

Roll No.: 51810003

Subject: HCI

Q.

Q4.

Ans. User profile is a collection of setting and information associated with a user. User profile helps in associating characteristics with a user. User profiling is the process of establishing knowledge about the users for example who users are may be they are children, adult, Scientist, engineers etc. and what is the goal in using the product and what are the tasks involved in the system. Users

User profiling plays a vital role for designing a user interface because it helps us to know about the user or our domain for the interface.

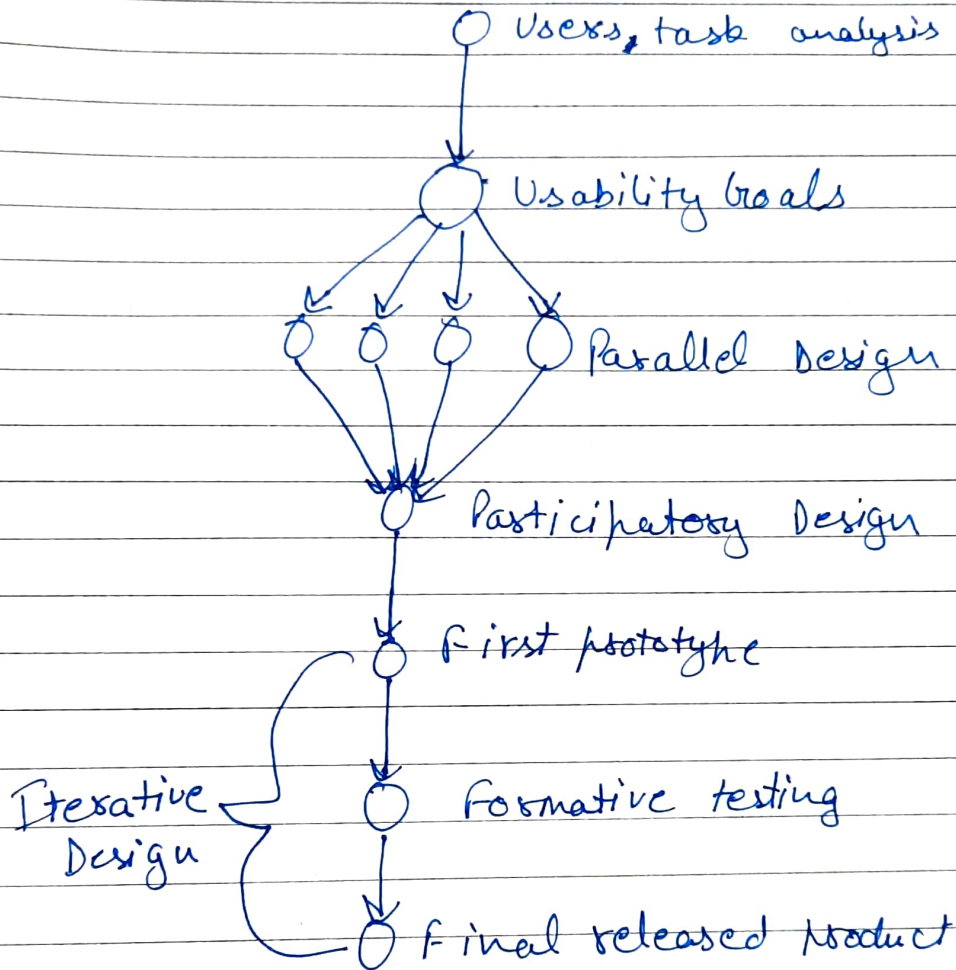
There are two type user ~~a~~ user novice and expert. Novice is new user so if interface is complicated then the novice user may be facing difficulties for using the interface but expert user can easily use the interface.

Background and skills we get to know the user with the help of user profiling. These are some other attributes of users which help us to know "who are the users".

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Q5.

A5) (a) Usability Engineering lifecycle



i) Identity ~~the~~ user requirements ~~and~~ and problems  
 This is the first step of usability Engineering lifecycle in which we determine the skills, knowledge and the user population ~~like~~. Task analysis allow us to identify the goals & purpose of the user group.



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- ii) Identify usability goals based on user requirements  
After finding identify the requirement we identify the usability goals. Usability is defined by five components: learnability, error, efficiency, memorability, ~~sa~~ and subjective satisfaction.
- iii) Checkout similar products  
In this phase we do competitive analysis of software components and of competing system so we get to know how much our system or product is different and better as compared to other existing products.
- iv) Design and prototype a solution  
Build a prototype in this phase then compare <sup>with</sup> draft designs.
- v) Evaluate prototype  
Perform evaluation as early as possible in the design cycle by building & evaluating prototype. Testing will perform by real users assigning him with real task. After ~~this~~ Reiterate step 4-5 until ~~the~~ users are satisfied.
- b) Tips for designing a good questionnaire for data gathering.  
There are ~~thru~~ two type of questionnaire open end and close end questionnaire. A good questionnaire should be valid, ~~rel~~ reliable,

Clear and interesting. It is important to design the questionnaire based on a conceptual framework, each question is relevance and clarity. The number of questions should be limited. The language of the questions should be simple and easily understandable.

Q3.

Q3. The study of relationship between usability goals and user types is important for design for different users

- Novice users:- No or maybe limited knowledge of the occupational task to be performed & of computer & interface concept or knowledge of the occupational task to be performed & of computer and interface concepts.

- Knowledgeable Intermittent users:-

It is easier for knowledgeable users to use interface because:

- understanding of the task concepts
- Broad knowledge of computer & interface concept
- Intermittently use the system & may these have problems with retention.

- Expert frequent users:-

These users are thoroughly familiar with both task and interface concepts. They are familiar to the system so their efficiency is more than



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any uses.

Q2.

A2. Quick & dirty evaluation describes the common practice in which designers informally get feedback from users. In Usability testing involves recording typical user performance on task in controlled setting.

Both the evaluation can be conducted in a lab. In usability testing use user's opinions collected by questionnaire or interview like a survey (in which they product survey they gave customer a questionnaire). Quick & dirty evaluation can be conduct at any stage but usability testing is done when a prototype or a product is available.

Q1.

A1. Important factors that need to be kept in mind while designing an educational mobile application for kids below 10 years old.

- ~~One~~ Mostly kids like the cartoon or anime character so we can use ~~to~~ have to use the graphics which looks attractive to the kids which can relate with the cartoon

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- characters, we don't have to use text based ~~but~~ interface, so that the kids don't get irritate while reading or using the application
- Kids loves play games, so we can add mini games which helps the kids to learn something while ~~play~~ playing the game.
  - We can use more audios & videos because 10 years old kid is interested to watch video rather than reading. So, videos must be in animated.
  - The button size must be larger as compared to other application's button and only ~~the~~ relevant information is shown ~~on it~~ in the interface.