

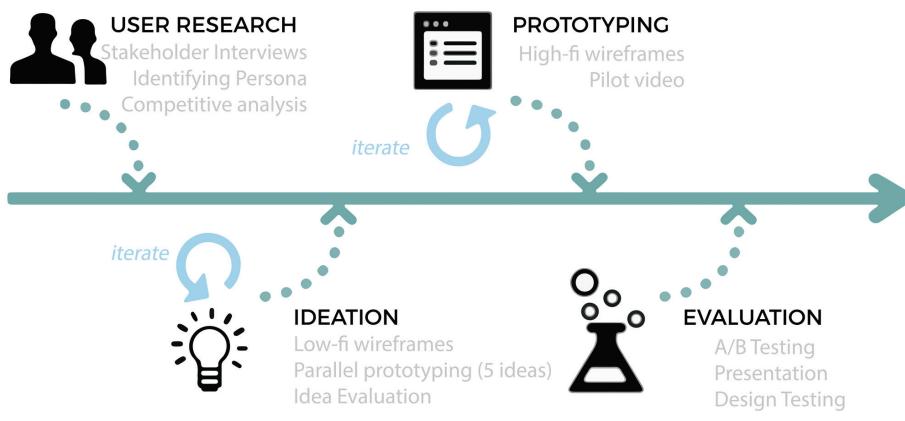
Appropriating Technologies for New Cultures

In accordance to the CHI 2015 student brief: “design a product, application, technology, or service that enables people who are a new and completely unexplored user group in any country to appropriate things and technologies around them...” we explore the subtopic of Bringing the History and Culture of a High Street Alive : Mill Rd, Cambridge.

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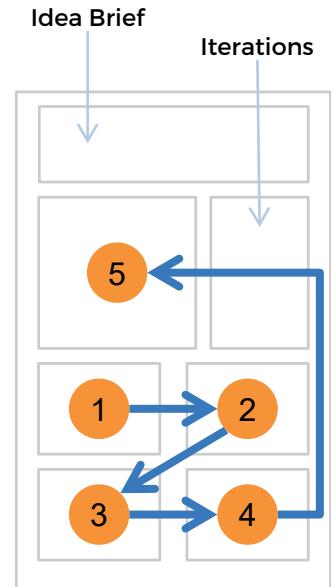
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Design Process



The Design Process

The design process kicked off with stakeholder interviews with participants from the Mill Road History Project. Which lead to identifying the personas. Then the author ideated 5 different ideas along different themes. These ideas were prototyped in Low-fi mock-ups in parallel to communicate different ideas. The ideas were evaluated and High-fi prototypes were generated along with pilot video. This was used for the presentation. The figure adapted from NM's presentation showcases the process visually. Due diligence to the iterative process have been made.



Layout of Idea pages

Typical Idea page has five sketches each showcasing different iteration of that idea. The final version of it is showcased up front, below the idea brief.

Persona – Meet Edna

"I know you think I'm old fashioned, but I'm quite happy the way I am. I don't need the internet. I've got the radio and the telly and that's enough for me."



Edna, 81, is no fan of technology.

Interests



Church



Cafe



Art



Gardening

Key Parameters



Vision

Hearing

Dexterity

Technical Knowledge

1 – Did you know ?

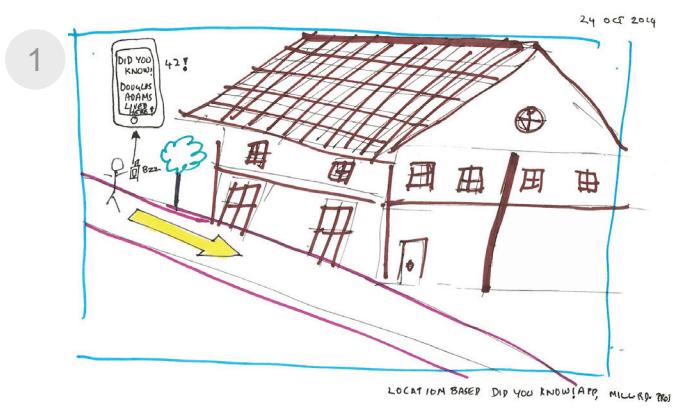
This idea revolves around fact lovers and people who would like to learn on the go. This application or service would utilize the location information periodically sent to the server. The server checks the location and tries to identify important landmarks across history based on the user preference. If the server is successful in finding information regarding a particular location and its vicinity it sends back an alert to the mobile device.

The user of this service can either dismiss the notification, learn a bit more in detail or even navigate to the exact spot based on the time the user has to spare. These location discoveries are stored in the application for later retrieval and can be revisited by the user.

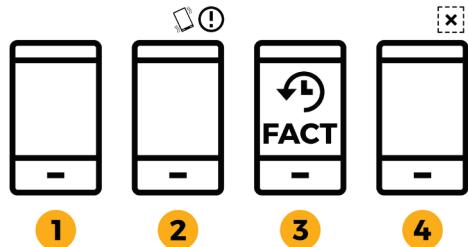
ITERATIONS



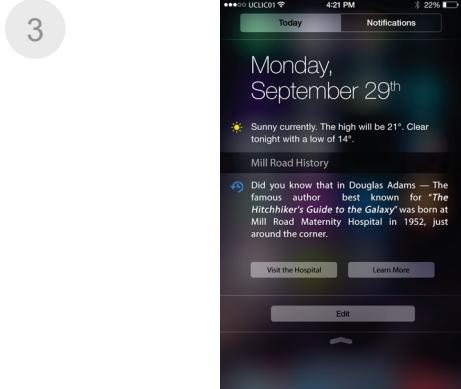
1. Initial sketch representation of the Did you know? app
2. Storyboard representing the sequence of events that leads to a fact being showcased and how the interaction would happen
3. Interface design: How the notification would show upon a mobile device or devices.
4. A system diagram of how the location is periodically monitored and how alerts are sent to the device.
5. The final sketch to the left showcases how the alert would look like in a real mobile phone



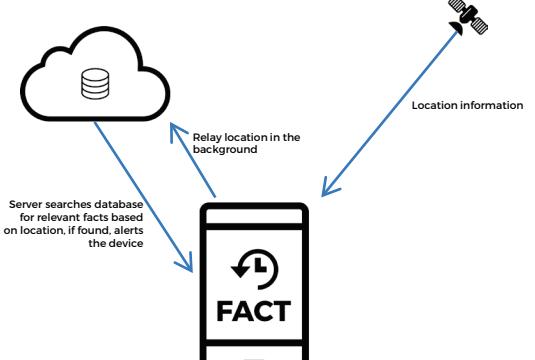
2



Idle Monitoring Notification Fact Presented Reset to original state



3



2 – Time Travel

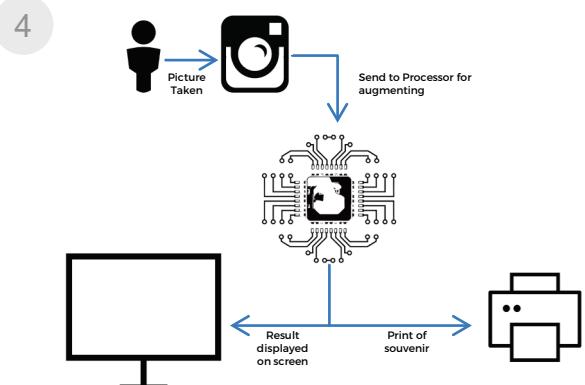
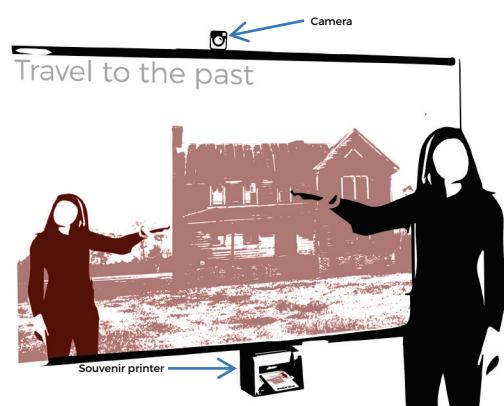
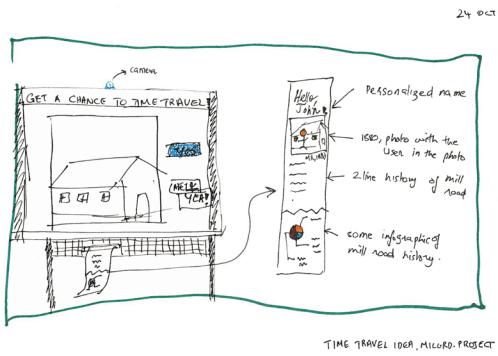
A quick way to grab the attention of a wide range of people is to engage them in interactive content, for example placing them in historic photos can be quite interesting for the users. They can play around in immersive augmented reality as well as take snapshots and share it within social media.

Moreover a souvenir is generated which can be mailed to others. This “postcard” would contain the user immersed in the augmented reality of Mill Road of an era gone by. The back of the “postcard” would contain interesting historic bits that can keep everyone engaged.



ITERATIONS

1. Initial sketch representation of the time travel idea.
2. Higher resolution illustrative sketch with how a person would interact and see themselves in the past.
3. Interface design: How the interface would look.
4. Diagram of technical system
5. The final sketch to the left showcases how a person immersed in augmented reality would generate a souvenir.



3 – Music of Mill Rd.

Music helps people to connect, relax and have fun. This idea aims at discovering local music: music that is played at a neighbour's house, at a local restaurant as well as the scores that are created by local bands and artists. This helps users discover a locality's current musical trends & tastes and experience new music. The user can unveil/explore new music this way. These playlists can be further customized as per genre, mood and other facets.

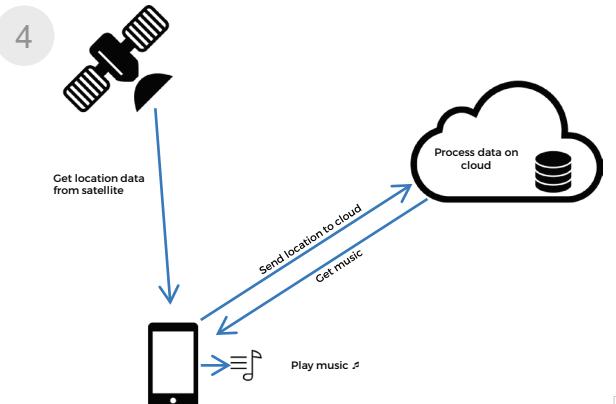
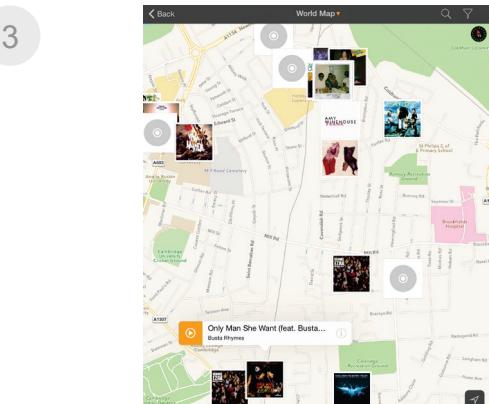
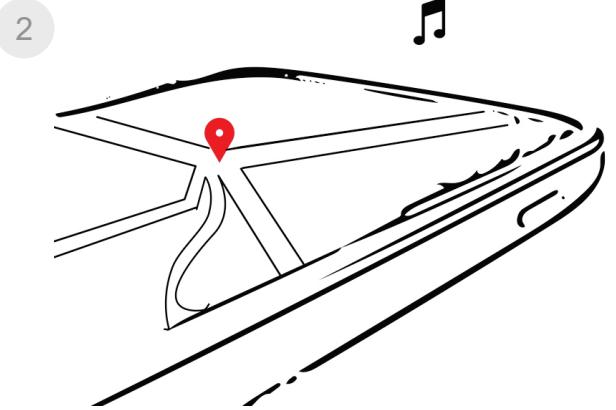
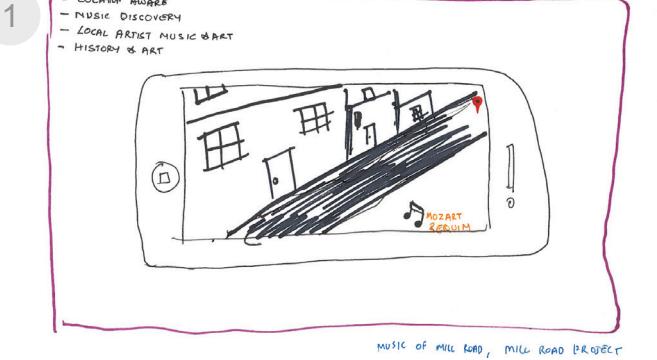
The user can make 'discoveries' of new music while travelling across the location and picking up tracks and playlists along the way. These playlists can be further customized as per genre, mood and other facets.

5: Concept Sketch



ITERATIONS

1. Initial thoughts and sketch of how this system might work
2. Higher resolution illustrative sketch
3. Interface design: Overlaying maps with music and players.
4. Flow diagram representing how this application would work from a technical perspective.
5. The final sketch to the left brings together all the design elements into a single explanatory sketch.



4 – Interactive Happy Board

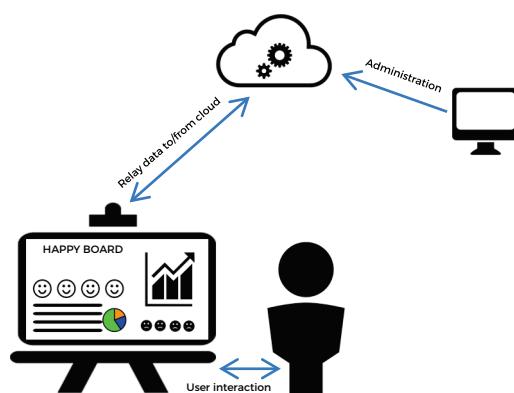
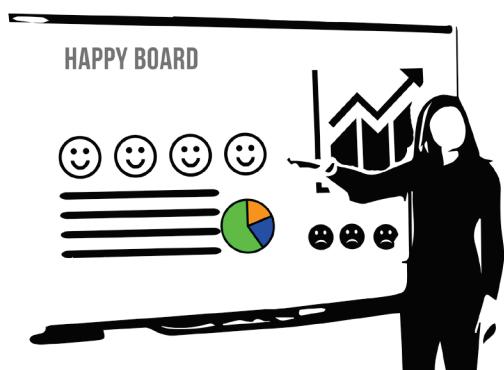
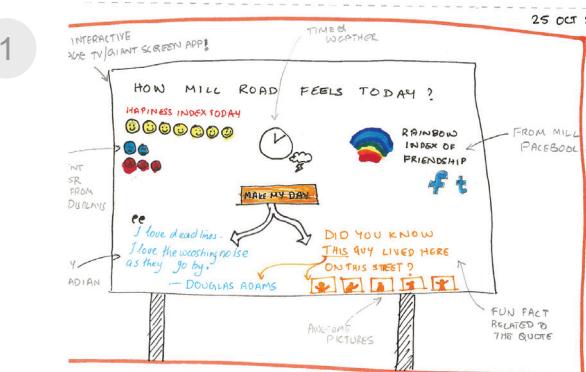
Showcasing information helps people understand the world around them. In this idea, we decided to showcase information about people with respect to how happy they felt as a community. It also tells them a quick quote and a hook for users to explore about famous people from "Mill Road".

The system also provides basic weather and time information which is useful for almost all passers-by. Additionally the board also fetches information about the community engagement in social media which is rendered in colourful (rainbow) visualization. The user can also submit their feedback for the day using this happy board.



ITERATIONS

1. Initial idea sketch and what the board can potentially do.
2. Higher resolution illustrative sketch with how a person would interact
3. Interface design: Laying out various components & interactive elements
4. High level diagram of technical system
5. The final sketch to the left showcases how a person would actually use the display.

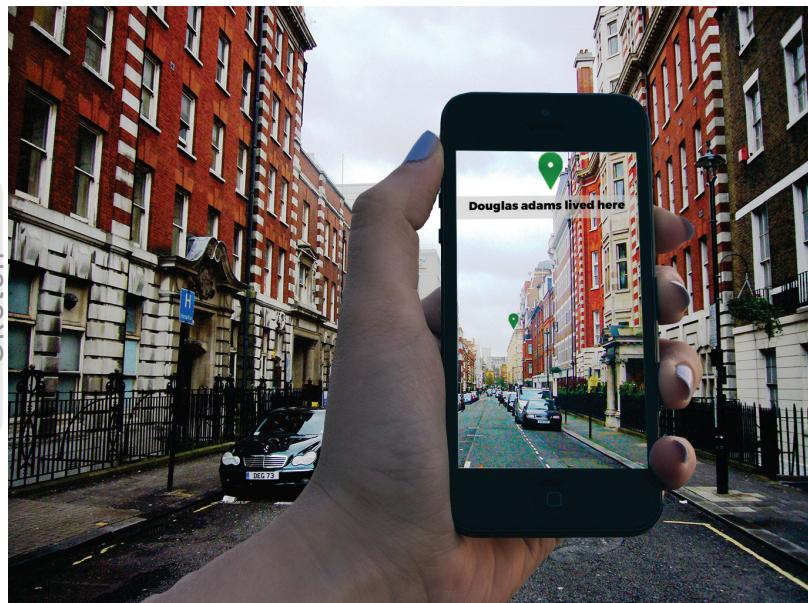


5 – Augmented Reality App

Augmented reality often extends reality to engage audience in a fun and exciting manner. Here in this exploration of this idea we create an experience where the live feed from the camera is augmented with interesting notes of that location from history.

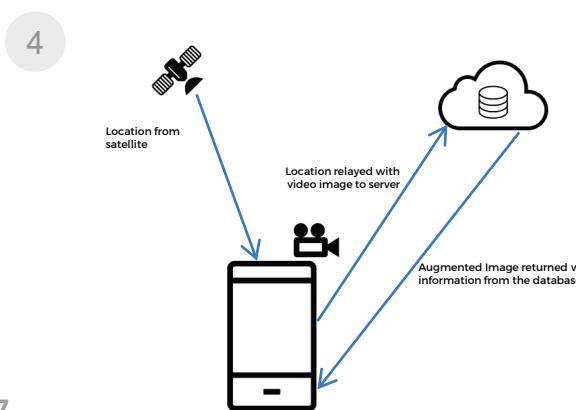
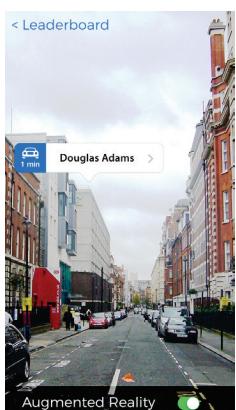
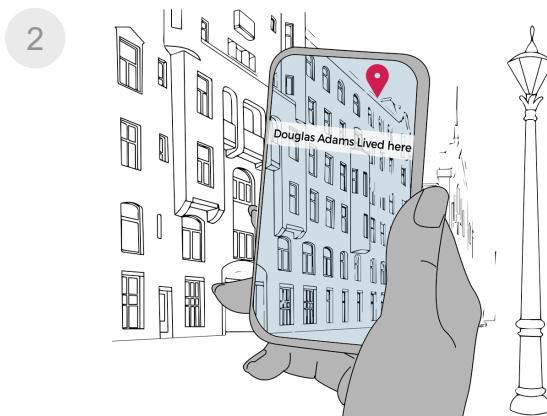
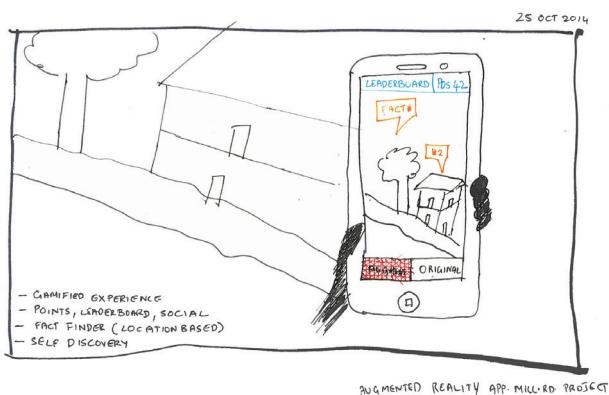
This experience can be gamified so that people have an intrinsic motivation to compete with their friends in exploring and learning about the history of that particular location and area in general.

5: Concept Sketch



ITERATIONS

1. Initial idea sketch of augmenting reality and thoughts
2. Higher resolution illustrative sketch with how a person would experience the system
3. Interface design: Laying out various components & interactive elements
4. High level diagram of the technical system
5. The final sketch to the left illustrates how a person would augment reality in an immersive experience.



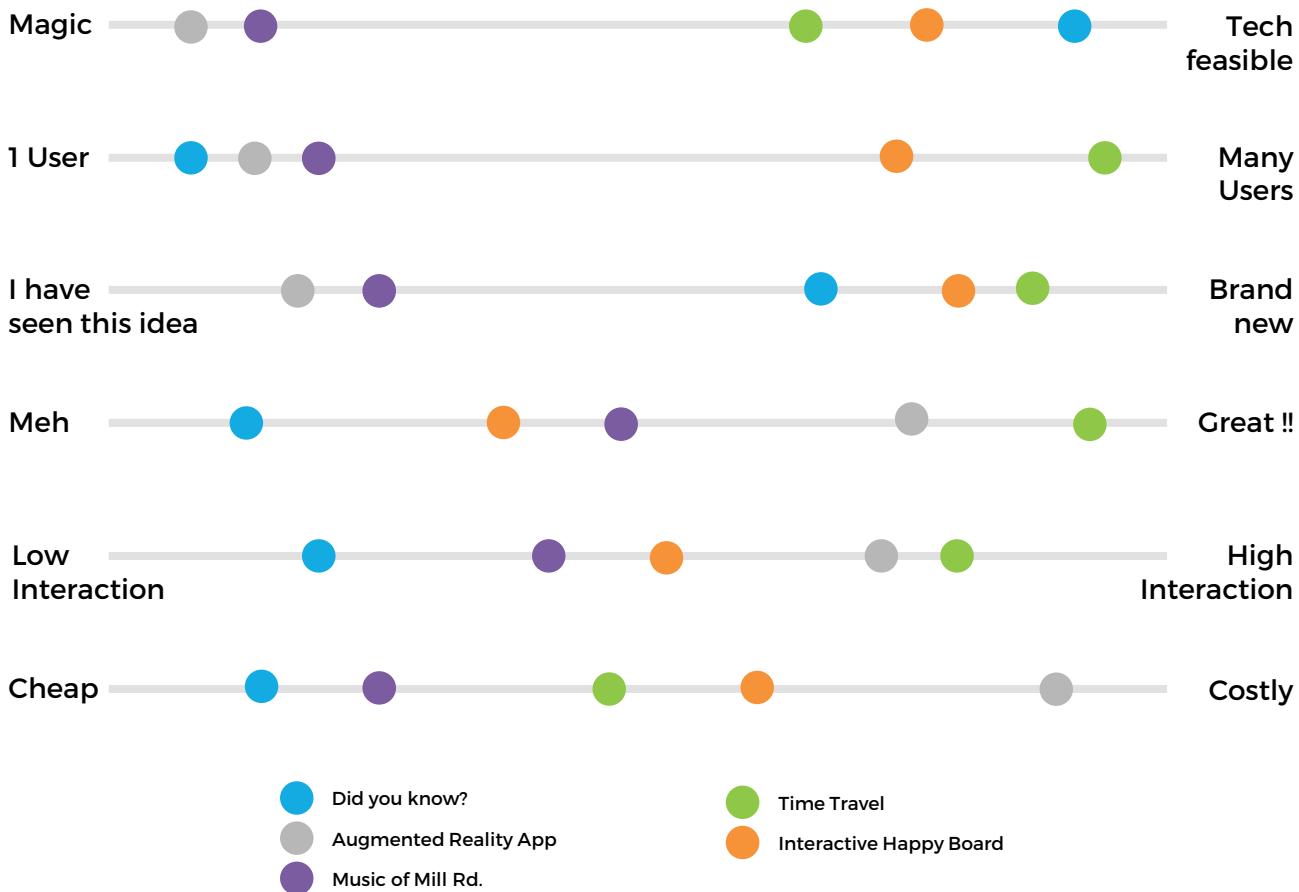
Selection Process

Evaluation was conducted across six different parameters, which were selected based on the project theme, and on the personas identified. These parameters are listed in the table on right.

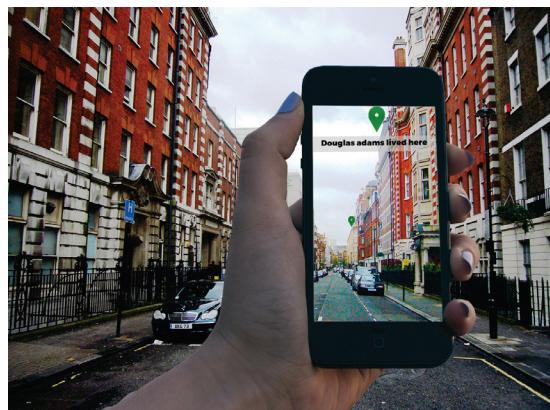
In the evaluation each idea represented by a coloured dot, is placed within the line based on critical thought. For each parameter the main concern was the relative position among the ideas, though the absolute values do not impact the selection process.

Diligent consideration of various parameters helped us select the top two ideas which was further reduced to one concept for more iterations.

#	Factor
1	Technical feasibility
2	# of users engaged
3	Innovativeness of the idea
4	Fun factor
5	Interaction level
6	Cost



Selected Ideas



Augmented Reality App



Time Travel

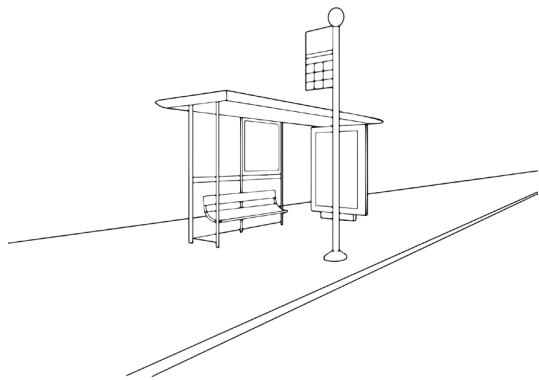
Refining

#	Parameter
1	Location
2	Usage context
3	Further engagement
4	Interaction limitations
5	Messaging

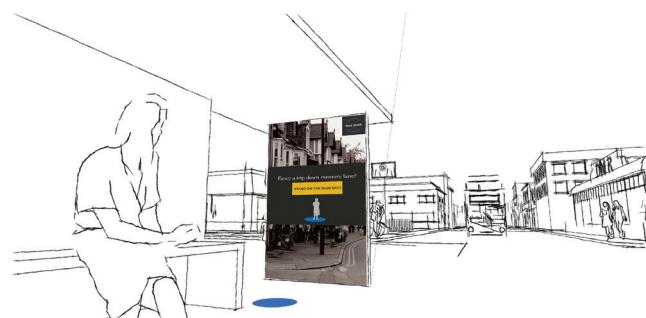
The two selected ideas were utilized with augmented reality techniques. One of the prime concerns of our personas were the access to technology and how to use it. It was decided based on this to pursue the time travel idea where the user is augmented into a historic picture and receives a souvenir of the same which can be printed and physically posted as a post card or shared via electronic media. This would further act as a word of mouth instrument for the promotion technology and service.

The idea was refined along various parameters including location, context of use and others. The full list of parameters are listed on the left. Each parameter was carefully evaluated and the idea was refined iteratively.

Location



Usage context



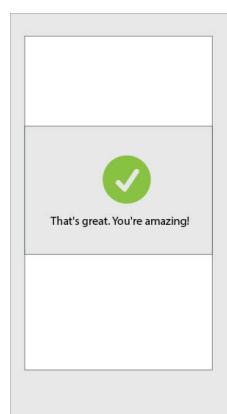
Further engagement



Interaction limitations



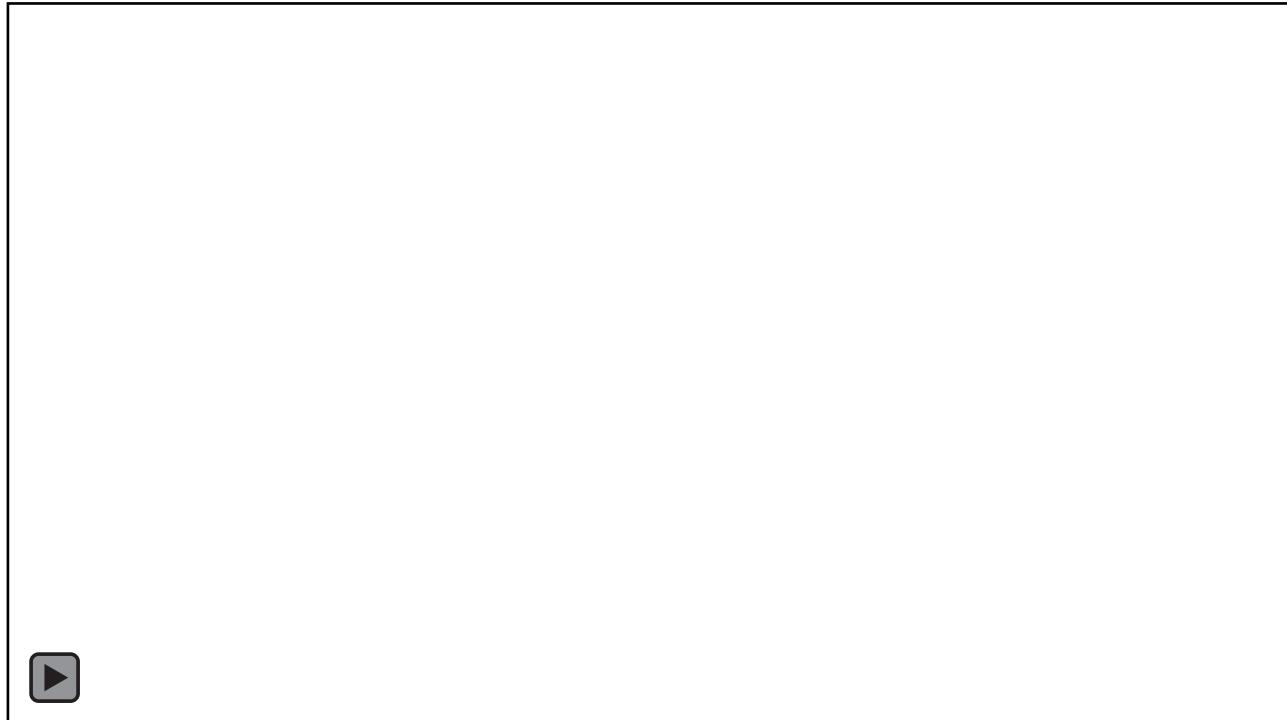
Messaging



Conclusions & Refined Idea

To conclude, the author has explored a wide range of ideas in-depth and refined them in parallel. All designs and ideas have been represented in various fidelity to convey the idea and core theme appropriately.

The video showcased below works in embedded PDF readers like Adobe Acrobat XI. The video also can be viewed at <http://youtu.be/gRCPdCodMKQ>



Notes

1. **All content** in this document are the **SOLE WORK OF THE AUTHOR**, except stated below.
2. Please note the 5 images in page #9 (Refining) and the video on page #10 (Conclusions & Refined Idea) has been previously showcased during presentation for Design Practice PSYCGI07 & due credit to **GM**.
3. The persona "Edna" in page #2 was created along with the statement by **SA**, meanwhile rest of the persona information like *Interests* and *Key parameters* are the work of the author.
4. The Design Process chart in page #2 has been adapted from the presentation by **NM**.
5. Some images have been *sourced from the internet* and *edited / traced* to be used in sketches and prototypes. Full list of images used are available at : <http://goo.gl/EICS60> . Vector icons have been sourced from **BlendMeIn** <http://blendme.in>