Proceedings of XAI-Ed 2026 Workshop: Demystifying AI in Education and Learning Analytics through Explainability, Agency, and Transparency

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Abstract

This volume contains the proceedings of the Third workshop on Explainable AI in Education co-located with the 16th International Conference on Learning Analytics & Knowledge, held in Bergen, Norway on Monday 27 April 2026. Explainable AI (XAI) is becoming a crucial dimension of Learning Analytics (LA), yet it has not been fully integrated into the field: current state-of-the-art approaches tend to prioritize predictive accuracy over interpretability, which limits stakeholder agency and undermines trust. Growing concerns about fairness and bias in educational data further underline the need for explainable and participatory analytics. Addressing this gap, the workshop sought to consolidate methodological, theoretical, and empirical perspectives on explainability in education (XAI-Ed) and Learning Analytics (XLA), with a focus on complementing technical implementations with shared frameworks that integrate explainability into pedagogical design, stakeholder engagement, and institutional decision-making. This edition builds on the collaboration between the two communities XAI-Ed (co-located with the AIED conference) and HEXED (co-located with the EDM conference), which have each held two previous individual editions and joined forces for this XAI-Ed's third edition, with a vision for building a strong community around XAI in educatio and the shared goal of bridging XAI best practices and state-of-the-art LA.

Keywords

Explainabl AI, XAI-ED, Agency, Learning analytics, Educational stakeholder

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1. Summary

The Third workshop on Explainable AI in Education (XAI-Ed) was co-located with the 16th International Conference on Learning Analytics & Knowledge, held in Bergen, Norway, on Monday, 27 April 2026, with the topic: Demystifying AI in Education and Learning Analytics through Explainability, Agency, and Transparency.

The workshop attracted researchers and practitioners from various domains and offered them a unique forum for interdisciplinary co-design, building on the collaboration between the two research communities co-located with the AIED and EDM conferences, XAI-Ed and HEXED. Having each held two previous individual editions, the two communities joined efforts and a shared vision for the first time in this XAI-Ed's third edition, to build a strong community around XAI in education.

The workshop opened with a keynote by Prof. Dr Benjamin Paaßen, Junior Professor for Knowledge Representation and Machine Learning at Bielefeld University, on social XAI in LA and educational technology, drawing on his broader research on interpretable machine learning, educational data mining, and fostering calibrated trust in AI systems. The keynote was followed by a collaborative activity to frame problems and needs of XAI in education. The morning workshop part concluded with the poster presentations of accepted papers. In the afternoon, a panel discussion followed by group activities

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deepened participants' understanding of XAI needs and problems within LA. The day concluded with reflection and the definition of a shared vision for XAI in LA.

In total, we received 15 paper submissions for the poster session, of which 7 were accepted and 6 rejected, and 2 were withdrawn. The topics covered by accepted papers span from trust in explainability to the analysis of LLM interpretations. This shows the need for a better understanding of model reasoning in education.

The workshop was organised by Dr. Hasan Abu-Rasheed, Dr. Jakub Kuzilek, Dr. Christian Weber, Prof. Hassan Khosravi, Dr. Jeroen Ooge, Dr. Juan D. Pinto, Lea Cohausz, Prof. Luc Paquette, Dr. Luca Longo, Prof. Mutlu Cukurova, Qianhui (Sophie) Liu, Prof. Tanja Käser, and Dr. Vinitra Swamy. We thank them for designing a rich and engaging program that foregrounds the community's shared goals of transparency, trust, and interpretability in educational AI systems.

Looking ahead, the organizing team remains committed to its vision and efforts towards empowering and expanding a community around explainable AI in education and explainable learning analytics, given the importance of these fields and their impact on educational stakeholders. This effort continues through community exchange on the workshop's official website (`xai-ed.net`) and across the academic venues and conferences. Future editions will continue to tackle different aspects of explainable AI in education, and learning analytics.

2. Organizers

2.1. Chairs

Jakub Kuzilek, FernUniversität in Hagen, Germany
Hasan Abu-Rasheed, Goethe University Frankfurt, Germany

2.2. Programme committee

Jeroen Ooge, Utrecht University, Netherlands
Christian Weber, Universität Siegen, Germany
Hassan Khosravi, The University of Queensland, Australia
Juan D. Pinto, University of Illinois Urbana-Champaign, USA
Lea Cohausz, University of Mannheim, Germany
Luc Paquette, University of Illinois Urbana-Champaign, USA
Mutlu Cukurova, University College London, United Kingdom
Qianhui (Sophie) Liu, University of Illinois Urbana-Champaign, USA
Tanja Käser, EPFL, Switzerland
Vinitra Swamy, EPFL, Switzerland

2.3. Additional reviewers

Yifei Gao, University College London, United Kingdom
Ambreen Hanif, Macquarie University, Australia
Qi Zhou, University College London, United Kingdom
Tanya Nazaretsky, EPFL, Switzerland
Kester Yew Chong Wong, University College London, United Kingdom

3. Review process

Chairs initially processed submissions and desk-rejected papers outside the workshop scope. Both chairs needed to agree; otherwise, the paper was reviewed. Next, submissions were assigned to Programme Committee members (PC) based on their expertise. If the paper matched the expertise of a non-PC researcher, we invited that person to review. The review period was approximately 2 weeks. If a review

was missing or disagreement between reviews was significant, we invited another reviewer. One chair conducted the emergency reviews. The chairs reached the final decision after all reviews were collected. If one of the reviews was conducted by a chair only, the other chair made the decision.

4. Acknowledgments

We thank all authors for their contributions, the reviewers for their thoughtful evaluations, and the workshop participants for their active engagement in discussions, breakout sessions, and collaborative activities. We are grateful to the LAK26 organizing committees for their support in hosting these workshops and for providing a shared space in which educational AI researchers can exchange ideas across disciplinary boundaries. We hope that proceedings volume will serve as a catalyst for future research collaborations and will support the continued development of transparent and pedagogically aligned AI systems that meaningfully enhance educational practice.

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Declaration on Generative AI

During the preparation of this work, the author(s) used Grammarly for: Grammar and spelling check. After using these tool(s)/service(s), the author(s) reviewed and edited the content as needed and take(s) full responsibility for the publication's content.