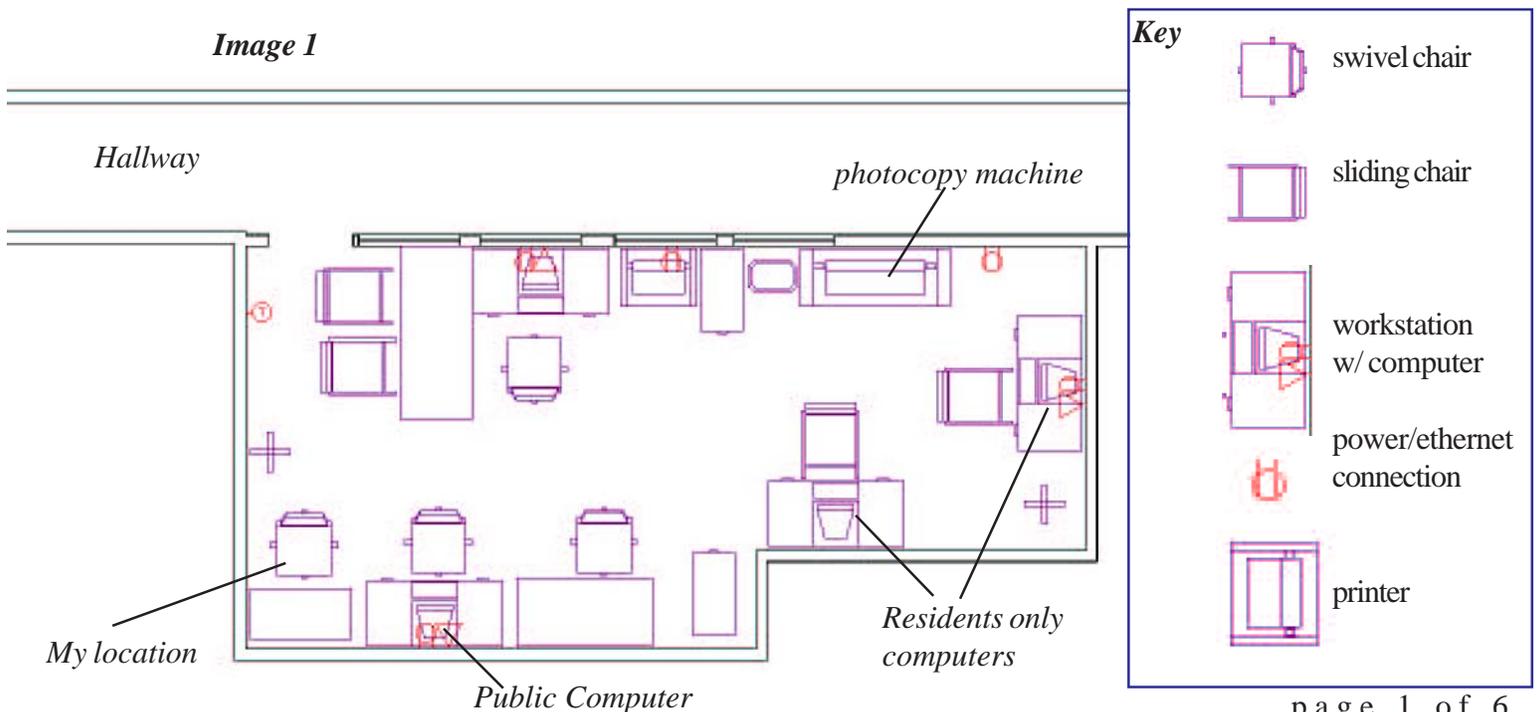
Public Computer

There were two workstations that were for Rossmoor residents only, those being the two on the far wall from the door. The other workstation was labeled for use by the public, meaning guests of Rossmoor residents. All computers seemed to have the same configurations: towers were upright on the floor below the desk, 17" LCD monitors (at poor ergonomically placed heights), and keyboard drawers, with the exception of the "administrative only" workstation which had a 19" LCD.

Observation A:

While sitting in the Northeast corner with a non-computer desk, I sat towards the rest of room with only my notepad and pencil in hand for three hours. (See Image 2 for my perspective of the room). I also set up a small video camera which could not be seen by those in the room (which surprisingly, was approved by the volunteers…they didn't seem very protective of privacy in general). The camera was positioned towards the public computer workstation. The first thing I noticed was that there was a lot of traffic in and out of the room. It was not, however, computer users who were the majority coming in and out of the computer center. I learned that the copy machine in the southwest side of the room was the only photocopy machine that residents could use in Rossmoor. Many residents came into the computer center only to have copies produced. The general procedure for photocopying was that a resident would come in and say "I'd like to make a copy.." or "I heard you can make copies here…" in which case, one of the volunteers (who did all the photocopying while I was there) photocopied the residents' materials, and did the monetary exchange with the resident ($.05 per copy). Almost all the items requested to be photocopied were either a newspaper article, or a document related to Rossmoor (such as a map or directions). Almost everyone who brought in a newspaper article felt compelled to explain why they were requesting the photocopy. These remarks from

Image 2

residents seemed to fit into one of three groups: 1) the article was about a relative of theirs, 2) obituaries of close friend or relative 3) or regarding national politics. Most residents wanted 1-4 copies, but almost all the materials they wanted was just one page. Over the three hours, about 45 individuals or couples came in to request a photocopy. The residents would either stay standing behind the L shaped desk, some would sit down on the sliding chairs in front of the L shaped desk and some would go over to the photocopy machine with the volunteer (even though the volunteer always insisted she make the copy). I also noticed that not one of the 30 individuals or couples that came in to make photocopies also decided to use a computer. Some computer users would visibly show their annoyance of these unexpected interruptions of the residents requesting photocopies, mostly by turning around in their swivel chair to look at the photocopying residents, or watch the volunteer photocopy the materials.

Interpretation A:

I was not expecting there to be a photocopy machine in the computer center. The room seemed to be arranged for frequent use of the photocopy machine. Even in the small room, there was significant space available for the volunteer to move between the L shaped desk and the photocopy machine. The use of space in the room seemed important. The volunteer who was doing the photocopying covered much more space and seemed to protect her space more than the other volunteer who was behind the computer, transcribing handwritten notes into emails (which is a service they provide residents who want to use email but cannot type). The photocopying volunteer seemed to have a kind of "achieved status" as the head volunteer, and at one point the other volunteer behind the computer made a joke, "You need a photocopy? I'll just give it to my assistant," which both volunteers thought was funny since it was clearly the other way around. I also found it interesting that no person that requested a photocopy also decided to use a computer. If I was an elderly person who walked over to the computer center to have a photocopy made, I think I would spend a little time to also check my email!

The apparent need of the resident who requested a photocopy to strike up a conversation was interesting to me. It almost seemed like a few people were only making a photocopy so they could justify boasting to the volunteers what their kids or grandkids were in the paper for. But the way the photocopying process was set up (resident hands off material to volunteer, volunteer walks over to the photocopy machine) may have invoked the comments from the residents, as many seemed that they felt they were troubling the volunteers to make a photocopy.

Observation B:

My intention for observing at the Computer Center was to see how elderly people used the Center computers. I did not, however, expect to get such great views of all their screens, but since all the workstations were facing the walls, and because all the screens had their resolution set for extremely large icons and font sizes, I could see all the workstations screens fairly well. At first, I thought they would mind that I was looking up and watching their screens. But despite blatant staring at the screen, no one seemed to even notice me observing them (or care that I was observing). Most computer users did notice me when they walked in, but it seemed that that was the only time I was noticed. Even though the configuration was likely necessity due to the lack of space and desire to provide as many workstations as possible, having all the monitors screens viewable by the volunteers seemed to be an effective setup. It seemed to promoted smooth communication with the computer users and

A user on the public computer from the video recording.

other computer users, and with computer users and the volunteers when help was needed. It also seemed that the volunteers knew that they cannot assume that all the residents will now how to use the computers, or how to learn how to use the computers. They were able to identify the frustrated users before the users asked for assistance because of the visible screens. Another aspect of this configuration was that it allowed for almost no privacy, but users or volunteers did not seem to care.

The most frequently used computer by residents was the public use computer which was the closest workstation to the entry door, and right next to my workstation. However, no men sat at that workstation. Men always preferred the noticeably largest workstation on the far wall from the entry door. (However, it should be noted that the female/male ratio in Rossmoor is 7:1, and I did observe far less men using the computer center then women. Despite this small sample size, I think I noticed another pattern in terms of their use of space. It seemed to me that the few men that came in to use computers or request a photocopy were more likely to intrude on the volunteers' or other residents' space in the room, and that women almost never intruded on the mens' space. Again, I'm not sure if this is because there are significantly less men then women or not, but it seemed there was a gender-specific use of space. Very few individuals had proper typing skills; most performed what I call "chicken typing," using one finger per hand and slowly typing keys while looking down at the keyboard. Most users also never seemed to looked up at the screen until they were done with their keyboard input. Often times this would lead to errors and they would either: 1) go back and type it over again using the same procedure 2) some would then look up at the screen every few keys or so 3) some would give up, thinking they did something wrong when they get the IE error page. Out of the 26 users I observed, 21 of those used a web-browsing program exclusively. Of those 21, 6 individuals used the web for email only, 2 visited a type of news-related web page, 3 went to some kind of commercial web page, 5 individuals did both email and another website or another computer program, and 5 I could not tell.

I also noted that several ladies preferred to search the internet using the Microsoft Windows Search function, presumably because of the "cute dog" that they loved to watch. (The Windows XP Search interface assistant). (Although one woman thought the Office paperclip was a virus, and did not like it tapping on the screen towards her. She decided to change computers to a computer that had a different office assistant as its default.) After resisting any interaction and only observing for 1 ½ hours, I decided to spend the rest of the time helping some computer users. Some had really interesting information desires. One woman wanted to know if her late husband had really been born on Friday the

13th. So she was trying to use the Windows calendar (built into the system taskbar clock) to find what day of the week February 13th, 1922 occurred (if I remember correctly). Since she soon found that that Windows Calendar did not go back that far, she asked me for assistance. I had asked her if she had ever used Google. She, like most of the other individuals I helped, had not. The volunteers seemed to be the only ones who knew about this wonderful web resource, but even they decided to watch as I used advanced Google search features to find a 1922 calendar on the first search attempt. (By the way, it turns out he really was not born on Friday the 13th and she said he must have been joking when he told her that he was.

Most of the users who came in to use a computer seemed to do one particular process extremely well, such as sign on to their Yahoo Mail account, for example. They seemed to anticipate what page was coming next and even knew how to refresh a page when there was latency in a Yahoo Mail page (sometimes when you use the "compose new email" functionality in Yahoo Mail, the page takes a long time to load). However, as soon as they tried to do their second activity, such as find something someone had referred to in an email, or look up a friend to find their email address, they were extremely inefficient. Sometimes they would close Internet Explorer and then reopen it for no apparent reason, and some would just try to find a solution on the page that they knew how to use (Yahoo Mail, for example). I also did a few tests with some computer users, suggesting they try both a "busy" and "clean" websites (my favorites were Yahoo's and Google's search pages.) On pages like Yahoo, many seemed like they had to process all the information on the page because they could make a decision on what to do next.

Lastly, if anything was greatly apparent in my observations, it was that the computer users of the Rossmoor Computer Center were extremely social people, and participated in conversations while engaged in their computer activities. Some would read personal emails to the volunteers…others would want to show what they found on the Internet to others. Many would talk for a few minutes with the volunteers or other users, then spend a solid few minutes on the computer, and then back to talking with others again. Surprisingly, many users had REALLY good ideas for improvements in user interfaces. One mentioned to the volunteer that she didn't know why the computer didn't "beep" at her when she accidentally hit the Caps Lock key, and another user thought the URL input should be larger when you're typing in a URL, but then shrink back to its normal size when an individual was done typing.

Interpretations B:

I think privacy was never a sensitive issue in the Rossmoor Computer Center because users were no doing activities such as online shopping or bank transactions. But it could also be that they actually want others to see what they are doing on the computer. They would often tell the volunteers how many emails they received, or communicate if they found something they thought was particularly interesting. I think it's related to the social observations I made as well. Elderly people tend to use the computer as a social tool for the people in their local environment, as well as a social tool with distant friends and relatives. Also, those that want a private workstation likely have computers in their respective homes, and therefore are not frequent visitors of the Computer Center.

I always wondered why Microsoft kept those annoying office assistants in the newer versions of Office: now I guess I know why. Older people love them! I think if you incorporated a puppy-like interface assistant into other products such as the web browser, some may be more inclined to spend more time learning and get less frustrated when unexpected errors occur.

It makes sense to me that some elderly people can do one task really well, but struggle with their second activities or ones they don't do every time they use a computer. However, I think this is due to their lack of knowledge about many other websites. They seem want to only type once, and try to navigate to their next activity by using only links on the page that they are comfortable with. This is certainly a very limiting process given that proprietary sites like Yahoo Mail or Hotmail are unlikely to link to other competing portals, and design their web pages with the intention of limiting the user from navigating away from their site.