Thursday, March 16, 2017

How we are organized

- Our first user testing session
- get in at 4, set up by 5
- some users will be coming around 430 and they are aware that they may have to wait
- ideally we will be using both Oculus Rifts, but development will likely need one
- we will be supplementing our non computer science users with people that we pull from the lab when we notice that we have a gap that makes this possible
- less than 6 cs credits will make the user a non computer science student

The Questions

- Name - Identifies the user
- Age - ensures that we are reaching a wider demographic
- Gender - ensures that we are covering more that a single gender (participants can choose not to answer)
- Have you used Virtual reality before and if so, how much?
  This question helps us to identify if we are getting a mix of users that have/ have not used VR before as we want to make sure to have some of both. Also, users that have used VR before will be a lot more familiar with the controls and our system should make more sense to them
- Do you like roller coasters? Why?
  If the user likes roller coasters, that tells us that they are not very prone to motion sickness without us directly asking them if they have get motion sick easily and thus risking the placebo effect. If the user answers that they don't like roller coasters and we ask why, then we can ask for a reason and pull out an answer related to them getting motion sick if it exists.
- Have you any experience in computer science?
  If users do have experience in computer science they may make assumptions similar to the teams as we share similar education and practices. It is important to get users who have no experience in computer science and users in computer science so we understand how the general public will interact with the app. If users with computer science backgrounds interact with the app more easily we may have to change our current user interface to make it more intuitive.
- How is your current health? Cold? Flu? etc
  If users currently have problems with their health it could skew the results. For example users with colds are more likely to to get a headache using the system. We need to take

this into account and find a way to prevent eye strain and headaches even when the users are not feeling their best.

- How is your eyesight?
Users with poor eyesight may be more prone to headaches and eye strain. If we see various users with eye strain after using the system we could narrow down the causes for it.

Expectations of user comments

- knowing if they have selected an image
- knowing if they have selected a button
- might create several copies (typically 3) when they mean to create one
- can't see the backside when they flip the image
- scrolling through images is not smooth
- tray images may be too small
- double grabbing issues
- unclear instructions (what do I do?)
- dashboard might be a little low
- images go through each other
- some buttons are not implemented (zoom, filter, rotate, minimize)

Results of user feedback for the program

- Main feedback involved button presses
    - Button presses did not work the majority of the time
    - Users thought that buttons were a waste of VR
    - Some said it didn't feel natural
    - Didn't push button far enough (collider needs to be adjusted)
    - No visual or physical feedback from button presses
- People really liked gestures
    - Subjects only spent small periods in VR
    - Didn't stay long enough to feel fatigue in arms, wrists and hands
    - Were new to VR so the gestures were still a novelty to them
- Subjects tried to grab everything
    - A few items need to be fixed in space (tray for example)
- Users did not differentiate between the dashboard, the tray, and the console so they were trying to interact between them without differentiation
- When users constantly grab the same copies they stick to the users hand
- Most users did not go to load first and had no problem navigating after explaining how button presses work other than not being able to press the buttons
- Minimize doesn't change text to maximized once it is minimized
- Need visual representations of brightness, contrast and resize

- Adding numbers with a min and max would help
- Ad limit to resize
- Majority of the users said the room size was good
- Distance of buttons along with size feels natural and properly positioned
- People generally felt the same after using VR
    - Users with and without glasses/contacts said there was no eye strain
    - No headaches
- Users commented on the room being bright after they took off the headset
- We should be able to grab images from not just the centre

Results of user feedback to testing procedures

- Room was too bright once users got out of the headset
- Some users were extremely sweaty. Likely a combination of hot room, low circulation, using a new technology, and being watched by lots of people
    - Fix this by bringing in fans, not having unnecessary people in the room
- Users had blurry vision at the start. Tell them how to adjust their headset before putting it on them
- Asking the users things that they did and did not like added no additional feedback. Cut out these questions.
- Testers need to write down more informative messages for what happened
- Added "tested by" section" so that we can ask the tester questions about the session
- Testers don't need to write down solutions, just the problems
- Find more users of varying age and motion sickness susceptibility (gender has been fine so far)

Raw User Data:

Pre documentation

Name:
- Sarah Kent

Age:
- 20

Gender:
- female

Have you used Virtual reality before and if so, how much?
- Yes, not much

Do you like roller coasters? Why?
- yes

Have you any experience in computer science?
- 0 cs credits

How is your current health? Cold? Flu? etc
- crisp cold

How is your eyesight?
- Glasses – cant see far away things

Have you ever had an x-ray before?
- yes

During Testing

Notes:
- Fells good
- Feels finger
- A bit blurry
- Goes to load first
- Point and poke gesture unclear
- copies appear on top of eachother
- Copies clip and bounce
- Things you've enjoyed:
    - Setting
    - Moving copies

- Feels good to grab
- Things you don't like
    - Struggles pointing to poke buttons

Post documentation

- Glasses were pressed against face
- Everything feels good
- Additional comments
    - Room is bright when she took off the headset

Pre documentation

Name:

- Graham

Age:

- 20

Gender:

- male

Have you used Virtual reality before and if so, how much?

- No

Do you like roller coasters? Why?

- yes

Have you any experience in computer science?

- 3 cs credits

How is your current health? Cold? Flu? etc

- diabetic

How is your eyesight?

- Glasses – cant see far away things

Have you ever had an x-ray before?

- yes

During Testing

Notes:

- Starts with hand

- Found poking motion (from watching last user when he wasn't supposed too)

- Tries to reach for display image

- Grabbed tray icon and moved it….

- Tried throwing images

- Copy got stuck in his hand

- Set up 3 copies just like the first user did

- Copies grow for no reason

- Needed a tutorial on the display/tray

- Found the boundary

    - Room isn't as big as it looks

- Interactions that you like doing

- Picking stuff up
- Poking buttons is fine
- Like rotating
- Interactions that you dont like doing
  - Things getting stuff in his hand
  - Can only grab things in the middle

Post documentation

Additional comments
- Fine when took the headset off
- Chair leaning back was scary

Pre documentation

Name:
- Keegan

Age:
- 20

Gender:
- male

Have   you used Virtual reality before and if so, how much?
- Yes, not much

Do you like roller coasters? Why?
- yes

Have you any experience in computer science?
- 3 cs credits

How is your current health? Cold? Flu? etc
- none

How is your eyesight?
- good

Have you ever had an x-ray before?
- yes

During Testing

Notes:
- Starts by playing with hands
- Has to scoot forward/adjust self to reach buttons
- Took a long time to poke the load button - issue
- Picked up the tray image and lost it
- Lost the copy while holding onto it
- Avatar freaking out
- Minimize doesnt change text to maximize
- Found the double grab glitch
- Also made the tiered display like the first 2 users
- Interactions you like:
- Moving and placing images
- Interactions you dont like
- Cant pull to make them bigger

Post documentation

- Additional comments
    - Bright taking off headset

Pre documentation

Name:
- Amir Foric

Age:
- 20

Gender:
- male

Have you used Virtual reality before and if so, how much?
- no

Do you like roller coasters? Why?
- Yes

Have you any experience in computer science?
- 3 cs credits

How is your current health? Cold? Flu? etc
- none

How is your eyesight?
- good

Have   you ever had an x-ray before?
- yes

During Testing

Notes:
- Starts with learning hands
- Starts away from buttons
- Takes a while to figure out what to do
- Hands glitching out
- Poking button was difficult
- Grabbing onto things when poking
- Found left and right, they change too rapidly
- Interactions that you like:
- Point and grab
- Interactions you dont like
- Freaking out hands
- Pictures get massively large

Post documentation

- No comments

Pre documentation

Name:
- Jarrod Pas

Age:
- 21

Gender:
- male

Have you used Virtual reality before and if so, how much?
- yes

Do you like roller coasters? Why?
- No, not fun

Have you any experience in computer science?
- Yes all the credits

How is your current health? Cold? Flu? etc
- Nothing wrong

How is your eyesight?
- Excelent

Have you ever had an x-ray before?
- Yes

During Testing

Notes:
- Took a while to figure out controllers
- Not as intuitive as the vive (less responsive)
- Loaded images properly
- Grabbed tray and broke it (TODO)
- Doesn't push buttons far enough
- Would really like gestures to resize
- Has enough space (need to limit image size or atleast find optimal practices)
- Would want to grab middle image in display to create copy
- Need to be able to see back of image
- Colliders may be to small (images pressed twice as user presses it)
- Filter button keeps moving up
- Copy's stick to hands even when let go
- Move collider to tip of hand

Post documentation

How does your head/stomach/ eyes feel?
- Same as before

How do your hands/wrists/arms feel?
- Same as before

Where there any interactions that you specifically enjoyed?
- Grabbing to rotate and other gestures

Were there any interactions that you did not enjoy?
- Doesn't like buttons (thinks its a waste of VR)

Additional comments

Pre documentation

Name:

- Aegis Daniels

Age:

- 21

Gender:

- male

Have you used Virtual reality before and if so, how much?

- No

Do you like roller coasters? Why?

- No, assumes he doesn't gets nervous

Have you any experience in computer science?

- lots

How is your current health? Cold? Flu? etc

- Good

How is your eyesight?

- Glasses

Have you ever had an x-ray before?

- yes

During Testing

Notes:

- Playing with hands
- Hard to poke buttons
- Tried real hard to resize
- Tried resize, brightness, and contrast after some guidance
- Thinks there is enough room for four larger images
- Making images very large
- Things you've enjoyed:
  - Enjoyed first experience in VR, depth was fine in comparison to real life

Post documentation

How does your head/stomach/ eyes feel?
- Same as before

How do your hands/wrists/arms feel?
- Same as before

Where there any interactions that you specifically enjoyed?
- Like using your hands to move and put images in different places

Were there any interactions that you did not enjoy?
- Didn't like pushing so far into an image to select

Additional comments
- Good job?

Pre documentation

Name
- Jennifer Lam

Age
- 20

Gender
- female

Have you used Virtual reality before and if so, how much?
- ya

Do you like roller coasters? Why?
- No, heights, motion sickness, doesn't like scary stuff

Have you any experience in computer science?
- Yes, 3 credits

How is your current health? Cold? Flu? etc
- Good

How is your eyesight?
- Near sighted, cannot see things far away

Have you ever had an x-ray before?
- No

During Testing

Notes:
- Goes towards options first
- Loading from tray and buttons feel natural
- Add collider to the tip of the finger to feel more natural
- Workspace feels good
- Doesn't like reaching forward to grab copy
- Nees limits on size
- Add numbers to brightness, contrast and resize to represent changes
- Add numbers next to button

Post documentation

How does your head/stomach/ eyes feel?
- Fine same as before

How do your hands/wrists/arms feel?
- Hands aren't tired
- Would feel tired if used for longer

Where there any interactions that you specifically enjoyed?
- More hand on felt better

Were there any interactions that you did not enjoy?
- Buttons don't react properly to presses

Additional comments
- Nothings

Pre documentation

Name:
- Jacques Laniece

Age:
- 19

Gender:
- male

Have you used Virtual reality before and if so, how much?
- once

Do you like roller coasters? Why?
- Love em

Have you any experience in computer science?
- none

How is your current health? Cold? Flu? etc
- Healthy boii

How is your eyesight?
- good

Have you ever had an x-ray before?
- yes

During Testing

Notes:
- Starts by playing with hands
- Took a bit to poke button
- Can't see the back of images
- Workspace feels comfortable
- Image stuck to left hand
    - Happens where images grabbed from one hand to another
- Tray is grabable and changes position when let go
    - Tray makes multiple images when grabbed

Post documentation

- How does your head/stomach/ eyes feel?
    - Same as before, good
- How do your hands/wrists/arms feel?
    - Same as before, good
- Where there any interactions that you specifically enjoyed?

- - Using gestures felt natural and enjoyable
- Were there any interactions that you did not enjoy?
  - Clicking buttons
- Additional comments
  - It was rad

Pre documentation

Name:
- Renelle Humphreys

Age:
- 21

Gender:
- Female

Have you used Virtual reality before and if so, how much?
- No

Do you like roller coasters? Why?
- Yes, exciting

Have you any experience in computer science?
- No

How is your current health? Cold? Flu? etc
- Good

How is your eyesight?
- Near sighted, bad eyes, wearing contacts

Have you ever had an x-ray before?
- Yes

During Testing

Notes:
- Enjoys current buttons and features
- Loading through tray is weird (can't identify which image is loading)
- Panel seems a little low(patient is tall)
- Multiple images can be selected
    - Two different filters on to different images

Post documentation

- How does your head/stomach/ eyes feel?
    - Fine, same as before
- How do your hands/wrists/arms feel?
    - Fine, same as before
- Where there any interactions that you specifically enjoyed?
    - Likes images closer
- Were there any interactions that you did not enjoy?
    - Images don't respond well to button presses

- Additional comments

Pre documentation

Name:
- Anna Thiessen

Age:
- 20

Gender:
- female

Have you used Virtual reality before and if so, how much?
- no

Do you like roller coasters? Why?
- No, doesn't like the feeling

Have you any experience in computer science?
- nope

How is your current health? Cold? Flu? Etc
- nope

How is your eyesight?
- Good

Have you ever had an x-ray before?
- yep

During Testing

Notes:
Trouble poking buttons
- Figured out grab easily
- buttons don't work well
- Poked through an image and accidentally made a copy
- Randomly stretched an image
- Interactions that you enjoy doing
    - grabbing

Post documentation

- Bright when headset was taken off
- Additional comments

Pre documentation

Name:
- Arianne Butler

Age:
- 27

Gender:
- female

Have you used Virtual reality before and if so, how much?
- no

Do you like roller coasters? Why?
- yes

Have you any experience in computer science?
- lots

How is your current health? Cold? Flu? etc
- good

How is your eyesight?
- great

Have you ever had an x-ray before?
- yea

During Testing

Notes:
- Tries grabbing with 2 hands
- She threw the image…
- Poking doesn't work well
- things that you enjoy
  - Lots
- Thing you don't like poking

Post documentation

- How does your head/stomach/ eyes feel?
- How do your hands/wrists/arms feel?
- Where there any interactions that you specifically enjoyed?
- Were there any interactions that you did not enjoy?
- Additional comments