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| Picture captured on 25th March 2022 at UL Campus's "Brown Thomas's " statue  CS4078: Applied Interaction Design  Assignment 2 | Abstract  This report deals with the findings of the Participatory Design Sessions with the participants, analysis of the results, description design concept that was generated and the process employed to achieve the fruition of the prototype, thus created.  21221545, AJAY VIJAYAKUMARAN  Masters in Interaction and Experience Design  University of Limerick |

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# Introduction

This report outlines the several aspects of the design process followed to achieve the prototype that was generated from the insights that were acquired in the participatory design sessions with the recruited participants. The participatory design session was facilitated with the help of the participatory design tool that was developed earlier this semester as a deliverable in Assignment 1.

For Assignment 1, Laura Bray and I worked together as a team, we worked on the topic of “Accommodation Crisis” and developed a monopoly inspired board game called “Crisis” that helped us achieve certain insights from the player when we employed the design tool in the session.

The participants found the game to be engaging and was majorly relatable with the participants as the game mimicked the real-time challenges they had faced to secure an accommodation for the year at University of Limerick. They were able to voice their valid concerns about the current scenario of finding an accommodation in Limerick by the virtue of the game.

# The collaborative design sessions

Settings

There were two sessions that were facilitated to the participants, Initially there were over 10 participants that were reached out to, however, the gaming exercise was eventually attended by 7 participants. The session 1 was conducted at the Interaction Design Centre’s, I-Media lab, University of Limerick with 2 of the participants. Session 2 was conducted at the Postgraduate Student Union, University of Limerick. Session 1 went on for 1 hour and 45 minutes and session 2 went on for a few minutes short of an hour.

## Participants

We aimed to get a diverse set of participants, including local students, international students and International but students from EU, all from different disciplines. However, we recruited all international students but fortunately, from different educational backgrounds and disciplines. Majority of the participants were international students from India, we recruited one participant who is an international student from a different geographical location other than India. There were a total of 7 participants and were accommodated over 2 different sessions based on their availability.

## process

During these sessions, the participants were facilitated with all the in-game artefacts that they would interact with, they were briefed about the game sessions, about how all the players would participate as a team at several instances in the game. They were provided with the in-game currency and were allowed to choose their player markers. Players were then informed about the various activities they would be performing every time they land on certain blocks in the board game. It was easily absorbed by the players as they were already familiar with similar rules of the Monopoly board game.

Players were introduced to the concept of persona cards and the situation cards, where the players would be performing core actions in the game based on landing on the house block or the situation block on the board, respectively.

During the sessions, as facilitators, we were managing the game by helping out the players. We were introducing the appropriate situation-based activities at the designated times in the game. Whenever a clarification on the situation or the question was requested, as facilitators, we were providing them. This enabled the players to make the best decision pertaining to the game at that instant.

# The analysis of the results

By the virtue of the tasks in the game, we learnt from the participants that :

* Accommodation crisis is perceived to be a political issue. The players pointed out a concern that several educational institutions admit the students without considering the shortage of accommodation in and around the city. One of the participants, shared during the game sessions, that whilst their accommodation search period, they even reached out to one of the Councillors of the city, as they were feeling helpless securing an accommodation after a few days of tireless searching.
* Fear of being cheated by various malicious people posing as landlords was another concern that was brought up by the players
* They found it difficult to have a better spatial orientation of the place they’re moving to before arriving there. Difficulty in understanding accessibility and a conceptual sense of direction in order to search for an accommodation in the convenient location, for ease of access.
* Difficulty in relating to a new currency and economy, understanding the cost of living and the expenses they would incur during the stay – addressing this scenario could potentially help them make better decisions in terms of managing their finances before relocating.
* Amidst the concern of increasing rents, there was a preference that was shared by a few of the participants that they would not refrain paying higher rents if they had security and the ease of access to the university and nearby places that are required to carry out essential activities for their sustenance.
* A temporary accommodation solution was designed by the participants as one of the responses to the situations in the game. It dealt with a Bed-and-Breakfast like solution where people would host the ones in need of the accommodation. Routing it back to the initial problem of not having enough places to accommodate people.

As designers, we gathered post the Participatory Design Sessions to analyse the findings that were obtained.

We found out that there is a major logistics concern for fulfilling accommodation demands for potential and current seekers. Hence, we ruled out the possibility of providing an accommodation solution that would cater to the candidates who are looking for an accommodation. However, we strongly felt and empathised with the players to understand their concern of being well-orientated with the place they desire to relocate to.

The concern of a better spatial orientation by our participants was unanimously conveyed by the players in the second session of the game. To us, it felt like a space that would be a global phenomenon to attend to and not just pertaining to students coming to Ireland for higher education. For instance, a person moving from Japan to a country say, United States of America or Canada, where the economy is different, the language is different, apart from cultural and linguistic barriers, that is a challenge they have to overcome eventually.

# Further Analysis of the results

Upon gaining the insights mentioned in the previous section, We decided to individually proceed with the design process for this phase.

After analysing the inputs, the direction was clear towards designing a tool that would help the user to be better acquainted with the place prior to moving. Hence, enabling them to make an informed decision.

It can be looked as a tool that would :

* Facilitate the user to prepare well in terms of finances.
* Help the user to understand the local economy and cost of living.
* Help the user orient well with the place they are moving to, before even landing there! – this means that they could make an informed decision to find a feasible area to look for an accommodation for themselves, beforehand.

### Ideation

Orientation seemed like a space that could be leveraged to offer a tool that would enable the person to be better acquainted before they land to the place. While exploring this space it was important to understand some of the basic requirements such as the common places the user would visit to carry out mundane tasks such as getting groceries and the cost of getting essential supplies that would help them understand the directions from where they are based at when they arrive. It would also help them assess the cost of living would help them make better financial decision and would not surprise them, when it is discovered in real-time upon arrival amongst other aspects that they would potentially be overwhelmed with. further, it was felt that a service in the tool could be offered that would indicate and calculate an average rental expense that they would incur for the nature of accommodation they are looking for.

Graphical user interface, text, application, chat or text message

Description automatically generated

Figure : Mindmap of features to be included in the app design

# Description of the final design concept or scenario

The design concept generated is aimed to be a mobile application design called “***MoveAssist***” that provides the user with the following features, to enable them to be acquainted with the place where they desire to relocate to :

* Choose the location they are moving to
* Select the nature of accommodation and provide a rough estimate for cost of living based on the nature of accommodation selected
* Provide insights about the shopping expenses for essential products
* Provide a sense of direction and give an insight towards the facilities accessible in and around the area, e.g. Retail shops around the city
* Provide insights for commuting information in and around the place
* Provide insights about various hot-spots in and around the place (explore feature)
* Provide a tool to calculate monthly expenses for any place based on user input

## Similar Application

**Numbeo.com**

Numbeo.com gives an overall cost of living indicator for all the places across the globe. However, upon careful observation, it provides all of this information as several datapoints.   
  
The nature of information that is available on numbeo.com could actually be leveraged and an information architecture could be derived towards practical implementation of ***MoveAssist*** as an application.   
  
Graphical user interface, text, application

Description automatically generated

Figure : Numbeo.com

## 

## Storyboard

Upon finalising the features, a storyboard was created using the template available at boords.com.

Graphical user interface, application, Teams

Description automatically generated

Figure : Story board for the scenario

Graphical user interface, application

Description automatically generated

Figure : first three scenes

Graphical user interface, application

Description automatically generated

Figure : Scenes from 3 to 6

Graphical user interface, application

Description automatically generated

Figure : Scenes from 7 to 9

Graphical user interface, application

Description automatically generated

Figure : Scenes from 10 to 12

Based on the storyboard, stock videos were acquired from pexels.com, that related to the storyboard and the theme of the application design.

To design the UI of the application, Figma was leveraged, as it enabled to create a mock-up quickly.

## Persona and Scenario

Graphical user interface

Description automatically generated with medium confidence

Figure : Persona of Jakob Maximilian

The scenario deals with Jakob Maximilian, an incoming Erasmus student at University of Limerick, who is pursuing BSc in Mathematics. His challenge is that he is not able to find a good location to look for a house from Germany.

He is looking forward to secure an accommodation before he moves to Ireland, so that he can concentrate on his academics during his term here. He also wishes to plan his expenses beforehand, therefore, he is looking forward to getting an insight into his cost of living in Limerick .

He does not know which areas to look for properties and does not know of a reliable platform to find properties as all the campus accommodations are booked out. He stumbles upon the application called “***MoveAssist***”.

He signs up on the application, fills in the details and finds out that the application provides various insights :

* On cost of living for the nature of accommodation chosen
* Finding a reliable place to look for listings i.e. daft.ie
* On monthly expenses and bills
* On major retail shops and their locations
* On information on commute
* Tool to calculate his monthly expenses
* About Limerick city and various spots in and around Limerick city to be explored

With this information, he is less anxious now. He now knows his projected expenses during his term in University of Limerick. He knows more about commutable distances, he has a sense of direction, now. He keeps applying on daft.ie for listing at the location that he thinks is commutable. He hopes to secure an accommodation soon.

A walkthrough of the same is provided in the video prototype of the project.

Graphical user interface, website

Description automatically generated

Figure : Some screens from figma

Reflections

### Reflection on the session

The whole process of Participatory design has been quite insightful. It enabled me to understand the process of starting generic in a problem space by just generally exploring it and getting specific – by exploring in a direction driven by the participants leveraging our tool. By the means of the Participatory Design Tool, I was trying to explore the problem in terms of finding the solution in the broad sense. The concerns around the logistical and political nature of the problem was a feedback that we obtained in both the sessions from several participants. However, they did engage well with the game and indicated subconsciously, the area that could help them organise and be prepared for an international experience in a better way.

***It was at this point, I truly realised that I am looking for a design inspiration rather than information from the participants or an opportunity to employ a design intervention to solve the “Accommodation Crisis” issue!***

### What surprised us?

Amongst the element of engagement, it was difficult for us at first to obtain a tangible input, we tried using the game tasks to gain insights into :

* The budget
* The furniture and layout expectations
* The way the players interact with the personas of the landlords’ and their requirements
* Gain insights when the players are put in uncertain similar to real-life situations
* Providing technology to the players to find a way to secure accommodation
* Listing out problems with initiating the accommodation search process

Out of all the possible insights, the one that worked for us was the last one that was to list out the problem that held the players back from initiating the accommodation search process.  
  
What could have been better?

I feel, if we had participation with a more diverse player group, we would probably have accumulated a different set of results. Since, almost all of the players, in the game were international students, their concerns were more around the ***better orientation of themselves*** to the city before they moved, in terms of cost of living, in terms of sense of direction that would enable them to take the right steps towards securing an accommodation and steps towards their sustenance.

I believe that if we had a blend of a few students who are from counties around Limerick and a few from farther counties in Ireland could have steered the discussion in a different direction and could potentially have indicated different set of challenges that could have added more room for inspiration or design intervention.

Accommodation Crisis in general is a very scary situation, considering the world at the brink of climate refuge, as well, predicting 1.2 Billion people to be displaced by 2050. ("There could be 1.2 Billion climate refugees by 2050. Here’s what you need to know" 2022). The topic of how the situation has stuck everyone became a bonding factor for all the players playing the game, typically observed in the second session of the activity. It facilitated people from different background to talk to each other and express their concerns effectively. I believe that it is a topic that needs to be dealt with on a governance level – this thought is reinforced after interacting with the participants over the two sessions.

However, I feel glad and fortunate that I was able to find an inspiration for design in the area identified via the participants.

# References

There Could Be 1.2 Billion Climate Refugees By 2050. Here’S What You Need To Know [online] (2022) [online], *Zurich.com*.

Cost Of Living [online] (2022) [online], *Numbeo.com*.