Interaction Design and The User Experience: TMA 01

MATTHEW MASON
C6122243

Table of Contents

Question 1

(a)

1. A coffee machine. In terms of utility, it's able to carry out its core task but the experience can be arduous and confusing. The main issue is regarding perceivability with the control dial located on the side of the machine and multiple modes occurring on the same notch making it difficult to access leading to safety issues. It's very easy to activate the wrong mode as the user's required to dial through other modes to get to the one they need. The process requires many steps, making it difficult to learn and memorise, which makes it inefficient and there is no feedback for selected modes or how much water is left in the tank.

2. A Dungeons&Dragons app. The biggest frustration for users is filling in character information. Additional details pertaining to their choice are only accessible via buttons taking them out of the app to a website creating an inefficient process thus reducing utility. This means inconsistently presented rules between the app and the website allow incompatible builds as no feedback is provided when picking specific combinations. This affects its safety making it difficult to learn as it's assumed the user has prior knowledge of the rules. Lastly, it's not clear some icons are buttons to change menus which affects its affordance.

3. The Disneyland Paris app. It provides several functions for the user but because of poor design, many of these have issues affecting its utility, effectiveness, efficiency and learnability. Purchasing something shows inconsistency, it takes users out of the app, and redirects them to an international phone number to call, whereas for other services, you can purchase directly through the app. The interactive map obscures place names with icons affecting perceivability, it's unclear that some icons are buttons and important sections are hidden under obscure menus affecting memorability.

(word count: 299)

(b)

1. Aimed at people who enjoy making coffee at home, a place of calm or chaos depending on distractions present including loud children, TV's, noisy company or they may be running late, meaning instead of focusing on each part of their process they must rush. Fine motor skills are required for operation; dexterity, grip, flexibility, memory and good vision to read the dials and judge when to stop brewing with hearing and smell also being desirable. Coffee machines benefit the user providing they're experienced with various coffee styles, companies who make the machine and those who make ingredients for them.

2. The Dungeons&Dragons app, designed for people who play tabletop RPGs regardless of experience, age, race or gender, allows users to create and manage their characters attributes. Using the phone and app require fine motor skills, attention to detail, memory, reasoning, processing information and the ability to respond to change. These actions necessitate focus meaning environments can affect these tasks greatly, whether at home in a quiet place or somewhere more public; a pub or convention which can provide many distractions. It benefits users through convenience and companies who provide accessories to the game such as miniatures, music, books, dice, etc.

3. Designed for family members of all ages, The Disney apps main use is planning activities throughout the day. Intended to be used within the park, environmental distractions can prove a sensory overload making it difficult to use in certain locations. Users of phone maps will find features familiar but still require fine motor skills, navigation, information processing, decision making, and

good vision. The inability to change how maps and information is displayed hampers user preferences. It benefits users, allowing them to be organised, making the best use of their time and by showing where shops are encouraging users to purchase souvenirs.

(word count: 300)

(c)

1. There are several ways to improve the design of the coffee machine and the users experience. Relocating the controls to the front, using buttons to scroll through options on an accompanying screen and implementing one touch brew buttons. Adding separate tanks for water, milk and coffee beans including sensors to inform the user when they need refilling. A companion app for making custom coffees and setting it as a favourite enabling one touch brewing, setting a specific time of day for brewing and the ability to upload/download other user's recipes and use voice commands. This will improve perceivability, learnability, memorability, effectiveness and efficiency.

2. The main improvement of the Dungeons&Dragons app would be to have all the information available in the app as opposed to items linking to external websites, greatly improving efficiency. It'd include an optional guide for first time users for better learnability and memorability, filter out inconsistent build options, provide feedback if selecting something that affects another option in some way and have a home screen with buttons that represent specific character attributes including a character summary allowing better affordance and perceivability. It would also provide audio playback of the more detailed texts.

3. There are many improvements that can be made to the Disneyland Paris app that will improve all usability and user experience goals. A redesign would allow users to log into their account and manage all content related to their holiday; booking tickets, restaurant reservations, meal vouchers, fast-passes and linking purchases to their account. User could request specific room features, add notes for special circumstances, view park maps by filtering options such as by park, lands, highlight specific types of rides, shops, etc, and calculating the best route to selected rides from the user's location. Lastly, a menu highlighting the most important and most used features.

(word count: 300)

Question 2

(a)

1. As many people enjoy drinking coffee, redesigning the controls will put me in a position that enables access to a wealth of potential users; family, friends, barristers and members of the public to people who frequent online forums. Users will also act as beneficiaries and contributors though their time and energy therefore they can be considered as stakeholders. However, involving companies who make coffee machines or the ingredients for them remain inaccessible. As the project's focused on designing a companion app, low-fidelity prototypes like sketches will help users imagine their engagement with the interactive product, helping the project move forward.

2. Dungeons & Dragons has a huge fan base so I would easily be able to include users who want to assist in the life cycle of developing an app that gives new players greater accessibility through alleviating initial complexities and simplifying the character creation and management process. Potential users would act as stakeholders; beneficiaries, contributors, however it wouldn't be possible to involve companies who benefit through producing additional products such as miniatures, books, music, etc. Prototyping could prove difficult as the scope of the project is very large so simple sketches might not be informative enough, and a more high-fidelity prototype might be required.

3. Involving users and stakeholders in the production life cycle of the Disneyland Paris app would prove to be very difficult as it's primarily designed to be used on holiday in the park itself. This means there would be a very limited time for potential users to take part in the design processes key activities and would also be considerably expensive as everyone would need to be in a different country. Low-fidelity prototypes could be possible but only for specific aspects of the app as the scope would be to large due to it being a highly complex process that may need integration with other systems.

(b)

My preferred project would be the redesign of the controls for the coffee machine. I would focus on creating a companion app rather than redesigning physical controls, essentially making the product a smart device that's capable of making custom coffees and providing a much more enjoyable and satisfying user experience. I believe it has the most chance of success as I would have access to a wide range of users from different ages, backgrounds, experiences and cultures, the scope of the project isn't too big so I would be able to work through the design process by myself and creating low-fidelity prototypes would allow users to provide feedback and incorporate new requirements iteratively throughout the design process that focuses specifically around the user.

(total word count: 432)