Situational Narrative: Workstation Login

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1.1 Goal: Successfully log into the company network from his personal workstation.

1.2 Task one: Upon turning the power switch to the display on, the network ID and password must be entered for access

1.3 Task two: Because it is Monday upon successful log in, the network will request a new password.

Process steps:

turn power on
read screen **1**
remember login
enter login **2**
remember password from last week
enter password **2**
receive confirmation of successful log in **3**
recieve and notice new dialog box **4**
read the request
think of new password
type in new password **5**
type in new password again **5**
strike enter key or press OK button
receive confirmation of successful change in password **6**
develop strategy for remembering this weeks password

user

Frank reports to the office each and every day, Monday through Friday. When he logs into the office network he has a login name that has been assigned to him from the IT department.

His password must be changed every week. It must contain 8 digits, two of the digits must be numbers. Frank is not allowed to use any of his relatives or pets names, or anything related to his job or his hobby.

interface

When Frank turns on the power to his monitor, there is a standard interface dialog box that show a space for his network ID, and a space to accommodate his password.

Once he has logged in on Mondays Frank is asked to change his password by entering it twice. The password in both boxes must match as entered. He can not cut-and-paste the password.

technology

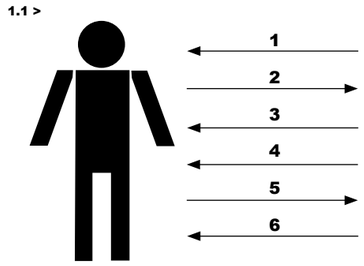
Frank is lucky enough to work on a Macintosh. Most of the software that he requires to perform his job works best on the operating system.

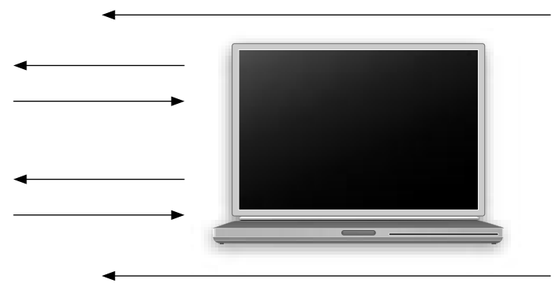
The network in his office is a windows system. This causes Frank some hassle during back-up operations and when printing to network printers, but for the most part it is of little impact to him day-to-day.

environment

The office is a fairly quiet one, as large open systems go. He has little in the way of personal effects. Frank is not allowed to post his password on sticky notes placed in his office.

Standard office fluorescent lighting spans the ceiling above. White noise is piped in to reduce the distraction of co-workers conversations. When Frank comes in on Monday mornings it is customary for he and the co-workers that share his floor, to exchange news and events from over the weekend.





Sensory-Perception

For both dialog box processes the user must notice that what is on the screen is a prompt for their input. Since the user has seen the dialog box before it is likely that they will perceive the input needed prior to even reading the words. That the interface is consistent helps. Frank has an older monitor that gives out a loud buzz as the power surges when turned on… this helps to maintain his attention with all that is going around him in the morning's start. He is able to filter out most of the office commotion.

On the occasional Monday, his attentiveness will drift and he will walk away from the computer without having responded to the prompt for a new password. This annoys the IT department when they see this occur.

Learning

Over the last few years this has become an automatic pattern, or habit. Only once in that time has the procedure changed, at which time he had to adjust his recognition of the interface. It was only a couple of days before he no longer noticed the new prompts.

Every Monday though, he is reminded to change his password. Some days he wonders off without doing so and feels as though he has to relearn the process. Frank has a schema for developing passwords. He uses a strategy that involves the month, the next Friday's date, and something from his plans for next weekend.

He has learned the system so well that he rarely even looks for the systems feedback, or confirmation of a successful login.

Memory

Frank's network ID, though not as logical as it could be is easy to recall after some 150 weeks of repetition. He uses a combination of declarative and procedural memory to recall his password. His cues rarely let him down.

For his new password, once determined, he will typically repeat it to himself two or three times to relearn and store it, making recall a relatively simple task.

Problem solving

Early in his tenure Frank had some difficulty with remembering his password. Knowing that he was not allowed to post it, he developed a strategy for remembering it through the week.

Actually, the strategy was more specifically targeted towards generating a new password. Rather than find some random combination, he developed an algorithm for his passwords. That way he was not reliant upon sticky notes and did not need the (?) on the interface to help him remember it.

Accessing

Most days, Frank does not even take time to read the prompt. He has seen it so many times he merely recognizes it visually and types n the information automatically. On occasion he scans it, but this is such a simple and repetitive process, he rarely needs the cognitive process, he merely reacts.

When rank is in a hurry, he often logs on to the network while standing up. This allows him to go get some coffee or talk with the worker next door while he is in the process. Unfortunately, Frank's monitor and keyboard are at the wrong height for this. He often finds that he makes more mistakes. Franks is not sure if it is the anthropometrics, or that he is in a hurry, that increases the frequency of his errors.

On Mondays, he is more likely to actually search or read critically. Frank works with detailed drawings so he has a high-resolution monitor and some natural light. All of this adds to the clarity of his display and makes the process a bit easier. Though he is hardly cognitive of the difference.

Action

Most of this process has become so habitual to Frank that he does not really think in terms of affordances. He maps his simple schema to the login process and that is that. In fact his schema is so well rehearsed that if it were not to work, he would likely call IT automatically for a fix. His actions are more reactionary.

Frank is very familiar with the constraints of both the technological system and those regarding the kinds of passwords and the posting of them within the office. Early in his learning curve he wrote the week's password on a slip of paper and carried it in his wallet. He no longer bothers. The feedback, that he successfully entered a new password is reassuring to him.

User partnerships

The system for log in is so simple that was probably never put through the rigors of Human Factor testing. Some interfaces have become so commonplace, that in combination with their simplicity, the making of them more efficient might be more difficult than leaving them the way they are. At some point it may even be difficult to separate the efficiency of a system from the acceptance of it, given its very simplicity. This log in process may well be one of those systems.

Many of the company's computers have very private and sensitive data on them. This is the reason that the company instilled the system in the first place. In the beginning there were not so many rules, but after spot checks it was determined that altering the system for passwords has made the data more secure. The company has deemed security, of more importance than ease of use.

Everyone in the office has his or her own learning style. Some have a system similar to Franks for the formulation of a password… some do not. Frank has not shared his with IT management, though he thinks it is how everyone should do it. The IT department has not asked, and Frank has not volunteered.

Navigation

With only two boxes, there is not much need for navigation. The now assumed [tab] between entry boxes is about all that Frank needs to log on. He has never accessed the help or the details buttons on the interface. He assumes that if his log in does not work, he has mis-typed. He will then try again, and if that does not work, he calls tech support. The confirmation of a successful log in is pretty much assumed and if asked, he could not even recall the exact wording.

When the second box for a new password comes up, Frank is more likely to rely on the indicators of navigation. Since he performs this function less than 10% of the time (Frank typically logs out for lunch and back in again for a total of 10 times per week).

Presentation

The presentation of information on the screen is clear to Frank. He expects it to be on the computer display, and it is. He likewise expects to respond with the keyboard, and it always works. The colors and formatting of the information never changes, they are well grouped, have appropriate hierarchy, but Frank is so habitual in this process that has become less important in the successful log in. It would likely surprise Frank if the dialog box appeared in the upper left of the screen rather than in the middle as usual, but he would still easily work through the log in.

Culture

Within the company, English is the language that all information is recorded in. Frank has a co-worker that is Hispanic, and she will often use Spanish words in her passwords. Since her name is Sofia, Franks speculates whether this adds to the security, but Sofia likes the process. But in terms of the interface, Sofia expects that it be in English as she has lived in Indiana for a long time.

The use of passwords and frequent changes has become commonplace at work. In the financial industry (the core business here), there is an attention to security that does not exist in all workplaces. Sloppy security measures and the posting of passwords, or use of children's names would be considered unprofessional.

Emotion and pleasure

Many people expressed some displeasure when the stricter password policy was put in place. Many feel that using a child, or pet's name is fun, and they like the sense of pride when they type it in. The interface is pretty bland, but typing in a special name was fun for many of the employees. For Frank, it is just a password, and he really did not mind the change.

But Frank takes great pleasure in his system. He is proud of his formula. He fells it is clever and not easily figured out by others. It is a small thing, but it definitely brings him pleasure when he generates his new password on Mondays

Statistics

The IT department logs the number of incorrect log in attempts. They use this measure as an indicator of potential problems on a micro level. If there are multiple unsuccessful log in attempts at specific workstations they might determine that either specific personal are having difficulty, or that an unauthorized person is attempting access. In that event, appropriate action would be taken at that specific workstation, person or department.

Additionally, they would look for frequency of incorrect log ins as an indicator of whether the system is too difficult to use. Though the policy is skewed towards security and away from simplicity of use, if they were to make it too difficult, it would disrupt productivity. They monitor the usability by measuring the error rate against a norm, throughout the company and its departments. Each department also has a specific security rating that is an indicator of how sensitive the information they handle is. This allows them to more specifically apply security resources where most needed.