iLRN 2025 Preface

The 11th annual International Conference of the Immersive Learning Research Network (iLRN2025) continued to push the boundaries of immersive learning, offering a hybrid experience that combined a virtual campus experience on the iLRN Virtual Campus (powered by ©FrameVR) and CVent meetings in June, followed by on-location events at the Illinois Institute of Technology, in Chicago, USA. This year's conference brought together an international community of scholars, practitioners, and innovators to explore the theme of *Reading the World: Immersive Learning & Multimodal Literacies!*

Submissions to iLRN2025 span a rich array of educational contexts, technologies, pedagogical strategies, and specialized applications, all reflecting the conference's central theme of *multimodal literacies for immersive learning*. From core technologies like Virtual Reality (VR), Augmented Reality (AR), Extended Reality (XR), Mixed Reality, and the Metaverse, to the integration of AI and large language models (LLMs), the focus is on how these immersive environments can foster deeper, more meaningful engagement across disciplines. Applications cover a spectrum from STEM and higher education to healthcare, language acquisition, cultural education, and ethics, showcasing the transformative potential of immersive learning across formal and informal settings. Learning design approaches emphasize active, experiential, and embodied methods—such as gamification, collaborative environments, and co-design—that promote participation and problem-solving. Furthermore, inclusion and accessibility are central, with attention to neurodiversity, culturally competent practices, and universal design principles ensuring that immersive learning reaches all learners. Underpinning these efforts are technical considerations like user experience (UX), learning analytics, simulation design, and procedural generation, all contributing to scalable, effective immersive learning ecosystems that support the development of multimodal literacies.

Building on the success of our past conferences, iLRN2025 showcased cutting-edge research that explored the transformative potential of immersive learning to create more inclusive, engaging, and effective learning experiences for diverse populations. The conference also provided a platform for attendees to network, connect, and contribute to the growing area of immersive learning. In addition, iLRN2025 keynote and featured speakers represented a diverse range of backgrounds and perspectives, including experts worldwide, contributing to the discussion of applications of Immersive Learning in different domains.

In keeping with our commitment to innovation and inclusion, iLRN2025 featured a range of exciting events, including Guided Virtual Adventures, iLRNFuser Game Jams. We hosted thirteen academic tracks, including three special tracks: Immersive Learning across Latin America, which explored state-of-the-art research, use cases and projects specifically for the Latin America region (Immersive-Latam); Navigating Grand Challenges: Immersive Learning & Global Solutions (iLRNGrandChallenges); and Immersive Technologies, XR and AI for Education (XRAI4Edu).

361 authors from 141 different academic institutions, research centers and companies in 26 countries submitted publications to the Academic and iLEAD (immersive Learning Education and Design) tracks. Countries included Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Cyprus, Estonia, Finland,

France, Germany, Greece, Hong Kong, Indonesia, Ireland, Japan, Mexico, Morocco, Portugal, Saudi Arabia, South Korea, Spain, Switzerland, United Kingdom, and the United States.

137 submissions were received in total for iLRN 2025, with 77 submissions for the Academic track and 57 submissions for the iLEAD track. The Academic submissions include Full and Short Papers, Extended Abstracts for poster presentations and submissions to the Doctoral Colloquium (DC). The iLEAD submissions include Extended Abstracts for oral or poster presentation, and workshop, panel, demo and special session contributions. Every Academic submission underwent a rigorous review by at least three members and every iLEAD submission underwent a rigorous review by two or three members of the Program Committee to maintain high scientific and quality standards. All contributions were evaluated in a double-blind review process and checked for plagiarism to ensure authors submitted original work. After the peer-review process, all authors were given meaningful feedback on their submissions, and promising work was invited to resubmit in a different category when reviewers agreed that papers needed substantial work (i.e. Full Papers were invited to resubmit as Short Papers and Short Papers as Extended Abstracts).

We are proud to present our fourth iLEAD Proceedings volume, showcasing 48 accepted submissions presented at the conference. They include a range of contributions, including 30 oral presentations, 9 posters, 1 demonstration, 1 special session, 2 panels, 4 workshops and 3 Guided Virtual Adventure (GVA). Authors submitted extended abstracts with well-articulated and insightful perspectives on the applications of immersive learning education and design.

All iLEAD papers are published with an individual DOI in the iLRN online proceedings. The iLEAD papers were reviewed according to four criteria: 1) contribution to immersive learning education and design, 2) clarity and writing style, 3) instructional or learning design, 4) conclusions, impact, or recommendations. We hope these publications will be a valuable resource for scholars, practitioners, and researchers in immersive learning and inspire future discoveries and innovations in our exciting and rapidly evolving field.

We celebrated outstanding contributions through our *Best Academic Paper* awards (with awards for each category, including student papers). The Program Chairs chose final nominees from those that received the best reviews and have been nominated for awards by reviewers. The winners were selected by an independent jury panel, which was asked to review the nominated papers based on contribution, methodology, and clarity. The iLEAD awards included *Innovation in K-12 Education, Innovation in Higher Education, Innovation in Multimedia Literacies, Outstanding Contribution to Workplace & Industry Training, Outstanding Contribution to Design, Outstanding Contribution to Inclusion*.

Reviewers provided feedback on submitted papers, suggested improvements, and recommended to the Program Chairs whether to accept, reject or request paper changes. Reviewing is a volunteer and time-intensive process, and we are grateful to all our reviewers for contributing to our community. We implemented the *Best Academic Reviewer* award as a small way to recognize them for their service. An independent jury panel chose the winning reviews. The jury panel made a meta-review of the nominated reviews based on the study's rigor, contribution to improving a paper and developing the conference.

In addition, we recognized the service our conference organizing committee does, volunteering their time to make this event happen. We acknowledge their contribution via the Service awards. The list of winners is available in the *Awards* section of this volume. We sincerely thank those involved who volunteered their time to make this such a great event and attendees for joining us and sharing their excellent work with the iLRN community.

If you are not already involved, we invite you to read these proceedings and join us in our subsequent events and ongoing initiatives.

About iLRN Conference Series

iLRN's annual conference is the premier scholarly event focusing on advances in the use of virtual reality (VR), augmented reality (AR), mixed reality (MR), and other extended reality (XR) technologies to support learners across the entire span of learning—from K-12 through higher education to work-based, informal, and lifelong learning contexts.

iLRN's annual conference, indexed with CORE ranking C (http://portal.core.edu.au/conf-ranks/2266/), is the most relevant conference in Immersive Learning, devoting the entire conference to this topic.

iLRN has hosted hybrid conferences in Glasgow (2024), San Luis Obispo (2023), and in Vienna (2022), two entirely online and in-VR conferences in 2021 and 2020, and in-person editions in London, UK (2019), Missoula, Montana, USA (2018), Coimbra, Portugal (2017), Santa Barbara, California, USA (2016), and Prague, Czech Republic (2015).

Contact

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