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Gurus

Rachael Farquharson - Product Designer at Wood Mackenzie Craig Lamb - Senior Product Designer at Skyscanner

Out of Study Travel Professionals

Tom Roberts - Travel Rep: Czech Republic Helen Oliver - Ski Coach: Scotland Pablo Rodriguez - Avid Traveller: Spain Bruce Herriott - Business Traveller: USA Sarah Eunson - Hostel Rep: England Fraser Lawson - Hostel Rep: Australia Lucia Rodriguez - Exchange Student: Spain

A special mention to everyone who helped me out and uploaded a card to #ONTHEMAPDUNDEE Instagram page.

ABOUT ME

Hi, I'm Jack, a Product Designer who loves to explore relationships between people and design. A design that is user friendly and easily understood is something I strive to meet through my design-led work.

I have recently discovered my passion through illustrative drawings and infographics. By presenting these graphics overwriting helps create a clear and concise approach to my work.

Practicality is the key to functionality and through design-led thinking, I aim to correct and adapt current issues we see in our everyday lives.

This booklet will explain my honours project from initial research into development to the outcome.





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INTRODUCTION

WHAT IS CURIOCITY CARDS?

Hostels are known to be fast-paced environments with frequent coming and going of tourists. What if there was a way to slow this down by designing a meaningful interaction that could assist backpackers in navigating around this new city, they are unfamiliar with?

'Curiocity Cards' provide an effective approach to city exploration for tourists based in a hostel, through playful interaction that sparks curiosity and prompts users to discover noteworthy points of interests in the city of Dundee, that can be shared and browsed for all to see and engage with.

WHY CURIOCITY CARDS?

It is a known fact that if you are a backpacker staying at a hostel you will likely meet individuals harmonious to yourself. While this may be an important element to consider you may still be unsure where to begin exploring due to dated pamphlets or lack of communication around the hostel.

Curiocity Cards provides a fun interaction for these backpackers staying at the hostel to take part in this mysterious experience.

For every backpacker that takes part in this user experience, one more upload is added to the #ONTHEMAPDUNDEE page continually filling up the webpage for tourists to locate all these unique and cool spots.

PEOPLE, DESIGN & TECHNOLOGY

PEOPLE (30%)

My project is highly focused on the user experience for tourists based in the Dundee Backpackers hostel. I believe I have effectively designed an interaction that gifts these cards at random with detailed city navigation, to the concluding element that correlates all backpackers feedback and card prompts to create this digital map of Dundee City.

DESIGN (40%)

My project has been split into three distinct elements. An interaction, user experience and finally an online browsing page. Each element has been carefully planned then designed to create well-rounded ideation for backpackers situated in the hostel. These designs were crafted then refined through various forms including sketches, illustration and online software to achieve the result that is 'Curiocity Cards'.

TECHNOLOGY (30%)

From early on in my project I understood that the technology feature must be something that perpetuates the experience from the beginning. User-friendliness is something I regard highly and through a combination of interactive (Arduino) and physical technology (Push Button, Stepper Motor) I could merge each element completing the chain of events definitively.

CONTEXT

Being an avid tourist myself I have found in many of my experiences that each city or country you visit features the same issues. If you are in a foreign environment, surrounded by strangers it can be a daunting experience for the most part you are unsure where to begin, especially if you are backpacking alone.

I started my project off by interviewing frequent travellers and professionals in the industry. As expected, the project went through various iterations starting from a device to assist safety, to an experience for all hostel-based tourists.

This project booklet is therefore in chronological order to tell the story from start to finish and how it transformed into its final accomplished iteration.



DISCOVER

INITIAL AIM

I started my project looking into the travel and tourism industry, specifically 'people and technology'. This is an area of design I have always been interested in as I feel there are many elements to consider around the sector. My project began with a brief focus on a device that would be targeted towards frequent or avid travellers, which allows them to somehow connect through some form of digital device. Initially, I wanted the product to be handheld, allowing the user to keep it within their possession during travel.

After researching into the travel industry I knew that meeting people on holiday can be a daunting experience especially if you are on your own. I also wanted to test my digital skills through an interactive device and decided at the beginning of the project that I would be utilizing a digital interaction most likely an Arduino.

With these base, features decided I was ready to research more into the subject of travel and tourism. Primarily what the device achieves? how it benefits the traveller? what backpackers look for when travelling? finally what is the struggles and worries around travel?





My research began by acquiring five separate volunteers who were experienced in the various fields of travel dotted from around the world to assist me with a series of 'Cultural Probes' (a means to inspire and develop ideas in a design process by gathering inspirational data about peoples lives, values and thoughts).

Each task was unique and varied which allowed for great insights into the topic. As I was unsure at this point which direction I was headed for in travel I wanted to correlate as many observations as I possibly could.

From each activity I conducted, the results were messy so naturally, I decided that a reoccurring theme I will display will be infographics to allow for clear and concise results through icons and colourful visuals. I didn't realise at this point but this would be a strong identity for me later on in the project.

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INTERVIEWS Professionals In Travel







I contacted Tom to understand the various events he has to promote for backpackers targeted in hostels in the Czech republic. He was asked to comment on the mark 2 'visuals' for the interactive card printer.



Helen Oliver - Ski Coach based in Scotland

Helen has been back and forth ski coaching in the French Alps for the past couple of seasons. I was lucky enough to interview Helen over zoom to understand the issues surrounding flight travel and issues regarding 'safety' as well as a few questions hostel related.



Pablo Rodriguez - Avid backpacker based in Spain

Pablo is a good friend of mine who comes from Spain but lives in Scotland currently. He is always travelling back and forth between the two countries and wanted to understand the 'stresses' and 'worries' surrounding travel. Pablo was able to test out the user experience of my project as he is in Dundee with me.









Lucia was contacted to understand how travelling is perceived as a young female when she went on her exchange to the USA.

Bruce Herriott - Business traveller based in the USA

I was able to get hold of Bruce who travels frequently for business. This was someone who was familiar with the subject and therefore wanted to interview him to further understand the 'connections between people' when travelling and when arriving at the destination.

Sarah Eunson - Hostel Rep based in England

Sarah is an experienced hostel rep based in England with who I was lucky enough to gain contact. She has been in the industry for three years now and wanted to interview her to fully understand the subject surrounding both 'backpackers' and 'hostels' and how they are effectively integrated.

Fraser Lawson - Hostel Rep based in Australia

Fraser has been travelling around the globe for 6 years now and in that time he has endured all travellers issues as well as spending a good few years working as a hostel rep in the Czech Republic. Fraser was a great interviewee to understand the subject around hostels and the promotion of venues. I have contacted FIVE people from different parts of the globe similarly aged between 21-26 to conduct a cross-cultural study to understand if they all suffer from similar travel complications. The research was split into FIVE separate tasks answered by FIVE different people. These tasks were individually unique.

PROBE 1 - User Identities

Probe one was conducted as a starting point for my research. I constructed a task for them to draw and label five of the most significant items they take with them on their hand luggage. This task provided a sense of individuality through art style and gave me a better understanding of each participant.

The results from the five participant shared common similarities from phone chargers and a spare change of clothes. As interesting as this was, the main benefit to this task was how it formed an identity for the individuals from the offset.



PROBE 2 - Travel Interests

The second task was understanding what interests the participants had when on holiday e.g. were they looking to party, explore the outdoors or reconnect with family?

I asked them to describe FIVE things they looked for when they went on holiday. From this information, I reconstructed it by formatting it as an infographic.

Rather than looking at a page of writing, I wanted to put a spin on it by designing logos for each activity then linking them up to the other participants who followed similar interests. It simplifies the description down in a fresh easy to understand manner.

I believed this information was key to understand at the beginning of my research as it gave a range of insights for each participant and could link each commonality with one another.



PROBE 3 - Evoking Emotion



Probe three was the most insightful regarding emotion, more specifically emotion experienced during solo travelling. A topic that would become more prominent later on in the project.

Solo travel can be a daunting experience for both frequent and nonfrequent travellers. I decided I would explore this topic effectively through the use of 'photographs', more specifically 'Polaroid' photographs. This type of film is unique to that of a digital camera or your phone's camera.

I went around Dundee and took a photo of locations/items I believed would evoke emotion around the subject of travel.

I received great feedback from the participants and asked that they used quick punchy phrases to explain what emotions were brought on after viewing the images. e.g. a photograph of a ticket machine brought on feelings of 'anxiety and 'excitement' combined. Or a photograph of a dark silhouette sitting across a train table was labelled 'tired and intimidated' by many.

PROBE 4 - Journey Experience



Probe fours task was to uncover how each participant found solo travel from START/MIDDLE/END and the emotions felt during this period. The results were varied with some feeling apprehensive while others were excited.

This helps me understand the three categorised stages of travel and will take this info onto the next stage of my research!

PROBE 5 - Travel Issues

I conducted probe five to understand the issues surrounding travel, where I suggested ideas that could be used to combat these worries.

The overall consensus was that travel can be a dangerous experience, especially for a solo woman. They all mostly agreed on the idea of safety when solo travelling and what could be a solution to combat this worry. Suggestions of an 'app' through a means of linking up with other travellers.



A well-designed backpack that would be functional, water resistant, fit as hand luggage and have a safe place for a passport, keys, etc would be the most useful for mel

INTERVIEW MAPPING

I decided to conduct interviews where I could ask more personal questions rather than a broad consensus with the cultural probes. The interviews took place over a zoom call where I asked three different participants around more specific questions about a 'solo' trip they have previously been on.

The results from the three interviews provided great feedback with a reoccurring theme of safety, more specifically female safety around locations they are unfamiliar with abroad.



INSIGHTS - Cultural Probes/Interviews

At this stage in my project i had gathered a great deal of user research around the subject of travel.

- I uncovered the emotiotional features of travel from concerns such as anxiety of not speaking the language.

- Out of the five participants that took part in the cultural probes, two of them were woman and both agreed that safety surrounding young females was their biggest worry when travelling.

- I looked further into this common worry and found on a travel website that "76% of woman travellers said that they would feel unsafe on holiday by themselves"

- This statistic was much higher than i ever expected and as Gurus day was fast approaching i decided to delve further into this topic surrounding 'safety'.





to Bag





Product App

Product Attached

Promotional Image Exploded View



Interactive Device

' Travelling can be a daunting experience for many solo backpackers, I am therefore wanting to combat against this issue with a handheld product that can be interacted with allowing users to connect through an app and 'buzz' one another through the device to 'check-up' on fellow travellers '



INITIAL IDEA - VENTOUR

WHAT?

- Solo travellers device
- Provides 'safety and connectivity' between backpackers within a certain radius
- A handheld product that can link up with a social app designed specifically for keeping in touch with one another.

WHY?

- To combat solo traveller worries around safety in foreign countries
- To provide a means of 'connection' between solo travellers

FUNCTION?

- There are two elements to the project; an interactive handheld device and a social media app that connects with the product
- The product would be secured to a user's backpack and if they feel like they may be in danger they can press the button which notifies the app that this individual is at risk.
- Once pressed, the notifications will ping the users location onto the app allowing for other tourists to see the location on a virtual map.

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GURUS DAY

Guru's day was a great experience that allowed us to show our progress to professionals in various lines of business. This was the first year that would be structured differently. As it was in the middle of a global pandemic we had to figure out a way to present our findings with professionals through the use of online software. We were each paired with two professionals who follow related design ideology to speak with at the beginning of the day, then in the afternoon, our work was displayed on an online forum called 'Miro Board' where all the professionals could browse through your work and leave written feedback.

Guru's day was a great turning point in my project. Up until this stage I was unsure of where my project was heading. 'Ventour' was the name I came up with for my solo traveller safety device and created three A3 boards to present on Miro.

I knew I had to throw everything I had previously learned and researched into a rough idea and goal. I understood that illustration through infographics had a concrete stance in my project already, so I, therefore, wanted to present my findings as clearly as possible through imagery.

Craig Lamb - Guru

The first professional I had the pleasure of speaking with was a Senior Product Designer at Skyscanner, Craig Lamb. Craig has been working with interaction design since university and has a strong understanding of Interaction software. At this point in my project, my main vision was to design a product and social media app to alleviate the stresses and provide connectivity for 'Solo' travelling when backpacking to new countries. After discussing my idea with Craig I received beneficial feedback that made me recognise how a social app would be too bold a risk for someone who has never really had much experience with any form of digital app software. He suggested I focus more on a physical product that has an effective function for solo travellers to hold on to their possession.

Rachael Farquarson - Guru

My second guru was a Product Designer at Wood Mackenzie Rachael Farquharson. Rachael was instantly engaged with my illustrative graphics and encouraged me to continue with this method of presenting findings/ideas. However, she couldn't quite understand how the experience would function as a whole and thought I was too vague with the role of the interaction and app. She suggested I took a few steps back to understand who my target market was focusing on and why it is something backpackers will carry with them, to provide a more grounded approach for my next stage in the project.



INSIGHTS - Gurus Day

The main insights I received from the Gurus helped me to understand where my project was heading and what elements I would carry forward into my project development.

1. Don't stray too far away from the main focus of the project

- Understanding the projects core themes and how the project can effectively combat against something that is an evident issue.

2. Understanding who you are designing for and what the product can do to benefit this individual

- Putting attention on what is reoccurring issue regarding travel and design something that backpackers would find interesting and engaging

3. Attention to detail while also remaining as simple and as user friendly as possible.

- The simpler you make it the more refined and greater effort you can apply to the detailed aspects of the project

After being hesitant and vague with my first concept, it was

made apparent that I would need to reframe my project. This would mean I would need to give myself a fresh start on the task at hand by correlating everything I had previously undertaken.

I knew I needed to stop progressing on with a constantly staggered project and instead gather my thoughts through a mind map.

With a new approach in mind for my project I decided it was important to once again bring everything, I had previously researched from the various interviews and create a 'brain dump', a term used for a mind map of sorts.

Labelled below are screen grabs from the 'brain dump' i created which effectively scatters the subheadings off to help break down each element of the project. The three most important subheadings were inspiration, adapting product and takeaways, which brought each refined idea and outcome into one concluding subheading.



MINIMALISM INSPIRATION

Phillipe Starck

LaCie Blade Runner

I was inspired by the minimalist 'Blade Runner' hard drive designed by french designer Phillipe Starck. I was drawn to this design by its merge of both geometric and flowing form of design together. Starck is always trying to show beauty through his designs through form and function.

Jasper Morrison

Free Box Delta

After discovering the works of Jasper Morrison I stumbled across the 'Free Box' speaker and immediately found the design to effectively integrate contrasting colours/materials to assist the user in navigating around the function of the product. User-friendliness is something I regard highly through my design.

Naoto Fukasawa

Wall Mounted CD Player

Japanese designer Naoto Fukasawa is known for his contemporary designs for home living. The 'Wallmounted CD player' is a great example of effective minimalism within the living environment. Design that compliments the setting it is based in.

Newly inspired designers such as Philippe Starck, Naoto Fukasawa and Jasper Morrison all provided great insights into the form and the flow of their designs. I have always been interested in a minimalist approach regarding how to manufacture a simple or complex form that can be communicated in a user-friendly manner.

Each designer provided a different method to their designs whether that be through form or function. I understood that both user-friendliness and function through minimalism was at the core of my project. How could I design something that would encourage users to interact with it while also remaining complimentary to the environment it's based in?







'TAKE AWAYS'

Once everything was dissected within the 'brain dump' i was able to select the most valuable insights from each category. Each element I chose was finalised in a grouping called the 'Take Aways'. This concluding mind map helped me understand the core insights I had gathered throughout this project up until this point and to help form a more grounded approach through minimalist inspiration.

After a lot of thought, I decided to focus on tourists as a whole and thought the best environment to engage with these individuals is in a hostel. I was interested in experimenting with an interaction that sparked the idea of 'play' for backpackers in the hostel. A playful interaction that provides a way for tourists to stop and connect within the busy hostel environment. A card concept interested me as I found a card interaction that dispensed cards for kids to help them learn words.







HOSTEL INTERACTION

After speaking to the Gurus, I realised my safety concept 'Ventour' lacked function and meaning and instead focused entirely on the aesthetic and form. This was a turning point in my project where I had to begin to understand who I was designing for? Where would this be? Why is it important? before anything else.

I, therefore, took a step back and created a mind map where I was able to highlight the positives/negatives of my project and look at my takeaways ranging from cultural probes, research into art forms e.g. minimalism and what experiences travellers look for. Finally creating links between all these topics.

WHO? Travellers in general! From the beginning, I've been focusing on such a niche idea for a small group of travellers. Why not design a concept all travellers can interact/play/function together as a 'Community.'

WHERE? Hostel! With a fast-paced environment from a group, individual, shy, confident, introvert, extrovert, old and young travellers. This is the perfect location to base something that can be easily accessed and interacted with.

WHAT? From the mind map I was able to form a starting structure under 'three' main headings and venturing away from the idea of safety and more into the experience they can access through the physical side regarding; SEE, HEAR, and MEET.

WHY? It was a difficult decision to take a step back from something you've been working on for months and understand that the concept was rather vague and optimistic. Instead by looking at a more general and grounded concept slowly began to generate more inspired solutions for a project I can be happy to call my own.



The project has been split into three different elements; Card concept, Interaction and the Browse/Display. I will begin to discuss and dissect each element to clarify the reasoning around what each aspect contributes to the user experience.

MARK 1: ILLUSTRATED CARDS



After speaking with my lecturer we decided the best approach would be to have the cards solely based on Dundee City as this is somewhere I am familiar with

and have stayed just short of four years in.

PERSONALISED CARDS



The concept i have developed include three cards that will be randomly generated out of an interactive machine (SEE, HEAR and MEET).

After disregarding the safety angle of my project as it was something i felt like i would struggle to combat through design principles, i wanted to delve further into the approaches led by connection and how travellers could connect through a fun user experience.

As you can see i have highlighted the function of each card and what various personalisation aspects each contains. I wanted this to be a random yet engaging experience for all backpackers to take part in. When a card is presented to a user they have the option to leave feedback on their stay in that city, stories from past travels and a bit about themselves. This feedback is written on the card then placed in a browsing section for everyone to discover and flip through to be indulged with cool and unique points of interest they may never have heard of if they were to pick up a dated pamphlet in a hostel reception.



INTERACTION

I wanted the cards to be provided to the backpackers through a fun and playful interaction. I believed that by designing an interactive device that could perfectly implement each element accordingly for where it would be placed in the hostel.

I began to explore various forms for the interaction and numerous ways the cards could be displayed/browsed and distributed out the machine. Would the cards be printed out at random? or would the user be encouraged to choose one of the three cards themselves?



I have designed and illustrated several variations of the initial interaction model.

wanted to effectively convey all three elements displayed around this one model and function to assist in a streamlined user experience.

COMPONENT VARIATION ORTHOGRAPHIC

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DETAILED COMPONENT **ORTHOGRAPHIC**

INTERACTION SKETCHES

3D CAD RENDERS OF INTERACTION



1 PUSH BUTTON INTERACTION WHERE CARD IS PRINTED OUT FROM FUNCTION

02

Ol.





3 PUSH BUTTON INTERACTION WHERE CARDS ON DISPLAY ARE LIT UP BY LEDS DEPENDING ON WHCH BUTTON IS PRESSED





PUSH BUTTON

INTERACTION FUNCTION







As I wanted this interaction to be a fun and playful experience for backpackers staying in the hostel, I knew that Arduino intuitive functions would be most suitable for this type of project.

After looking into various functions I could incorporate to provide the vision I had for the interaction, I started playing around with pushbutton functions and soon discovered how satisfying the click was.

A push-button is something that is so simple yet could create such a meaningful interaction.

I would have to merge this push button with a secondary function for the output of the cards. I wanted to look at methods of printing the cards out next.

BROWSE/DISPLAY

The final element of the project includes the browse/display feature. This would be where the users place the cards they recieved from the interaction after they have personalised them.

The display element provides insights for other travellers to acquire information on the cities various points of interest, a chance to connect with other backpackers or to read interesting stories about different experiences from past travels.

As this is the final feature of the project, i wanted it to round the experience up nicely in a professional manner.









I researched into various forms the browse/display element could take that would be easily accessed and presented suitably.

I started looking at ways business cards in offices or receptions were positioned as they are designed to grab attention from passerby's.

Each example shown features similar design styles and grouping of cards.

The issue with my project is that there are three varied cards. If they were to be presented in this physical format they would become obsolete as the 'MEET' cards were structured to assist tourists in the hostel connecting with others in the time frame they are staying.

INSIGHTS - HOSTEL INTERACTION

At this stage in my honours project, I felt as though I was where I needed to be. For the majority of the first semester, I was understanding the travel sector as greatly as I could and with a slight misdirection, I was able to return my focus to a more grounded approach in design.

The three elements I had created while not entirely certain where I was headed I knew it was a solid foundation to develop further into my project. By splitting this element up it allowed me to develop and refine in greater detail to bring the whole experience full circle and with a satisfying end.

My next steps at this stage were once again to define each component to give it as many distinct characteristics as possible.

I had to split up my time accordingly for each element to avoid underdevelopment. This would include further research into existing products for inspiration and model making or the physical awareness of the product functioning in this livable space.

I interviewed Helen Oliver (a ski instructor based in the french alps) for an insight into the hostel dynamics and to understand what she looks for within these environments

When discussing over a zoom call I began to ask general questions going into more focused ideas. Here are a couple;

How often have you visited hostels?

I've been to many hostels in my lifetime, too many to count What would you say is the biggest issue

with hostels? For the most part hostels are structured well

however in many there issues with not knowing where to start exploring ? What is something that is important to you when visiting new hostels?

Having something to remember your time at the city you have travelled to. Like a memento



Helen Oliver - Ski Coach based in Scotland 36

DEFINING THE ELEMENTS

During the interim presentation, I was able to explain my current vision for my honours project. My lecturer liked the idea I had pitched, however, he saw that I was still in the early stages of development and needed to implement more of my expression within it.

At this stage of the project, I wanted to explore how each card can be unique and act as a prompt for users to explore the city they are based in.

As illustration has such a prominent purpose within my honours project, I feel it is vital to carry on this approach into my next development stages and somehow link the card visuals and user experience through prompts and user personalisation.

My initial card prototypes were perceived as bland and lifeless.

For my next design iterations, I wanted to experiment with a sketching software I had become recently captivated with.

This software was 'Sketchbook'. After looking into various card examples and concepts on the website 'eye on design' i was inspired to implement various styles into my work.

These consisted of 'INDUSTRIAL', 'ABSTRACT', and 'PLAYFUL' illustrated cards.

DEFINE

CARD GRAPHIC INSPIRATION

COCKROACHES, WHITE KNIGHTS + ONE-EYED MONSTERS: DECODING BELARUS WAR GRAPHICS







Привет, Москва!

TROYKA CARD

CHINESE NEW YEAR

Each graphic is telling the same story of the war in Belarus through a different style and approach



COLOURFUL VISUALS PETROSAINS

MARK 2: ILLUSTRATED CARDS





INDUSTRIAL

DUNDEE LAW



ABSTRACT



FOLLOWER FEEDBACK/ RESPONSES



After designing my new illustrative cards on Sketchbook I asked my Instagram followers what their favourite and most ENGAGING cards were.

I received a great response from posting the three cards on my story. As this was my first iteration of cards that I had designed through Sketchbook I wanted to test three separate art styles for three different points of interest in Dundee City. This was structured as INDUSTRIAL, ABSTRACT and PLAYFUL.

Industrials card was illustrated for '71 Brewing', Abstract was for 'Dundee Law' and Playful was for 'Kings Theatre'.

The overall consensus was split between Industrial and Abstract as being the most visually pleasing and engaging.

PROFESSIONALS IN TRAVEL

UNDERSTANDING THE SPACE WITHIN THE HOSTEL ENVIRONMENT



FRASER LAWSON Hostel Rep based in Australia 6 Years in the business as Hostel Rep Melbourne & Sydney

"I think the common room would be the ideal place for it. All hostel spaces are different so it would depend on each space."

"Some hostels have a small area for flyers/pamphlets/tours if a hostel promotes and or books tours which usually close to reception or the common room"

"As all hostels are different sized it is about identifying the hostel's space you are basing your product in. Understanding where people usually congregate such as the kitchen and even at the bar in some places".

SARAH EUNSON Hostel Rep based in England 3 Years in the business as Hostel Rep England

"From my experience in hostels, I have found that backpackers are constantly rushing about and therefore if you are going to create a physical device then it will have to stand out from the crowd and grab users attention".

"There is a gap in the market for a device you are pitching as so many tourists follow the same route when in these hostels whether that is through reps or word of mouth. Having an interaction that allows for tourists to stop and engage with this product is smart". According to the Dundee Courier "524,410 visitors came to the city between January and June, including day trippers and those staying overnight".



After speaking with Fraser and Sarah it was reiterated that the best place to have the interaction would be in a Hostel. As I had already decided I would base my project in Dundee City I just had to choose a suitable hostel for my interaction.

I eventually decided on 'Dundee Backpackers' for my hostel of choice as it was centrally based in the city with the highest ratings and intake of tourists per year.

After contacting them we chatted for a while and they suggested the common-room space would be the ideal room to locate the device as it's the area most tourists pass through/chill in. They were excited to see how my final prototype would function and allowed me to take photographs for my final images within the hostel.

MARK 2: ILLUSTRATED BACKSIDE OF CARDS



INDUSTRIAL

DUNDEE LAW



ABSTRACT





MARK 2: ILLUSTRATED FRONT AND BACKSIDE



For my mark two versions of my illustrated cards, I firstly wanted to present the detail and navigation elements in more depth. This was achieved through the remapping of the city layout of Dundee.

From the three-card examples I have shown for the mark two prototypes each map type is different. I wanted to see if a 'full map' of Dundee or 'partial map' would be more appropriate to have on the backsides of these cards. On each card, the directions were highlighted with a 'RED' icon symbolising the 'Backpackers hostel' and a 'GREEN' icon symbolising the Point of Interest on the card.

Each card backside features a different angle on 'personalisation'. When the tourists receive these it will prompt them to visit the location by letting them in on what to expect at the location e.g. Kings theatre; Spotify song link 'Funky Town' or a selection of beers on the '71 Brewing' encouraging the backpacker to go and try all three brews.

For the front sides of the cards, I was happy expressing my art style through illustration but for later iterations, I believed acquiring inspiration from other art sources would be beneficial.





INTERACTIVE INSPO/SKETCHES



For my first physical prototype model, i wanted to understand the form the interaction would take when situated within the hostel. How large it would be? and how the cards would sit within?

I began sketching several examples of what I believed to be the most suitable with a visible push button on top. I wanted the interaction to hide the cards within effectively so it gives the impression it is printed when it's not actually.

I contacted Bruce (a business traveller based in the US) for some insight into form and user understanding for the cardboard model.

MARK 1: INTERACTIVE CARD MACHINE



For my first interactive iteration, I was going for a basic starting form which was achieved through cardboard. The cardboard was a quick material to prototype with and also had the appropriate sturdiness. The cards would be housed within and the goal was for the user to press the push button with no other understanding around the device.

The function is the red 'push button' clearly labelled 'press here' on top the output is the cards sliding out from within achieved by a 'stepper motor' housed underneath.

I was pleased with the first iteration as it achieved what I had set out to do. The clear understanding to push the button and something happens in return.

For my future iterations, i wanted to design it with more robust material and this time focus on drawing attention through its visual characteristics.



Bruce Herriott Business traveller based in the USA

I asked Bruce what he thought about the interactive machine prototype:

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"From the looks of it, the interaction looks very user friendly. There is a clear message written on top. I would say, however that it looks a bit small and could potentially be hard to spot in an open room".

STEPPER MOTOR FUNCTION



Motor Lever Interaction Slider









When brainstorming over how I could print the card out of the interactive device, I knew that the printer function would prevent me from producing hard card copies of the card prompts.

The printers associated with Arduino are mainly paper receipt functions which were not what I was looking for.

I had used stepper motors previously and had an idea of some sort of lever function to push the cards out from within. This would give the illusion of a printed card within the interaction to the user however all it is doing is distributing preprinted cards out one at a time.

I initially created two motor levers. one rounded and one rectangular to understand how the cards could be pushed out from within the interaction.

The rectangular lever seemed to be more effective over the rounded and decided to wrap elastic band to provide grip on the cards from the 'rubber'.

BROWSE/DISPLAY - VIRTUAL

Showcasing the personalised cards was the biggest issue I had understanding at this stage of my project. There was no display form I could think of that could effectively present the cards for other backpackers to browse through.

After speaking with my advisor we concluded that maybe this element wasn't going to be effectively implemented through a physical form but rather a virtual model instead.

This virtual format would have to be accessed by every backpacker therefore, I decided the best place to submit these personalisations would be on an Instagram hashtag.

I went through various names that seemed appropriate enough for user attention. The handle name I eventually settled on was **#ONTHEMAPDUNDEE**. A punchy slogan where users could upload their card personalisations and browse through other backpackers previous posts.

'A free online forum for all to edit and browse through'



MARK 2: INTERACTIVE CARD MACHINE

The mark 2 interactive card machine was focusing on the ability to grab users attention within the hostel achieved through the presence of colour. This is where I also began to experiment around with symbolism rather than text on the surface of the machine.

Attention to detail is important with a device like a card printer. If it's blending in with its environment too effectively then it will be easily missed and overlooked.



I concentrated on how I could effectively distribute one card at a time from the pressing of the push button. Hardboard was used for this iteration, however as DJCAD was still closed due to the ongoing virus, I had to cut each piece with a craft knife which resulted in uneven edges and placement of parts.

As the material was robust I could test the sliding of each card more effectively with an added tilt. The tilt wasn't inclined far enough therefore the cards were still coming out in groups of three or four.

I knew for my next prototype this would have to be most likely laser cut with a steeper incline for the cards on top to fall back and provide one card at a time.

Tom Roberts - Travel Rep based in Czech Republic

"The colours on the device are very bright and engaging however, it has too much going on in it. Maybe next time limit the colours slightly"



LOGO USER ENGAGEMENT



Experimenting around the understanding of logos throughout the design language of my interaction helps to provide for all backpackers as text could be the issue regarding language barriers.

Hostels are places where people travel from various locations from around the world. If the device features one language primarily English, then this could be difficult for non English speakers to function.

Logos and signs are universal language that anyone can recognise and understand which is why I wanted to test out the replacement of text with logos. Two logos would be chosen and placed on eitherside of the device. Icons also can define a brand and remain eye-catching.





ALBUM COVER ART INPIRATION

After having successfully designed ten-card variations for my prompt card collection, I decided that it would be interesting to take inspiration from other art forms. I have always been drawn to album covers as they are made to stand out from the crowd.

I picked out my favourite albums to borrow art styles from and put my spin through drawn illustration. The top line is the album covers and the second line down is my drawn illustrations.

As much as these art styles are illustrated from my ability, I enjoyed taking inspiration from other designs as I could merge the two.



I was at a stage in my card prototypes where I wasn't sure if it would be best to have the backsides colourful and correspond to its front-facing card or to keep every backside the same beige colour, which I believed gave a more professional look to it.

I decided the best approach would be to keep them all with their unique colours as the prompts were so varied with unique map types all feature a range of colour.



MARK 3: INTERACTIVE DEVICE - SKETCHES. USER EXPERIENCE AND INTERIOR BREAKDOWN



Geometric Sketches of potential Mark

3 Device

Pablo tested out the mark 3 interactive device for user experience. No instructions were provided prior to the test run.

" The interaction is so easy to use and very satisfying. I like how the card flops out of the slot. I was provided with the DCA card and cant wait to go visit the gallery".

USER TESTING MARK 3

Pablo Rodriguez Avid Traveller

Below are a few images showcasing the interior of the interaction mark 3. I have placed a ledge and tilted the slider at more of an angle for the cards to slide out more easily. The stepper motor would sit on top of that ledge with the wooden beam supporting its weight. Having the motor positioned underneath is the most suitable place for wiring and accessibility.

Card Slider Sits At 155 degree tilt within

155°

images showcasin





3D RENDERED CARD PRINTER ITERATIONS



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MARK 3 - FINAL MODELS (PHYSICAL & CAD)



I was happy with how the mark 3 prototype came out and the implementation of the logos helped to reiterate the use of icons over text to accomplish this mysterious idea surrounding the interaction as well as reiterating the minimalist art style.

The cards were coming out one at a time 7 out of 10 times which was better but not good enough. This was most likely due to the slider not being tilted at a steep enough angle. I, therefore for my next and final prototype wanted to ensure it was one card at a time every time the machine was interacted with. For this prototype i took all form of colour away in response to Tom mentioning how there was too much colour present in the last iteration.

As more attention was going towards the logos I decided the colour was not needed for this iteration. The card was distributed at a perfect angle and I was happy with the size of the device which was larger than the last two prototypes.

> BACKPACKER POSTING ON STORY SPREADING #ONTHEMAPDUNDEE



KILTED KANGAROO POSTING CARD ON INSTAGRAM STORY



MARK 3 ILLUSTRATIVE CARDS

FINAL BACKSIDE CARD DETAILS



Mark 3 cards were the final cards I decided were suitable for print and had all the relevant and adequate detail needed for the final card prompts. Refined maps and directions to ensure backpacker can easily navigate around the city. I realised after user testing and when i received feedback from participants that it was more beneficial to have a prompt such as a 'discounted ticket or a free drinks token' as a marketing solution and provide a greater reason to visit said location.

If it would be possible to turn these cards into sponsored ads for the bars, museums or restaurants, then by having these cards present in the hostel, both companies could benefit from one another. This would solve the issue of having to pay for new cards every couple of weeks. If the companies are being sponsored the cards would be ordered for free through these businesses when the tourists start visiting the locations they receive from the card printer.



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PROMPT CARD PACKAGING

Below are three card packaging iterations for the shipment of the cards to send from the print company to the Dundee Backpackers Hostel.

After locating and contacting a sustainable printing company 'HATCH' in London, I was able to put an order in for the final prompt cards i had created. These cards will need to be shipped every few weeks.

I decided to develop three-card packaging concepts (abstract, industrial and geometric) then ask my Instagram followers which was the most engaging/suitable design was. Iteration 2 was the most voted for as it followed a similar colour scheme to the rest of my project.





FINAL CARD PACKAGING

The 20 printed cards don't have 'Curiocity Cards' written on them as I wanted it to be a mystery as that's what the experience is mainly focusing on, however for brand's sake I think if this was to be manufactured I would most likely include the branding in some form rather than just on packaging.





For the branding of my project, I wanted to include the use of logos I had previously mentioned and used for the physical interactive device. This would tie the project up nicely as I would be referencing back to what is being displayed on the interactive devices sidewalls keeping the project in tandem.

The name 'Curiocity Cards' came towards the end of the project and when I finally decided on the logo and branding it all felt as though this was the best possible result I could have hoped for. 'A mysterious interaction within a city'.



DEFINING ELEMENTS: INSIGHTS

Mark 2&3 Prompt Card Iterations:

After receiving feedback on mark 1 card iterations I delved further into forms of inspiration and asking my Instagram followers what was the most engaging at each stage of development, allowing me to constantly refine. User engagement is key to the evolution of the cards as I sometimes don't notice the small details others can pick up, which improves the overall look.

Mark 1,2 and 3 Interactive card printer:

For each prototype, i focused on a separate angle to bring each solution into one final model. Mark 1 focused on basic function and display, on how user friendly it is through the feature of a push button and visible text. mark 2 on the other hand focused more so on the engagement through visuals such as basic logos and bright colour schemes. Finally, on mark 3, I explored the idea of functionality through icons/symbols, further refining them to what others have expressed are suitable. All three iterations have allowed me to take the positive functions onto my final outcome.

Professionals in Travel Feedback:

I was lucky enough to speak with such a range of professionals in the tourism field, providing me with further insights into the industry of travel and more importantly hostels. Due to covid, it has been difficult to access physical spaces in person so having the option to call someone from the other side of the world to talk about the project was a breath of fresh air.

Virtual Browse Display:

I was excited when my advisor and I first discussed the possibility of a virtual browsing format rather than a physical layout. It made perfect sense as backpackers are busy people who don't tend to slow down. So by having this free online platform to upload and browse through at any time was suitable.

Card Packaging and Project Brand:

The card packaging was an enjoyable experience and rounded off the project nicely. I felt before mentioning this element that everything else was solidified and being refined and covering this important component within the project it helps to develop the experience further in a streamlined manner.





GREAT IMAGE 1 - ILLUSTRATION

'Curiocity Cards' Illustrated Promotional Poster. I was wanting one of my three great images to be of an illustrated city view of Dundee to reiterate the illustrative prominence throughout my project one last time.





When backpacking through foreign land it can be difficult to know where to start. All too often does it feel as though you are following the same pathways as other travellers? What if there was the chance to adapt and focus, perhaps disrupt the traditional catchall through a meaningful experience based in a Hostel environment.

In essence, I believe that practicality is the key to functionality and through design-led thinking and the use of intriguing illustration, I aim to correct and adapt current issues specifically in the travel and tourism sector by connecting through social media presence.

Hostels are known to be fast-paced settings with frequent coming and going of tourists. Additionally, there is a lacklustre, lazy approach established on tourist navigation around the city they are travelling in. By slowing down this movement and replacing it with a playful presence that gives the backpacker a second to breathe in their surroundings through three key elements. Each element stimulating the expression of play.

'Curiocity Cards' provide an effective approach to city exploration for travellers based in a hostel, through playful interaction that sparks curiosity and prompts users to discover noteworthy points of interests in the city of Dundee, which can be shared and browsed for all to see and engage with.

5 5

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Curiocity Cards is a unique user experience that provides a way for tourists staying in the Dundee Backpackers Hostel to explore the city in a fun and playful way. This experience has three elements to it which all conclude to an end goal for all backpackers visiting Dundee with a memento to remember their stay. No two experience for any backpacker will be the same and this interactive foundation within the hostel can be expanded on through the social media presence of all the backpackers taking part.

The final three element i have covered thoughout the project have been developed to a professional standard with a user friendly process from start to finish. The user experience as a whole has achieved the playful expression flawlessly.

GREAT IMAGE 2 - DEVICE AND CARDS WITHIN HOSTEL ENVIRONMENT



PROMPT CARD DISSECTION



Dissection example of a final card prompt with all the relevant information that would be displayed on the backside of the Curiocity Prompt Cards. Every card follows similar elements with individual details.

Cards are 55mm x 85mm, 400 GSM Recycled Print

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INTERACTION PRELIMINARY ORTHOGRAPHIC



Dimensions specified for the final interactive card machine prototype in mm using Adobe Illustrator. The interior motor and slider are drawn where they would be positioned within the device with correct angles.

EXPLODED ORTHOGRAPHIC

INTERACTIVE CARD PRINTER

Exploded Orthographic render of final Interactive card printer with listed and annotated parts specified in the table.

Created and rendered in Fusion 360, it shows how each part would be separated away from the interactive card printer.



1	Side Wall 1	Plastic	8	Card Slider	Wood	15	Arduino Uno	Circuit Board
2	Roof Slab 1	Wood	9	Front Slab Outer	Wood	16	Card Provider Cog	Rubber & Wood
3	Roof Slab 2	Wood	10	Front Slab	Wood	17	Stepper Motor	Electronic/ Metal
4	Roof Slab 3	Wood	11	Card Prompt	Wood	18	Support Ledge	Wood
5	Button Interaction	Plastic	12	Base	Wood	19	Support Beam	Wood
6	Back Slab	Wood	13	Card Support	Wood	20	Side Wall 2	Plastic
7	Card Cover	Wood	14	Motor Battery	Battery Pack			
INTERACTIVE CARD PRINTER FINAL PARTS DETAILED



STEPPER MOTOR

The motor is housed within the card machine underneath the slider and has been positioned to efficiently provide one pre-printed 'Curiocity Card' at random due to the angle of the slider.



E

STEPPER MOTOR - COG

The motor that is used to push the cards out is a cylindrical cog measuring 30mm in diameter. This was the most effective component for ensuring the cards are pushed out of the device every time.

INTERACTION SHELL

Reclaimed birchwood was used for the shell of the device and card slider. Recycled plastic was used for the side walls. These two materials contrasted effectively with one another.



The birchwood's quality was enhanced by sanding the surface then applying danish wood oil that was rubbed on each part three separate times so it had a chance to soak in, resulting in a highly varnished surface.









REAL LIFE

EDITED

As you can see, above i have designed the interactive card machine out of segments giving a geometric look then glued them together using wood glue and left the wires visable. However on the edited version it is smooth and no wires. This was a decision i made as i was worried that the surface would become effected by the wood filler so kept each part seperate, and the wires would sit in a wooden compartment when in the hostel anyways. For the photos sake i decided editing it to show what it would look like in its final form.



FRONT ILLUSTRATIONS FINAL CARD PROMPTS



















CORRESPONDING BACKSIDES























































20 Prompt cards have been designed and printed. All 20 cards are unique on both the front 'illustrative' sides as well as the back 'informative' and all feature varied prompts. Ranging from 'Take a photograph of the HMS Unicorn ship' to 'Mystery Location somewhere in this area' for the Secret Bar.

All these cards will be housed within the device '20 max' and will be randomly distributed out from within when the user interacts with the push button.



I'm glad I kept the corresponding colours on the backsides as it gives a great range of unique cards backpackers can keep as a memento after they have visited the location of interest and uploaded to the Instagram hashtag.

The sense of individuality between each card is what makes the Curiocity Cards shine and become this great experience everybody wants to get involved with and tell one another about. It has the potential to reach greater heights with new cards and locations.



DIRECTIONS ON

HOW TO GET

THERE!!

Below is the storyboard for the Instagram handle #ONTHEMAPDUNDEE, which backpackers have the option to upload to when they are provided with a unique prompt card from the card printer within the hostel.

Every time a new card is uploaded to the Instagram page it forms another link on the map of Dundee. After a while, this page will have many cool spots for backpackers to see and visit!





#ONTHEMAPDUNDEE

'DISCOVER'

Backpacker is directed to location through a map on the back of the card.

Arrives at destination: 'Kilted Kangaroo Bar'







After the backpacker has browsed through the posts they can upload their own card to provide a new location for backpackers to visit, adding to #ONTHEMAPDUNDEE'.

The more uploads of cards, the greater the online page will be, with rich feedback and a way for backpackers to successfully navigate the city through this fun user experience.

'UPLOAD'

Card can be kept as a 'memento' to remember their travels through Dundee City







SUSTAINABLE DESIGN MAP





PROMOTIONAL GRAPHIC

Promotional poster of Interaction within its hostel environment (backpacker interacting in common room space).

This poster could be put up in Dundee Backpackers for an insight into the function of the device as well as revealing the location of the interaction in the common-room space.

Above I have listed all the materials and parts for the Interactive card printer, Curiocity Cards and card packaging. I wanted to make the cards as sustainable as possible so contacted a sustainable printing company called 'HATCH' who could ship these recycled cards to the hostel.

The interaction is made from upcycled birchwood I found at the reuse centre and is cheap material. Recycled plastic was used for the side walls of the device and some of the wood was engraved using a laser cutter for fine detail.

GREAT IMAGE 3 - INTERACTIVE CARD PRINTER



Above is the final image of the interactive card machine with visable 'Curiocity Cards'. This minimalist device has been developed and refined through various design iterations, to it's final form. I am happy with how it turned out and the contrasting colours between the whites and oil stained oaky Birchwood are visually appealing. The logos on either side have been painted using orange acryllic and once again achive this visual language through imagery. The printed cards are vibrant and professionally developed.





1 MINUTE VIDEO



As the video had to be 1 minute long, time was of the essence. I, therefore, planned out my video in a suitable format that could spotlight each of the three elements within my project (Interaction, Card Prompt and online hashtag).

I decided that I would structure it as it would be completed in real-time through the user experience. As you can see above, in most of the screengrabs there is a singular word signifying the importance at that stage of the 'Curiocity Card' experience.

It's a clear and structured video, with small excerpts of dialogue that helps move the story along. The backpacker in the video is me and wanted to take centre stage to express what I belive to be the current issue within hostels at the beginning of the video, where I break the 4th wall and look into the camera as I walk towards it. It is filmed in my flat pretending to be 'Dundee Backpackers Hostel' and outside the DCA. It was filmed by Andrew Arthur who had a 4K filming camera to capture the amazing shots.

CRITICAL REFLECTION

Coming into the fourth year and beginning our honours project we were unfortunate enough to be in the middle of the global pandemic. All of our 3D and woodwork spaces were shut from the get-go which made things highly stressful for the beginning stages of our project.

The motivation was the biggest struggle with a lack of interaction with peers from within the DJCAD spaces which were all closed for the foreseeable. With no idea into when the facilities would open back up, we had no choice but to put pen to paper and get the ideas flowing.

I knew long before starting my fourth year that a product within the travel industry would be something I would strive to make in some way or another. Creating this fun project i could get friends and family involved in exploring the city, was a great boost in my confidence within the crazy world events occuring. This sector has always fascinated me with its vastness for change and adaptability. I have said previously and would like to reiterate that from the initial stages of idea generation and design work, clear and grounded work is the key for understanding what you are talking about as well as peers understanding.

I can look back at where I began in this project and realise how far i've come from understanding the basic subject of travel, to being indulged in the wide range of stories and travel worries from people in all different parts of the globe. By hearing and understanding the main issue I could in some way accomodate each interviewee with this solution.

'Curiocity Cards' has evidentily been refined and developed throughout this difficult year, with several design blocks however, has finally been brought to a satisfying end for the project i am confident to call my own.

Provided the opportunity to further 'Curiocity Cards' i believe the template is greatly accessable in any city. This could be a brand that could reach hostels all over the world and create these personalised cards unique to the points of interests. Providing individuality for all with these mystery cards.





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