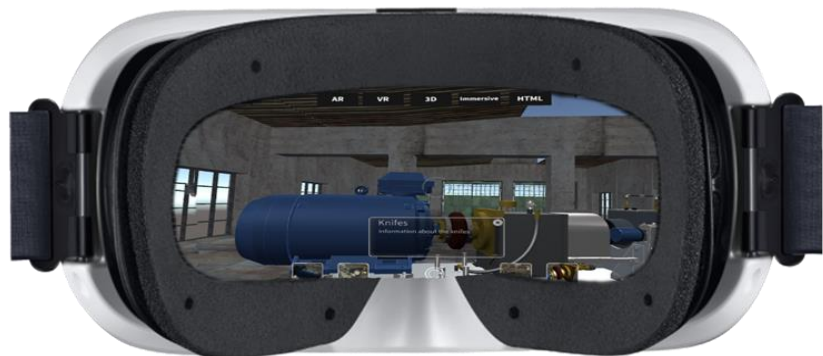




Innovating the World of
Education and Training

About Compedia LTD

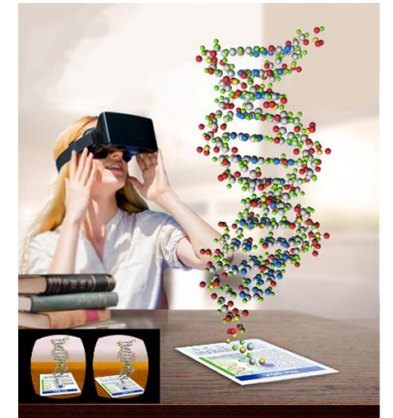
- Privately owned company, 100+ employees, Since 1988
- AR/VR and computer vision (patent pending) technologies & platforms
- VR and MR simulators ; Virtual Humans
- Targeting corporate training/HLS , Health and educational markets
- Experienced management and top talent (“Talpiot”)
- Deep understanding of learning and AR/VR/CV technologies



COMPEDIA LAB



- Main challenges addressed by Compedia LAB:
 - Effective VR and AR interfaces:
 - Overcome VR input devices limitations; e.g. typing text in VR; enhance AR experiences
 - AR/VR Simulators
 - Computer vision algorithms
 - Virtual Humans – interactive highly realistic avatars
 - AR/VR platform for easy cross platform implementation
- Partners in several FP7 / H2020 projects



Compedia

About ASC-Inclusion / EmotiPlay

- FP7 project
- Emotion learning system for children with autism
- Emotion Expressions – infer user emotions for training/biofeedback
- EmotiPlay: The derived product – to help children within 2017
- A cross cultural trial has shown significant improvement in:
Emotion recognition tasks, standard tools (Vineland social, SRS).

<https://emotiplay.com/for-parents/>

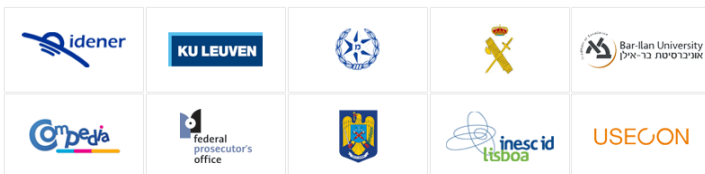
Compedia



LAW-TRAIN

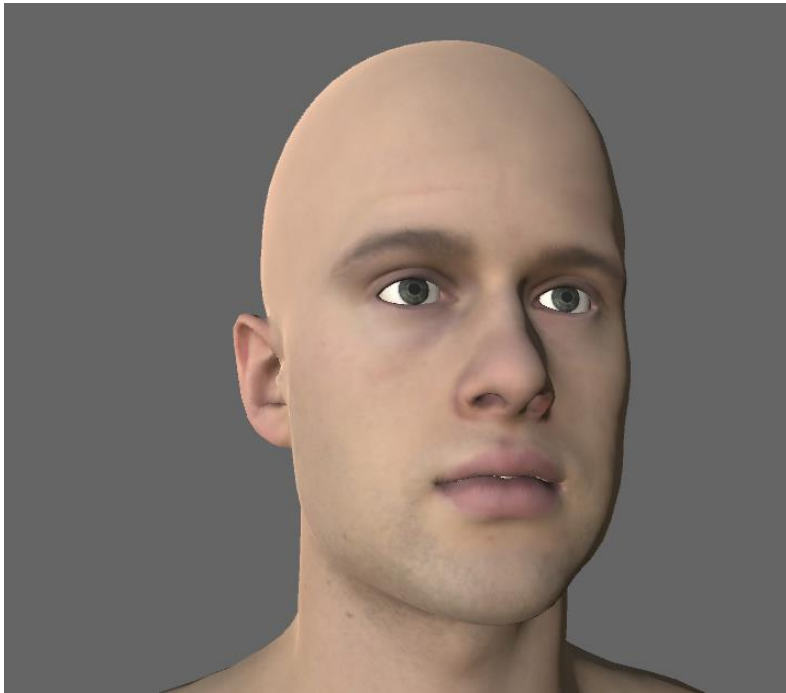


- Train EU law agencies in international crime interviews and investigations
- Challenges:
 - Multi-cultural – interviewing different types of people
 - Collaboration – it is cross borders, language issues, collaborative protocols,...
 - Should be realistic
- Platform -for collaborative International Virtual Investigative Interviewing (training, real)
- Covering European legal aspects of multinational collaborative investigative interviewing
- A Virtual Suspect that will play the role of the “suspect”
- Supervisor that easily generate new characters and scenarios
- An Intervention Agent will provide real time feedback to trainees

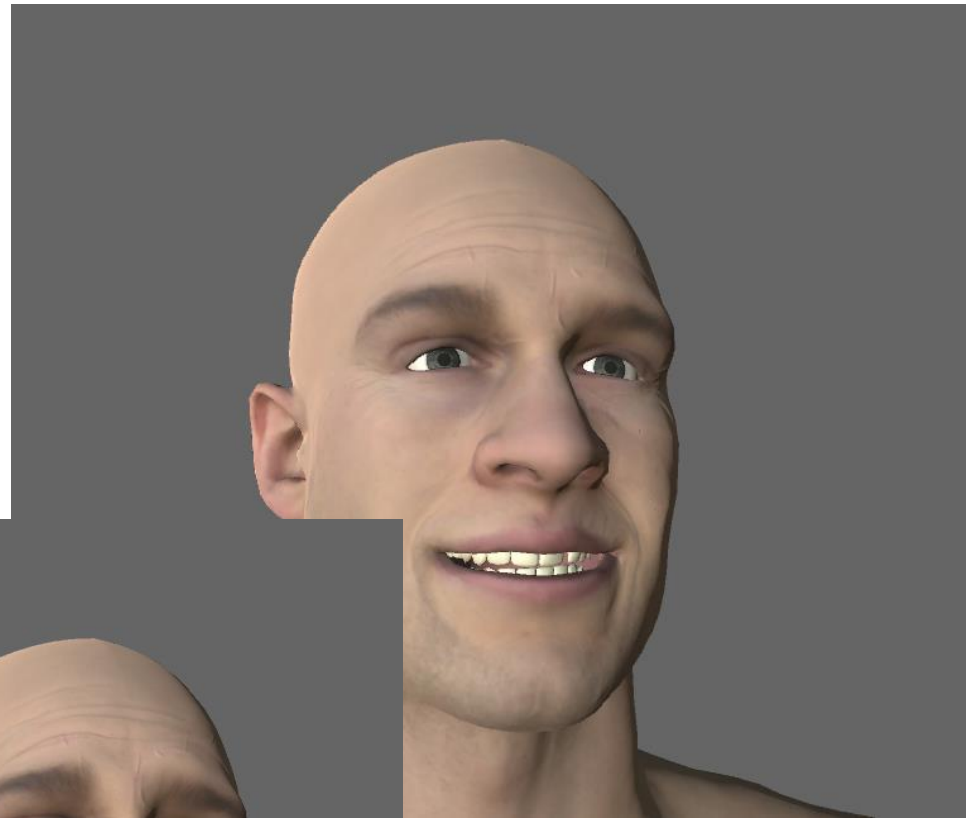


LAW-TRAIN has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 653587.

Can generate any face



Expressions



LAW-TRAIN – Virtual Humans – ethical issues?

- Virtual humans become
 - Very similar to real humans
 - similar to a real human (image to avatar technology)
 - AI can learn your behaviors and mimic you
- VH can communicate between themselves
- What are the rights and obligations sub VH and their human equivalents have?



Ethical Challenges – Research



- ✓ Activities in both projects required research with human participants.
- ✓ ASC INC: children (parents), Disabilities(sensitive), Clinical (Helsinki)
- ✓ Ethical guidelines were developed in accordance with the European Commission guidelines and legislation for ethical principles.

Measures taken

- ✓ Technology – get only features from VIDEO and VOICE and send servers
- ✓ We respect the dignity of participants and their right to privacy.
- ✓ The data obtained from participants are anonymized – No possible identification
- ✓ Participation is voluntary.
- ✓ The participants are informed in advance regarding the study and their rights.
- ✓ Written informed consent is obtained from all participants (and parents)



Ethical Challenges – LAW-TRAIN Content



- ✓ A special emphasis is placed on the management of ethical issues related to suspect interviewing, **including questioning methods and the design of the virtual interview room.**
- ✓ Our decisions should meet:
 - Higher European standards for investigations and keeping the suspect's rights; scientific knowledge

Measures taken

- ✓ No ethnical characteristics - Virtual Suspect, Virtual Lawyer.
- ✓ Keep the virtual suspect's rights as if it was a human suspect
- ✓ Apply information-gathering methods, reduce the likelihood of false confessions and wrong convictions.
- ✓ We apply only interviewing methods that were found to be valid in the scientific literature and are according to EU regulations
- ✓ Use the system to train for GOOD ETHICS as part of the training
- ✓ Challenge as there are different laws (e.g. lawyer, emergency laws, ...)
- ✓ Protecting detectives identity (voice change, anonymous,...)



Ethical Validation in Practice

- ✓ Thinking of the ethical issues in advance
- ✓ In house Ethical Director – Dr. Galit Nahari - BIU.
- ✓ External Ethics Advisor – Dr. Claire Nee Portsmouth University
- ✓ Adherence of all partners to the ethical guidelines
- ✓ Scrutiny of all deliverables by the Ethical Director
- ✓ Contiguous review of new ethical issues raised during the project
- ✓ Consultation with the Project Officer



„Good to excellent compliance
with the H2020 ethical guidelines”
– approved!

LAW-TRAIN has recently passed the Ethical Review in H2020
by the European Commission with the best possible result
“Good to excellent compliance with the H2020 ethical
guidelines”!



Thank you

