APRIL 02. 2020

CENTRE FOR DIGITAL MEDIA
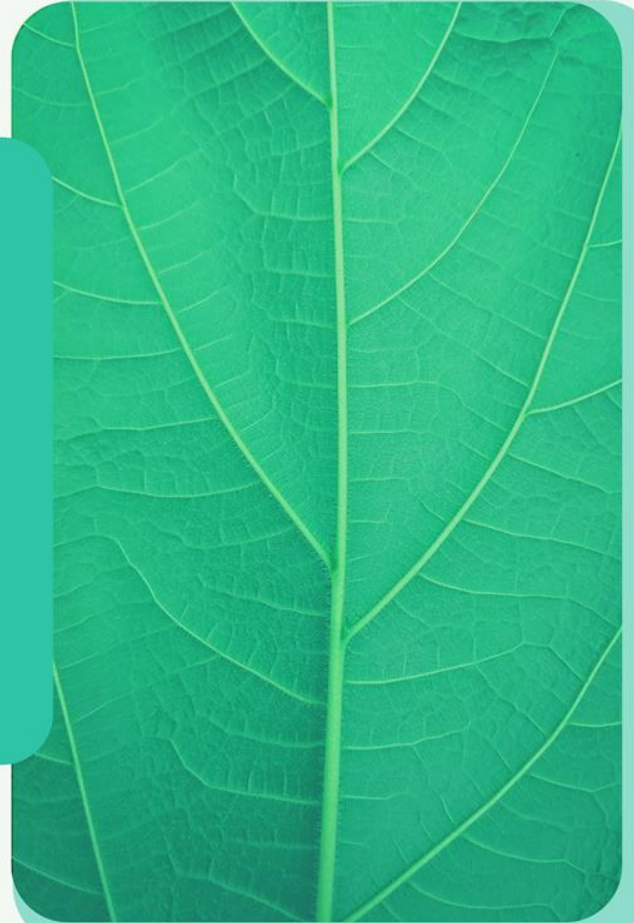
VCS

Virtual Clinical Simulation

For Dr. Omamah Almousa

TEAM INTER-VEIN

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AGENDA

- A trip down memory lane
- Objectives
- VCS
  - Features
  - Value
- Challenges
- The Future of VCS
- File Handover
- Reflection
- Client Props
- Open Door
- Next Steps
- Questions
- Thanks

WHAT A RIDE IT'S BEEN

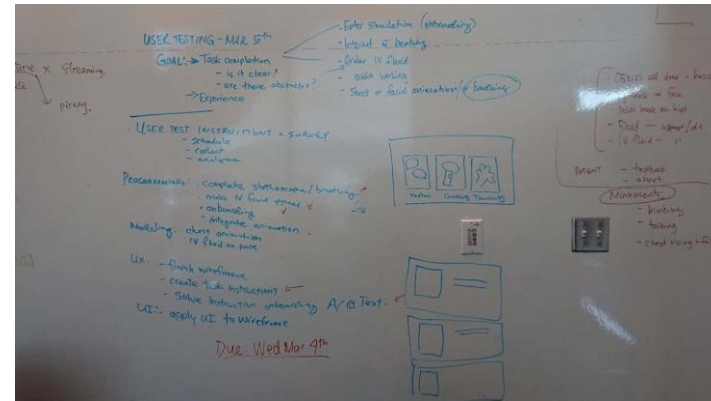Our first meeting was January 8th, 2020. The 6 of us were new to each other, and this project was new and unknown.
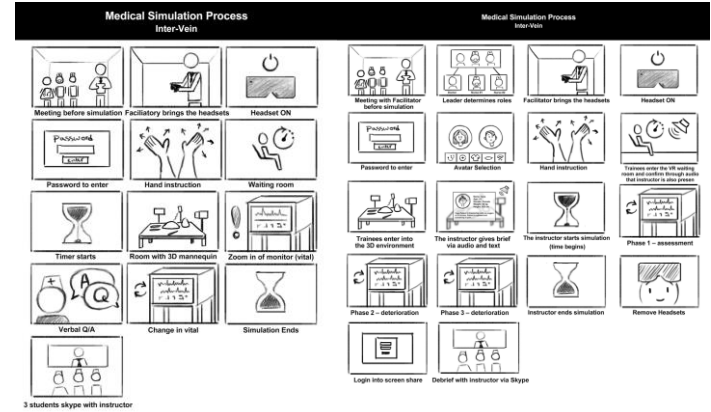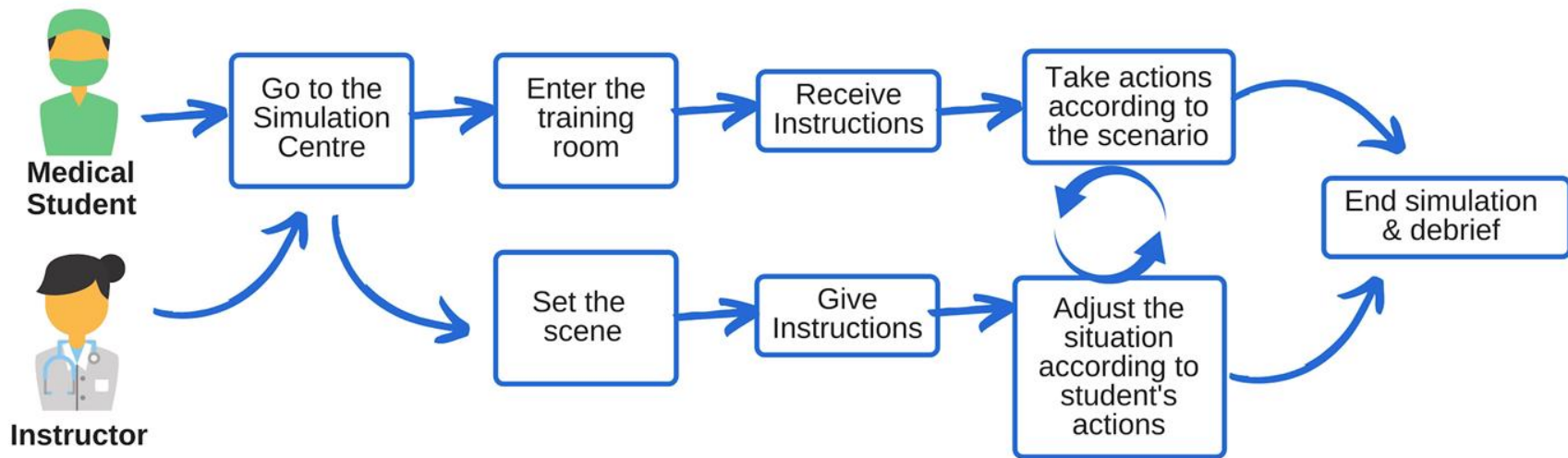
SITE VISIT

VGH+
UBC

SPRINT

Medical Student

Instructor

Go to the Simulation Centre → Enter the training room → Receive Instructions → Take actions according to the scenario → End simulation & debrief

Set the scene → Give Instructions → Adjust the situation according to student's actions → End simulation & debrief

USER FLOW

Make medical simulation training accessible to resource limited areas through the creative integration of advanced digital technology and tele-simulation.

PROJECT OBJECTIVES

ACCESSIBILITY

Feasibility of clinical training through digital enhanced simulation

TELE-PRESENCE

Enabling educators and learners in remote locations to share virtual learning environments and overcome distance barriers.

UI CONTROLLING SYSTEM

The Instructor can manipulate the scenario based on trainee's reactions

HIGH FIDELITY

Realistic patient, objects and environment

KEY FEATURES

Tele-presence

Interactive Control Panel

User Friendly

Pre programmed scenario
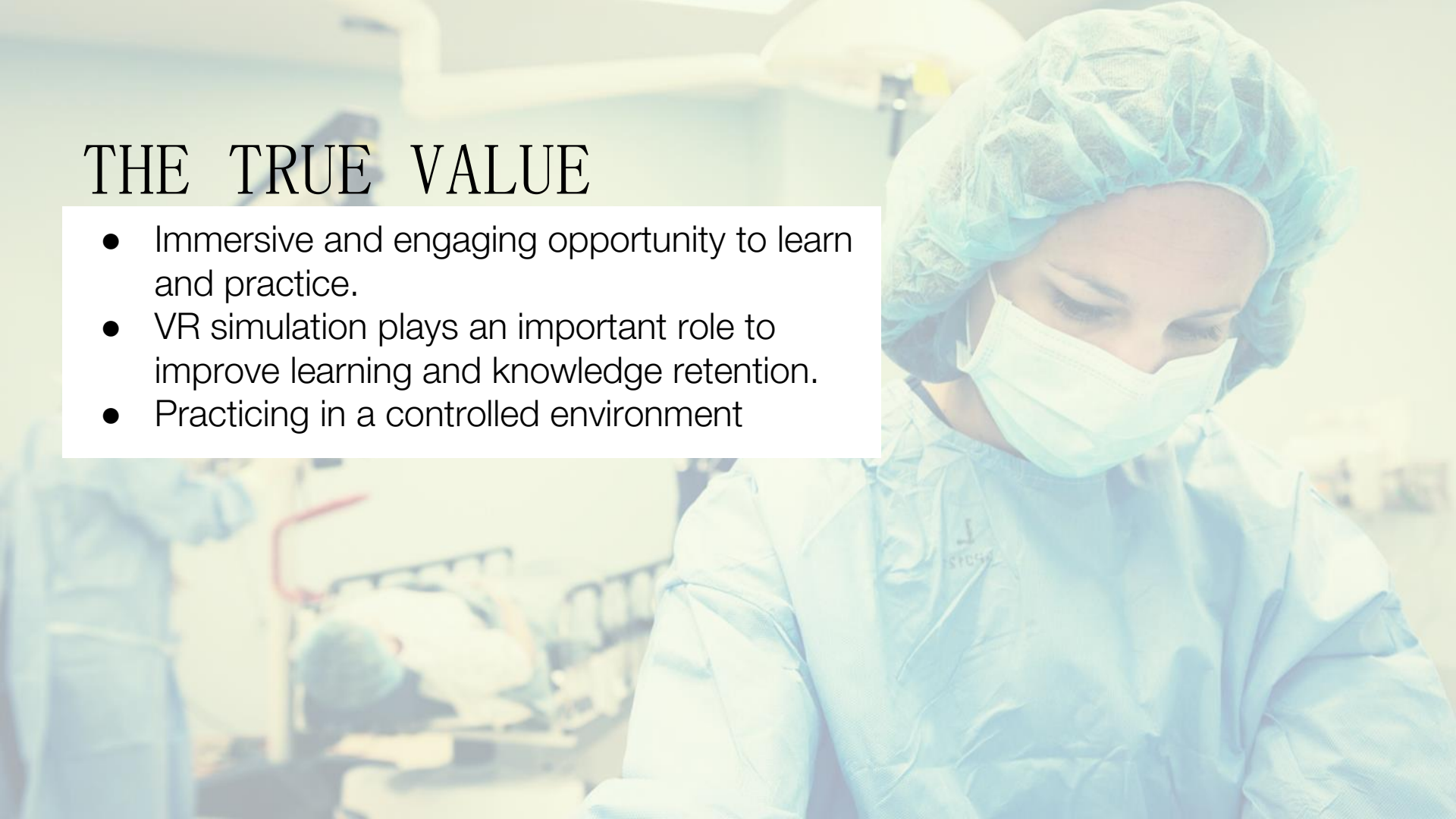
User onboarding

Realistic Environment

Interactive tools and objects

Animated patient

THE TRUE VALUE

- Immersive and engaging opportunity to learn and practice.
- VR simulation plays an important role to improve learning and knowledge retention.
- Practicing in a controlled environment

UNIQUE VALUE

OPTIMAL LEARNING

VR provides students with an immersive and engaging opportunity to learn and practice.

TELE-INSTRUCTION

Educators do not need to be physically present to assess students.

REPLICATED LIFE-LIKE SCENARIO

VCS provides a realistic virtual environment with high fidelity customized objects, tools, equipment and patient that allows users to learn in a life-like scenario without consequences.

ACCESSIBILITY

Use anywhere any time. Barriers of distance, cost and personnel are lessened.

With this model of delivery, access is affordable.
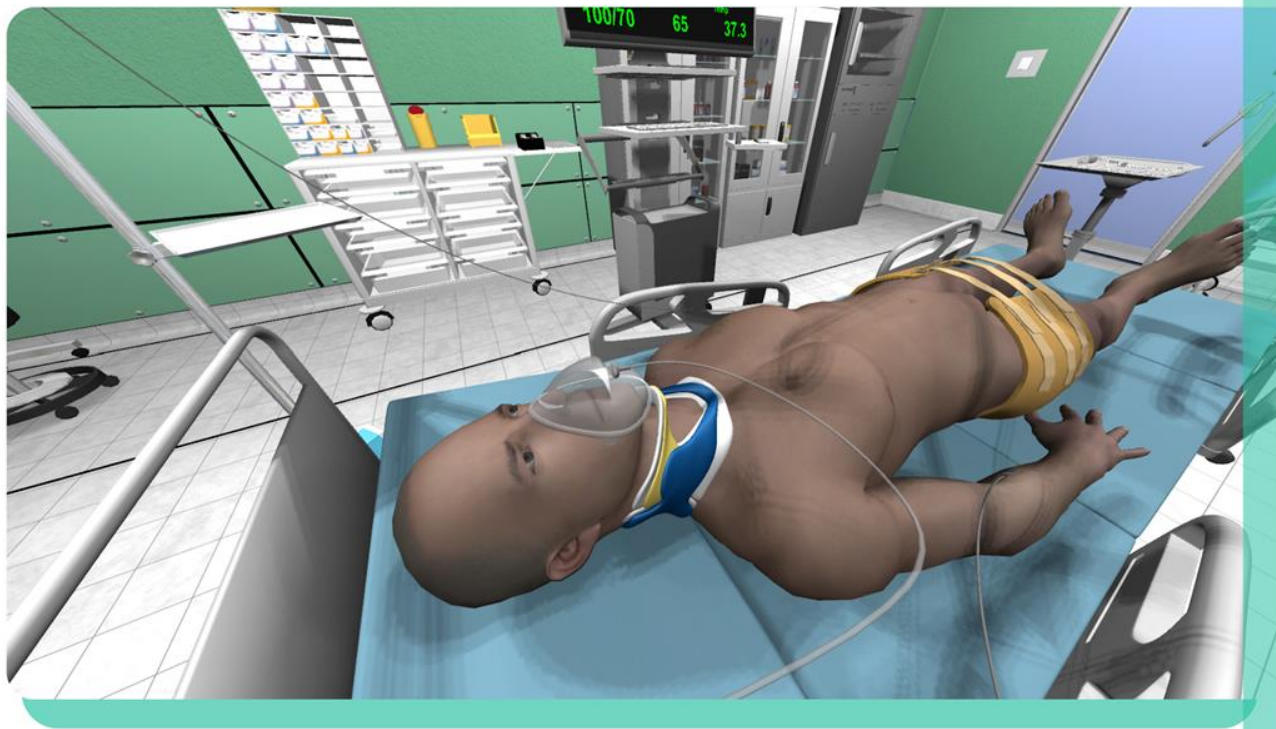
CHALLENGES

- AR vs VR
- Hololens vs Oculus
- Discovering clinical simulation
- Jumpiness
- The server issues
- Co-vid!
- The mysterious coffee mug
- The audio

SUCCESS

We managed to overcome our challenges, and in 3 short months developed a functional prototype that we are all proud of!
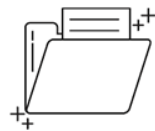
THE FUTURE

- Multiplayer
- Realistic Avatars
- More Interactable Items
- Video Debrief
- Programmed Body Diagram
- Web Based
- Mobile Friendly
- Improved organizational management for bookings
- Increased functions in CP
- Translated into other languages

FILE TRANSFER

GitHub

https://github.com/sakuya0116/VCS

REFLECTION

- The project was **challenging**! it pushed us to try hard

- There were a **variety of technical challenges**

- We **solved problems** through every step. And we **overcame many obstacles**

- It included **a lot of learning** in all aspects of project for us.

- It was a **big achievement** in a short amount of time

- The project was **meaningful**

- We solved **a real world problem** - the project was especially **impactful** with the current situation in the world

THANK YOU

- To have met you, you are a great person with ambitious ideas for helping people
- Sharing your passion with us
- Allowing us to be a part of something impactful
- Trusting us
- Being patient
- Bearing with the transition to remote

THE DOOR IS OPEN

Please reach out if you need any help!

NEXT STEPS

Monday April 6th
All documentation done

Wednesday April 8th
Video Complete, Final Presentation

*A note that our Slack channel will be closed by the end of next week

Q & A

In the video is it okay to add features that are not completely functional yet?
Ex: video debrief