

Learning Analytics from Virtual Reality (LAVR)

19th March 2024, 13:30-17:00 JST, Kyoto, as part of [LAK24 conference](#)

This workshop was organised as part of the pre-conference program for the 14th International Conference on Learning Analytics and Knowledge (LAK'24). The event was designed as a symposium scheduled for half-day duration in the afternoon on 19th March 2024.

The goal of the LAVR workshop was to establish first conversations and bring together researchers and practitioners working on topics on the intersection of Learning Analytics (LA) and (immersive) Virtual Reality (VR) in educational settings. Overall, it aims to advance research on the potential and challenges of rich sensory data generated from VR for learning purposes. Ultimately, we strive to better understand how LA can improve the future design of educational VR applications. Therefore, we call for contributions on the role of LA in foundational research about the VR infrastructure and its multimodal analytics; VR for asynchronous learning experiences; and VR for synchronous teaching in the metaverse.

There were 4 papers submitted for peer-review to this workshop, each of them reviewed by at least two members from the Program Committee. Out of these, 4 papers were accepted for this volume, 2 as regular papers and 2 as short papers. These four papers are the content of this workshop proceedings.

1. "Towards using the xAPI specification for Learning Analytics in Virtual Reality" by Sergej Görzen, Birte Heinemann, and Ulrik Schroeder
2. "A Learning Analytics Dashboard to Investigate the Influence of Interaction in a VR Learning Application" by Birte Heinemann, Sergej Görzen, Ana Dragoljić, Lars Meiendresch, Marc Troll, and Ulrik Schroeder
3. "Approximating eye gaze with head pose in a virtual reality microteaching scenario for pre-service teachers." by Ivan Moser, Martin Hlosta, Per Bergamin, Umesh Ramnarain, Christo Van Der Westhuizen, Mafor Penn, Noluthando Mdlalose, Koketso Pila, and Ogegbo Ayodele
4. "Towards Learning Analytics for Student Evaluation in the Metaversity" by Amir Winer and Nitza Geri

Together with the presentation and discussions of the four papers, the event was started by Prof Marcus Specht delivering a keynote entitled "Perspectives on LA in and from VR: from tracking guitar chords to discussing airplane design". The last hour of the workshop was dedicated to the joint discussion of the organisers, authors of the papers and other workshop participants. The topics revolved around the affordances and challenges of collecting and making use of LA from VR, and the further plans for creating a community of researchers.

We would like to thank all the authors who submitted their work for this event, as well as our program committee for providing the detailed feedback for all the papers.

Programme Committee

- Geoffray Bonnin, Université Lorraine, France
- Jean-Michel Boucheix, Université de Bourgogne, LEAD-CNRS, France
- Herman Myburgh, University of Johannesburg
- Tanya Nazaretsky, EPFL, Swiss Federal Institute of Technology Lausanne, Switzerland
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- Sina Shahmoradi, PH Bern, Switzerland
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- Qi Zhou, University College London, UK