DESN2000 Week 1

Design sprint

Design Next, September 2022

Housekeeping

Expectations from workshops

- **Outcomes**: meaningful progress on project deliverables, improving skills

  - Guided workshops to deliver part of your project

  - Skill-oriented workshops to practice with a particular skill

  - Mentor-style workshops for groups to work on project with guidance

- **Attendance**: students are expected to attend all workshops.

- **Participation**: participation in class activities is strongly encouraged so students can practically engage in group work and communication

- **Respect**: students are encouraged and expected to respect both the demonstrator and their peers by actively listening to the demonstrator or peers and not being distracted by other work during the workshop time.

Intro	Read the brief	Group formation	Define problem	Empathise	Reframe	Ideate	Prep prezi	Present
5 min	5 min	10 min	5 min	15 min	5 min	10 min	5 min	10 min
all	individual	all	group	group	group	group	group	all

Today: pressure cooker

- We're not going to cook :(

- We're just going to run through the project

- …but in a very compressed time!

- Mistakes and jumping to conclusions is fine!

- The point is to go through the process, not be perfect

https://unsplash.co/photos/9XsXOdkdxPg

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1. Read the project brief

- Find it on Moodle or ask your demonstrator to share a copy

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2. Group formation (if not complete yet)

- If you are already in a group join up with them for this activity and ignore the instructions below

- Groups of 6-7 people (note: groups are for the whole project this term)

- Members must be all from the same workshop class

- Before the end of the day, make sure you get your names to your demonstrator

- These group formation instructions are superseded by any instructions provided by your Project Coordinator or Demonstrator

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3. Define problem

- Make sure the team has something to write on; paper or whiteboard

- Define your technical **problem** based on your project brief

- Make a short list of the people who are involved in the challenge laid out in the brief

  - For example:

    - **CVEN:** Who are the people who use the bus? Who constructs and maintains the assets? Who operates then? Is there anyone else with a vested interest?

    - **SENG:** How many different kinds of people could use the EV app? Is there anyone else involved with it?

    - **BINF:** Who are you designing the solution for… a professor, PhD student, technician, or someone else entirely? Are there any other stakeholders.

    - **ELEC:** Who actually uses the geolocator… who collects the data, who installs the hardware on the bird, who builds the hardware and maintains it?

- No need to think for long; you can/have to do more research later and change away from the user you're focusing on today

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4. Empathise with your user (1/2)

- Map out characteristics for **2x** potential users

- You'll have to make assumptions here; your aim is to quickly sketch two profiles

- Spend <u>max 10 minutes</u> on this

  - Time is short; divide and conquer?

- Sample things to put onto a mind map:

  - What they like?

  - What are their interests in the problem?

  - Their aims in life?

  - What are they good at? What can't they do?

  - What other things do they do while interacting with the project brief problem?

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4. Empathise with your user (2/2)

- <u>Max 5 minutes for this part</u>

- Add to your list, if it's not there yet:

    - What is a challenge your user faces when using your system?

    - Why? What makes it so challenging?

- After 5 minutes, pick 1 relevant and interesting challenge

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5. Reframe

- So far, you spend time thinking about **challenges** from a user perspective
- Now, reframing your challenge will help to start thinking of solutions
- Take the most interesting challenge from step 4
- Reframe as a question that is open-ended (= doesn't have a clear yes/no answer)

- Example:
  - *ELEC: "Biologist [user] finds it hard to attach a sensor to migratory bird [challenge] because its plumage is so thick [why it's a challenge]"*
- Reframe it as a question:
  - *ELEC: "How could a biologist attach a sensor to migratory despite its thick plumage?"*

- Example:
  - *CVEN: "Your grandma [user] finds it hard to walk to her nearest bus stop [challenge] because the curb at the bus stop is very high [why it's a challenge]"*
- Reframe it as a question:
  - *CVEN: "How could your grandma get to the bus safely despite the curbs?"*

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6. Ideate

- <u>4 minutes</u>: each team member independently **writes down 5 ideas**

- <u>3 minutes</u>: all team members **share** their ideas

- <u>3 minutes</u>: together, **generate another 10 ideas**

- Very short timeframe; no time to think much, silly/unrealistic ideas are fine :)

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7. Prep a 30 second prezi

- Decide on your favourite idea

- Your team will have to briefly talk about your user, their challenge, and how your idea may solve that

- Think of it as an elevator pitch; no need for much detail, just get to the point.

  - Example: *"Getting data on a migratory bird is helpful, because they've got really interesting roaming habits. Did you know that biologists struggle to put sensors on a migratory bird, because of its thick plumage? Well, our idea is for a tiny robot insect to deliver the sensor by crawling into the plumage and attaching the sensor."*

- Again, if an idea is somewhat feasible, it's fine. There's no time to be picky :)

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8. Prezi time

- Each group gets ~30 seconds to talk

- With 5 or 6 teams, we could do it in about 10 minutes

- Have fun :)

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9. Reflection

(if time allows ~ 10 minutes)

- What did you enjoy?

- What was hard? Did that surprise you?

- Did the time pressure help or hinder?

- What about making assumptions?

- Anything you can take away from this?

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