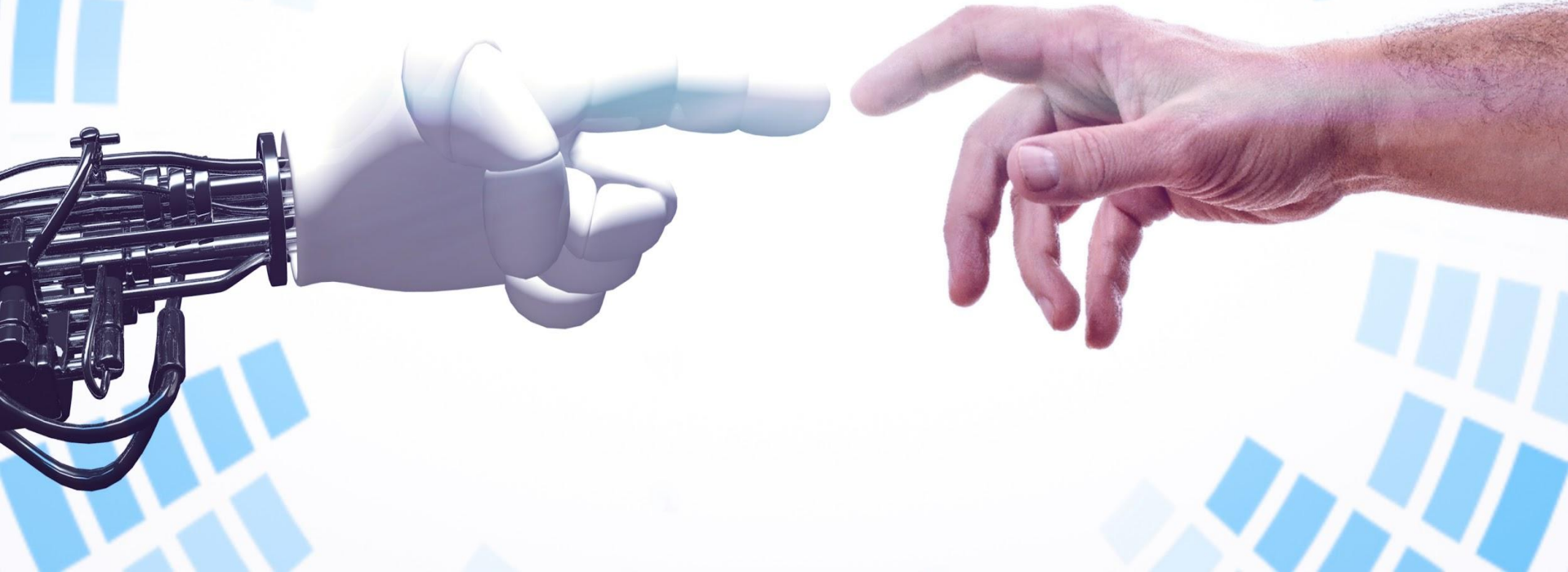
DIGIDOOR

Making doors multi-purpose and fun!



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INTRODUCTION

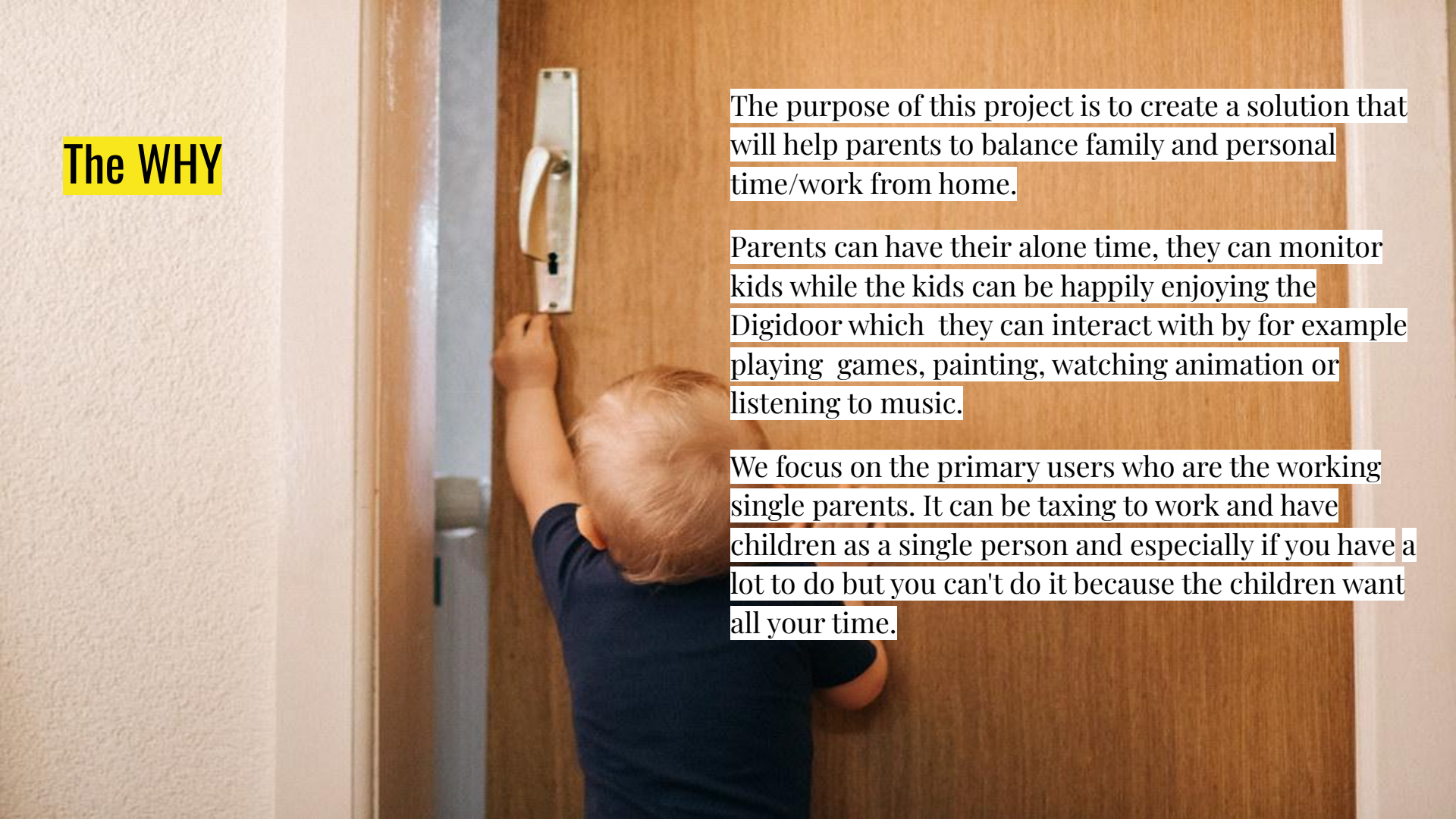
The WHAT

Doors are ancient structures that we have used since the dawn of mankind. But its development to making it more interactive has been a slow progress. Most modern doors does what the caveman's door user to do e.g. open and close. Accidents such as getting one's hand getting slammed by the door are among the problems.

However modern doors have solved these problems by creating automatic doors that use motion detectors to open and close the doors. According to Ashish, some doors use the pressure sensors which can detect changes in pressure, motion detectors that have an antenna picking up beams and other automatic doors use the infrared sensors that detect heat emitted by an individual and the doors open.

But how about making doors that are multi-purpose and fun?

The WHY



The purpose of this project is to create a solution that will help parents to balance family and personal time/work from home.

Parents can have their alone time, they can monitor kids while the kids can be happily enjoying the Digidoor which they can interact with by for example playing games, painting, watching animation or listening to music.

We focus on the primary users who are the working single parents. It can be taxing to work and have children as a single person and especially if you have a lot to do but you can't do it because the children want all your time.

PERSONAS

Primary Persona

Name: Mwakeli Junta

User group: Working mother

Marital status: Single

Gender: Female

Age: 36

Education: Masters

Occupation: Cyber security specialist

Junta is a working woman and a mother of two children. (3 years and 6 years). When Junta comes home from work, picks up the kids, take care of them. Junta is studying a distance course in ethical hacking during weekends. She likes to write, travel, coding.

Personality: Juntu is into tech stuff, is friendly, likes learning new stuff.

Secondary Persona

Name: Nana Libo

User group: Children aged(3+)

Gender: Female

Age: 3

Education: Kindergarten

Libo is a kid aged 3 years old. She likes to play games and watch animations.

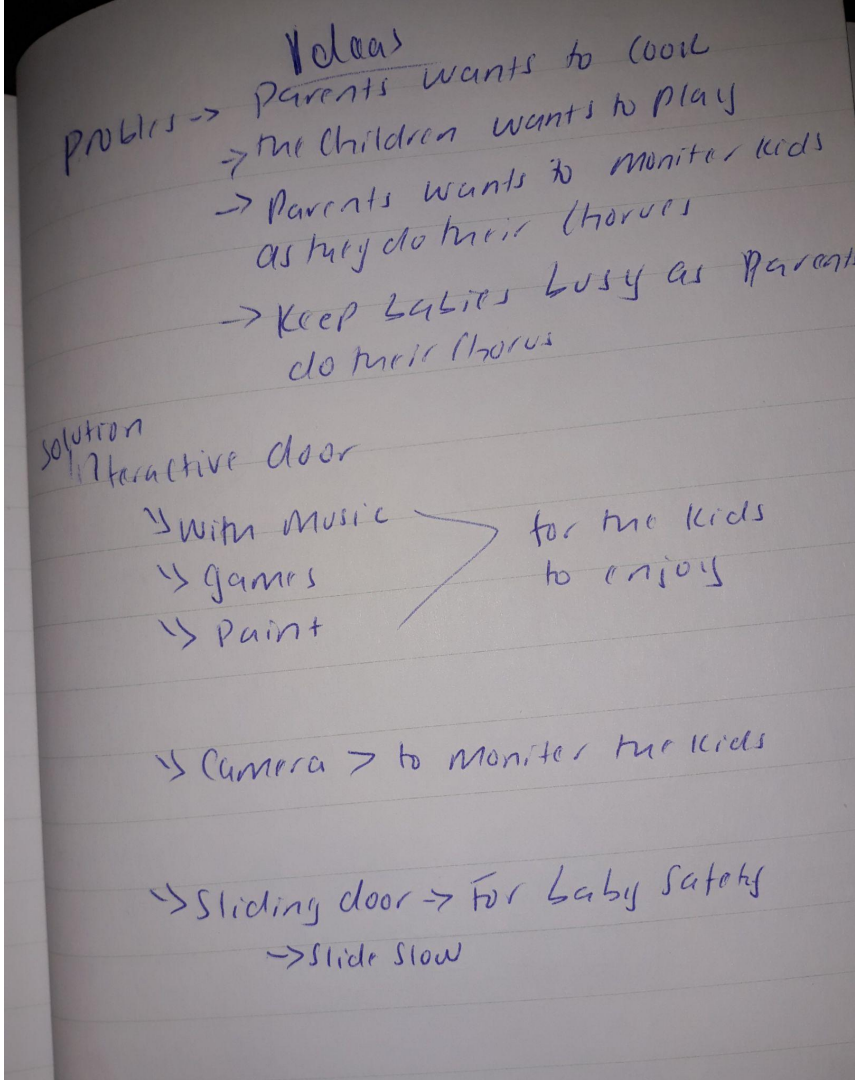
Personality: Playful, happy, adventurous

IDEA

Brainstorming

The door on the kids room is called the Digidoor because it will no longer be just a wooden door but a digitalised interactive door. The door is alike a big plasma screen with camera at the top. The audio speakers on left side and the bottom side. The Open and Close button on the right, and at the centre is a screen display.

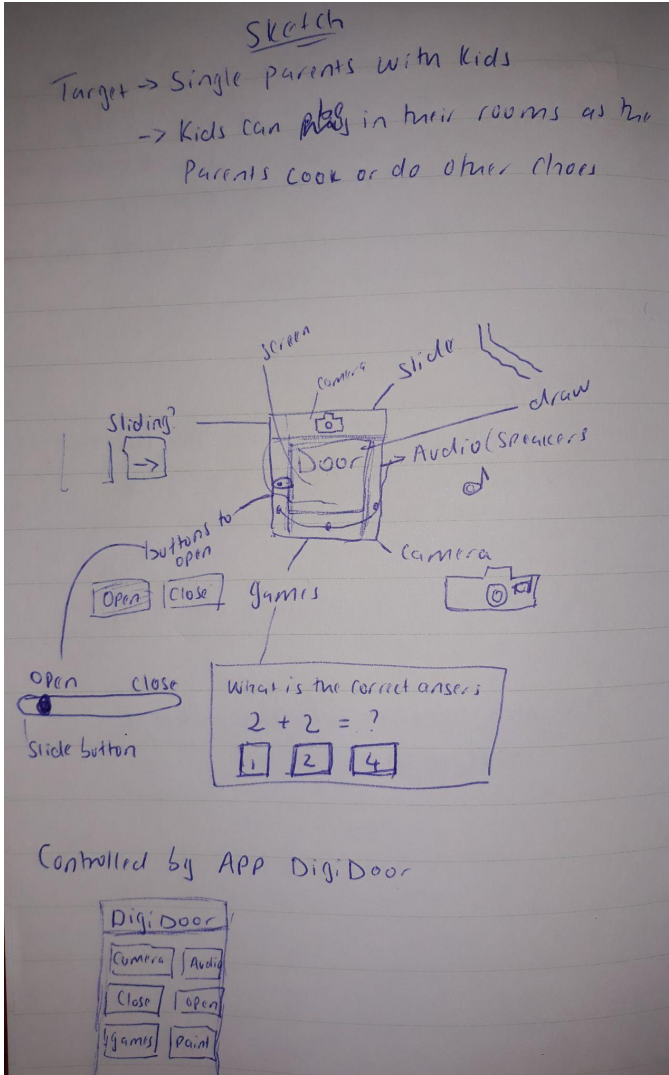
Features such as a camera, that way it will help parents in monitoring kids in their room that way, parents don't have to worry about their unattended kids in their rooms. The kids can play games, paint, watch movies, listen to music on the Digidoor.



Sketch

DigidoorApp will be used by the parents to help control features on the DigiDoor. Controls such as decide what is to be displayed on the screen.

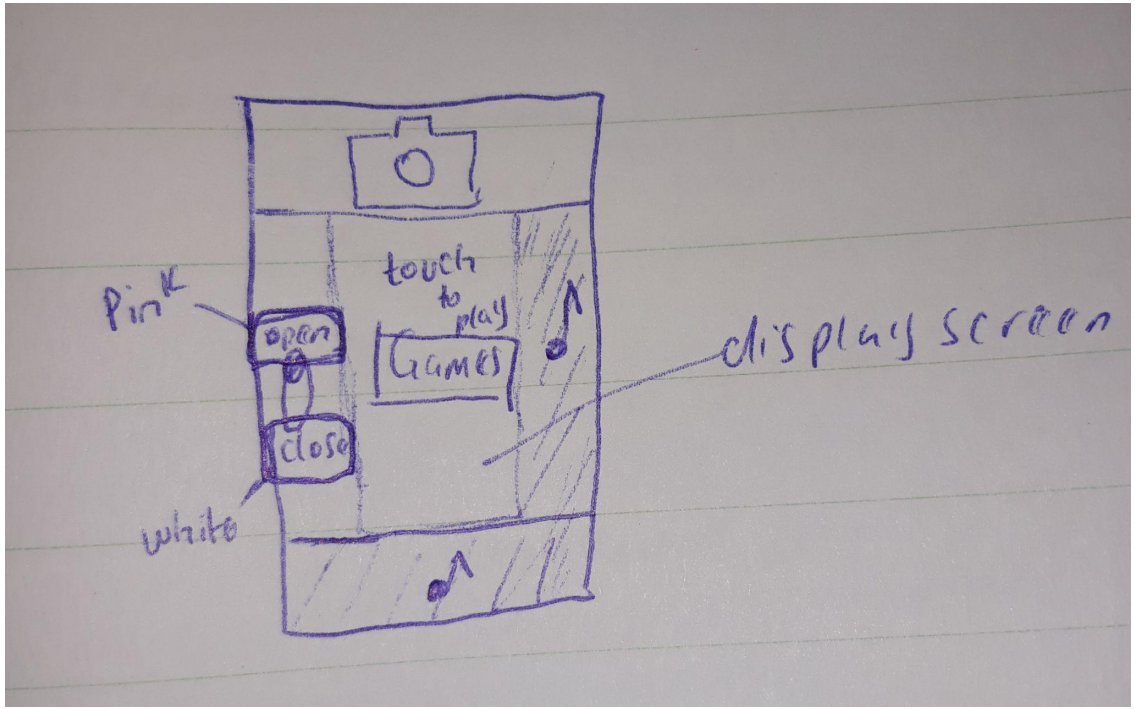
The parents can use the camera for monitoring, and they can also use the Open and Close options incase they want to enter their kids room. Other features include the audio settings for the speakers.



Sketch 1

When a parent clicks on the games button on the DigiDoorApp, the TOUCH TO PLAY option appears on the door display screen of the Digidoor.

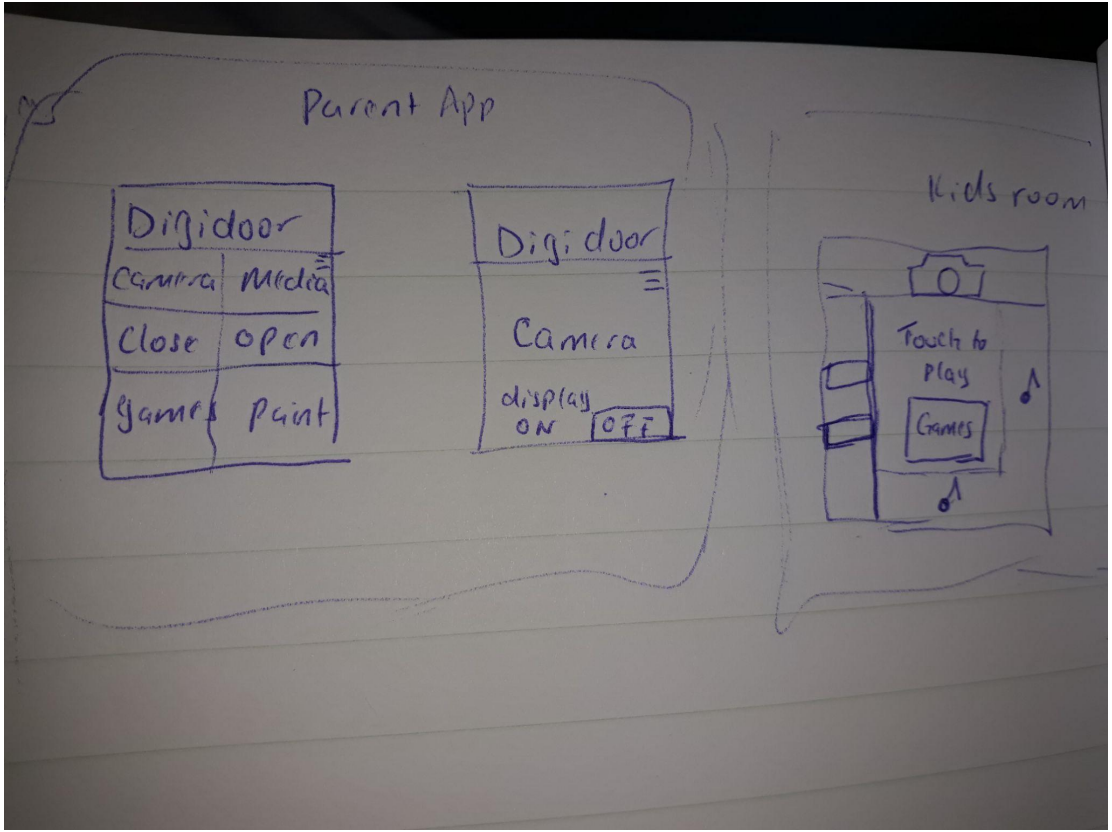
The kid can then touch the display screen and select the multiple games to play. As the child plays the parent can work.



Sketch 2

On the DigidoorApp the parent can click on camera to monitor on how the child is doing without disturbing them. This is done by selecting the camera option on the DigidoorApp, then select display OFF.

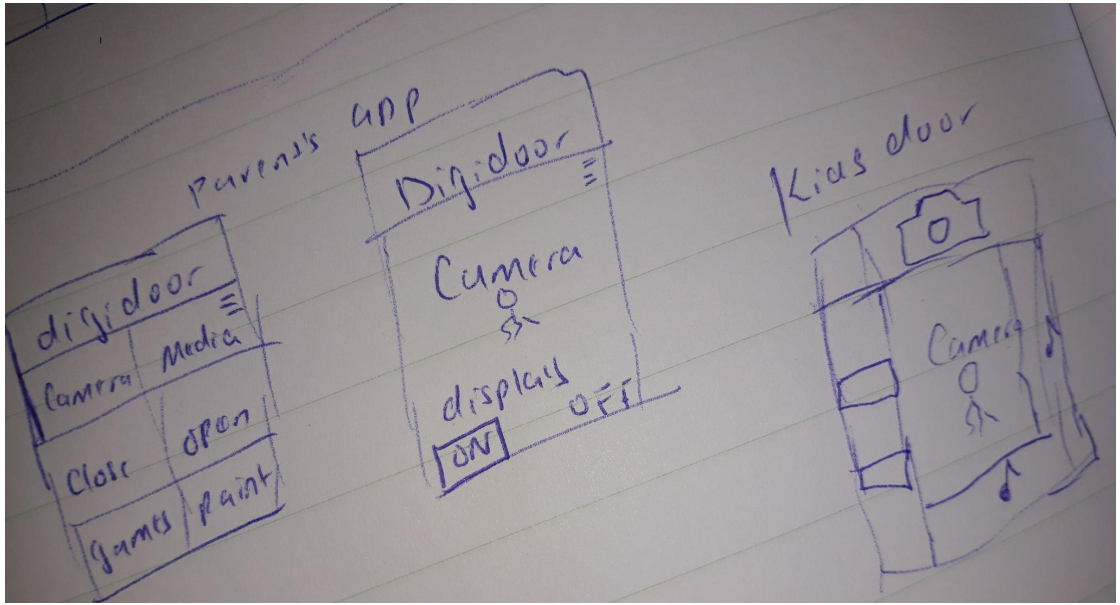
Below is an example of: If the parent wants to use the camera, the camera will not display on the kid's screen as long as the parent has turned off display mode.



Sketch 3

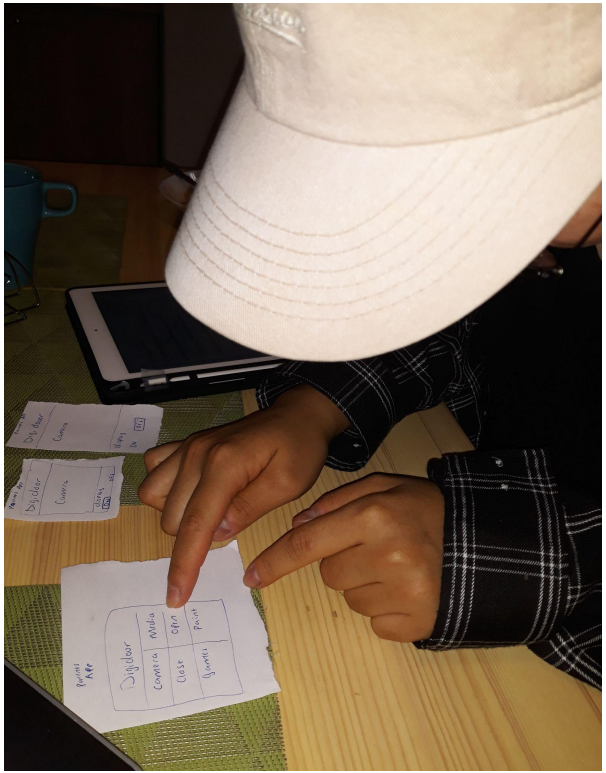
If the parent wants to communicate via camera with the child, the parent will select camera on the DigidoorApp, then select display ON.

Other kind of prototype that would be used in this project would be wizard of Oz since the participant can be stimulated to imagine if its a real scenario in order to gauge how they a participant would do the task if the Digidoor was real. However due to limitation in time and money, the sketching and paper prototyping is the best option for this project.



EVALUATION

User Test

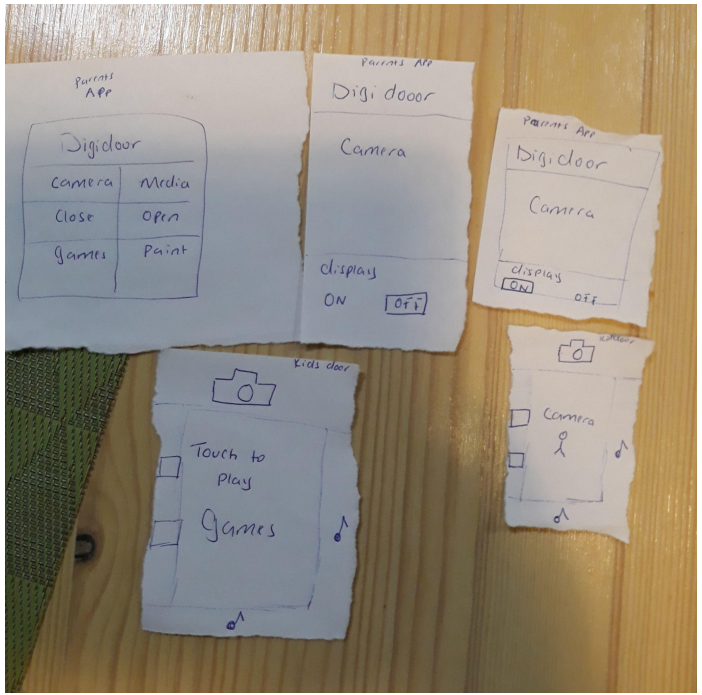


This project would conduct a usability testing with 10 users that are single parents who are working whereby in a room with camera, each participant would be given a letter of consent and a letter of privacy to be signed before the process begins.

Then the participants would be given a short introduction of the project by the project facilitator. After that the participant would be issued with paper prototypes and asked to carry out four task.

https://drive.google.com/file/d/1-7fk5vnJ2dC4NMg_9-fGCofaUYLtqUlF/view?usp=sharing

Tasks



Usability Test

1. Open the Digidoor using the DigidoorApp.
2. Display a game on the Digidoor.
3. Use camera to monitor without disturbing the child.
4. Use camera to chat with your child.

After the usability testing, each participant will be asked two questions:

1. On scale from 1-10 how easy was it to perform the tasks?
2. If you were to add or delete a feature what would it be?

The results of the test will be checked against the following questions to determine the project status.

1. Was it easy for the parent to use the DigidoorApp to control the Digidoor?
2. Was it easy to find what the parent wanted to perform?
3. What are the improvements needed if any?
4. Did the idea solve the problem?

Conclusion

The idea is to solve the problem whereby the single working parents need time to work as their kids are busy doing something else. Also another problem to solve is to monitor kids without opening the door.

The DigidoorApp and that controls the Digidoor (kid's door) is the solution given in for these problems.

The idea of the DigidoorApp was created after thinking of the best way to monitor kids eg If a parent puts a monitor on the kids that would be quite bothersome for the children. Instead it would be easy for the door to be transformed into a digital door inorder for the parent to do the monitoring on the phone and also the kids to have so much fun in their room so that parents and kids don't bother each other.

DigiDoor = Happy parents + Happy Children

THANK YOU.

Njeri Olenkere

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