Product Design studio

Visual report / Sept’ 2019

Designing for social impact

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Introduction

Evaluating ideas through research

Visual report

To design for social impact, BNB & Co approached marginalisation in a new frame.

Designing for marginalisation or disadvantage is complicated. Prior interventions we explored were great advertising, but had low impact - in our process we now understand why this is. It can be tempting to think of designing for social innovation as cutting up marginalised groups into neat boxes of target groups to study and create for.

We vehemently argued that this perspective is fundamentally flawed. Our communication of our position - evincing reflection and critique of urban environment practices in privileged, empowered users to create flow-on change - was initially hard to interpret for stakeholders.

To cement the merit of our direction and analyse the effects of our concepts on target privileged and marginalised user groups - BNB & Co designed and conducted multiple conceptual, product, and interaction evaluation activities.

This report will detail how and why these activities drove iteration into a new direction, allowing us to select a concept and build it into a functionality specification for further refinement and creation.

Ideation themes

Create empathy through self reflexive interactions in bespoke artistic or pragmatic interventions in a way that evinces empathic realisation and critical thought

Engage citizens in spheres of their local communities people and organisations in an active way (through thought, financial, informational methods)

Communicate how our unawareness of technological illiteracy creates an exclusive environment and leaves people by the wayside

Create artefacts that when interacted with leave a lasting impression and seek sharing - change thought paradigms individually that are shared digitally at scale.

Research objectives

To understand current user experiences and perceptions on community organisations, donations, marginalised groups and digital artwork

To understand and capture future user perceptions/imaginations of interactive artwork concepts

To understand what users would expect of and be looking for in these concepts (aesthetic, contextual, focus)

To capture what ways users imagine they would interact with these concepts

What messages do these concepts immediately communicate

To theorise how feasible and viable these concepts are

How do these concept imaginations make people feel and are they theoretically supportive of ideation themes

Evaluation method

User testing

Online survey

What

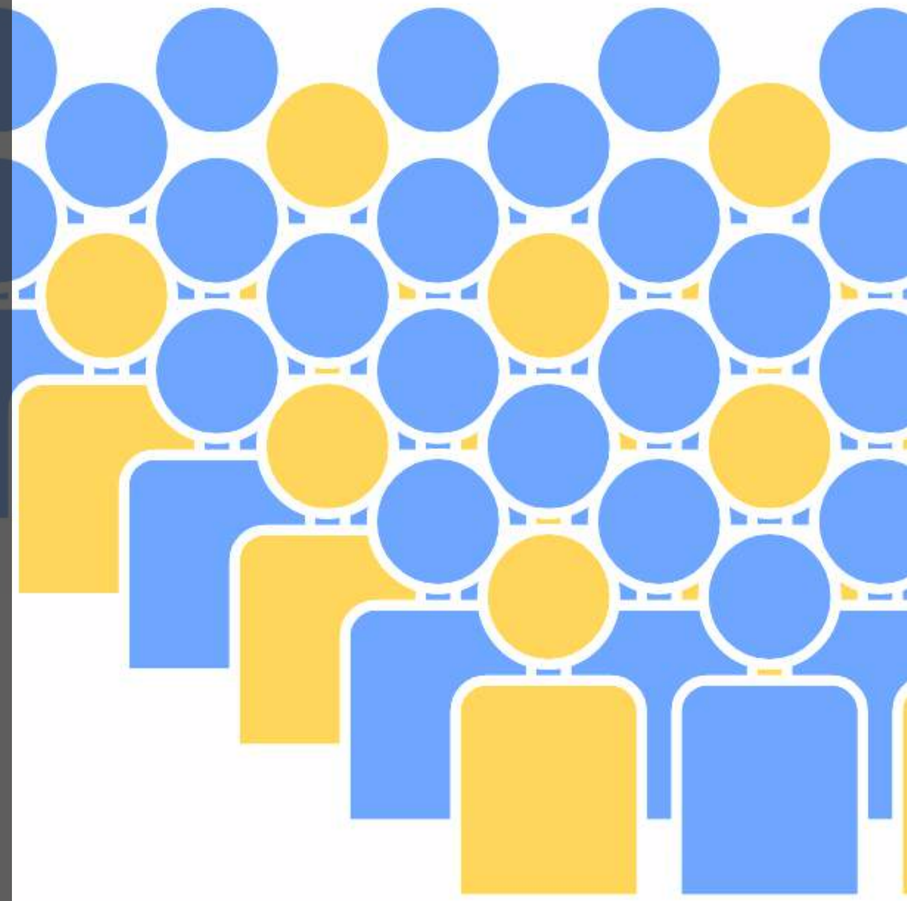
An online survey with questions focused on collecting quantitative and qualitative data on behaviours and attitudes associated with donations, charitable organisations, and perceived affect of community organisations in Sydney.

Why

As one of our initial concepts and ideation frames involved making donations - it was essential to our understanding and design process to collect behaviour and attitudinal data towards these from a local Sydney perspective. We wanted to contrast amount and charity type with user perceptions of how these donations are used and if perceivable affect of these donations was a driver.

How

The survey was created based on secondary research and delivered via Google Forms. It was sent to selected participants based on differing education, income and proximity, rather than posted to scale.



Evaluation method

User testing

Online survey

Research goal

To understand and evaluate our target demographic's perceptions of charitable organisations, modes of donation and the current solutions applied by the city of Sydney to empower community organisations.

Participant selection

20 participants total: ten females and ten males aged 19-29.

We used a broad range in our subset of participants that aimed to accurately sample the wider population of Sydney (our chosen context). It was sent to selected participants based on differing education, income and proximity, rather than posted to scale.

Questions

The first section of the survey was used to solidify the demographic of users participating
Next, we targeted their perceptions of charitable organisations to understand:

1. What prevents people donating to community/charitable organisations?
2. What types charities people most often interact with?

The third section was centred around the modality of donation transactions.

1. How much on average would you say you donate at a time?
2. What is your most common medium of donation to charity?

Finally, we focused on the efforts that exist in the city of Sydney.

1. What ways have you seen to donate to a charitable organisation in the City of Sydney?
2. Out of these ways to donate - which one do you perceive as being least effective?

Recording method

Selected participants were sent a link to the Google survey and requested to take their time to complete it. We were asking participants to consider all of their answers carefully and answer honestly as their personal details were not recorded or displayed anywhere.

Evaluation method

User testing

Pre & post experience questionnaire

Visual report

What

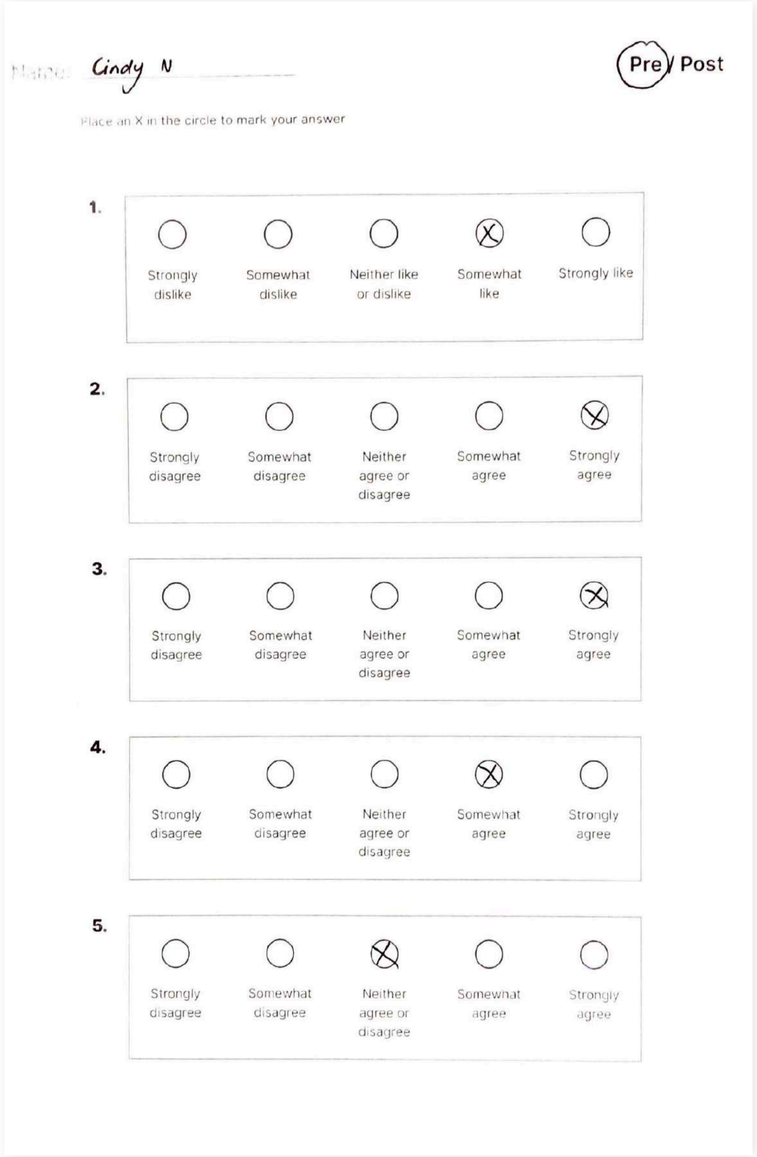
This form of user testing involves recruiting an even mix of participants who have not experienced marginalisation factors and those who have to gather contrasting experience data. The combination of a short semi-structured interview and statement cards to be rated were presented to each participant pre and post experience test.

Why

We needed a way to evaluate whether or not our assumptions about the target demographic were correct. This methodology helped us test our research objectives based around invoking empathy and self reflection. We needed a way to incite responses from the participants about specific issues that we were researching, without biasing their responses. This method works well as they are phrased in a way so that there is no preconceptions attached to them and so the participant can either agree, refute or discuss and discover as they move through the session.

How

Participants were asked to rate their attitudes to selection of statements presented to them. Each participant was given a sheet of paper with Likert scales corresponding to each statement and asked to read each one aloud and respond on the scale. The session facilitator would assess their answers and respond with appropriate questions to further understand the participants responses. This process was repeated for each of the 5 statements both pre and post the experience walkthrough.



Name: Cindy N

Pre / Post

Place an X in the circle to mark your answer

1.

Strongly dislike	Somewhat dislike	Neither like or dislike	Somewhat like	Strongly like
○	○	○	⊗	○

2.

Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Strongly agree
○	○	○	○	⊗

3.

Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Strongly agree
○	○	○	○	⊗

4.

Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Strongly agree
○	○	○	⊗	○

5.

Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Strongly agree
○	○	⊗	○	○

Evaluation method

User testing

Concept statements

Visual report

What

Concept statements capture participants initial response towards the functionality, emotive and visceral aspects of each concept. Each statement walks the user through a short scenario of the concept. The participant is then asked a series of follow-up questions that allow them to expand on their thoughts about the ideas.

Why

We needed a way to assess participants initial reactions to different aspects of our concepts. This was used in a way to quality check our ideas before testing them out with low-fidelity prototypes. The questions primed the participants for the experience walkthroughs and provided a tangible frame to base their responses on.

How

Each concept statement was presented to the participant on a piece of paper or digital screen. They were asked firstly, to provide their initial thoughts. Then asked questions about how they imagine the prototype to work, look like, and where it would be displayed. They were also asked to provide insights into what message they thought was being communicated and their overall feelings about the concept.

You are walking past a large digital screen. As you walk by, you realise male figures are appearing beside you. When you look at them, harassing speech appears above them. At the end of the display is a PayPass terminal asking for donations.

You walk by a bench that looks unlike any you've seen before. You sit down, after a moment, parts of the bench poke up from below you, causing you to stand. You try again, this time to lay on the bench, and nothing pokes up.

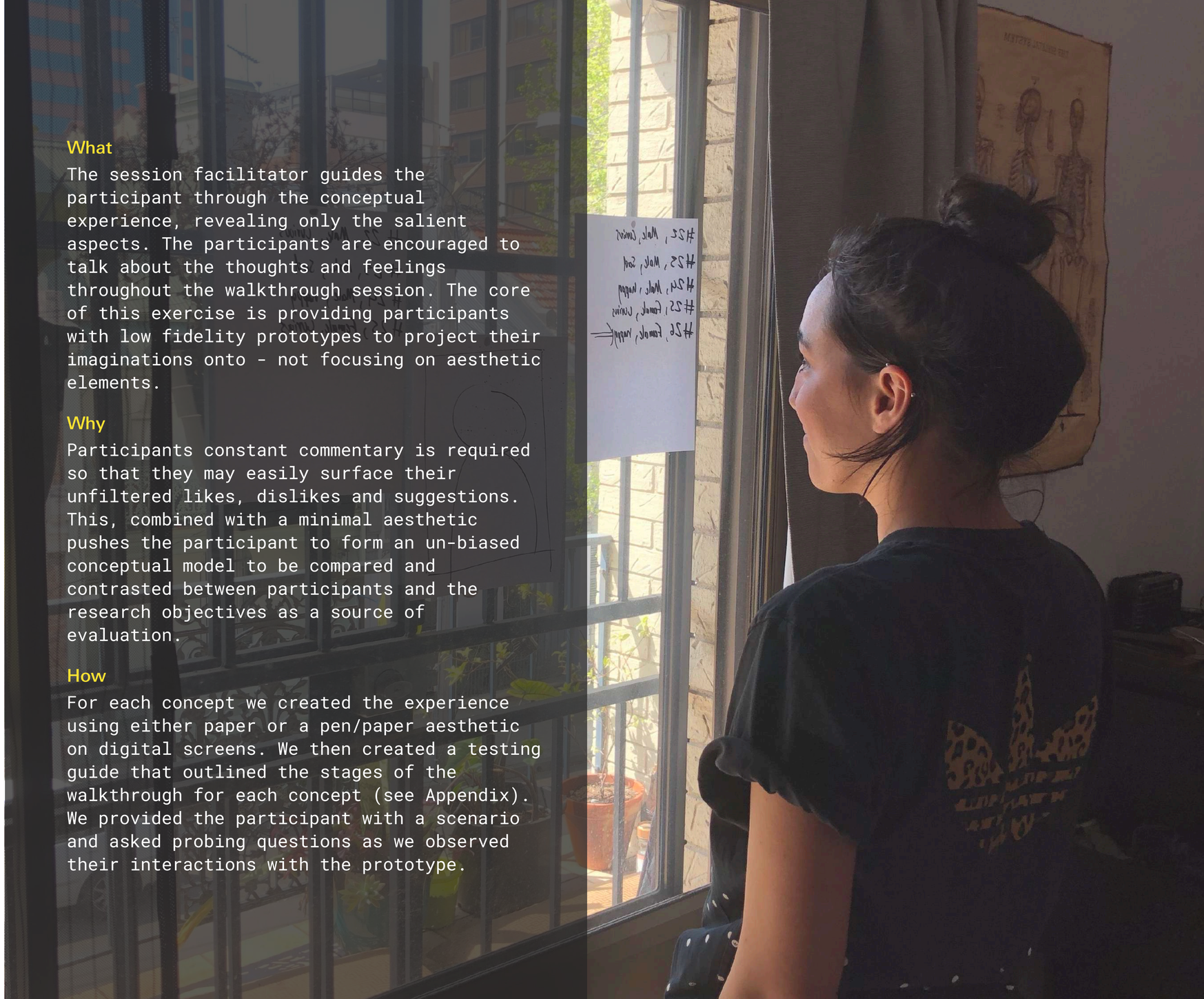
You approach an artwork made of a portrait mirror with multiple screens surrounding it. On one screen you read "#27, Male, 24, curious." You look into the mirror and it flashes. A different screen refreshes and "#28, your gender, age, emotion" appears.

Evaluation method

User testing

Low fidelity Experience walkthrough

Visual report



What

The session facilitator guides the participant through the conceptual experience, revealing only the salient aspects. The participants are encouraged to talk about the thoughts and feelings throughout the walkthrough session. The core of this exercise is providing participants with low fidelity prototypes to project their imaginations onto - not focusing on aesthetic elements.

Why

Participants constant commentary is required so that they may easily surface their unfiltered likes, dislikes and suggestions. This, combined with a minimal aesthetic pushes the participant to form an un-biased conceptual model to be compared and contrasted between participants and the research objectives as a source of evaluation.

How

For each concept we created the experience using either paper or a pen/paper aesthetic on digital screens. We then created a testing guide that outlined the stages of the walkthrough for each concept (see Appendix). We provided the participant with a scenario and asked probing questions as we observed their interactions with the prototype.

Synthesis

Data analysis

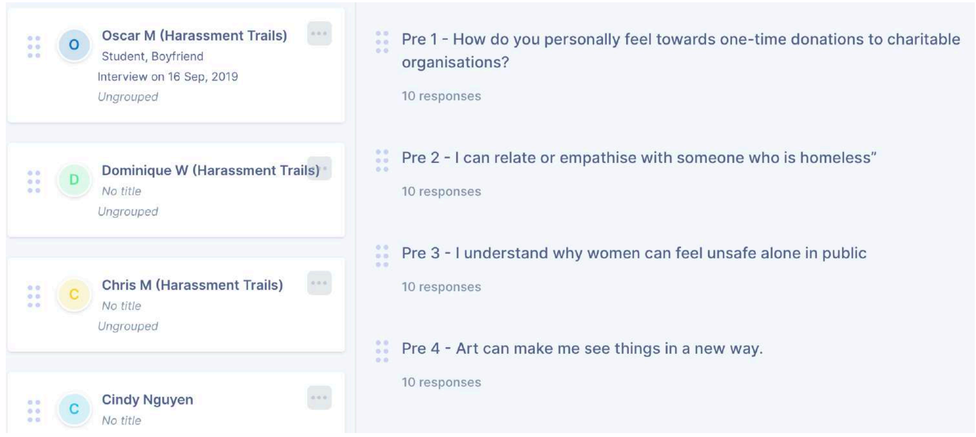
Visual report

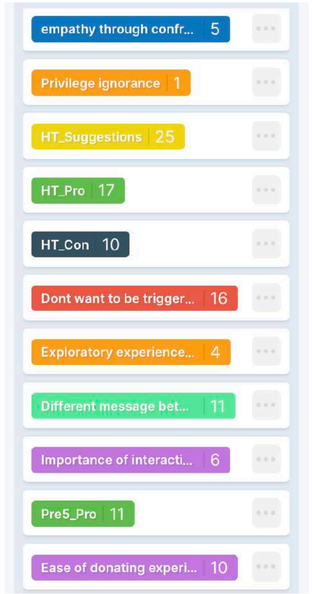
As we collected a large variety of quantitative and qualitative data from multiple focused and relatively open research methods - traditional affinity diagramming analysis would not have served our data synthesis well.

We opted to digitally and semantically analyse the data using beta user research tool UserBit.

Userbit allowed us to input our created topic guides and create users and questions answered. The collected data was transcribed and input into the software and was then manipulated through tagging of affinities, same statements and ratings which were than categorised and output into synthesis of user themes, pro's and con's of concepts, suggestions and impact.

This was an efficient and new way for us to analyse data across multiple data types and differing perspectives to aid formulation of the visual report.





Synthesis

Overall first round qualitative findings

Visual report

Participants did not know where their money was going and lacked trust in organisations. Participants had more confidence in local and environmental organisations, which in turn, meant more were comfortable donating to these types of charities. Concern was expressed as they "never know where [their] money is *actually* going, although they say where the money goes, you don't actually know".

The easier and more convenient it was to donate, the more likely they were to give to charities. Participants preferred tangible donations such as change buckets where they could "just throw in some spare change when you're walking past".

This leads to the fact that **people are more likely to donate when it was their own choice,** and not if they were forced or pressured into it by street charity workers or cold phone calls - "you feel like you are going to get stuck talking for too long and having to sign up to ongoing donations".

Most participants could sympathise with, but found it hard to relate to homeless people. Participants who lived a privileged life found hard to imagine what their experience is like and "could not understand what it feels like to not know where [they're] sleeping tonight".

All women expressed feeling unsafe when being alone in public, and men were not so much. However, men could understand and empathise with women having this experience and recognise "I am lucky enough I can just go walking at night...I have that right and other people don't".

Participants like the exploratory nature of artworks, but only when they can understand them. There was a clear duality between those that could gain new perspectives from observing art, and those that do not actively search for deeper meaning, usually because they could not make sense of them - "sometimes I'll just look at something and I won't have any idea what's going on, I don't have the knowledge to...understand...what the art is supposed to be doing".

Participants are more likely to make one-off donations to community organisations through digital artworks using pay pass. This would often depend on context and a good understanding of the organisation. If "I am attracted by the artwork and learn about it and [if] there's an easy tap and go donation..I would easily do that".

Evaluation method

User testing
Round 1

Black Mirror

Research goal

To explore the users understanding of the low fidelity concept proposal and through a process of meta co-design allow them to present their own perceptions of how they imagine this idea would be realised.

Participant selection

Three participants total: 2 females and 1 male aged 19-28.

Two of the participants in these testing sessions have self reported they identify with technology contributing to them facing difficulty finding suitable work.

Specific elements tested

- Aesthetic perceptions: What would make users want to approach it?
- Interactivity perceptions: How would you know the concept was activated?
- How would the other displays capture the participants attention?
- What emotions the prototype evokes
- Do participants perceive the messaging of these concepts and feel they are effective
- Their understanding of the information presented on the screen
- How they imagined the aesthetic qualities of this concept to be portrayed ion a fully constructed implementation

Recording method

These sessions were recorded on audio and video and transcribed and fed into user data tool UserBit for analysis.

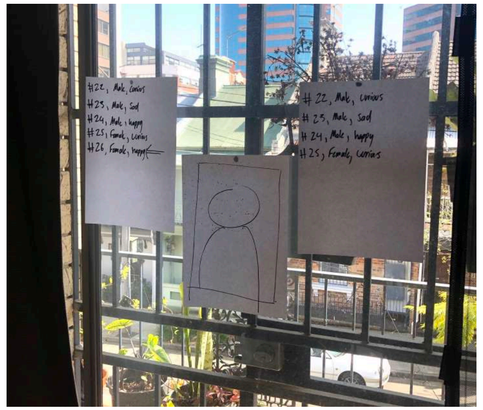
The sessions were set up and conducted in users homes - each lasting between 0:45 - 1:30 hours.

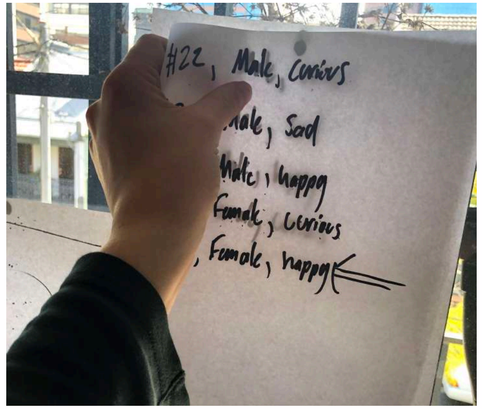
Pre and post questionnaires were completed on paper and were collected.

Black
mirror

Concept 1

Low fidelity prototype construction





How it was constructed

This concept was constructed based on a paper prototyping model. A low-fi paper ‘mirror’ was placed in the centre of the piece with the corresponding secondary ‘screens’ spaced around it with dummy data written on them.

Why it was constructed this way

Employing extremely low fidelity materials restricted the influence of design choices on the participants perceptions. As the participant moved through the session the ‘screens’ were updated by hand again to allow the user to dictate their perception of how the envision the final concept to be implemented.

Black mirror

Concept 1

Results

Engaging and able to catalyse further exploration and discussion around the topic

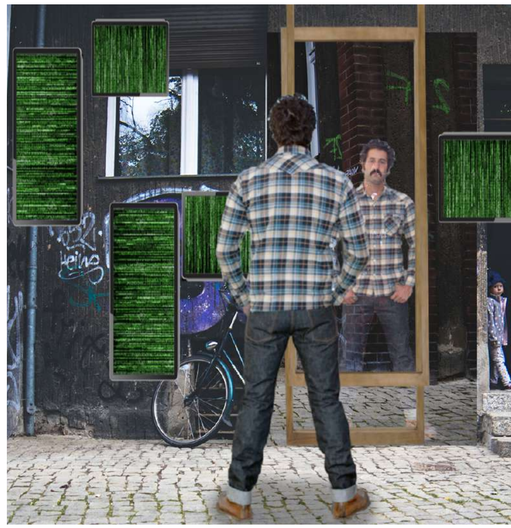
"I would want to interact with it, I would want to do the whole swipe thing that have a look around at the other screens" - Ruth

Participants were initially somewhat confused by the processes that were being applied by this concept, however the mystery and lack of supporting information was integral in motivating further exploration. The participants wanted to do more and know more about how and why they had been categorised simply because it was not readily available.

Context of the interaction has a major weight in the effectiveness of the concept

"I feel like something like this would definitely be in an art gallery." - Cindy

All participants reported that the context in which this was displayed would have a considerable impact into the effectiveness of the artwork. It was repeatedly suggested to house it in an art gallery context (or similar) to ensure that the correct usage and interpretations were derived from interacting with it.



Evocative and able to generate self reflection

"Fearful. Because that's terrifying that a mirror can recognise my gender, age and emotion. Like, that's insane." - Cindy

The participants all exhibited some type of strong hedonic response to the concept, again attributed to the limited information presented to the users. When highlighted to participants, the realisation that these processes are currently available and used on a large scale caused them to reflect on their own experiences and how this may impact them directly.

Evaluation method

User testing
Round 1

Anti hostile architecture

Visual report

Research goal

To understand and capture user perceptions and imaginations of hostile architecture and test out how anti-hostile architecture could conceptually work.

Participant selection

Three participants total: 2 females and 1 male aged 19-28.

It is important to note that one of the participants chosen has experienced homelessness in their life and this was integral in gaining an accurate representation of the target audience.

Specific elements tested

- How the participants imagine the installation to work both aesthetically and functionally
- The emotions evoked through interacting with this installation
- People's expectations of how it would work
- Test what makes the work uncomfortable
- Participants understanding the message the concept is trying to convey
- Test how people would know how to interact with it

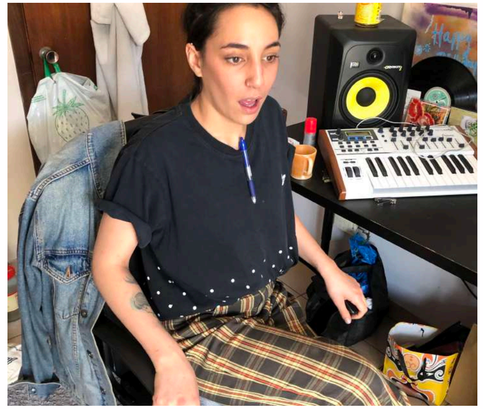
Recording method

We aimed to record both audio and video for these testing sessions, however some participants were uncomfortable with video and so audio was the only medium used to record them.

Anti hostile architecture

Concept 2

Low fidelity prototype construction



How it was constructed

This prototype was constructed using basic materials to convey the idea of anti-hostile architecture. Tennis balls were placed inside of a cushion that would then be positioned on a chair.

Why it was constructed this way

By using a familiar object of a chair and cushion, the prototype would liken itself to a seat. Tennis balls are solid objects and we wanted to use them to make the participants uncomfortable as they would emulate bumps poking out of a seemingly innocent chair to understand the notion of “discomfort” and how they would react.

Anti hostile architecture

Concept 2

Results

The message only resonated with those that had experience or knowledge with homelessness or hostile architecture

*"It does [evoke an emotion], maybe because it is something I am already familiar with, that these places are made to be sh*t." - Ryan*

"There's a reason why this weird bench is making me lie down, but I don't know if I'd be able to put two and two together. " - Cindy

Participants were much more receptive to the idea, and could pick up on the message, if they were already familiar with hostile architecture or had experienced homelessness. These people, however, were not our target audience. The aim was to target those who were in a place of privilege and who could not relate to the lived experience of homeless people. Once the target users understood the concept and interacted with it in the correct way, they ended up liking it.

The lack of supplementary information prevented users from exploring the concept further

"Very curious, but it's not straightforward...This requires you to do things in order for the message to be realised." - Cindy

"I guess you could have like a plaque on the back of the bench. Or, like, a sign maybe next to it." - Ruth

Every participant we tested suggested there should be some kind of indicator that guides the user to lie down on the bench, whether it be through explicit or implicit means. Without having this information, users were less inclined to keep exploring the installation and as a result reduced the effectiveness of its purpose altogether. Once they sat down and realised the bench was uncomfortable, they had no idea of knowing that they should attempt to lie down.

Evaluation method

User testing
Round 1

Harassment trails

Visual report

Research goal

To gauge the displays effectiveness at communicating the prevalence and damaging effects of gender based street harassment and ensure that the method we were exploring these themes wouldn't themselves be damaging.

Participant selection

Four participants total: 2 females and 2 males aged 20-55.

We chose to interview two couples to see how perceptions of this installation differed between genders. Additionally interviewed an older white collar couple to see how they might react to this display in the intended environment.

Two female participants self reported having experienced gender based harassment.

Specific elements tested

- To generate ideas on how to accurately portray the issue of gender based street harassment
- To uncover the context where this display would be appropriate
- To understand the effectiveness of this display in communicating its message
- To understand whether or not this display can communicate its message without causing discomfort for the user.
- To understand what makes people comfortable donating
- To understand user's emotional response from this concept

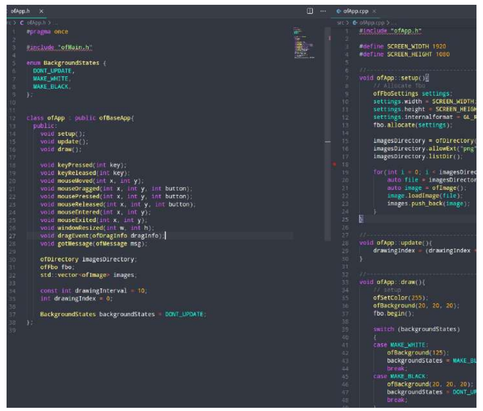
Recording method

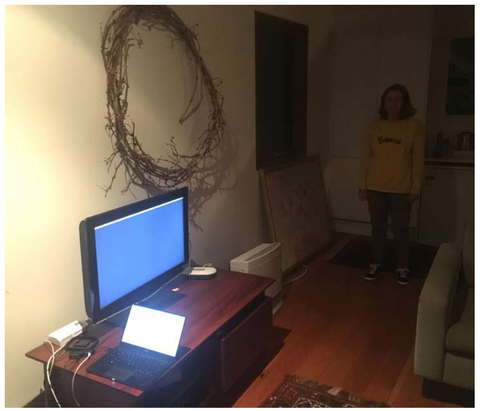
We aimed to record both audio and video for these testing sessions, however some participants were uncomfortable with video and so audio was the only medium used to record them.

Harassment trails

Concept 3

Low fidelity prototype construction





How it was constructed

We built a low fidelity sketch in openFrameworks that rendered images of men over over the mouse while clicking. This was then hooked up to a television to emulate an LED or LCD display on a wall and controlled the interaction in a Wizard of Oz fashion.

Why it was constructed this way

We decided to use openFrameworks and program the prototype as real-time interaction was fundamental to the concept. However, I kept this prototype as low fidelity as possible, to not impart stylistic bias onto those we tested on.

Harassment trails

Concept 3

Results

There’s no archetype of a street harasser

"I think the message would be realising that it's not just gross creepy males, it's everyone." - Ruby

During testing participants who had experienced street harassment highlighted that it'd be wrong to typecast harassers as creepy old men or tradies as they retold stories of being harassed by a range of demographics. They said

Message of the harassment being gender based is unclear for men

"I’ll feel like I’ve done something positive to help others but you know. It would be a fleeting feeling." - Chris

We found that the display had little impact on the target demographic, men who harass. Interviewees either didn't understand the message, indicating it would fall upon deaf ears of those who do harass, and expressed that the concept was nothing more than nice but "a bit of a gimmick".

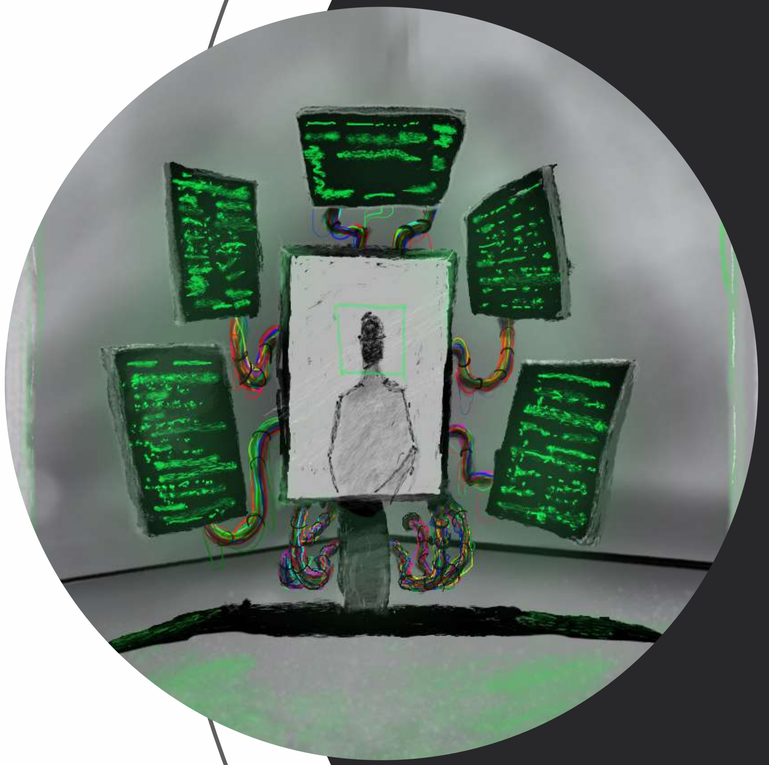
Potential to bring up trauma or offend

"But something like that ... would be quite triggering... not the smartest way to communicate" - Ruth

While participants expressed their support of the message, they found the method of communication too risky for public use with the potential to bring up traumatic experience. Solutions to have the display only effect men would

Hero concept selection

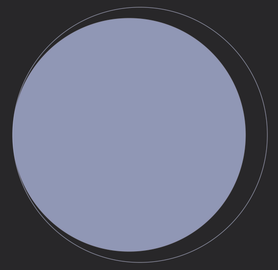
Black Mirror (TBA)
AI surveillance awareness



After culminating multiple sets of evaluation with hours of discussion and feedback: the strongest concept came to the fore.

Initially we were wary of the Black Mirror concept - it was one of the first concepts we thought of, and we assumed it too abstract to understand. However - conceptually it made perfect sense to users. We enjoyed designing multiple interfaces for contexts that worked in harmony yet caused discomfort.

It also performed the strongest in the user evaluation, was the most constructively and technologically and after performing deeper secondary research we realised we could take our first thought concept and turn it into a multi-faceted artwork.



Black
mirror

Iteration

Concept selection & iteration

Visual report

The Black Mirror concept tested as being the **most evocative and reflective** of the concepts - however the messaging read as **critical of mass surveillance and privacy** in the urban environment, not our initial intent.

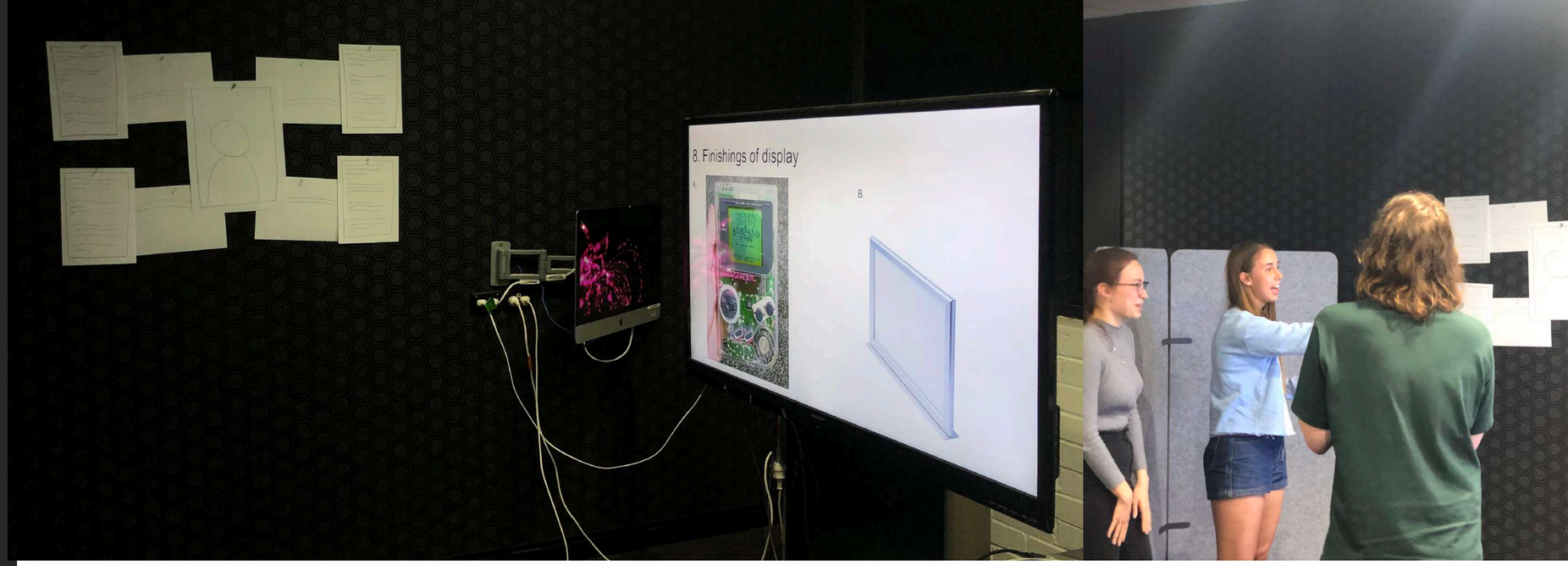
This new messaging actually aligned well with our goals - the negative impact of urban data surveillance are more significant for marginalised communities (Crawford, 2014) and our apathy towards these practices exacerbate their effects (Lyons, 2017) recently exposed in the Australian Governments data matching debt collection systems.

Users are either ignorant of the complex infrastructure of surveillance, or they apathetically believe they are simply unable to avoid it - those at the margins of society aren't able to hold this position.

Using the data from our concept evaluation sessions, we reinforced this concept to relay this perceived message. To expose these practices in a **tangible, illuminating way to those who may be in the dark**. We found the **anthropomorphised imaginations** of this concept strong in making these practices **relatable and provoking reflection and critique**. We knew **aesthetic and contextual considerations** would be critical to driving users perception that this **digital artwork** would cause **privileged people to fear these practices** and question why we simply allow them to occur.

Iteration

Multivariate desirability study



What

A desirability study is an exercise where participants are offered different visual, interaction and contextual design alternatives and are expected to associate each alternative with an emotive or subjective response in relation to a shown message. This study resulted in both qualitative and quantitative data.

Why

Our earlier rounds of testing had shown that users imaginations and perceptions of this artwork were evocative, reflective and conducive of critical thought. We needed to understand how to best construct this artwork from an aesthetic, informational and feedback perspective to support these perceptions.

How

After explaining the concept and its intended message we elicit feedback and ideas by having participants choose between two ways of implementing sub-elements of the design with the goal of selecting the element that conveys the message the clearest. Additionally we have participants support their answers by prompting them to discuss, critique and praise each element.

Findings

User Insights

Play on themes of threatening secrecy

"The same feeling that you weren't meant to look at this... this has another purpose and don't know what it is" - Anastasia

Our participants expressed feelings of anxiety over the idea that they had stumbled into an entity that wasn't meant for them reinforcing our goal of making users aware of the invisible systems and processes that effect them every day. Participants felt this was most powerful when the installation showed exposed electronics, unfriendly interfaces and cryptic characters mixed with the data on the display.

Build a sense of mysterious power and helplessness

"I'd want it to make you feel insignificant and tiny." - Jodie

We wanted to further highlight the helplessness individuals experience when attempting to protect themselves with the type of data being collected and what that data is used for. Participants felt this was most effective when: there is a broad range of information gathered about the user, there are more specific and revealing data-points gathered about the user, by denying the user the power to interact in any active way with the installation and by bundling mass amounts of cables between each component emphasising the amount of data being transferred.

Personify the installation, give it intent and agenda

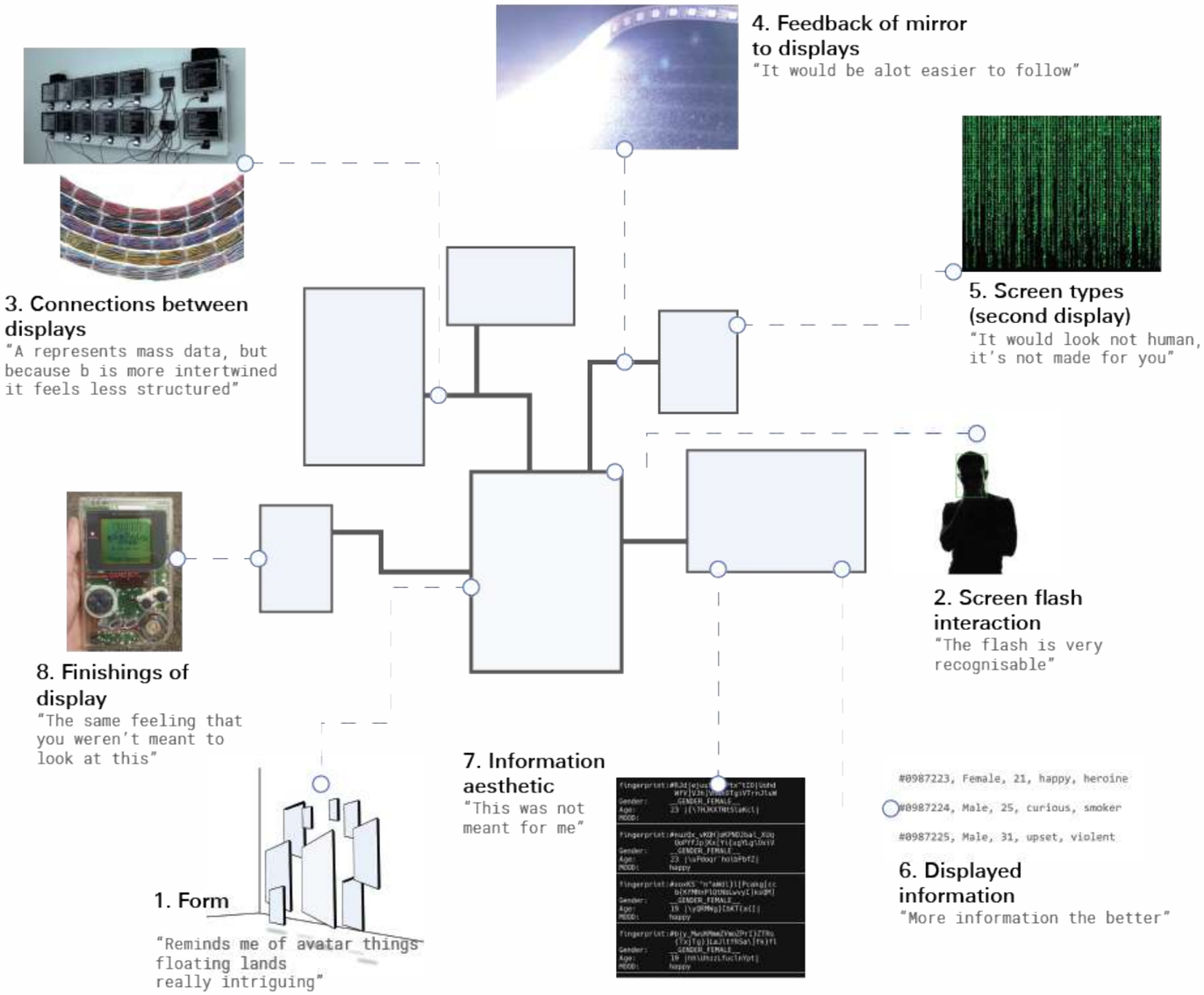
"Makes it feel more alive if it has those hesitations like ooh I'm thinking about it." - Anastasia

We wanted to highlight the implicit biases that exist within AI training datasets and the capacity for AI trained off these datasets to discriminate. Our participants found this clearest when the micro-animations of the screen expressed human characteristics such having the as pausing to think when animating display

Black
mirror

Iteration

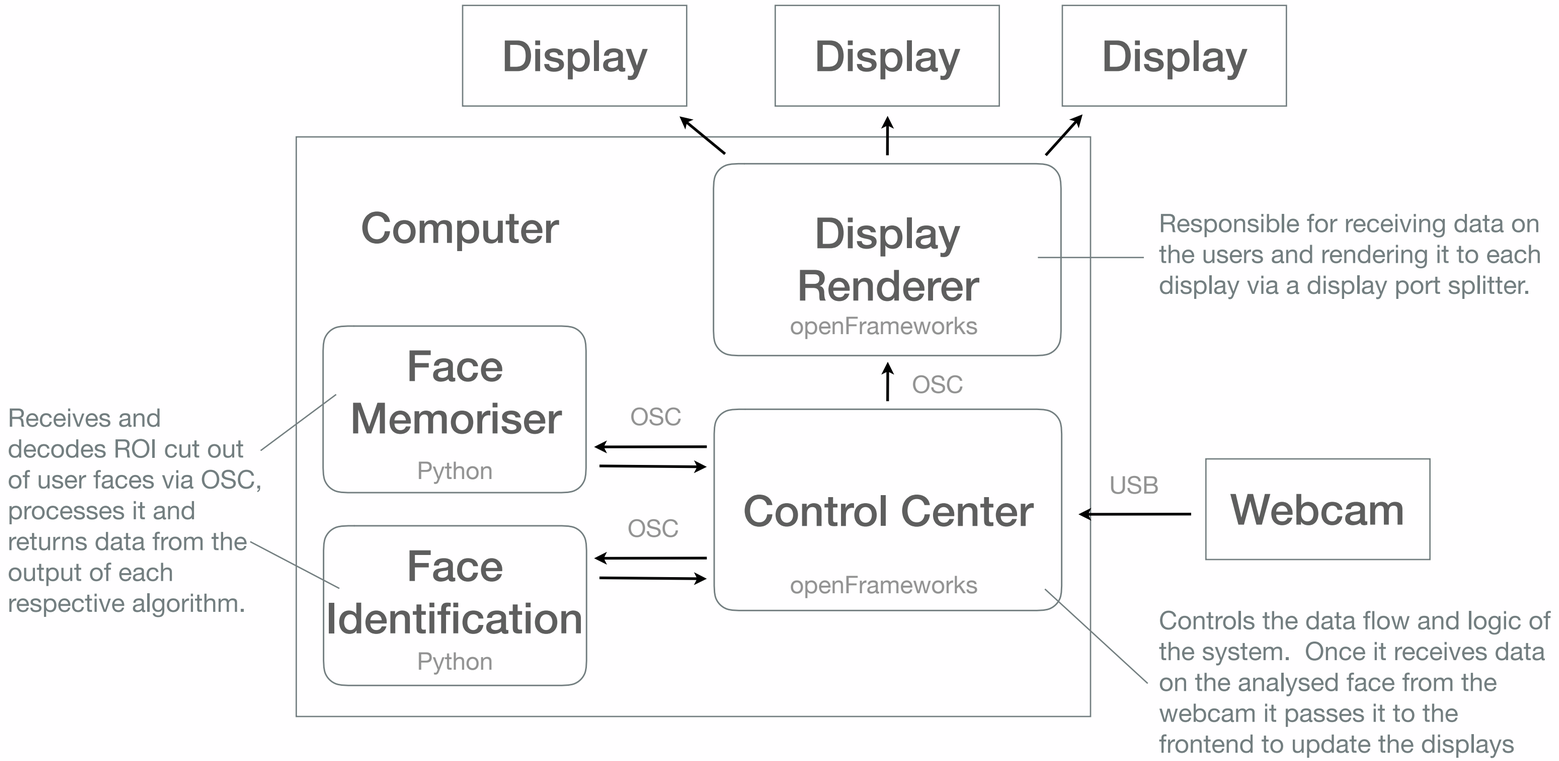
Research visualisation



Visual report

Technology

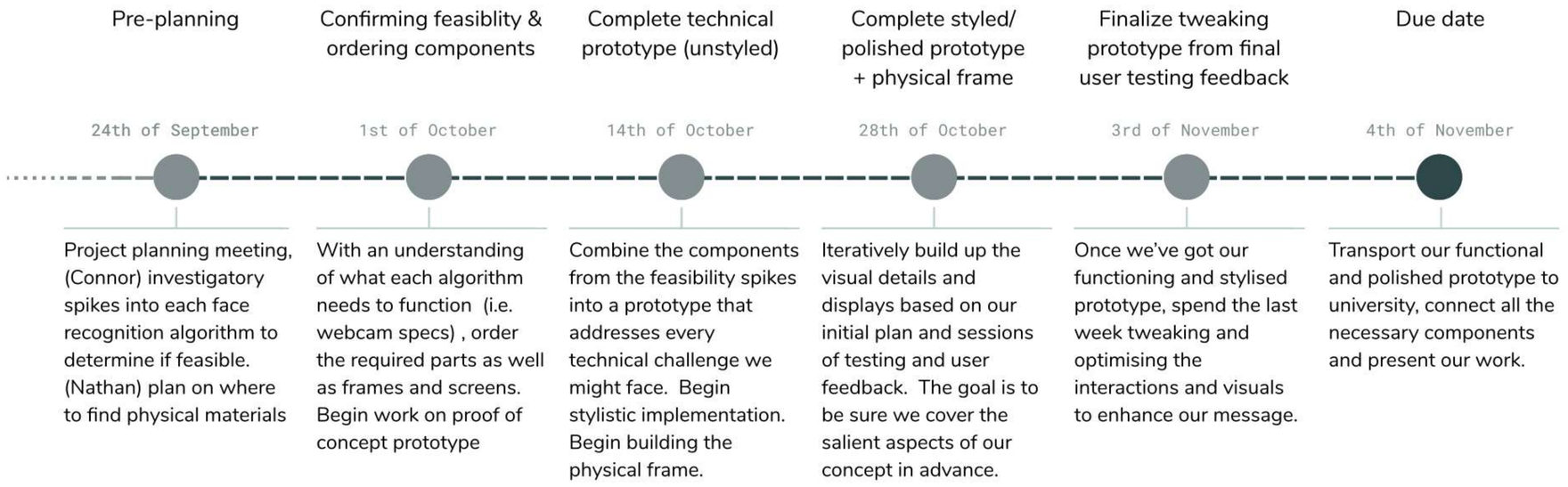
The implementation of this concept, will involve a number of processes each with different responsibilities and dependencies. To avoid dependency clashes and make the system modular I propose separating each process into its own program and using OSC to communicate between them.



openFrameworks were chosen for the control centre and display renderer as it's well suited for programmes with render or update loops (receiving webcam input or updating displays). The algorithms will run on demand when the control centre passes the required data via OSC. This will trigger the Display Renderer to update the data on screen.

Implementation timeline

Our highest priority is building a proof-of-concept technical prototype that proves that the underlying technology is feasible given the timeframe. Once we're sure we have the processes behind the interaction working we'll begin work on the display, incorporating design decisions from testing to ensure our message is clearly communicated.



We will follow this up with further testing and user feedback to tweak and refine the interaction up until the due date.

Process reflection

Exploratory Approach

The exploratory co-design approach for the first round of user testing was critical to analysing the perceptions of individuals with a range of experience on each of these issues. Resultantly, we were able to quickly understand the strengths and weaknesses of each concept and develop feasible solutions for our second round of testing. We would have liked to source more feedback but due to running overtime on testing sessions and scheduling issues with our interviewees we were limited in that regard. The data that was collected, however, was rich enough to understand the strongest concept and build upon our initial implementation.

Refining our Concept

The second round of user testing was an important step in addressing a challenge we uncovered in the initial round of testing; that some user's were less familiar and lacked awareness on some of the issues we were exploring. By conducting the second round of user testing we were able to develop the imagery and themes into a form that is more publicly associated with the message we intend to convey.

Team member roles

Together our team worked extremely effectively throughout task 2, planning each stage required to complete the overall deliverables and executing the plan in a cohesive manner. There were sone mishaps regarding scheduling that delayed some parts of the project, however these issues were resolved easily and the worked happily covered by the rest of the team.

Beth Koulyras

For task 2 Beth spent the majority of her time working closely with Benjie to construct and refine the experiences for the Black mirror and Anti hostile architecture concepts. She was heavily involved in the user testing sessions for both, then extrapolated the information gained from them to help deliver core insights for the project.

Benjie Fleming

Again, Benjie worked closely with Beth to construct test and synthesise the data for the Black mirror and Anti hostile architecture prototypes. Benjie also took the lead in designing the testing protocols, participant selection and synthesis methodologies for task 2.

Connor Meehan

Continuing on from task 1, Connor was in charge of evaluating the technical feasibility, both in building the prototypes and potential final products, of the concepts throughout the iteration process. Connor was also the lead in constructing, testing and synthesising the Harassment trails prototype.

Nathan Judges

Throughout task 2 Nathan acted as a support for the rest of the group, working along side all the group members when required to complete various tasks in an assistant capacity. He lead the design, distribution and synthesis of the survey and helped produce most of the concept art and sketches for the project.

References

Crawford, K., Abreu, M., James, R., Horning, R. and Jurgenson, N. (2014). The Anxieties of Big Data. [online] The New Inquiry. Available at: https://thenewinquiry.com/the-anxieties-of-big-data/ [Accessed 16 Sep. 2019].

Kareem, R. (2017). A Culture of Surveillance. [online] Huffpost.com. Available at: https://www.huffpost.com/entry/a-culture-of-surveillance_b_5462382 [Accessed 17 Sep. 2019].

Lyons, S. (2017). Are you one of the many Australians with 'surveillance apathy'?. [online] ABC News. Available at: https://www.abc.net.au/news/2017-11-08/surveillance-apathy-attitudes-to-privacy-and-monitoring/9129992 [Accessed 15 Sep. 2019].

Tomitsch, M., Wrigley, C., Borthwick, M., Ahmadpour, N., Frawley, J., Kocaballi, A., Núñez-Pacheco, C., Straker, K. and Loke, L. (2016). Design. Think. Make. Break. Repeat..

Appendix

Low Fidelity
Testing
Guide
R1 .PDF

Black Mirror
Round two
Testing .PDF

Appendix

First round transcripts

Chris R1

Dom R1

Ruby & Oscar R1

Ruth R1

Jodie R1

Cindy R1

Ryan R1

Visual report

Appendix

Anastasia R2 .PDF

Ebony R2 .PDF

Jodie R2 .PDF

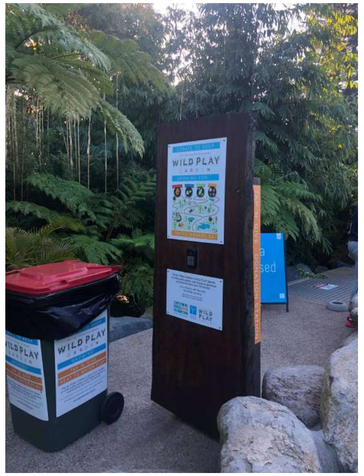
Mikkel R2 .PDF

Userbit Analysis .EXCEL

Survey results .PDF

Appendix

Contextual research / Public donation examples



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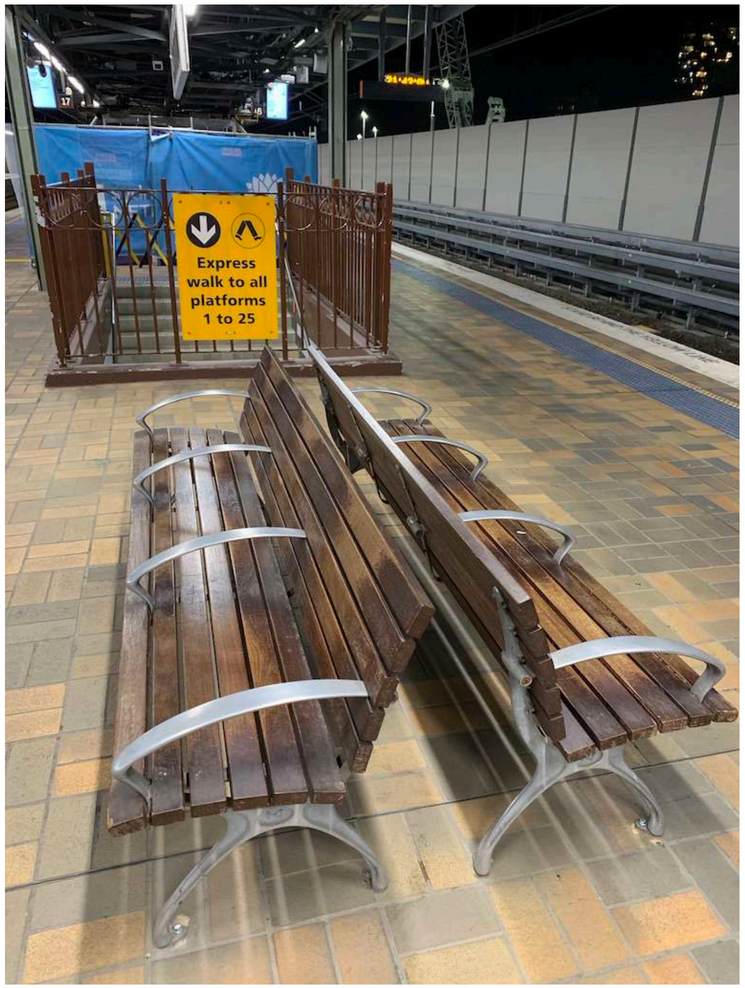

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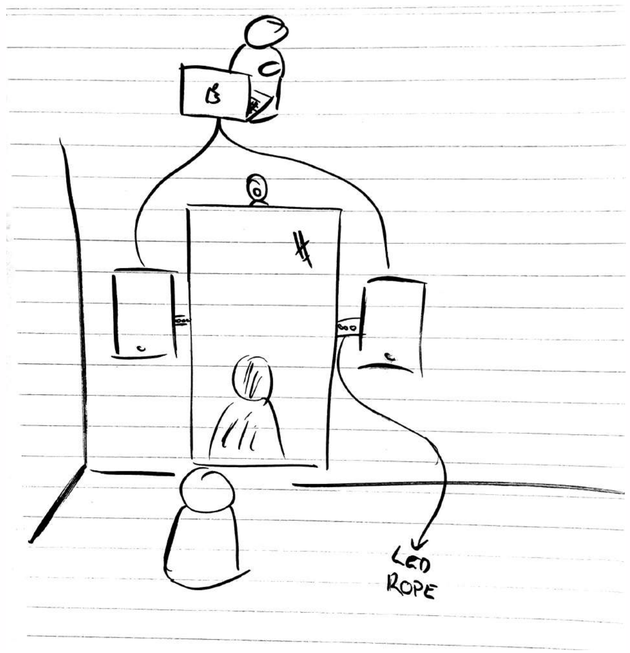
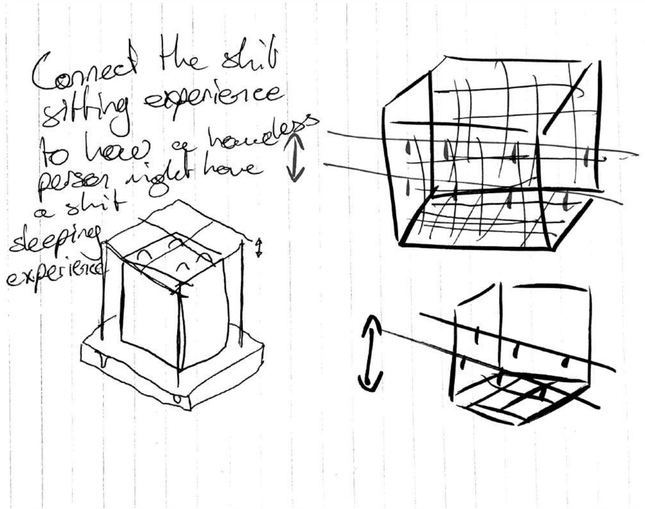
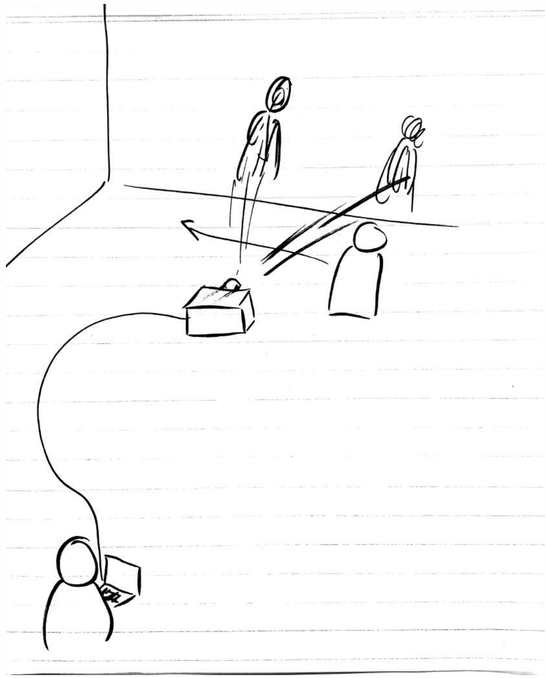

LED
ROPE


Connect the shit
sitting experience
to have a headspace
person might have
a shit
sleeping
experience



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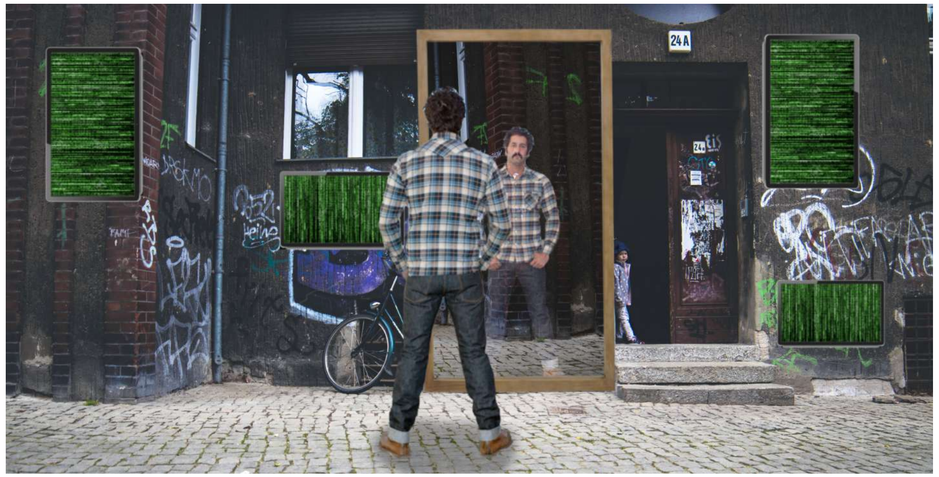
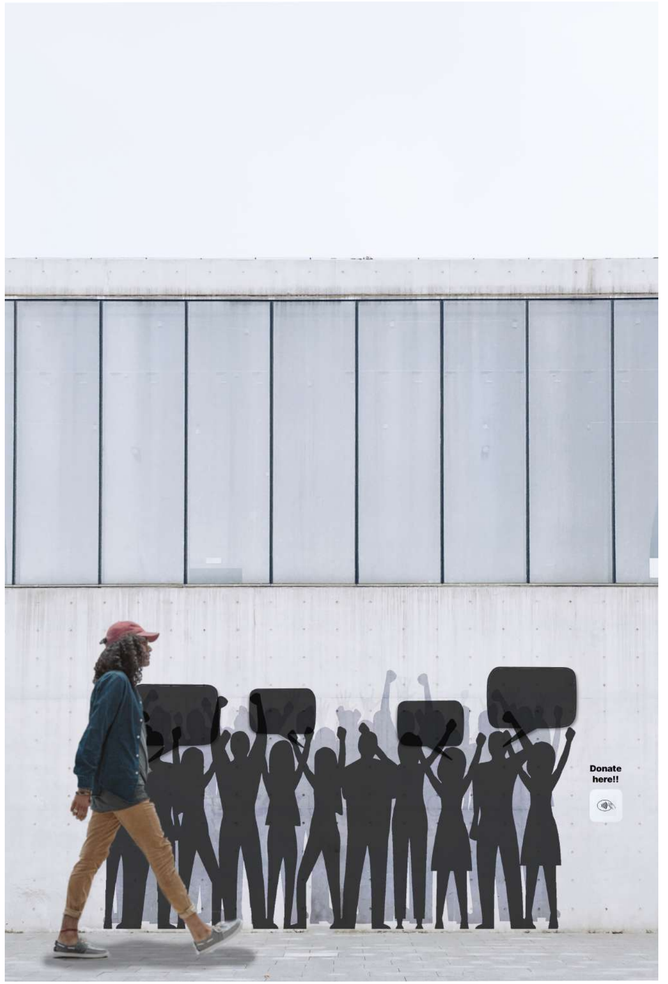
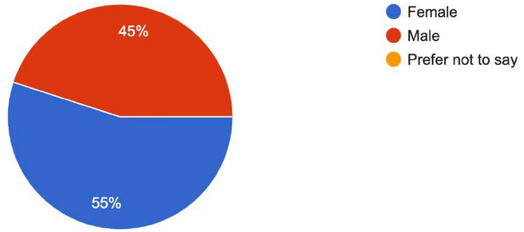




Appendix

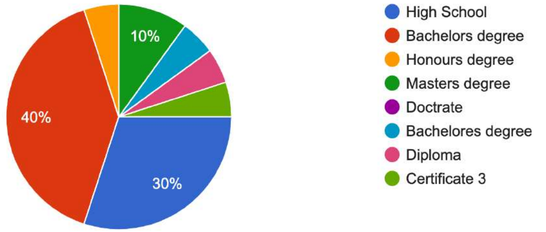
What is your gender?

20 responses



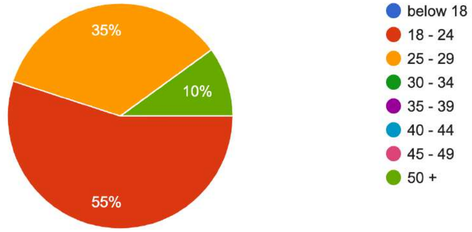
What is your highest level of education?

20 responses



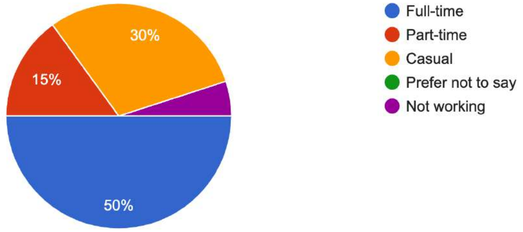
What is your age?

20 responses



What is your current employment status?

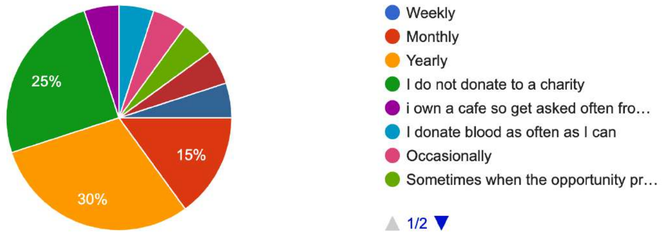
20 responses



Appendix

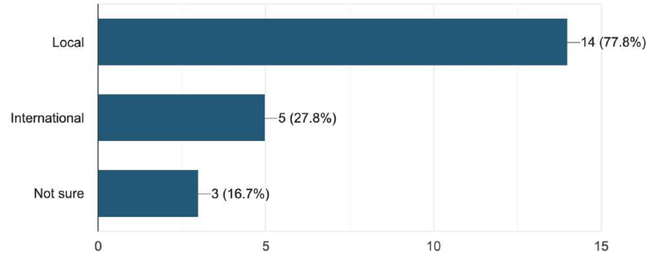
How often do you donate to a community/charitable organisation?

20 responses



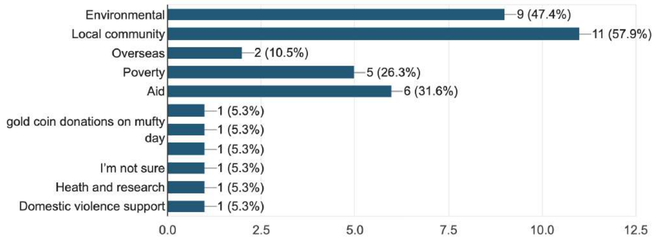
Do you donate to local or international organisations?

18 responses



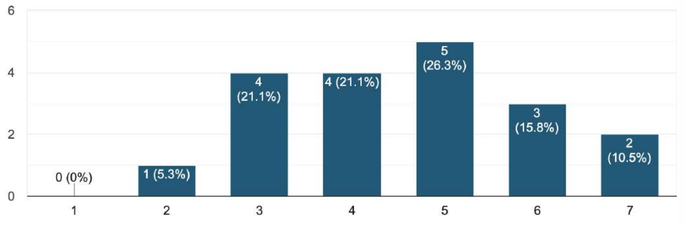
What types of community/charitable organisations have you donated to in the past?

19 responses



How would you rate your perception of community/charitable organisations using your donations appropriately?

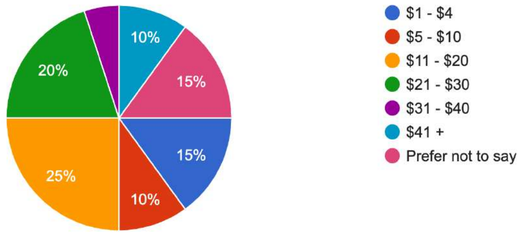
19 responses



Appendix

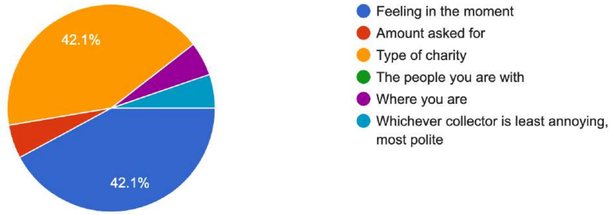
How much on average would you say you donate at a time?

20 responses



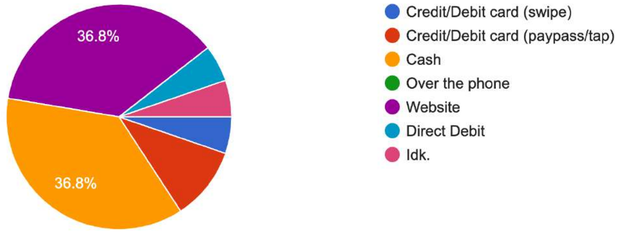
Which one of these factors would you say has the most bearing over your choice to donate?

19 responses



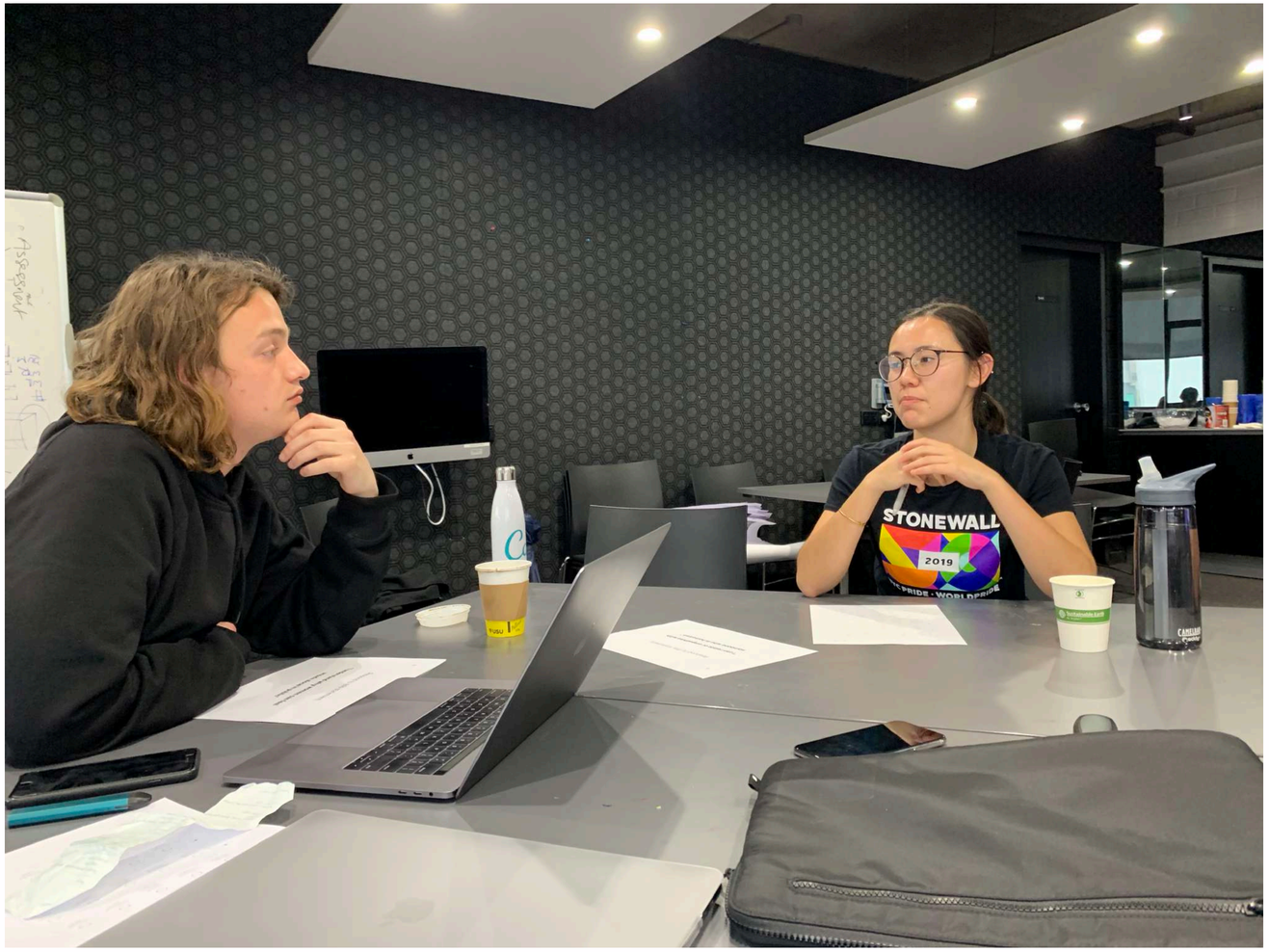
What is your most common medium of donation to charity?

19 responses



Appendix

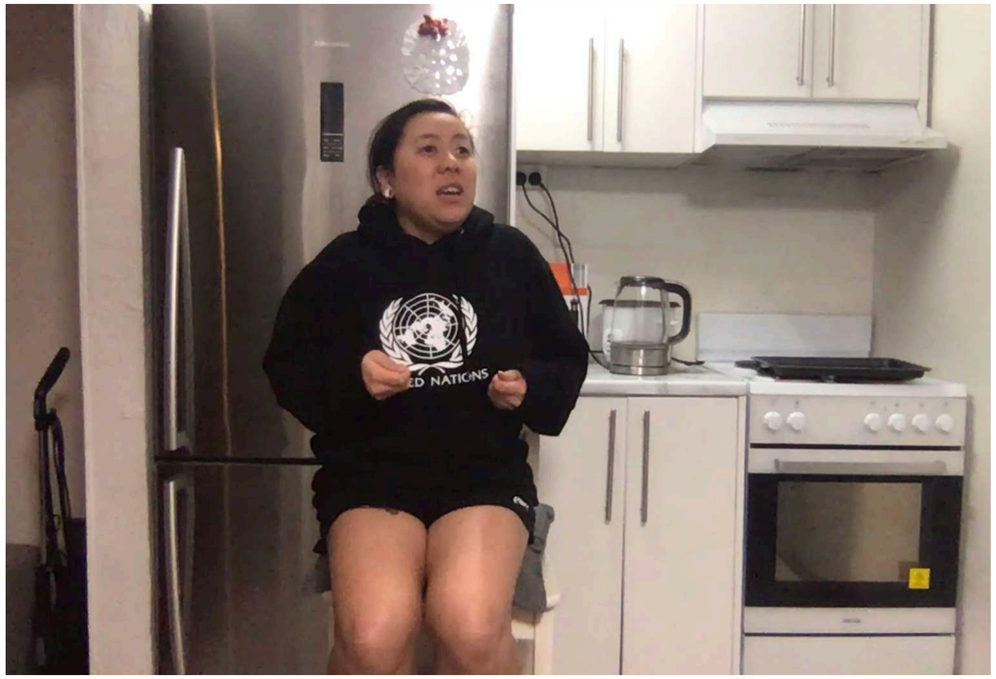
User testing / Pre - experience interview



Visual report

Appendix

Appendix



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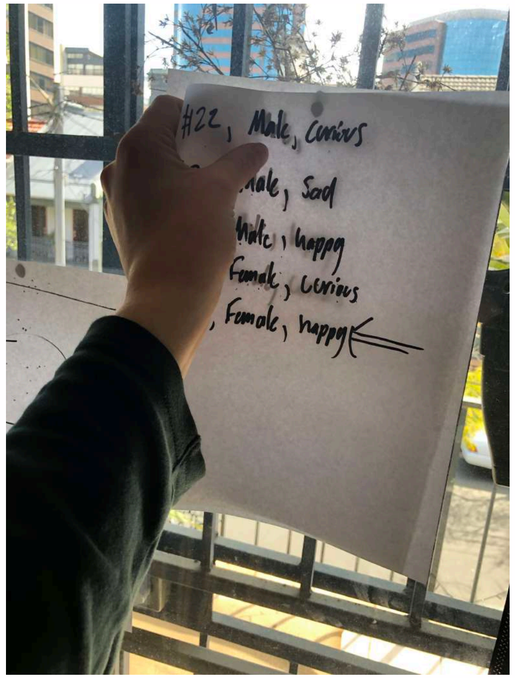
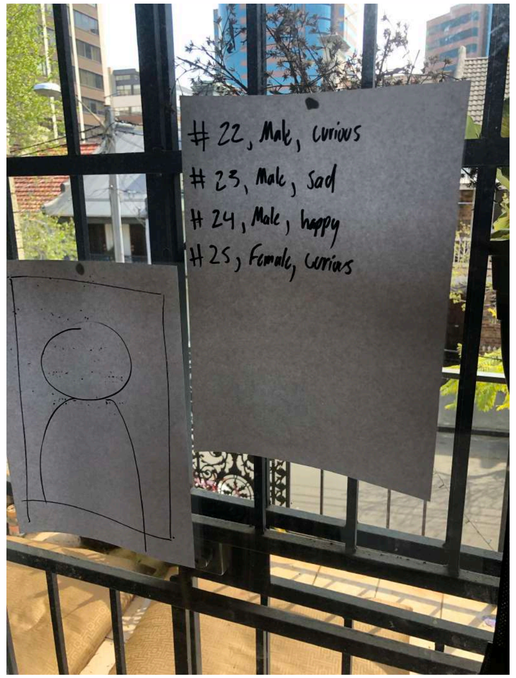
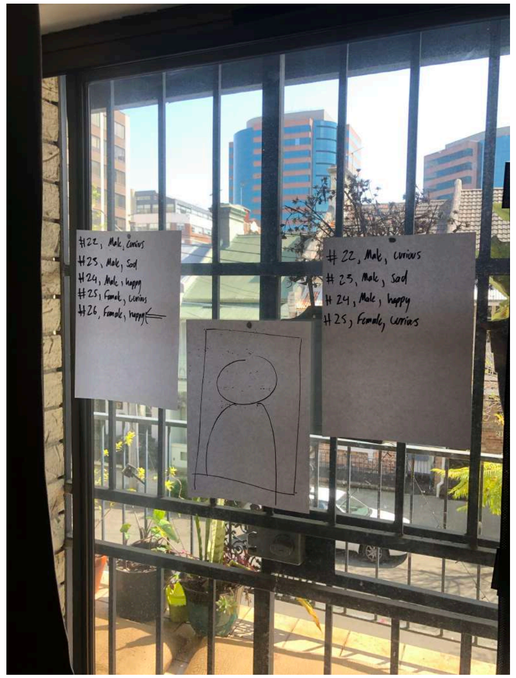

#22, Male, Curious
Female, Curious
, Female, Happy


#22, Male, Curious
#23, Male, Sad
#24, Male, Happy
#25, Female, Curious

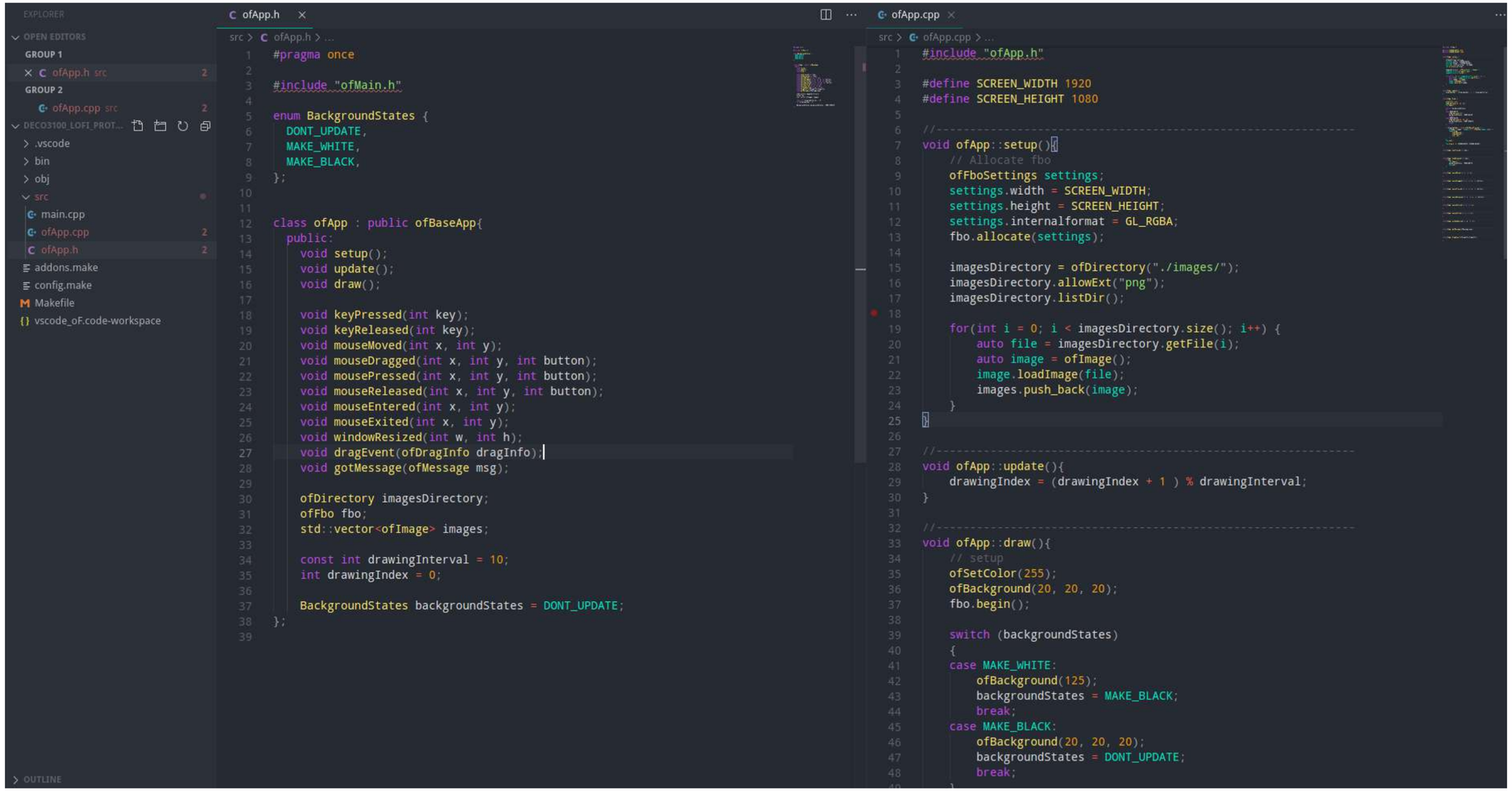

#22, Male, Curious
#23, Male, Sad
#24, Male, Happy
#25, Female, Curious
#26, Female, Happy
#22, Male, Curious
#23, Male, Sad
#24, Male, Happy
#25, Female, Curious

Appendix

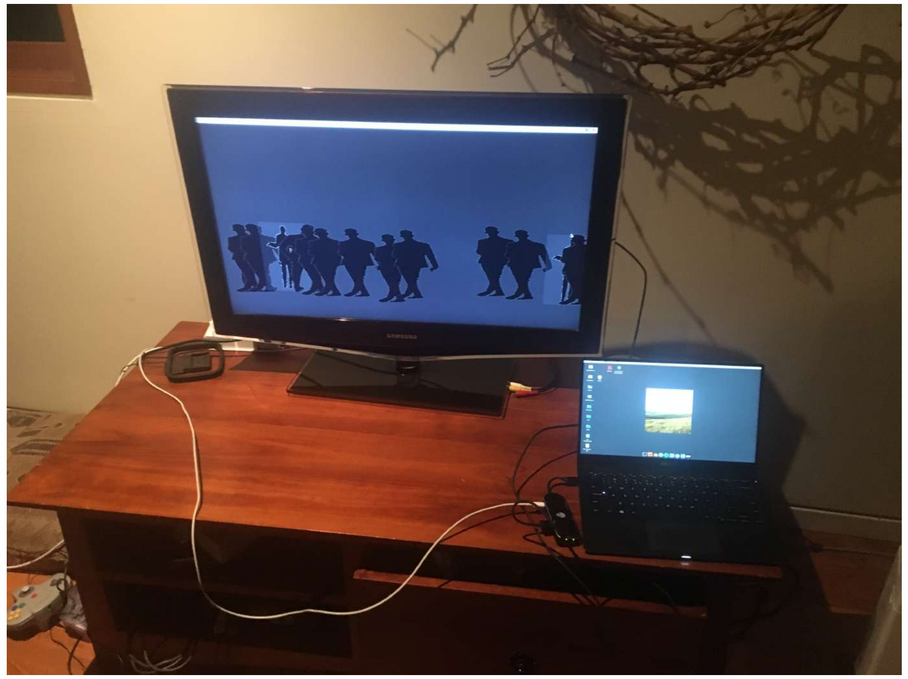

#22, Mad, Lonely
#23, Mad, Sad
#24, Mad, Happy
#25, Friendly, Lonely

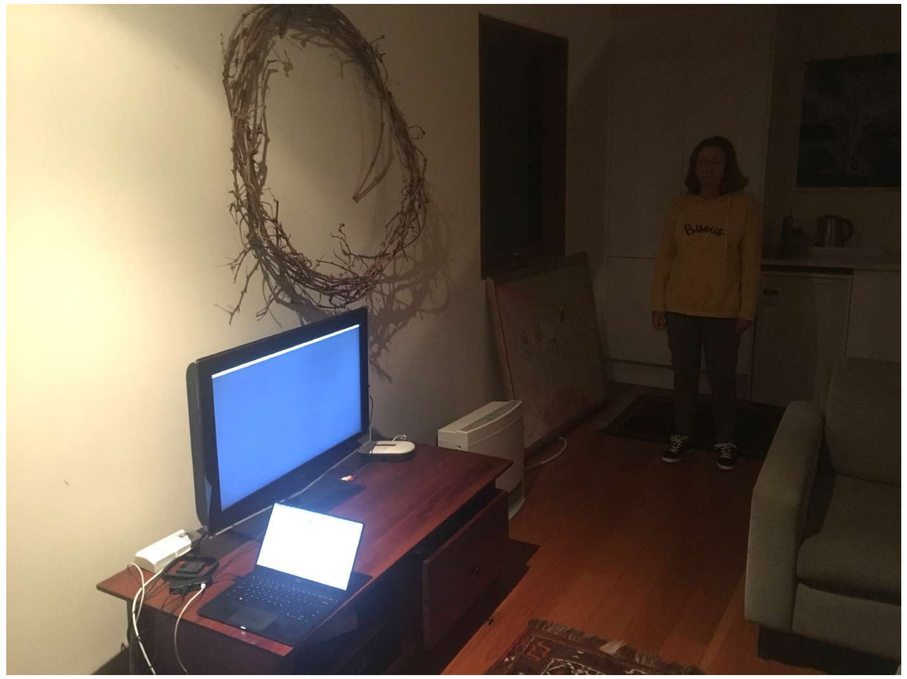

#22, Mad, Lonely
#23, Mad, Sad
#24, Mad, Happy
#25, Friendly, Lonely

Appendix


EXPLORER
OPEN EDITORS
GROUP 1
ofApp.h src 2
GROUP 2
ofApp.cpp src 2
DECO3100_LOFI_PROT...
.vscode
bin
obj
src
main.cpp
ofApp.cpp 2
ofApp.h 2
addons.make
config.make
Makefile
vscode_oF.code-workspace
OUTLINE
ofApp.h
src > ofApp.h > ...
#pragma once
#include "ofMain.h"
enum BackgroundStates {
DONT_UPDATE,
MAKE_WHITE,
MAKE_BLACK,
};
class ofApp : public ofBaseApp{
public:
void setup();
void update();
void draw();
void keyPressed(int key);
void keyReleased(int key);
void mouseMoved(int x, int y);
void mouseDragged(int x, int y, int button);
void mousePressed(int x, int y, int button);
void mouseReleased(int x, int y, int button);
void mouseEntered(int x, int y);
void mouseExited(int x, int y);
void windowResized(int w, int h);
void dragEvent(ofDragInfo dragInfo);
void gotMessage(ofMessage msg);
ofDirectory imagesDirectory;
ofFbo fbo;
std::vector<ofImage> images;
const int drawingInterval = 10;
int drawingIndex = 0;
BackgroundStates backgroundStates = DONT_UPDATE;
};
ofApp.cpp
src > ofApp.cpp > ...
#include "ofApp.h"
#define SCREEN_WIDTH 1920
#define SCREEN_HEIGHT 1080
//--
void ofApp::setup(){
// Allocate fbo
ofFboSettings settings;
settings.width = SCREEN_WIDTH;
settings.height = SCREEN_HEIGHT;
settings.internalformat = GL_RGBA;
fbo.allocate(settings);
imagesDirectory = ofDirectory("./images/");
imagesDirectory.allowExt("png");
imagesDirectory.listDir();
for(int i = 0; i < imagesDirectory.size(); i++) {
auto file = imagesDirectory.getFile(i);
auto image = ofImage();
image.loadImage(file);
images.push_back(image);
}
}
//--
void ofApp::update(){
drawingIndex = (drawingIndex + 1) % drawingInterval;
}
//--
void ofApp::draw(){
// setup
ofSetColor(255);
ofBackground(20, 20, 20);
fbo.begin();
switch (backgroundStates)
{
case MAKE_WHITE:
ofBackground(125);
backgroundStates = MAKE_BLACK;
break;
case MAKE_BLACK:
ofBackground(20, 20, 20);
backgroundStates = DONT_UPDATE;
break;

Appendix





Appendix

This concept is for a digital artwork exploring themes of privacy and mass surveillance in public spaces.

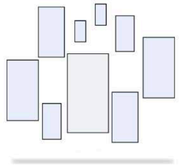
Everyday users of public spaces are surveilled, recorded, and analysed by machines without their consent or knowledge - there is no ability to opt out.

It’s intent is to make these themes tangible and visible in a way that causes reflection and discussion of how prevalent and potentially sinister these practices may be.

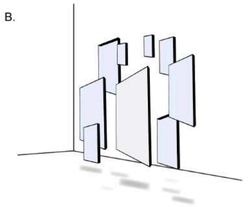
Appendix

1. Form

A.



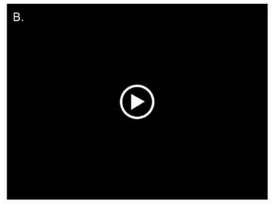
B.



2. Screen flash interaction

A.

B.

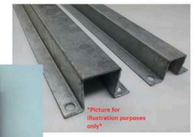


3. Connections between displays

A.

B.

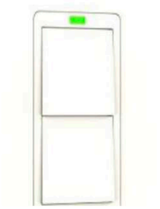
C.



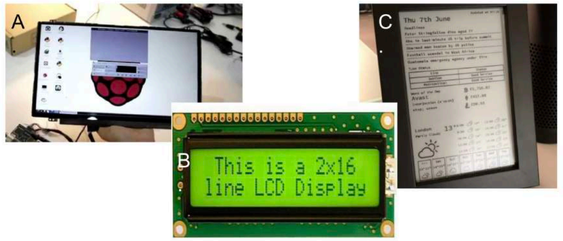
4. Feedback of mirror to displays

A.

B.



5. Screen types (second display)



6. Displayed information

A.

```
#223, Female, 21, happy

#224, Male, 25, curious

#225, Male, 31, upset
```

B.

```
#223, person, female, heroine

#224, person, male, smoker

#225, person, male, violent
```

7. Information aesthetic

A.

B.

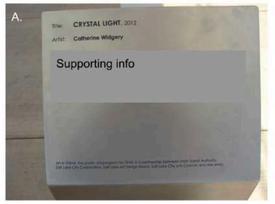
8. Finishings of display

A.

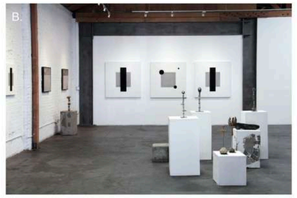
B.

9. Contextual information

A.

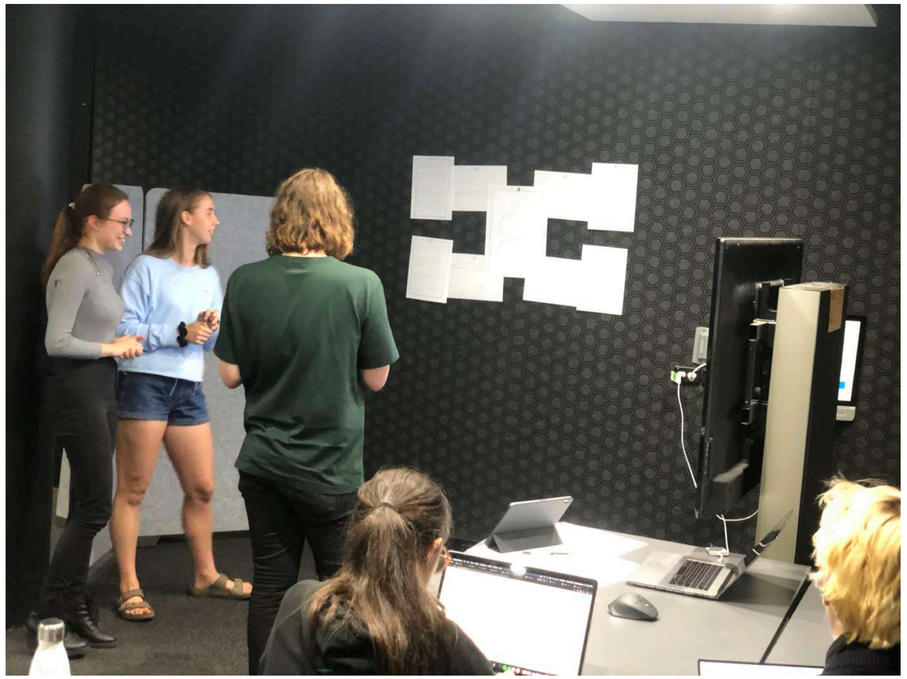


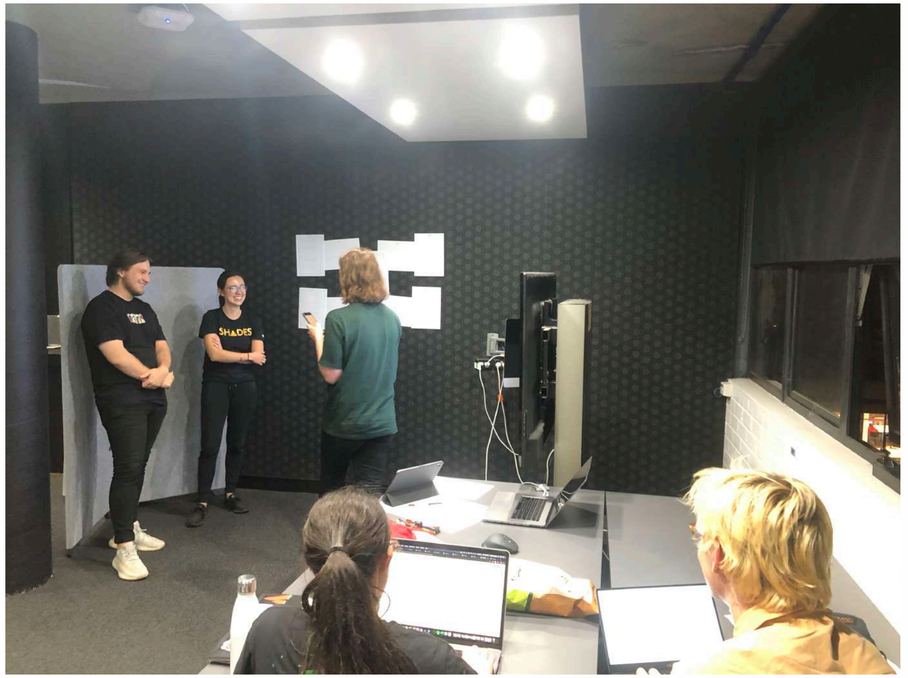
B.



No supporting info

Appendix





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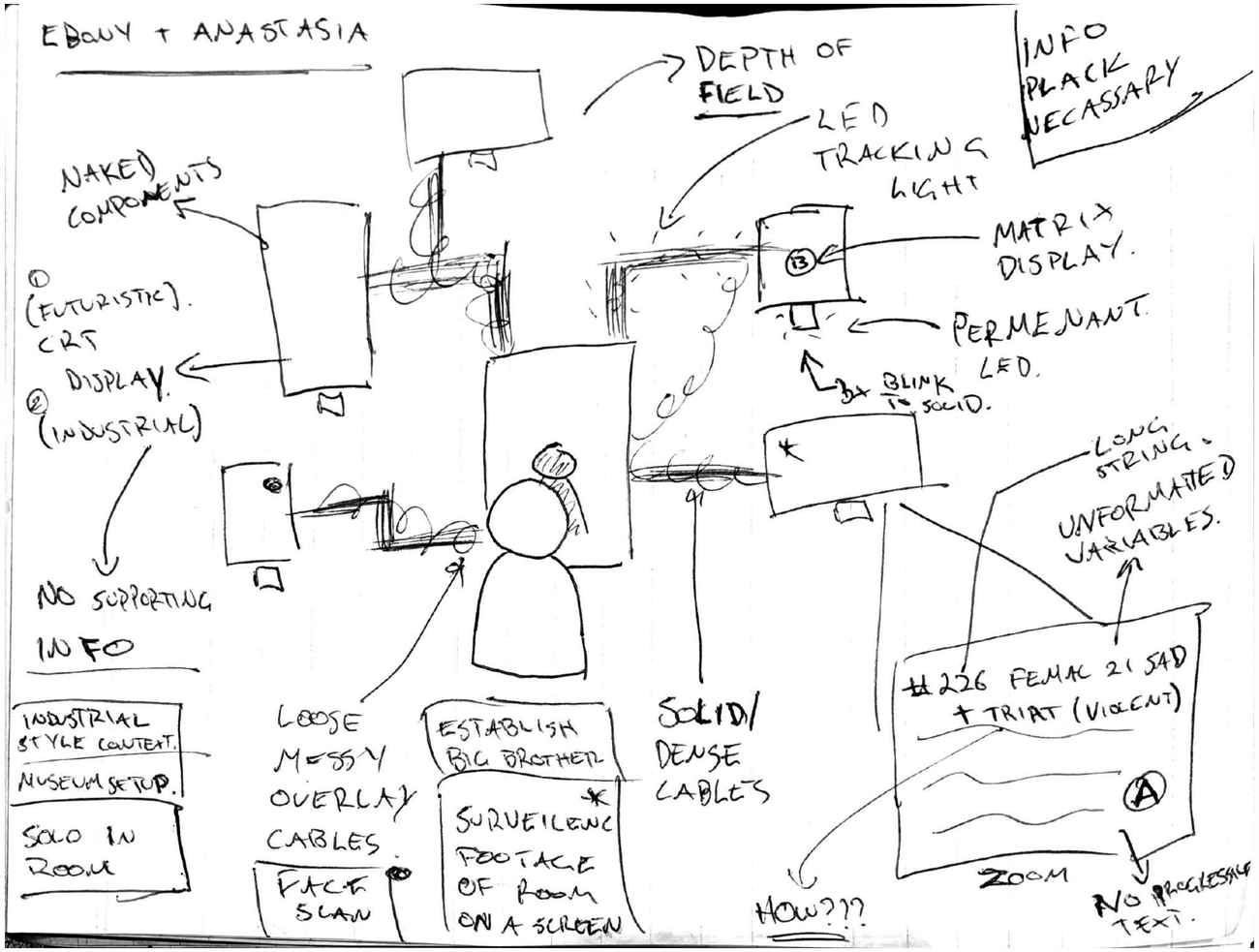
EBONY + ANASTASIA
DEPTH OF FIELD
INFO PLACK NECASSARY
LED TRACKING LIGHT
NAKED COMPONENTS
MATRIX DISPLAY.
PERMENANT LED.
BLINK TO SOLID.
(FUTURISTIC). CRT DISPLAY.
(INDUSTRIAL)
NO SUPPORTING INFO
LONG STRING - UNFORMATTED VARIABLES.
#226 FEMALE 21 SAD + TRIAT (VIOLENT)
INDUSTRIAL STYLE CONTEXT.
MUSEUM SETUP.
SOLO IN ROOM
LOOSE MESSY OVERLAY CABLES
FACE SCAN
ESTABLISH BIG BROTHER
SURVEILENCE FOOTAGE OF ROOM ON A SCREEN
SOLID/ DENSE CABLES
HOW???
ZOOM
NO PROCESSING TEXT.