DEP005 (2020-1) Project Design II - Games and play University of Technology Eindhoven, BSc Industrial Design, year 2

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Project description

Games are not solely for entertainment but can be leveraged for other purposes as well. Among others, games can - if carefully designed - be an appropriate means to collect data. **Scientific discovery games** or **games for research** leverage the problem-solving skills of humans to solve or contribute to difficult scientific or societal problems and can drive scientific innovation. Games can be a motivational tool to elicit more and better responses. How can games be used to collect data and designed in such a way that they sustain the motivation of participants to allow data collection over extended time periods?

Design direction

The aim of the project is to design a playful tool for municipalities to get qualitative insight into the needs of citizens in certain areas of the city. Citizens are able to add their own wishes and needs through the use of 3D assets - either from a library or self-created ones - and place these in a specific place in the world.
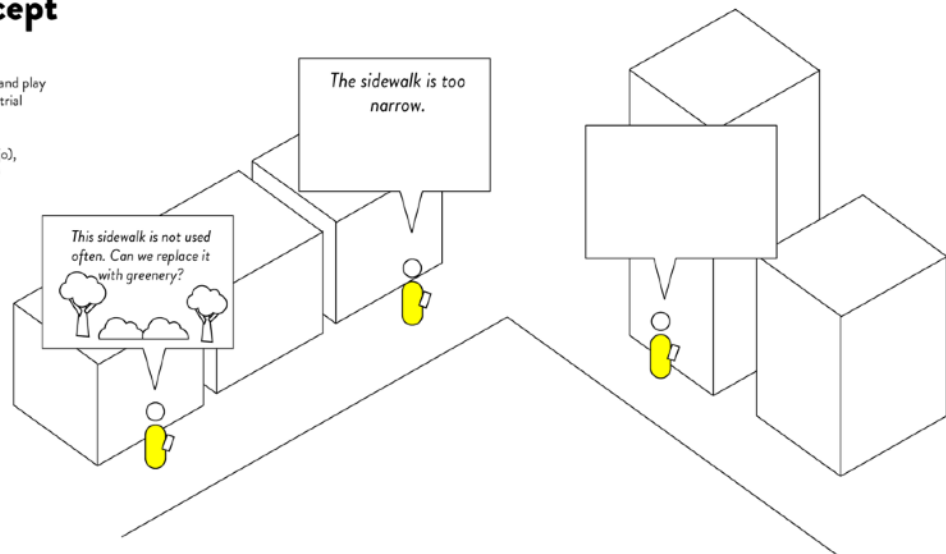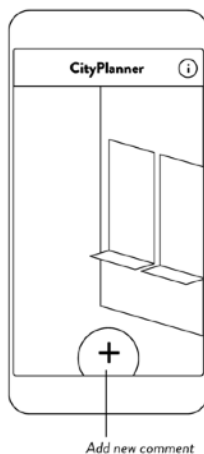

Motivation - how does our design direction fit the project description?

Project challenges:

The biggest challenge is to make the product actually work. Having annotations on the city could be implemented in varying levels of fidelity. The highest most interesting one would be to use 1:1 augmented reality, in which everyones contributions are stored and seen at its exact location. Through teleportation people who are not in that area could see what it would look like.

The augmented reality part could also be simply for viewing, one by one.

Thirdly, simply a photo can be taken from an augmented reality annotation.

Lastly, an annotation can be done without augmented reality.

How to fit it within the scope of games? It's easy to make it simply a tool for data collection, but how can we make it into a game. Not just include the element of competition (as some sort of design competition), but actually gameplay elements to add new recommendations. Collection? Trading? Building up something, such as in Clash of Clans?

Resource collection? How to gain points to spend in the city building process. The more you earn the more you can spend. !!!
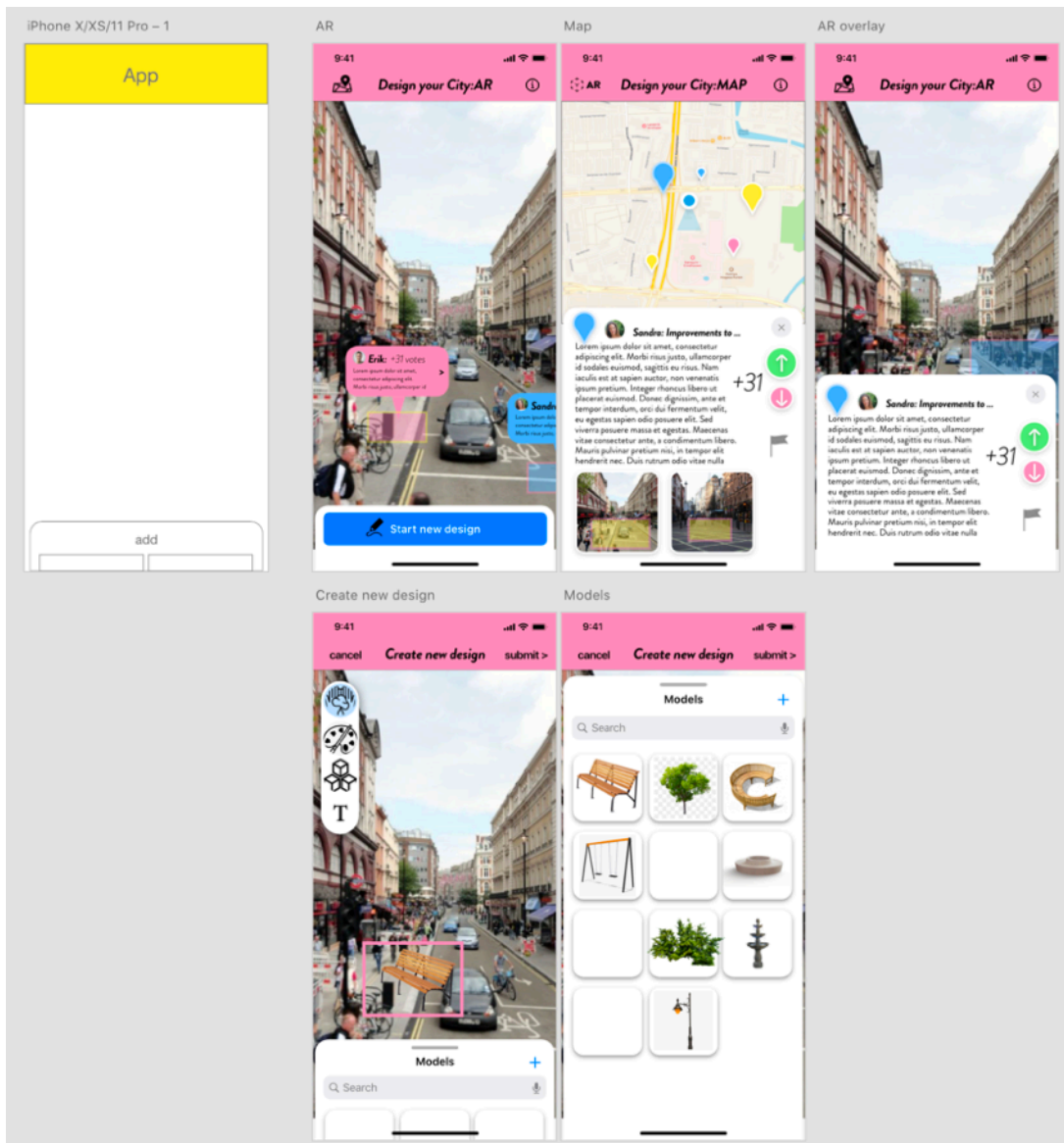
Best citizens can spend the most coins?

Voting system?

Design my city   Average user, content
                  creation tools

Daily rewards

↳ import models from a library
  and place them in the scene

+400 △
+3 🧩

Gamification

get cards from
going to a specific area that has a
design → use those materials

Content creation:
↳moderation
↳whitelisting/banning

321

🧩 300
📦 20
△ 400

Tools

✏️ modify
   existing
📷 materials
   or add new
📦 materials

AR Building

get materials from
existing builds

↳ encourage people to physically
  go to problem, and interact with it

iPhone   ⟶ Central server
GPS + internet ⟵
                   ▭ o o
                   (stores AR content)

max
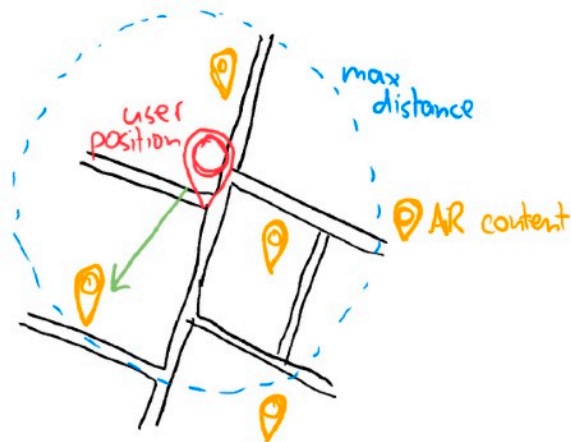distance

user
position
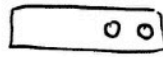
AR content

1. request world tracking data from server
2. compare with own world tracking data
3. if success, load AR content
4. else, request next world tracking data