

Assim Kalouaz

BSc, MRes, MSc
University College Dublin, School of Psychology
Media and Entertainment Psychology Lab

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PROFILE

I am a PhD researcher with an interdisciplinary background shared between cognitive science and immersive environment design. As a member of the Media and Entertainment Psychology Lab, my research interests revolve around social cognition, evidence-driven experiential design, and virtual reality storytelling.

EDUCATION

PhD Programme - 2022-2026 - UNIVERSITY COLLEGE DUBLIN

- With the goal to make a positive contribution in the fields of health, design and entertainment, I have integrated a PhD programme in which I am looking at how the design of virtual reality experiences interact with individual characteristics of the user to impact perception, attention, emotion and well-being. This project is supervised by **Dr Brendan Rooney** and **Prof Pamela Gallagher** (DCU) and is funded by the SFI under the D-real programme.

Graduate Research Programme - 2021-2022 - UNIVERSITY COLLEGE DUBLIN

- Driven by my interests in phenomenology, social cognition and virtual reality as an experiential medium, I have joined the **Media and Entertainment Psychology Lab** and work under the supervision of **Dr Brendan Rooney**. I explored emotion regulation processes in VR stories and the positive effects of such stories.

M.Sc Immersive Technologies - 2018/2019 - ARTS ET METIERS PARISTECH

- Immersive environments design with a physically-based rendering (PBR) workflow taught through 3D modeling (3Ds MAX), texturing (Substance Painter), device interfacing and game engine integration (Unity and UE4). Head of programme: **Pr Olivier Christmann**.

M.Res Cognitive Science - 2016/2018 - UNIVERSITY OF BORDEAUX

- Cognitive scientist training with a specialty in disability and healthcare related technologies, covers ergonomics, VR, neuroscience, cognitive psychology. Head of programme: **Pr Bernard N'Kaoua**.

B.Sc - 2013/2016 - UNIVERSITY OF NICE

- Covers clinical, developmental, cognitive and social psychology as well as tools such as statistics, psychometry and other introductory courses such as neuroscience, psychopharmacology, psycholinguistics. Head of programme: **Pr André Quaderi**.

RESEARCH EXPERIENCE

Children's Health Ireland & University College Dublin

Jan - Aug 2023

- Collaboration project between the Crumlin Children's Hospital and the UCD Psychology MELab to implement VR in the hospital as a medium to help children lower their anxiety before interventions by presenting them with perspective-changing awe-filling experiences.

University of Gießen Psychology Lab

Apr - Aug 2019

- Internship supervised by **Pr Karl Gegenfurter**
● Master's thesis: 'Investigating color constancy using virtual reality: Validating the use of a new medium'
CONFERENCE PAPER - SITIS 2019

University of Waterloo & University of Bordeaux - HACS Lab

Jan - Jun 2018

- Internship supervised by **Pr H el ene Sauz eon**
● Master's thesis: 'A virtual reality-based study exploring the benefits from active navigation as environmental support for older adults: Analysis of head activity and wayfinding performances with their cognitive correlates'

University of Bordeaux

May - June 2017

- Internship in the Phoenix Team from the research center INRIA supervised by **Pr Bernard N'Kaoua**.
● Master's thesis: 'Management of personal goals in older adults: Conception of a digital tool'
CONFERENCE PAPER - HANDICAP 2018

ACADEMIC PRESENTATIONS

1. **Assim Kalouaz**, Brendan Rooney, 2020. 'Virtual reality: towards universally accessible experiences' BPS Cyberpsychology Section Virtual Conference 2021
2. **Assim Kalouaz**, Brendan Rooney, 2021. 'Unsupervised crowdsourced participants for VR experiments' UCD ABC Neuroscience Summer School 2021
3. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2022. 'Awe in virtual reality storytelling: exploring the contribution of priming.' CAB Cognitive affective biases - from mechanisms to disease symptoms (2022)
4. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2023. 'Awe in virtual reality storytelling: exploring the contribution of priming.' Neurocine Seminar, Tallinn University
5. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2023. 'Evidence-driven design for VR experiences in paediatric hospitals.' Creative Futures Academy, Webinar: Immersive Technologies use cases for learning and creativity.
6. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2023. 'Awe in virtual reality storytelling: exploring the contribution of priming.' CyPsy26, Université Paris Cité.
7. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2023. 'Awe in virtual reality storytelling: exploring the contribution of priming.' MediaPsych23, Université du Luxembourg.
8. **Assim Kalouaz**, Brendan Rooney, Pamela Gallagher, 2023. 'Accessibility of VR experiences: a brief overview.' MediaPsych23, Université du Luxembourg.
9. **Assim Kalouaz**, Anne-Marie Casey, Sarah Carroll, Pamela Gallagher et al., 2023. 'VR in Paediatric Hospitals: Design and Deployment of Empowering Experiences.' 2023 PSI Annual Conference.

CONFERENCE PROCEEDINGS

1. Matteo Toscani, Raquel Gil, Dar'ya Guarnera, Giuseppe Claudio Guarnera, **Assim Kalouaz**, Karl R. Gegenfurter, 2019. 'Assessment of OLED Head Mounted Display for vision research with Virtual Reality.' In Proceedings of SITIS 2019, the 15th IEEE Conference on Signal Image Technology and Internet Based Systems. IEEE.
2. Audrey Landuran, Grégory Lecouvey, **Assim Kalouaz**, Bernard N'Kaoua, 2018. 'Conception d'un outil numérique d'aide à l'élaboration et à la poursuite de nouveaux buts personnels chez les personnes âgées.' In Proceedings of IFRATH, the 10th annual conference Handicap on Assistive Technologies. IFRATH, France, 31-36.

GRANTS AND FUNDING

1. **4000€** as an internship (2019) stipend from the Deutsche Forschungsgemeinschaft (DFG), held by Pr Karl Gegenfurtner, CRC/Transregio 135 Cardinal mechanisms of perception: Prediction, Valuation, Categorization
2. **3150€** as an internship stipend (2018), out of 18 000€ from the 3rd call for the Waterloo-Bordeaux International Initiative, co-held by Pr Myra Fernandes (University of Waterloo, Canada) and Pr Helene Sauzeon (University of Bordeaux, France)
3. **24,000€ * 4 + 12,200€** as PhD funding (4 years) under the Science Foundation Ireland 'Centre for Research Training in Digitally-Enhanced Reality (d-real)'.
4. **1860€** as a PhD travel grant provided by the Polish National Agency for Academic Exchange (NAWA) for attendance and participation at the workshop Cognitive affective biases - from mechanisms to disease symptoms
5. **500€** awarded from the Graduate Research & Innovation Fund (GRIF)

TEACHING EXPERIENCE

1. Teaching Assistant - PSY30350 Research Methods & Stats III - 2021-2022 - Lecturer: Dr Brendan Rooney
I prepared teaching material, delivered tutoring sessions and graded worksheets and exams.
2. Senior Lab Demonstrator - PSY20050, PSY30110 - 2021-2022 + 2023-2024
I delivered labs while acting as a support for demonstrators, adapted lab protocols, held 1:1 sessions to provide students guidance in their reports and research proposal assignments that I graded.

AWARDED PROJECTS

1. '**La Plume et la Lanterne**' ('The Quill and the Lantern') (2019):
 - a. IVRC, Japan 11/2019: "La Plume et la Lanterne" won second place at the IVRC exhibition.
 - b. Nexon Computer Museum, South Korea 10/2019: "**Excellence Award (VR)**"
 - c. Laval Virtual Exhibition, France 03/2019: **#Student Award**

SKILLS

- Technical skills:**
1. 3D GRAPHICS: Substance Painter - 3DS Max - Unity - Unreal Engine 5
 2. PROGRAMMING: C# - Python
 3. INFOGRAPHICS: Adobe Illustrator - LateX - Wix
 4. RESEARCH TOOLS: SPSS - JASP - Mendeley - Zotero Matlab

Research skills: Behavioural & Physiological data collection + Analysis - Experimental Design
Equipment Evaluation - Questionnaire Design - Executive Functions Testing + Scoring

SCIENTIFIC OUTREACH EVENTS

1. UCD Psych Pint of Science - 24/11/2022 - Organisation and Presentation - 'Evidence-based experiential design'
2. TEDx AungierSt - 11/03/2023 - 'From Research to Reality: Evidence-Driven Design for Powerful VR Experiences'

COMMUNITY AFFILIATIONS

1. Media and Entertainment Psychology Lab - Directed by Dr Brendan Rooney
2. XRAccess - a community committed to making mixed reality (XR) accessible to people with disabilities
3. Unity for Humanity - a community led by Unity to connect creators of inspiring impact-driven content

REFERENCES

1. Dr Brendan Rooney - brendan.rooney@ucd.ie - University College Dublin, Ireland
2. Pr Olivier Christmann - olivier.christmann@ensam.eu - ENSAM ParisTech Laval, France
3. Pr Karl Gegenfurtner - gegenfurtner@uni-giessen.de - Justus-Liebig University Gießen, Germany