"Pandemic teaching, meet your Maker"

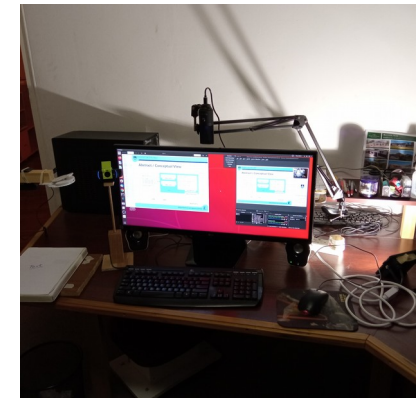## *...or how I learnt to love lecture videos*

Hussein Suleman <*hussein@cs.uct.ac.za*>

Digital Libraries Laboratory
Department of Computer Science
School of IT
University of Cape Town
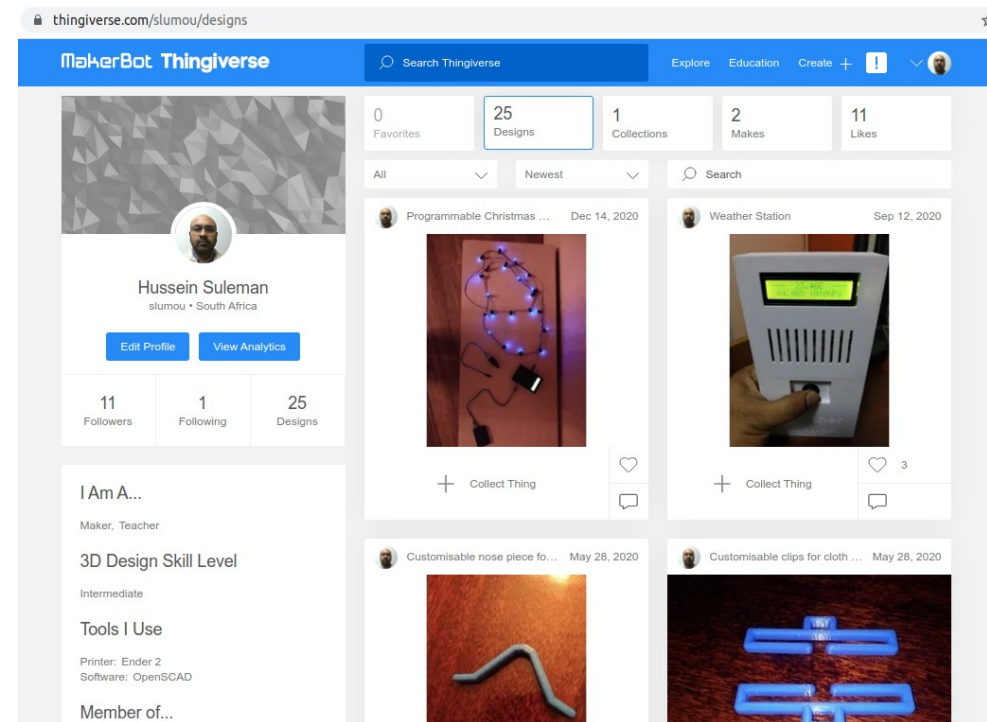
18 August 2021

Last edited: 18 August 2021

Slide count: 13

How to make lecture videos

- Pandemic as opportunity for innovation
- Research – if Youtubers can make slick videos ...

- Keep it simple
- Improve gradually over time
- Minimum cost
- High quality
- High impact investment of time
- Maximise viewer engagement

Hi, I am Hussein and I am a Maker

□ Maker culture is about:
- ■ DIY
- ■ Invention
- ■ Technology
- ■ Sharing and open designs

□ Makers make stuff to solve problems, maybe even for teaching...

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

IT | SCHOOL OF IT

Camera

- HD webcam (Logitech C920)
- Better quality cameras have better light sensitivity and high frame rate at high resolution
- Built-in microphone is a bonus
- Cost: R2500
- Did I need it? Could probably get by with R500 camera

Lighting

- 10W LED light fixture
- Bright white light pointed at white wall behind camera for diffuse lighting
- Same effect as umbrella lights used by pros
- Cost: R0 (found at home)
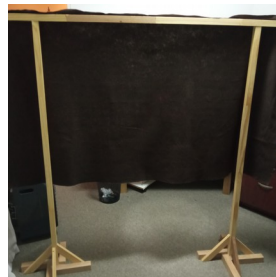- Did I need it? Yes
  - Removes shiny spots from my head :)

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

IT | SCHOOL OF IT

Sound

- Mid-range studio-quality noise-cancelling USB microphone
- Boom for adjustment

- Cost: R900
- Did I need it? Not really
  - Quality is similar to camera microphone
  - Boom makes me feel like a DJ :)

Background

- Cloth draped over frame
  - V1: bedsheet over furniture
- Reduce distractions in video
- No bg-removal artefacts
- Can be rolled up for storage
- Cost: 3 lengths of wood (rest were scraps + screws)

Camera Mount

- 3 pieces of scrap wood and a dowel
  - V1: a bent wire hung over the monitor
- Adjustable height eye-level mount
- Makes for better eye contact
- Cost: R10 (for the dowel)
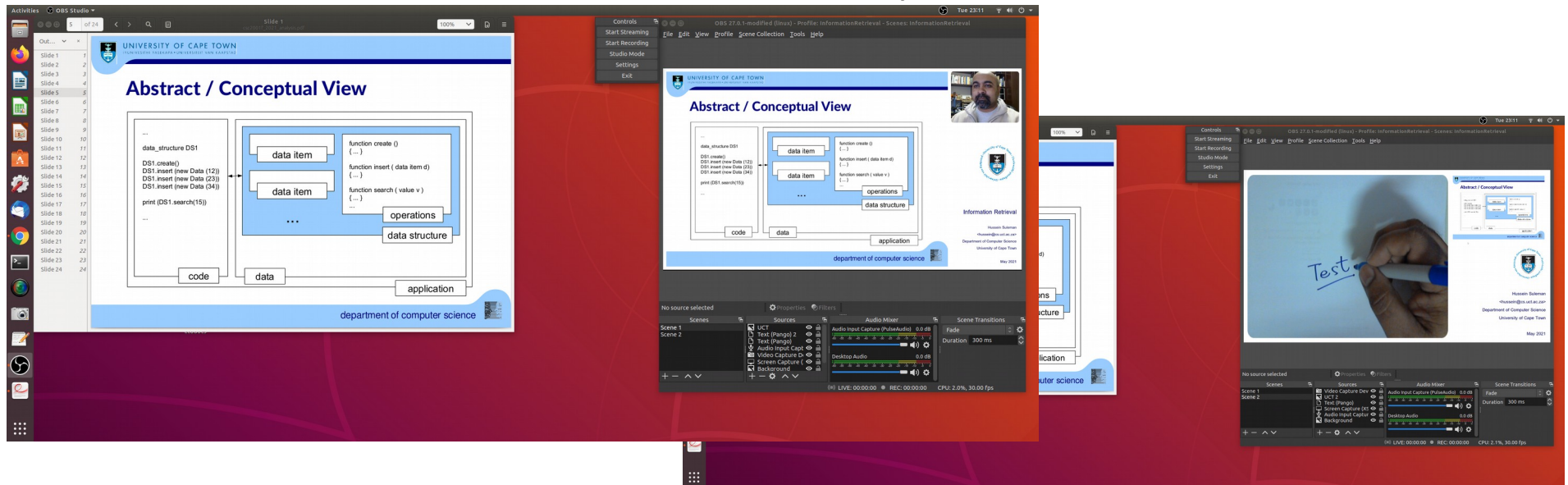- Did I need it? Yes
  - I do not look drowsy or drunk

Document Camera (aka Hussein's Tablet)

- Secondary camera for mini whiteboard (Logitech C270)
- Scrap wood + rubber band
- Natural interface for diagrams/proofs/etc.
- Cost: R20 for small light + R900 for camera
- Did I need it?
  - Any cheap old camera is fine

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

IT | SCHOOL OF IT

Open Broadcaster Software (OBS) Studio (open source)

- ☐ Allows you to compose scenes from multiple sources (audio, video, screen, static images, etc.)
- ☐ Switch scenes as easily as walking across a classroom
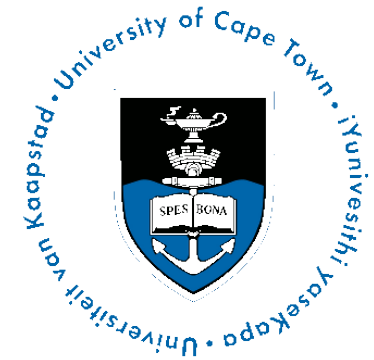- ☐ Record and encode video efficiently in real-time

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

IT | SCHOOL OF IT

All together now …

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA · UNIVERSITEIT VAN KAAPSTAD

IT | SCHOOL OF IT

Some Reflections

- Videos were recorded once-off
  - No practice, no post-editing
  - Short topic-focused videos facilitate video reuse
- Students were very positive about the videos in both undergraduate and postgraduate courses
  - (which were supplemented with other activities)
- My total cost was about R5000, but I could have done it for half
- A lot can be accomplished by reusing scrap and using shared and free resources
- Sometimes, lo-tech is the answer

Thank you for listening!

Questions, comments and suggestions are welcome...

Contact me at: *hussein@cs.uct.ac.za*

Digital Libraries Laboratory
Department of Computer Science
School of IT
University of Cape Town