# Group Meeting - Minutes 07/10 - 11:30 am - 1pm

08 October 2019 10:06

Meeting held at QMB Uxd Research centre.

## 1. Overall structure of meetings

Group meetings every now and again - talk about things as a whole Talk about dates and deadline
Another one about ethics soon

#### 2. Deadlines

- Got a deadline in the middle of development Mid project report 31st of Jan
- Demos Sometimes before the last deadline
- Another one at the end of the second semester where we hand in the report and the project -5th of May

Recommended to do the literature review, requirements, documentation this semester Create and testing in semester 2

## 3. Final report

Final report will have the following sections:

- o Intro show why the project is useful
- <u>Literature Review</u> show why the work needs to happen historical and theoretical Show that the thesis fills in a little bit of what has not been done before Look at engagement with tours and can AR assists/ safety aspects

   i.e. Develop research questions and say why they need to happen
  - Talk about the system

Include use case diagrams

Requirement analysis

Class diagrams

Db diagrams

Personas

All of this can be in the appendix as well

#### Experiment

Make sure it's not terrible. Don't use comparative metrics unless comparing to something else.

Qualitative analysis - looking for themes within the data. Let people interact, carry out an interview afterwards, transcribe the interviews and look for things. It will be a lot of writing. Needs to be word for word.

A) what am I going to do

B) what did we find out

i.e Answer the Lit Review quesitons

#### o Discussion

Try to relate findings back to lit review.

Aim for 3 research questions in total.

o PLSE (LEPSI) - Professional social legal and ethical issues

Split each in a section, Mike can give a doc of what's expected from each. Can include the reflection.

#### o Conclusion

Draw everything together.

Sum up the research questions answers.

Everything needs to happen, therefore Waterfall it. Use agile for the design of the system. Create a Gantt chart from here till Christmas (mid project report  $\sim$  2 pages). It shows everything. Agile for 6 or 7 weeks on development (maybe 5 sprints). Easier to do Waterfall as we know how long the rest takes.

## 4. First steps

First thing that we need to do is the Literature review. Start reading papers in the general area of the project. There's multiple sources. Google Scholar is the most popular. Can be difficult to find exactly what you need, but the purpose of the lit review is to find enough papers in the general area in order to circulate the project.

#### Strategy when reading papers:

You don't need to read every page. Read the abstract - if interesting - read the conclusion. Can stop there. We're trying to figure out what the people did and what did they find out. Take the link and write a sentence of what it is all about. Write it down on a physical medium, organise which ones you need.

If interested on how they did it - read the methodology

If interested in results - read the discussion

If struggling with literature review - Read their literature review, copy their references. Use the "cited by" feature on google scholar in order to see more similar things. It's an option when searching for papers

Mendeley - software to organise papers. Once you find a paper that you are interested in, use the chrome plugin to add it in the online DB. It also downloads metadata. There's a word plugin, which helps with referencing. Just used consistent referencing. In word Referencing-> use Mendeley for citations. At the end press insert bibliography.

Other decision is what to use to write the report. Latex - recommended by Mike? Word? Styling is marked, so need to strongly consider a template. Latex can help. Overleaf pro as well (extension of Latex), which Mike can share them with us. You get tracked changes, history, git, etc. Got an invitation to Overleaf by Mike.

Project log - can submit the GitHub backlog of the report. Can throw all mock-ups in the dev repo in a separate folder so it's still versioned.

#### 5. Gantt chart

So first thing - start reading papers and start reading through, linking them up and taking notes.

Think about how I'm structuring my time. Gantt chart. Put it in the appendix as well. Don't worry about accuracy for the Gantt. 2 weeks max per block in the chart. Need to figure out the dependencies as well. Use post it notes. ProjectLibre is a free software for project management. Makes the Gantt chart. Mike will send rough estimates for everything.

## 6. Writing 101

Try to stick to one idea per paragraph for the lit review. First sentence- overview, the rest expanding onto it and leading into the next.

# 7. This week's plan

 For this week - start reading. Set up slack with mike. Get a better idea of the specifics of what I want to look at (research questions I want to answer, what is the project I will make). Have a look through the marking sheet.

### Set up excel spreadsheet

Paper name	Key findings	Other Interesting bits
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o Figure out how other lit reviews are written before I start writing mine

Sci hub - for papers we don't have access to. Try with UoD Computing VPN as well. Next meeting - have a rough project plan in mind.

# Individual meeting - 18.10

18 October 2019

11:11

Look at CHI website for research

Google maps walking AR view

AR Core Elements -google AR app

Look at the way BBC would do narrative and their projects

Mike will send an email with more info on BBC things

#### Next week:

- Look into more detail of object-based narrative (think BBC). Basically tailoring the experience to each person.
- Look into the way games do narrative and narrative paths
- Start to formulate research question
- Think of what type of narrative it will be factual, non-fictional or fictional
- Think of how generating the narrative will work:
  - Start at any point and follow a set path
  - o Start at the beginning, follow a set path
  - o Start at any point in the journey, the narrative generates around you
- Addition of user profiles? There's a research about it
- 10 papers that show it hasn't been done before (can cheat by looking at future work and seeing if they've done anything since). Will use those as references. Add extra papers with potential extras Mike can give input on.

23 October 2019 16:43

 Started looking at research, realised I should probably study narratives and narrative structure first <a href="https://en.wikipedia.org/wiki/Interactive\_storytelling#CITEREFBostanMarsh2012">https://en.wikipedia.org/wiki/Interactive\_storytelling#CITEREFBostanMarsh2012</a>

2. Research papers

	research papers		
P	Paper	Key findings	Other
C G E	The 'Interactive' of nteractive Storytelling: Customizing the Gaming Experience - Barbaros Bostan and Tim Marsh (need to ind the full papers)	Drama manager, Agent model, User Model	
0	The Experience of nteractive Storytelling: Comparing (Fahrenheit" with (Façade"	the experience of Interactive Storytelling was found to depend strongly on interactivity	
<u>ii</u> <u>v</u> r	https://medium.com/ metaverseapp/tell- nteractive-stories- with-augmented- reality-anyone-can-do- t-in- minutes-982812e9087	Examples of what can be done with AR for the purposes of interactive storytelling	
S	The Motivational Appeal of Interactive storytelling: Towards a Dimensional Model of the User Experience	Curiosity suspense aesthetic pleasantness self-enhancement optimal task engagement ("flow")  Key elements of user experience in interactive storytelling	Possible metrics for the experiment portion? https://www.researchgate.net/profile/Christia n. Roth/publication/220920151  The Motivational Appeal of Interactive Storytelling Towards a Dimensional Model of the User Experience/links/0912f505892edb2 37600000/The-Motivational-Appeal-of-Interactive-Storytelling-Towards-a-Dimensional-Model-of-the-User-Experience.pdf
S	User Interaction for nteractive Storytelling - Marc Cavazza and Fred Charles	Focusing on the Interaction side of Interactive Storytelling (IS)	https://link.springer.com/content/pdf/10.100 7/978-981-4560-52-8 57-1.pdf
( <u>h</u>	Chris Crawford - on Interactive Storytelling book) https://www.amazon.c o.uk/Chris-Crawford- Interactive- storytelling/dp/032186		
A	nteractive Storytelling: A Player Modelling Approach		https://www.aaai.org/Papers/AIIDE/2007/AIIDE07-008.pdf
III	Generation of Adaptive Dilemma-Based Interactive Narratives From Inthttps://ieeexplore.ieee.org.document/5345846/author		https://ieeexplore.ieee.org/document/534584 6/authors#authors

# NG 11 4-6+h:ngs 111 /11/11/20 3 relevences

#### Meeting with Mike

Google app science journal - access to all things on your phone

Formulated a research question

How can Narrative Generation based on Augmented Reality Interactions affect the User Experience? Change either Narrative Generation or the Augmented Reality interactions.

Do A/B testing on those? Maybe one group does an NG tour, while the other follows a linear narrative? Questionnaire when conducting the study will be formulated from the Literature Review

Final version of the question -

What impact does Narrative Generation method of storytelling (based on Augmented Reality Interactions) has on overall UX?

Focus on creating that into the Lit Review

NG methods AR interactions Overall UX

Each thing need 4-6 things for someone to know in order to understand why we're looking at the area. These turn into the paragraphs of the section. Backing it up with lit review references. Each point can have  $^{\sim}$ 3 references. Can use the same.

On Monday - ethics, copy mike's process

For next meeting:

Start writing the lit review. Aim to have all 3 sections with the 4-6 things each. Start collecting the references, maybe start writing the paragraphs.

Look into overleaf syntax

Use bibtext from google scholar "(quotes) button.

Put it inside the bibliography file. Copy the variable name, then can use \cite{name} inside the main document.
Can link the overleaf to a Github repo, which will also track changes.

# Group Meeting - 28/10

28 October 2019 11:01

Ethics - Dundee University ethics (non-clinical research ethics) - all the info is there - application procedure contains all of the forms. Applications and guidance materials will give more templates. Mike will zip up a completed application and send it on slack.

Checklist 1 - need to be done Section A - YES Section B - Yes, yes, no, no Section C - no for everything (should be)

#### Checklist 2 - need to be done

Anytime you tick yes you move from low risk to medium/high No, no, no, no, no (mike will send a different ethics application for me), no, no, no, no, no, no, no, no, no

Form A - low risk form - need to be done using the reviewer's form Make sure the form is filled out with the answers of the reviewer's questions. Use bullet points to answer questions, like Mike did 6a. Just say standard dpo will be used in this work. Same as Mike's. 6b. Same as Mike's.

Consent form - 2 copies, 1 for self, 1 for the participant.

- 1. Read the sheets, agree to take part, they agree for audio/video recording
- 2. Information in the study in case the information gets stored and published.
- 3. People can use this after the study.

#### Information Sheet -

Questions the participant needs the answers to. Just need to change the purpose of the research and who is conducting the research,, what will happen if I take part,

Need to say what data we're gathering from people.

Make them up, zip them up, send them to Mike. Chance to think about aspects I haven't thought about. Anything above 90 minutes per participant is too much. Try to fill it up by the Monday next week, so we can discuss it on Friday.

# Individual Meeting - 8/11

06 November 2019

14:19

# 1. Preparation for the meeting

- Completed ethics forms, put up on GitHub.
- Submitted Ethics application.
- Set up Overleaf templates, divided files into a more logical structure.
- International Conference on Interactive Digital Storytelling <a href="https://dblp.org/db/conf/icids/">https://dblp.org/db/conf/icids/</a>
  - Collected all relevant research into Mendeley
  - o Sorted it into folders
- Made an overview of the Lit Review structure.
  - Framework for Lit Review Paragraph orders
     Why is this area important?
     Explain the relevant aspects of the field.
     Define the research direction and flow into the next subsection.
- Questions:
  - Is it ok to say Gap in research is here: [1,2,3] Don't say "no one has done this" there's not much research, it's an emerging topic, etc.
  - Found research for the future work section translating locations, so that user can experience story elsewhere. future work will also come up from user evaluations.
  - Start looking into specific implementation once a decent Lit Review is done? definitely

Presented my ideas for the lit review. Mike agreed with my structure. We spoke about looking into actual implementation once the lit review is in a good place.

# Individual meeting -22/11

22 November 2019

11:43

I'm not the expert - person reading it sees that I've done my research Need to look at the layout. Section in the middle usually shows the project. Can do it as an appendix here.

Next meeting is group meeting - 2nd of December. Start to frame out next semester. Talked about my plans till next meeting. Try to do lit review by then. Focus on lit review. Next Friday the 29th, he'll set aside a couple of hours to read through it.

# Group Meeting - 03/12

03 December 2019 10:35

Mid progress report - due on the 31st of January.

No longer than 2 pages. Mike said to put in the lit review alongside the RQs, then saying here's what I'm doing for the rest of the project (try to do it in 3/4 of a page - the plan). Can do a Gantt chart for the rest of the semester / Kanban board.

Main purpose for the second semester is development and testing.

Final Submission - 05/05/20

W.b. 27/04	20/04	13/04	06/04	30/03	23/03	16/03	09/03	02/03	24/02	17/02	10/02	3/02	27/01
Polishing, report	Writing of report +review	Writing of report + Review	Testing Analysi s	Testing	Testing	DEV Organis ing Particip ants	DEV Recruiti ng particip ants	DEV	DEV	DEV	DEV	DEV	Mid Progres s Report

Testing can flow into the analysis if we're pressed for time. DEV can be done with sprint backlogs, etc. Do issues on github, use automated kanbans.

As far as the report goes - we're doing a research project, but we need to have certain things in it regardless (normally not in a research paper). Final report will look like a 10 page research paper. Everything that does not belong will be an appendix.

Rough layout of the study:

#### Main Paper

- A Introduction
- B Related Work
- C Study
  - C.1 Method Mike will send examples. Basically Here's the research question, here's how we're doing this.
  - C.2 Results After User Testing.
- D Created System can write this during DEV time, Mike will send examples. Talk about the system that was created
- E Discussion Can start each section with Lit Review Question
- F Conclusions Overall take home points from this work

A	В	В	D	C.1
C.2	C.2	Е	E	F

#### **Appendix**

Not necessarily a layout, just all of these things need to be there.

- 1 LESPI
- 2 Project Management
- 3 Further Design Documentation (the majority of it) UML diagrams, DB diagrams, etc.

Need to have minimum 40 references.

Lit Review and Research Questions should be done before the mid progress report.

Guidance says 2 pages for the report. Mike says to add the lit review, and then say here's everything I need to do. Can be Gantt, Kanban, User stories.

If doing requirements - can make these as tags on github.

Must

Should

Could Wont 21 January 2020 13:26

## 1. What has been covered so far

# Literature Review - 90% completed. Need to refine it in regards to the comments and perhaps add an extra paragraph -

"Another challenge comes with designing natural interactions. Communicating through human gestures is preferable, however, often times they are replaced with on-screen interfaces."

- Meant it as just an introduction (overview to Lit review), but happy to make a paragraph out of it
- Research on UX for natural interactions vs UI? probably good.
- o Research on possible human gestures that are used in AR.
- Do I need to frame RQs in the Lit Review?

# 2. Plan from now until completion

- a. Artefact and Testing
- o Two options for AR framework:
  - Google AR Core using Android Studio sort of familiar
  - Unity AR Foundation cross platform same as above, combines ARCore and ARKit
    - World tracking: track the device's position and orientation in physical space.
    - Plane detection: detect horizontal and vertical surfaces.
    - Point clouds, also known as feature points.
    - Reference points: an arbitrary position and orientation that the device tracks.
    - Light estimation: estimates for average color temperature and brightness in physical space.
    - Environment probes: a means for generating a cube map to represent a particular area of the physical environment.
    - Face tracking: detect and track human faces.
    - Image tracking: detect and track 2D images.
    - Object tracking: detect 3D objects.
- $\circ\hspace{0.1in}$  Looked at AR Core features/experiments that are useful to the project
  - Just a line allow drawing in the AR world. Can be used for unlocking parts of the story?

https://experiments.withgoogle.com/justaline

- Contacted the University Archives for a meeting during the week
  - Might not be possible to use the resources in the project?
  - Meeting with them on Thursday, they seemed excited about the project
- o This Week:
  - Create Gantt Chart
  - Start adding issues on GitHub
  - Decide on the stories to be used after Thursday meeting
  - Finish the Literature review, so that it can be included in the report
  - Write the report
  - Start doing tutorials on the AR framework, so dev can begin next week with a simple tour around the QMB.
- b. Writing

# 3. Possible Challenges

- a. Dev time? Coursework and travelling for games might slow me down at first
- b. Creating a cohesive story might skew study results

- Research on UX for natural interactions vs UI? probably good.
- UI buttons -interaction
- Hitmarkers another interactions

Youtube series on storytelling - The future of storytelling See if Archives lady can give me a tour of the campus and the re-use it?

What i've done + lit review and appendix + here's how i'm going forward. Include Gannt chart.

#### Goals for next time:

- Start doing some dev
- Figure out how I'm doing the A/B testing. Easiest way to do it is a journey map (from today).
- Thingversse -3d models can be imported. Can extract models from google maps
- AR frontier just introduce them into the experiment bit.

#### Goals:

- Friday;
  - Report
- Do one of each for the AR.
- Come up with the story.
- Research method. Initial Interview. Two stories. Both can be static or generated.

# Individual Meeting 10/02

07 February 2020 21:41

#### Agenda:

#### For meeting:

- Mike to give comments back on literature review
- Start thinking about what the story is going to be that will be developed.
- Research method might be possible to do this as a journey map.
- Start looking at different development environments and try to decide on which one to use:
  - Unity
  - A-Frame / ar.js
  - ARCore in Android

•

#### Since Last meeting:

- Submitted mid-progress report
- Didn't manage to meet up with archives due to a funeral. Moved it to the morning of the meeting
- Started working with Unity and ARCore / AR Foundation. Ended up choosing AR Core for it.

Difficulties when first setting it up

All good now with versions

Showcase work done - image recognition + sphere

Can't commit for some reason?

- Testing specifics
  - Dimensions of the study:

Look at Overall UX in a field setting. Use both qualitative and Quantitative methods

- Qualitative
  - Interview after the tour
- Quantitative time spent in "portals". Time spent not exploring (AR Core has built in functions prompting for movement), amount of interaction with the environment.

Can we link the two and classify the Qualitative comments? For example, someone says that they were very engaged, but barely did any exploration and spent no time in "portals".

#### Patterns in choice games -

https://heterogenoustasks.wordpress.com/2015/01/26/standard-patterns-in-choice-based-games/

https://emshort.blog/2016/04/12/beyond-branching-quality-based-and-salience-based-narrative-structures/

Matthew Jarron - book a tour. Caroline will send me a tour. She'll give me a book with all of the pictures. Matthew can say about artwork, objects in the museum.

#### Goals:

- · Working portal,
- Storyflow map for the static bit of the whole campus (can use archives).
- Schedule a meeting with archives
- Look at using green areas for something.

•	Writing as well.	- 24th and	l 25th - exp	and lit rev	iew on UI e	lements vs .	AR UI eleme	ents. Stroy te	chniques

# Individual Meeting 26/02

24 February 2020 09:54

## Agenda set in last meeting

- Get working portal in AR
- Story flow map for whole campus
- Look at literature review
- Add in extra parts on story techniques (based on article that you found)
- UI elements vs AR elements
- Evaluation of User Experience sort of

## Progress made:

https://www.scotland.org/about-scotland/scotlands-stories/portal-ar - Scottish Portal app. Use it for ideas as it is a more sophisticated display of portals

- Show 360 portal and Sponza portal (useful for the green spaces, as no obstructions are there so it's easier to explore safely)
- Show Github Issues. Invite Mike as a collaborator?
- Talk about problems with spheres
- Talk about Virtual Museum using the University's 3D scans
- Show map of campus -<a href="https://www.google.com/maps/d/u/0/viewer?mid="https://www.google.com/map
- Show Lit Review

https://ieeexplore.ieee.org/abstract/document/7912316/references#references - very good overview on AR tech advancements

https://sci-hub.tw/https://link.springer.com/chapter/10.1007/978-1-4614-4205-9\_6 -

Discoverability, how to find the MAR services; Interpretability, value that provides MAR services; Usability, UI/UX features and MAR application-user interaction. **Suggested prototyping methods** 

https://interactions.acm.org/archive/view/january-february-2013/media-studies-mobile-augmented-reality-and-interaction-design - exploring the mix of "here and there" in AR and the associated challenges

https://sci-hub.tw/https://www.sciencedirect.com/science/article/abs/pii/S0926580512001872 - dividing AR interactions into 3 categories - time and location-based, object-based and user-based. Framework for measuring context immersion

#### Still TODO:

Include the article on video game narratives into Lit Review
 <a href="https://heterogenoustasks.wordpress.com/2015/01/26/standard-patterns-in-choice-based-games/">https://heterogenoustasks.wordpress.com/2015/01/26/standard-patterns-in-choice-based-games/</a>

TODO: download google earth and make a video

- Dundee university daily mile
- Go for green spaces first for the portals
- Need to find another paper like the context immersion so I can say that it's been used by others as well. Will need to change their calculations. Can expand on their analysis as well. All of this a the end of the project. Look at the author's other AR research as well.
- Find multiple papers, see what the common themes are and say we can use it. Can take

quantitative question and use them to scope a semi-structured interview to tease out what they actually mean. This way people can pick up on vocabulary from the questions.

- Try to use one of the fitness tracking apps and map out a route that can then be exported.
- Can see if Mike is available for the meeting with Caroline/Mike

# Individual Meeting - 11/03

05 March 2020 14:04

- Push testing back one week? Meant to recruit participants this week.
- Showcase the new choice selection scene.
- Showcase the map. Ask about the AR + GPS asset
- Explain the individual scenes from the notebook
- <a href="https://dl.acm.org/doi/pdf/10.1145/3136907.3136926?casa\_token="https://dl.acm.org/doi/pdf/10.1145/3136907.3136926.acm.org/doi/pdf/10.1145/3136907.acm.org/doi/pdf/10.1145/3136907.acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/10.1145/acm.org/doi/pdf/
  - Reduced textual information
  - o Replaced text with videos and images
  - Used High fidelity visuals
  - Students wanted to be more actively engaged, rather than just passively observing

Several factors relating to the user interface, the learning

- Fewer GPS hotspots
- Focused on integrating the real world with the virtual explanation building.

content, the activity space and the context have emerged as having affected students' immersion. These findings are in line with the arguments of Kim [19], who has argued that, in contrast to virtual environments, location-based AR is not only dependent on the virtual interface and content, but also on the locality and context of the AR activity. In particular, the findings of this study have yielded 21 unique immersive factors, related to the interface, content, locality and context of the location-based AR activity. These factors guided the design of a more engaging location-based AR activity, leading to the implementation of several revisions in the AR activity. As a consequence, and according to the students who participated in the second iteration, the revised location-based AR activity appeared to be much more immersive.

The product of the learning message of two price from and

- <a href="https://link.springer.com/chapter/10.1007/978-3-030-33894-7">https://link.springer.com/chapter/10.1007/978-3-030-33894-7</a> 35(Interactive Narrative Generation Using Location and Genre Specific Context) Nothing specific, but an idea of extracting location relevant data from text and linking it up
- https://scihub.tw/https://www.sciencedirect.com/science/article/abs/pii/S1071581916301306 (The development and validation of the ARI questionnaire)
   Questionnaire for measuring immersion in regards to Augmented Reality. Need to study it more in depth

#### Until next meeting:

- Try to get the map/paths working on paper and then implement on code
- Meet with Caroline

- o Build the extra scene for choice selection of AR objects
- Find friends from computing to participate, might have to contact other relevant schools

19:25

## Progress since last meeting:

- Worked on the application a lot
- Define the four paths of the application (send Mike a PDF of the Tour Paths page saved on Desktop)
- Fixed my issues with the map (for the most part). Wired up everything and ready to go. Need to just add the actual information on each location... (send Mike a video demonstration of the app) <a href="https://youtu.be/N5au7lQuVQ8">https://youtu.be/N5au7lQuVQ8</a>
- Wired up a SQLite database to the application (Send Mike a snapshot of the DB)
- Talk about plans for testing in the following week mock location of my phone to simulate walking, then people can still interact with AR, just not do the actual walking. Link to app <a href="https://play.google.com/store/apps/details?">https://play.google.com/store/apps/details?</a> id=github.luv.mockgeofix&hl=en

Basically connect to phone using Telnet connection through PuTTY, can then mock the device's GPS coords according to people's choices.

Plans until the end of this week (w.e. 29/03)

- Add in the AR for each location
- Finish off the issues leftover on this meeting's github project

Plans for next week

Mon - Write out the questionnaire

Tue/Wed - Do testing

Rest of the week - Writing of the report - Finish of lit review tasks and start on the next section about the Experiment

#### TODO:

Look through the papers that Mike sent

When writing the experiment - write out the experiment like we originally intended -> add as appendix -> rewrite experiment section in like we had to do everything in the end

# Individual Meeting 03/04

03 April 2020 09:48

- Read through papers Lots of statistics, couldn't get access to the second one
   <a href="https://www.researchgate.net/publication/326033123">https://www.researchgate.net/publication/326033123</a>
   <a href="Investigating the coupling of narrative and locality in augmented reality educational a ctivities Effects on students">https://www.researchgate.net/publication/326033123</a>
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   <a href="Investigating the coupling of narrative and locality in augmented reality educational a ctivities Effects on students">https://www.researchgate.net/publication/326033123</a>
  <a href="Investigating the coupling of narrative and locality in augmented reality educational a ctivities Effects on students">https://www.researchgate.net/publication/326033123</a>
- Made the questionnaire on Google Forms
- Ethical approval?
- Digital signing for participation
- Added a bunch of models to the app (360 images for most, 2 sponzas and working on pedestals. Will add video - <u>Live and Learn in Tayside 1977</u>
- Small bugfixes

#### For next week:

- Finalise development work finish off portals and call it a day. Do testing if possible on Wednesday.
- Actually write for real.

From mike - he'll try to find me a link for the study Make a video of the project when submission

Add coronavirus to risk assessment, bumping into furniture

## Individual Meeting - 15/04

13 April 2020 13:47

#### Since last meeting:

- · Finalised dev work
- Submitted Ethics application
- Finished off Argumentation coursework
- Re-written Introduction and Lit review, wrote the System Design section and Experiment Method.

#### Questions:

- Marking Sheet Section 7 about Demonstration is abolished?
- Go over report structure in "Report TODOs" page
- In Participants subsection: None of the participants reported any experience with Augmented Reality applications. 2 of the participants were students at the University of Dundee. <u>Useful?</u>
- Include the transcripts as an appendix? can be appendix, or put it in github in
- References for each technology used? yes
- What to write for LESPI? -
- Include Google Forms in the appendix?
- Critical appraisal as an appendix?

#### Next week's tasks:

- User Testing fingers crossed.
- · Any writing that is not Results/Discussion
- Work on creating appendices

The more we can report, the better , they can trust the data

Change the experiment section, split it into two parts- ingredients and what they will be doing. Look at previous honours project and structure things in a similar way.

Still unsure about demonstrations. Might be a skype call or a short video demonstration.

LESPI - look at Daniel's

 $Social\ issues\ -\ artefacts\ that\ are\ normally\ locked\ away\ or\ not\ looked\ at,\ promote\ social\ inclusion$ 

Professional - professional practice, citing, models, credits to right people

Legal - similar to professional, COVID alterations

Critical Appraisal - Appendix as well

Requirements gathering - based on

Can use the experiment design section, instead of the requirements design - that 's the requirements' and the requirements' and the requirements' are the experiment design of the requirements design - that 's the requirements' are the requirements' and the requirements' are the requirements' and the requirements' are the requi

Were the background and problem covered clearly?

Were the methods/design decisions covered clearly?

Were the results/evaluation/recommendations covered clearly?

How good was the functionality of the software/technology demonstrated?

How well did the software/technology work?

What was the quality of the oral presentation/slides/poster etc.?

# Individual Meeting 24/04

23 April 2020 22:26

#### Since last meeting:

- Did the last preparations on the application before testing (spent a day on the caching bug).
- Did testing over two days, tried to do it in the morning for optimal light
- Transcribed and organised results.
- Expanded the method section, added extra information about testing setup, etc.
- Wrote the majority of the Results section, almost finished with it all
- Added some figures, but still more to add.

Until next meeting - wrap it all up. Would maybe like to re-write a bit of the qualitative results

Introduction can be expanded - can do a contributions bit. Mike copied across one in overleaf. Teaser figure - goes along the top of the first page - basically explains here's what we've done.

Ideal situation paper with 10 plus pages, appendix at the back Will have a doodlepoll from Mike about the presentation

In terms of comments from Mike - it will be thorough. Moved LESPI to appendices.

# Individual Meeting - 1/05

25 April 2020 15:45

Is it ok to cite papers in Discussions that are not part of Lit Review? -

- Paper on AI generating story from a corpus of location-based text.
- Other one was the predecessor of the questionnaire, but it had some design recommendations.
- Stylized AR/World being important for immersion. Expended on this one in the discussion itself, by saying 'It has been suggested before that realistic renderings are a necessary element for immersion and a stylised world could be the optimal solution in a mobile setting \cite{fischer2005stylized}'
- Keil2013digital museum tour based on Personas.

Legal issues and how to cite?

Expanded Intro, added Discussion, LESPI, expanded Intro and added Contributions.

Ask about the system design section

25/04 - The entirety of Discussion

TODO tomorrow (26/04) - LESPI, Introduction, Conclusion, begin writing the System Design appendix.

## Progress made:

- Qualitative Results
- Discussion

Other bits:

Use Case diagram?

✓ DOI links for each reference? - go ahead and do it

- LESPI
- Introduction + Study contributions (unsure about the study contributions bit)
- Intended Methodology appendix
- · Sprints appendix
- Conclusion and Limitations
- Generalisations and Future Work (unsure about the generalisations bit

## Still TODO: Abstract and Acknowledgements A.3 - Design Decisions and Alternatives - moved over from the main report, but needs expanding A.4 - Acquisition of new Skills D - Critical Evaluation - already have some main points down, just needs to be written properly D.1 - Project Problems - talk about difficulties with Mapbox documentation, etc. Link up COVID-19 statement COVID-19 Statement Small expansion of the Sprints appendix - add in the UI design drawings Proof read, pass through Grammarly jazz it up with text formatting Double check references. Also references within the report to other sections Read once more and check against the grading scheme Organise everything - GitHub Readme, screenshots of commit history, scans of logbook, polish off minutes - link all of those up in the report as an empty appendix. Can say "find it in folder X or on this link:"

<b>✓</b>	https://github.com/KaloyanMarshalov/uod-touar - is this ok for User Manual?  SUBMIT  Add dates as well.  10 slide presentation - go through the sections inside the work. Have video say 5 minutes to show how it works. Can add the link in github
Secti	ons:
•	A.3 - Design Decisions and Alternatives
•	A.4 - Acquisition of new Skills
•	D - Critical Evaluation
•	D.1 - Project Problems

## Further questions:

AbstractConclusionAcknowledgments

- Citations in the appendix? Things like Mapbox, Unity, etc.
- What should I do with the consent forms?

TODO	0: 04/05
<b>~</b>	Description of the project on GitHub
	COVID-19 statement
<b>~</b>	Licensing info
	Organise appendices
<b>/</b>	Upload the apk to OneDrive and update GitHub README