Trying to find a seat in the library
Team WhereChair

Worked as a team since mid-November, planning execution and tackling issues. This will continue into the future.

Lee
- Devon
- BSc Psychology
- Non-tech background but passion to immerse in the growing field

Rich
- Manchester
- BSc Geography
- Non-tech background but passion to immerse in the growing field

- MSc Marketing
- Regularly compete for the worst packed lunches
  (Lee is winning currently)
IMAGINE...

For Students

- Being able to **plan** visits to study spaces
- See how busy study spaces are through a click on your phone
- Quickly connect with friends

For Staff/University

- Raise **student satisfaction** and productivity
- A connected smart university with the UK’s first real-time occupancy system!
- Collecting a wealth of data on study space usage
### WHY? - WHAT’S THE PROBLEM?

- **65%** of students spend **5 mins or more** searching for a library seat on a weekday.
- **69%** of students class seat availability as a ‘**major issue**’ or a ‘**very major issue**’ on the student experience.
- Focus group study showed desire for fun, memorable and simple app designs.
- Many students will leave University if they cannot find a seat easily, and a large proportion of students claimed they would use our app.

2 cross-sectional research studies, n=150 students
“A mobile application that focuses on improving the student experience”

Using a combination of technologies, we have designed an app which will make studying easier, less stressful, and more enjoyable.
INTRODUCING WHERECHAIR

- Mobile app designed on Proto.io
- Combines technology, displaying real-time occupancy data
- Based on customer needs (UoB students)
- Simple, fun and engaging – influenced by popular student apps
- Memorable logo – “Hoot”!
# Proposed Benefits

**Students**

- Seating made simple
- Stress out of studying (some)
- Go-to app on campus with extension possibilities
- Raise student satisfaction as seating is a sore subject

**University**

- Student satisfaction
- Smart university and ROI
- Seat occupancy data
- Optimised energy usage
- Efficient security staffing
BRANDING STRATEGY

- Hoot the Owl will be a key feature to the app experience
- The character and colour scheme resonate in student’s minds
- All made on simple image software, further development needed
- Aimed to make a high mundane subject, fun!
1. Reviewed possibility for real-time Occupancy Detection system & previous methods

2. Trialled sensors which proved too costly and inaccurate

**Plan B:**

3. Discussions with CS lecturers & Density SA employees

4.Introduced to CCTV OD - using programmed cameras to recognize empty seats

5. Based on previous applications of CCTV OD methods, e.g. Dilmax, Ikea, TFL
Camera 1 recognises vector features of occupied seats as being different to those from background image!

Camera programmed for Image processing emits wireless RF signals to the Information Processor

Information processor collects information from Camera 1 & 2

Basic programming of IP causes occupied seats to be displayed as “red” and unoccupied as “green” in real-time

Wireless transmission of info through to user devices

Information Processor

Lee enters the library!

Lee cannot find a seat!

Lee opens WhereChair!

Lee has found a seat!
Below is a seating plan of the Nuffield Learning Centre.
The room is currently 49% occupied.

**THE APP**

**StudyBuddy**

This allows you to connect with StudyBuddys through Facebook and LinkedIn and see where they are working. Select a buddy!

- Richard: Main Library
- Lee: Nuffield
- Laura: Looking...

Add live updates so your friends can see information about study spaces!

- Richard: The 2nd floor of the library is busy - there are no plugs!
- Lee: Nuffield is quiet but noisy. It is due to close early at 7 tonight
- Laura: There are PC’s in Mason but no laptop spaces

**Where's busy?**
Select a location or tap Hoot and you will be taken to the map!

- Main Library: 70%
- Nuffield: 60%
- Learning Centre: 50%
- Gisbert Kapp: 33%
- Strathcona: 28%
- Medical School: 67%
- Mason Lounge: 80%

**Awards!**

- Busiest time: 13:00
- Lonliest seat: See here!
POSSIBLE ISSUES

We have carefully considered issues and proposed solutions…

- **Privacy**: Launch campaign to educate students that WhereChair is here FOR the student.

- **Innacuracy**: Combination of methods for complex areas e.g. library.

- **Non-Engagement**: The app will be made as simple as possible, yet look visually appealing to encourage usage. A special and creative launch campaign has been planned which will arouse speculation. Please ask for more detail.
WHAT DOES THE FUTURE HOLD?

- Coffee shop & restaurant seat info
- Route-mappers for first year students
- Live discount information
- Game - pokemon-go style game involving Hoot!