Yours Virtually

Association of Colleges’ South East Teaching and Learning Fair 2018

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Yours Virtually

1. Plumpton College’s OTLA Project
1. Case Studies from GBMC
1. Virtual Reality Workshop
TEACHING WITH VIRTUAL REALITY

Effective use of 360°, Augmented and Virtual Reality Technologies for Outstanding Teaching, Learning & Assessment

March – July 2018
PROJECT FUNDERS & BROADCAST PARTNERS

EDUCATION & TRAINING FOUNDATION

creative EDUCATION

fesussex quality improvement

Jisc

Landex Land Based Colleges Aspiring To Excellence

ASSOCIATION OF COLLEGES
## THE STATE OF VIRTUAL REALITY

<table>
<thead>
<tr>
<th>Head Mount VR</th>
<th>360 Degree Camera</th>
<th>Mobile VR</th>
<th>Full Room VR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Cardboard</td>
<td>Rioch Theta</td>
<td>Gear VR</td>
<td>Oculus Rift</td>
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<tr>
<td>Basic quality with</td>
<td>Capture immersive</td>
<td>Good quality visuals</td>
<td>High quality visuals,</td>
</tr>
<tr>
<td>limited interactivity</td>
<td>photo and video</td>
<td>with interactive but</td>
<td>full room freedom and</td>
</tr>
<tr>
<td>~£10 per headset</td>
<td></td>
<td>no full room freedom</td>
<td>interactive</td>
</tr>
<tr>
<td>plus mobile phone</td>
<td></td>
<td>~£200 per device</td>
<td>~£2000 per setup</td>
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<tr>
<td>~£200 for entry level</td>
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*Image credits: [Google Cardboard](https://images.unsplash.com/photo-1565119097422-55db4d1fda9f?ixid=MnwxMjA3fDB8MHxzZWFyY2h8NjJ8fG9uc29sdWV8ZW5kX21haW1lLmpwZw| [Rioch Theta](https://images.unsplash.com/photo-1565119097422-55db4d1fda9f?ixid=MnwxMjA3fDB8MHxzZWFyY2h8NjJ8fG9uc29sdWV8ZW5kX21haW1lLmpwZw| [GoPro](https://images.unsplash.com/photo-1565119097422-55db4d1fda9f?ixid=MnwxMjA3fDB8MHxzZWFyY2h8NjJ8fG9uc29sdWV8ZW5kX21haW1lLmpwZw| [Oculus Rift](https://images.unsplash.com/photo-1565119097422-55db4d1fda9f?ixid=MnwxMjA3fDB8MHxzZWFyY2h8NjJ8fG9uc29sdWV8ZW5kX21haW1lLmpwZw| [HTC Vive](https://images.unsplash.com/photo-1565119097422-55db4d1fda9f?ixid=MnwxMjA3fDB8MHxzZWFyY2h8NjJ8fG9uc29sdWV8ZW5kX21haW1lLmpwZw)
TEACHING WITH VIRTUAL REALITY

Emerging technologies like 360° photography, 360° video, augmented and virtual reality have the potential to allow teachers to introduce immersive environments that enhance and accelerate their student’s learning outcomes.

Entry-level immersive technology has reached a price and complexity point where it is now accessible to the average classroom. But how can teachers effectively integrate these technologies within their lessons?
PROJECT AIMS

1. Evaluate different types of immersive technology and content in the average classroom

1. Evaluate the impact that immersive technology has on different types of learning activities

1. Publish example content and a framework of best practices for other colleges:
   https://www.teachingwithvirtualreality.com
TYPES OF IMMERSIVE TECHNOLOGY

- 360° Photography
- 360° Video
- Augmented Environments
- Computer Generated Environments
TYPES OF LEARNING ACTIVITIES

- Instruction or Orientation
- Knowledge Retrieval
- Practical Application
- Assessment

- Induction tour for new/prospective students

- L1 students have been creating blogs regarding their workshop experience, which will be used to provide the content
Carpentry (with hotspots) - [https://bit.ly/2tovy7h](https://bit.ly/2tovy7h)

- Students took photos & created text in Word docs with embedded images for hotspots
- L2 students providing information about what progressing L1 students might need to know about workshop
- More videos & text to be provided

- Students signed video consent forms
- Short video clips created with students demonstrating
- Close up & extreme shots relating to tools & processes with view to creating fun quizzes within the 360 photo

- Students identify the part
- Include a quiz advised by tutor
- Used for induction - indicates levels of knowledge with battery, brake fluid, etc
- At higher levels will build on knowledge around items such as Oxygen Sensor, different clutch systems, diagnostics, use of oscillator, etc
- Short demo videos of these to be integrated into platform
Aeronautics - https://bit.ly/2yrCs1D

- Parts & tools to be photographed & added to VR tour

- Later will form part of quiz designed to test knowledge

- VR tour with tutor voiceover, linking to blogs created by students about their work

- VR walkthrough with added commentary (to create)
Ways to Engage

- Download Google Cardboard Camera App (if WiFi allows)
- Scan QR code on screen or handout to access any of the 360 tours
  OR
- Type in thebit.ly code in your device browser to access the same tours
- Use one of the bigger headsets to experience pre-installed VR
- Use one of the Google Cardboard headsets to experience VR using your phone
Yours Virtually

Workshop