Pitch in 30 seconds

1. Name & Institution / Organization

2. When it comes to VR/AR I’m a:
   Bloody Amateur; Advanced User; Nerd; Geek; ... ?

3. VR or AR – what is your preference?

For questions and inputs during the workshop: https://web.speakup.info/
Room nr. 62919
(Login over ICEM 2017 network)
Workshop VR/AR for education - ICEM conference Napels

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Workshop Outline

- Kick-off: Welcome & Onboarding
- The VR/AR landscape
- Break out [1]
- Reflection / Questions
- Break out [2]
- How to make the virtual real?
INTRODUCTION

Society

Leiden University

Innovation

CENTRE FOR INNOVATION
Leiden University
New Media Lab – Leiden University
Co-designing Future Education

Immersive Learning Experiences
VR/AR landscape
360° VR: Immersive Learning

Immersive learning

Pressure/emotions
Augmented Reality
Reviving Anatomy education
Pedagogical challenge

Supination  Pronation  Flexion/Extension

Inversion  Eversion  Extension  Plantar flexion

Hindfoot  Talus  Subtalar Joint  Calcaneus

Randale Sechrest – eOrthopod.com
Foot Anatomy Animated Tutorial - https://www.youtube.com/watch?v=ROd1Acma64o
Learning from clinical cases
PROMISING

Potential for paradigm shift
<table>
<thead>
<tr>
<th>Virtual Reality</th>
<th>Augmented Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersive experiences</td>
<td>Interaction with real world</td>
</tr>
<tr>
<td>Realistic simulations</td>
<td>Collaboration with peers and teachers</td>
</tr>
<tr>
<td>Virtual characters</td>
<td>Virtual character and real people</td>
</tr>
<tr>
<td></td>
<td>Embodiment Perspective</td>
</tr>
</tbody>
</table>
Video Styles in MOOCs – A Journey into the World of Digital Education»,
youtube: https://youtu.be/5VEHBuuRKXI
AVOID FALLACIES

PP IN MIXED REALITY?
Language of the Media
Identification of Affordances

Not only visualization!
Language of the Media

Identification of Affordances

Not only visualization!
UX beyond images on a screen
Language of the Media
Identification of Affordances

Not only visualization!
UX beyond images on a screen
Interactive media design
Language of the Media

Identification of Affordances

Not only visualization!
UX beyond images on a screen
Interactive media design
Rhetorics of the media
Language of the Media
Identification of Affordances

Not only visualization!
UX beyond images on a screen
Interactive media design
Rhetorics of the media
Audiovisual argumentation
PROMISING

Potential for paradigm shift

Combination of VR/AR with AI
Sensors / IoT
Visual recognition
OUR VISION

Potential for paradigm shift

Affective learning experiences with educational content

Embodied interaction with learning content

Personalized/adaptive learning experiences

Collaborative learning in virtual case studies

Simulation, learning by failing

... and hacking
Break out [1]

1. Analyze in groups the potential of VR/AR for higher ed
2. Analyze the challenges of VR/AR for higher ed
3. Identify examples in different disciplines

[20 minutes]

In parallel: individual demonstration of HoloLens/ 360 VR
Reflection / Questions
Break out [2]

Define one case (VR/AR) that is valuable for your education

[10 minutes]
How to make the virtual real?
Maturity Model
Centre for Innovation

**Orienting**
- Adaptive learning
- Chatbot

**Experimenting**
- Miro/LENG
- Mixed reality
- Online micro masters
- Online proctoring
- VR 360 video
- Learning analytics

**Scaling the Experiment**
- 10 spaces
- 5 Flipped classrooms
- Credits for modes & virtual exchange
- Train staff
- Active learning spaces

**Decisionmaking**
- Workflow: Faculty studies for video clips
- Structural support for flipping
- Online learning strategy
- ODL production (online education)

**Establishing**

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**Stages**: Demos, presentations, blog postings
1-5 experiments, proof of concepts
5-10 experiments, evaluating proof of concepts

**Formal Decision**

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**Services or Service Model**
https://www.centre4innovation.org/
https://www.mr4education.com/

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