AUGMENTED REALITY
TEACHER TRAINING WORKSHOP
BY CODEARELITY

code_reality

Detailed program description

Monday 7 Oct 2019

John Henry Brookes Building,
Headington Campus,
Oxford Brookes University

Room JHB128E **Monday 12:30 - 13:00**

Welcome and Icebreaker: What AR you all about?
We will start from a round of introductions by all participants, sharing our interests in the topic of AR, and experience teaching AR and related topics.

Fridolin Wild, Oxford Brookes University
Judith Molka-Danielsen, Molde University College

Room JHB128E **Monday 13:00 - 14:30**

Code Reality Course and Methodology Overview
We will start this session by presenting our AR teaching methodology. We will also share our experience of running our AR course in spring 2019 - a summary of the 12 weeks of action, design thinking and agile. The session will continue with participants sharing experiences about AR training events and courses.

Fridolin Wild, Oxford Brookes University
Carl H. Smith and Jazz Rasool, Ravensbourne University

Room JHB128E **Monday 14:30 - 15:00**

Coffee break

Room JHB128E **Monday 15:00 - 17:00**

AR app 101
In this session, we run a hands-on activity demonstrating the workflow from illustration, target creation, 3D modeling to AR experience on Hololens or other AR devices that can be created in 15 mins and be taught over an hour. All participants will be able to build their first Hololens / ARkit / ARcore app!

Jazz Rasool and Carl H. Smith, Ravensbourne University

Tuesday 8 Oct 2019

John Henry Brookes Building,
Headington Campus,
Oxford Brookes University

Room JHB128 **Tuesday 09:00 - 10:30**

Code Reality Unit Summaries
Short presentations by the teachers of AR units taught in February 2019:

- "Introduction to AR" *lecture by Fridolin Wild*
- "Technology Overview" *lecture by Fridolin Wild*
- "HCI methodologies" *lecture by Alla Vovk*
- "Modelling AR UI/UX" *workshop by Alla Vovk*
- "Perception" *lecture by Alla Vovk*
- "Software Engineering" *lecture by Ralf Klamma*
- "New Business Development" *tutorial by Ralf Klamma*
- "Geometric Algebra" *lecture by Carlos Fresnada Portillo*

Room JHB128 **Tuesday 10:30 - 10:45**

Coffee break

Room JHB128 **Tuesday 10:45 - 12:45**

Code Reality Unit Summaries continues
Short presentations by the teachers of AR units taught in February 2019:

- "Markers" *tutorial by Jazz Rasool*
- "Gesture interaction" *tutorial by Will Guest*
- "Spatial Understanding" *tutorial by Will Guest*
- "Gaze interaction" *tutorial by Joshua Secretan*
- "Voice interaction" *tutorial by Joshua Secretan*
- "3D modeling" *tutorial by Mark Ransley*
- "3D scan and animation" *tutorial by Yu Huang*
- "Story Telling with AR" *lecture by Carl H. Smith and Jim Hensman*
- "Research Directions" *lecture by Carl H. Smith and Fridolin Wild*

Room JHB128 **Tuesday 12:45 - 13:45**

Lunch break

Tuesday 8 Oct 2019

John Henry Brookes Building,
Headington Campus,
Oxford Brookes University

Room JHB128 **Tuesday 13:45 - 14:30**

Code Reality Skills Survey
In 2018, we conducted a job market study and a survey of professionals from organizations that recruit or plan to recruit AR specialists. From the AR job announcements, we extracted 10 key skills for AR developers. In the survey, we asked to rank whether the participants consider these skills to be essential for AR developers.

In this session, we will share the results of a study of the AR job market and essential skills for AR developers.

Joanna Jesionkowska, Oxford Brookes University
Mikhail Fominykh, Molde University College

Room JHB128 **Tuesday 14:30 - 15:00**

Coffee break

Room JHB128 **Tuesday 15:00 - 17:00**

AR core curriculum panel
While the AR research and industry are growing stronger, the teaching competence and exchange of good practices in this field are still very fragmented. Unlike many other related fields, there is no standardized curriculum for AR. However, AR is becoming more relevant and more universities are considering to add an AR course to their curriculum.

In this panel we bring together experts who have been teaching AR and related topics to discuss questions including, but not limited to:

Q1: What should be taught? (Open Space discussion about the core curriculum)
Q2: Can AR be a programme on its own? or is it inside HCI? CS?
Q3: What are basic and advanced AR?
Q4: Should AR be interdisciplinary with media & CS? Can it satisfy both?

Chaired by Mikhail Fominykh, Molde University College

Oxford **Tuesday 19:00 - 21:00**

Social dinner
We would like to invite all participants to a social dinner at a restaurant in Oxford. The details and sign-up will be provided during the first day of the workshop.

Wednesday 9 Oct 2019

Gibbs Building
Headington Campus,
Oxford Brookes University

Room G217 **Wednesday 09:00 - 10:30**

Practical considerations
In this session, we will share our experience and discuss practical considerations for running AR courses. We will discuss how to manage the software installation for a CIP pool for teaching AR. We will also share our hardware considerations. All participants will be invited to share their experiences.

Fridolin Wild, Oxford Brookes University

Room G217 **Wednesday 10:30 - 10:45**

Coffee break

Room G217 **Wednesday 10:45 - 12:30**

AR open textbook
The goal of the AR open book is to create the first comprehensive Open Educational Resource as a foundation for AR curricula in Higher Education. Every book about high tech risks being outdated already when going into print, so we are planning for a continuously developed and updated online book, working with an open community of contributors, Open Source style.

In this session, we will give an overview of the AR open book initiative and present how to contribute. The participants will be able to install the necessary book tools in an install party!

by Ralf Klamma, RWTH Aachen University

Room G217 **Wednesday 12:30**

End of the teacher training workshop