Coursework 3: The Process Document

Group 18

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Contents

1 Team member and username:

Table 1: Member Table

MemberName	Username	SWJTU ID	Leeds ID
Yunzhi Lin	sc18y3l	2018110233	201292130
Xuanwei Yu	sc18x3y	2018110216	201292154
Xiao Yang	sc18x2y	2018110238	201292020
Bowen Dou	sc18b2d	2018110213	201292016
Kainan Zhang	sc18kz	2018110273	201292054

2 PACT Analysis

Through the PACT interaction design box, we can define the problem of "under what circumstances do people accomplish what activities with what". People carry out certain activities in the context through certain technologies: what people use for what tasks in a certain scenario. This sentence contains the four key elements of PACT: people, activities, context and technology.

2.1 Persona:

2.2 Scenario:

2.3 Scenario:

2.4 People:

Human is the ultimate perceiver of interaction. Human is always at the center of design. Design for different people is the balance of differences. 1

2.4.1 Primary:

Outdoor or extreme sports enthusiasts who use professional sports video equipment, such as GoPro, to record their activities or the scenery around them, such as mountain climbers, cyclists, parkour athletes, downhill skiers.

2.4.2 Secondary:

A person who works in sports or contacts sports activities. For example, fitness coaches, physical education teachers, referees and others who need to watch videos to study sports information.

2.4.3 Tertiary:

Other ordinary users who need to use this player to play personal videos. For example, the elderly who are keen on square sports; Families with a habit of recording videos for ordinary activities; Users who take pictures and record what happens around them in their daily life.

2.4.4 Physical differences:

For first-level users, their physical characteristics are young, energetic and between 18 and 30 years old. A disability that does not affect physical activity. Strong athletic talent.

For the second level users, their physical characteristics are relatively prominent middle-aged, maintain a high physical quality. Between 18 and 40. Good body function, good at sports. Diseases that do not affect exercise or have achromatopsia or other diseases that have a low impact on exercise.

For the third level users, their more prominent physical feature is the general lower motor ability. Age range from 30 to 70. Maintain a healthy exercise system or suffer from a part of the disease that causes movement disorders.

2.4.5 Psychological differences:

For the first-level users, the psychological quality of users is generally strong or tend to pursue exciting extreme outdoor sports. Users have the spirit of challenge and active exploration. They generally have a strong ability to accept new things, and they have a relatively excellent learning ability. They are more likely to look approvingly or encouragingly at creative or experimental things.

For the second level users, users have more direct psychological activities. Users are more likely to expect concise or straightforward information. They have a need for easy-to-use and ready-to-use tools. Users expect to spend more time physically than mentally.

For tier 3 users, users are willing to accept new things, but do not agree with new things that are difficult to use. Users have relatively fixed psychological activities. In addition, users are eager to achieve more convenient requirements through tools. Users also expect more functionality from the tools they use.

2.4.6 Mental models:

For the first group of users, the term thinking mode of the user may be called inspirational thinking, also known as Epiphany or intuitive thinking. Its expression mode is more lively. Users like to think in leaps and bounds, they are curious about everything around them and want to explore how it works.

For the second type of users, the user's thinking mode belongs to what can be called intuitive thinking or image thinking. The way of expression is more direct, through the most vivid figure or thing, using imagination to get similar induction to draw a conclusion. Users like to get the most intuitive information from the simplest way of thinking (though the way of thinking is the most complex in the human brain). The user expects to get the maximum benefit with the minimum input.

For the third type of users, the thinking mode of users belongs to abstract thinking or logical thinking. After careful conceptual examination, users make judgments and finally map out the information expressed in the real situation through reasoning. Such users have a more mature but also older way of thinking. Users prefer familiar and safe operation or usage. They like to make things traceable or more common sense.

2.4.7 Social differences:

For the first category of users, the social status of users is not relatively clear division or definition. What is certain is that such users have relatively considerable income or are willing to invest in their favorite sports to a large extent. Among them, extreme athletes or extreme sports enthusiasts may have relatively easy or time-flexible jobs.

For the second group of users, the income of users is relatively stable, and the reasons for using the player may be occupational needs.

For the third group of users, the social status of users covers all levels. Income also varies.

2.5   Activities:

Sports (outdoor activities, extreme sports, physical activities or other daily activities), used throughout the day (any time period).

2.5.1   Temporal aspects:

Regular or infrequent: In general, the time users use the player is not fixed and irregular. For category 1 and category 2 users, users use the player very frequently. The third type of user uses the player only when necessary.

Quiet or busy time: Since the duration of the user's use of the player is uncertain, it can be assumed that the user is likely to use the player during both idle and busy periods.

Continuous or interrupted: Most user operations are of the interrupt type. The user pauses repeatedly to observe different details or make notes accordingly. However, continuous type operations should not be denied in user activity. Therefore, the player should consider both user operation types and meet the corresponding functions.

Response time: Because this player is a lightweight player, you should maintain a fast response time.

2.5.2 Cooperation:

This player is a stand-alone local player, without collaborative operation, and all user activities are completed independently by the individual users.

2.5.3 Complexity:

2.5.4 Safety-critical:

Generally speaking, errors should not cause injury or accident to the user or user data, and errors in user activity should not affect the normal use of the player. The user should get the correct feedback after the correct operation after the operation back to the previous state. And for the player itself error, in addition to the system warning should not have other adverse effects.

2.5.5 Nature of content:

There are not many mistakes in the content.

No input operation in the player, all rely on click to complete.

The player contains text, audio, video, and images.

To get the video data, you need to edit the video file description.

2.6 Contexts:

2.6.1 Physical environment:

The user's environment with the player will cover all areas where mobile and desktop devices can be used. Such as valleys, jungles, homes, offices, and public places. Climate, temperature and other natural conditions will have an impact on user activities, but will not have any impact on the user's use of the player. Users may use the player in quiet private places or in noisy public places. This will have an impact on the user's auditory experience. Network factors do not affect the player.

2.6.2   Social & legal contexts:

The main function of the player is to play videos. The faces appearing in the videos inevitably involve privacy issues, which requires users to spontaneously generate privacy protection measures. The main functions of the player are video and audio, with low privacy protection in public places. Users can avoid privacy disclosure by wearing earphones and other means. At the same time, users should abide by both ethics and the law. In a social environment set in a public place, users' activities of playing videos should not affect others. For example, do not turn the volume too high to make noise, and do not play videos or audio clips that may have adverse effects on the society or violate laws.

2.6.3   Organisational context:

The organizational environment inevitably influences the project. Teams are clearly divided but not hierarchical. The team adopted agile development and experimented with extreme development methods. Work in pairs. The written part shall be separately completed by one person. Most organizations use offline real-time communication, and in special cases, use online social tools to communicate. For files, each member of the code section manages its own section. High security. For version control, the team uses GitHub to set up separate folders and set permissions on the final folder, managed by one person. Overall safety is higher.

2.7   Technologies:

Input: Mouse, Keyboard, Multi-touch (for macOS user)

Output: Display, Speech, Executable codes

Other: Apps, phones, storage device and PC.

3   The platform and what design for:

The team's target platforms include desktop devices as well as mobile devices such as smartphones such as the iPhone. This team uses Qt as the development tool, including c++ and Qt Designer as the development technology.

4 Cycle:

4.1 Prototype:

4.2 Evaluation:

4.3 Code:

5 Ethics Statement:

The whole team strictly complied with the regulations related to the study of human ethics. All members and participants of this project are issued the University's Research Participant Privacy Notice as shown in the figure below as a reminder. At the same time, University's Research Participant Privacy Notice is also has legal benefits