

## **Activity 4**

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### **Activity 4a) Authentication**

Discuss and reflect on different methods of authentication you have encountered, phone call, web, app/device, physical access

1. What are the pros and cons of each approach?
  - a. Use cognitive limitations and framework
2. What is your favorite approach to unlock your phone and why?
3. What other ideas you may have for more usable security authentication?

We have come across various authentication methods such as Fingerprint Sensor, Face Recognition, Multi-Factor Authentication, Normal username and Password.

#### **1. Pros and Cons.**

##### **Pro's of each authentication:**

a) Authentication such as Fingerprint sensor, face recognition just scans your finger, your face respectively. It doesn't require you to enter your username and password.

b) Physical attributes are much harder to fake than identity cards.

c) You can't guess a fingerprint pattern like you can guess a password.

d) You can't misplace your fingerprints, irises or voice like you can misplace an access card.

e) You can't forget your fingerprints like you can forget a password.

##### **Con's of each authentication.**

a) You can forget your username and password. Resetting the password is a big

headache.

- b) The Fingerprint Sensor might break down and stop working.
- c) Injury, whether temporary or permanent, can interfere with the scanning process
- d) There is nothing to suggest that the same technology that is used to store fingerprint as statistical algorithm cannot also be used or modified to recreate accurate depiction of the print itself.
- e) User acceptance, fingerprint scanning crosses the fine line between the impersonal and non-intrusive nature of passwords and PIN

#### **Activity 4b) Vacation decision making**

**What website/app do you use to plan a vacation/trip? How did you make decisions on selecting a flight, hotel, POIs, restaurant?**

**Ans :** We use websites such as Expedia, Tripadvisor etc to plan and schedule a vacation. The mind wants what the mind wants and the heart wants what the heart wants which is a damn good vacation. It is feasible to book a convenient place to stay, means of travel and awesome food. Decisions are made based on preference, reviews and budget. Cognitively speaking, all these constraints determine the type of decisions that will be made when it is made.

- Discuss the pain points of this process and why?
  - > Use cognitive limitations and framework

Pain points are :

- **Budget** - Getting the best deal given the budget is a hard task and multiple websites do not make that task any easier.
- **Data flow from multiple sources** - When we're trying to plan vacation, unified data

sources should be present to make the process of comparison easier so as to facilitate faster processing and completion.

- **Trustable reviews** - How do trust the review on the internet? There has to be some credible source of reviews from people who have vacationed in that spot before and more importantly it should be trustable.
- **Statistics on availability of amenities** - Knowing about the availability of different amenities such as Travel, Hotel rooms and vacation spots should be made available to the traveller in a informative and consumable manner. This results in better planning.

### **Activity 4c) Textbook Assignment**

**The aim of this assignment is for you to elicit mental models from people. In particular, the goal is for you to understand the nature of people's knowledge about an interactive product in terms of how to use it and how it works.**

**(a) First, elicit your own mental model. Write down how you think a cash machine (ATM) works.**

An ATM works by taking a person's card into the machine asking for a pin number that the user then types into the ATM machine. After the number is verified the user is asked questions like: What account do they want to use? Do you want to deposit money or take it out? After the user selects the option that they want the task is performed and the ATM then asks whether or not the user has any more tasks they wish to perform. If not the card and a receipt is spit out of the machine and the transaction is over. The machine is in turn communicating with the banks' databanks about who is using the machine how much money they have and what they want to do with it.