

PROTOTYPE 2: SCENARIO – HOLOGRAPHIC AVATAR

1. Overview

With this manual you will learn to quickly create a 2D holographic avatar that can be used to introduce topics or provide general information as well as test knowledge. Students can project the avatar into their personal space within the camera view of their phones. This builds a closer personal connection between lecturer and students and creates the opportunity for independent, remote learning to increase familiarity with content, as well as provide time- and place independent support. The medium is ideal for before class or out of class preparation.

We will use an example of developing an avatar for introducing safety instructions for the kitchen. However you can use the manual to create an avatar for any suitable use case for your class.

Intended Outcomes/aims:

- Brings lecturer into the learner's environment
- Provide information and introduce standard operating procedures
- Virtual tour guide
- Allows for basic role-play without the the pressure of the classroom.



Brainstorming/Planning: 2 ~ 3 hours
Decision Tree/Flowcharts: 1 hour
Filming and editing: 1 ~ 2 hours
Total Time: 6 hours



Level of Complexity: 1
Service scenario: Holographic avatar, instructor, coach

2. Ingredients :

Hardware/Equipment (list of equipment with indicative prices and/or link to website)

- Mobile phone
- Camera stand ([Amazon Link](#)), smart phone (with a good camera), green screen ([Amazon Link](#))
- Lighting, natural lighting best
- Mics ([Lapel mic](#), [Røde mic](#)) can create without but low quality sound

Software

- Fectar Platform:
<https://fectar.com/>

Other Equipment/consumables

- Whiteboards/Flipcharts
- Pens and markers
- Sticky notes (different colours)

Limitations:

- Not for teaching skills requiring close-ups or zooming in on specific activities/skills
- 2D not 3D, gimmicky
- Fectar back-end not intuitive

Benefits:

- Fast & easy to make, flexible platform, use any background

3. Instructions:

Step 1: Planning

We consulted other staff, instructors and students to define the learning gaps or what is missing in the course. Important considerations include the benefits of the medium and whether this adds value to addressing the learning gap eg. whether there is a need to bring an instructor into the learner's environment or a need for personal connection to learners. Thereafter learning outcomes were developed.



Step 2: Develop Storyboard/Game plan

We then generated ideas about a scenario to achieve the learning outcome while considering how it will link to other course content eg. Powerpoint, reading material, practical training. After speaking to instructors, we identified a need for students to understand safety guidelines before their first day in the kitchen. Therefore we developed a holographic avatar on kitchen safety instructions. Include a narrative or draft script with key points to mention. Only if you need more interactivity and there are multiple video clips then develop a decision tree



Step 3: Record the Holographic Avatar

We used the Fectar platform (free trial available) that can be shared with a QR code.

- A. Setup greenscreen
- B. Have good lighting facing actor
Stand 1 metre from back of screen with no shadow. Camera at +/-1.35m height
- C. Rest phone camera resting against camera stand.
- D. Take full length video/s of the presenter (30 – 45 second clips)
- E. Create an intro video or a sequence
- F. Airdrop the recordings to Macbook/wetransfer to email
- G. Upload to Fectar as mp4 or .mov

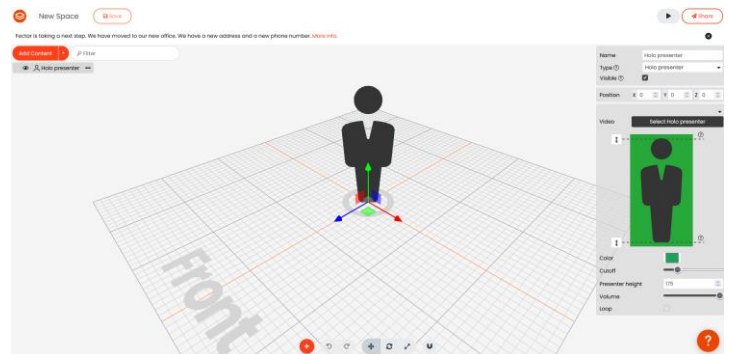


Step 4: Edit in Fectar

- A. Create new space
- B. Add spot "Holopresenter"
- C. Upload your 2D video from phone as mp4 or .mov file
- D. Remove green
- E. Share as QR code

Tips for Excellent Results

- Need good natural lighting
- Better to have external lights facing the actor
- There is no need for a "word for word" script – indicative text as a support is effective for actors/staff giving a more natural recording/delivery.
- Remember that the camera is the student and that the actors should look at the camera
- The camera needs to be set at eye-level with the actor
- The background should only be green
- Green screen should be ironed, no wrinkles
- No shiny equipment as reflections cause issues
- Actor should stand at about 1.5 m in front of the screen with no shadows being cast onto the screen



FAQs:

- Q: Do you have to record a new video for a module each semester?
- A: No, recorded videos can be re-used each semester.
- Q: Do you need any special training to create AR Hologram?
- A: No. A simple once off instruction by a colleague or short video is sufficient to learn how to create a short video. The Fectar software can be tricky but there is good support: <https://fectar.com/>
- Q: Do actors have to be specifically hired or can teaching staff perform these roles?
- A: Teaching staff with an open interest in new forms of learning, which may include any previous experience or interest in experiential learning, role play or simulation. But no previous experience in these areas or learning technologies is essential.