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Preface

The 22nd International Conference on Artificial Intelligence in Education (AIED 2021), originally planned for Utrecht, the Netherlands, was held virtually during June 2021. AIED 2021 was the latest in a longstanding series of yearly international conferences for the presentation of high-quality research into ways to enhance student learning through applications of artificial intelligence, human computer interaction, and the learning sciences.

The theme for the AIED 2021 conference was "Mind the Gap: AIED for Equity and Inclusion." Over the past decades, racial and other bias-driven inequities have persisted or increased, diversity remains low in many educational and vocational contexts, and educational gaps have widened. Despite efforts to address these issues, biases based on factors such as race and gender persist. These issues have come to the forefront with recent crises around the world. In this conference, we reflected on issues of equity, diversity, and inclusion in regards to the educational tools and algorithms that we build, how we assess the efficacy and impact of our applications, theoretical frameworks, and the AIED society. The use of intelligent educational applications has increased, particularly within the past few years. As a community, development and assessment practices mindful of potential (and likely) inequities are necessary. Likewise, planned diversity, equity, and inclusion practices are necessary within the AIED society and home institutions and companies.

There were 168 submissions as full papers to AIED 2020, of which 40 were accepted as full papers (10 pages) with virtual oral presentation at the conference (an acceptance rate of 23.8%), and 66 were accepted as short papers (4 pages). Of the 41 papers directly submitted as short papers, 12 were accepted. Each submission was reviewed by at least three Program Committee (PC) members. In addition, submissions underwent a discussion period (led by a leading reviewer) to ensure that all reviewers' opinions would be considered and leveraged to generate a group recommendation to the program chairs. The program chairs checked the reviews and meta-reviews for quality and, where necessary, requested that reviewers elaborate their review. Final decisions were made by carefully considering both meta-review scores (weighed more heavily) and the discussions, as well as by rereading many of the papers. Our goal was to conduct a fair process and encourage substantive and constructive reviews without interfering with the reviewers' judgment.

Beyond paper presentations and keynotes, the conference also included the following:

- An Industry and Innovation track, intended to support connections between industry (both for-profit and non-profit) and the research community.
- A series of six workshops across a range of topics, including: empowering education with AI technology, intelligent textbooks, challenges related to education in AI (K-12), and optimizing human learning.

- A Doctoral Consortium track, designed to provide doctoral students with the opportunity to obtain feedback on their doctoral research from the research community.
- A Student Forum, funded by the Schmidt Foundation, that supported undergraduate students in learning about AIED, its past, present, and future challenges, and helped them make connections within the community. Special thanks go to Springer for sponsoring the AIED 2020 Best Paper Award. We also wish to acknowledge the wonderful work of the AIED 2020 Organizing Committee, the PC members, and the reviewers who made this conference possible. This conference was certainly a community effort and a testament to the community's strength.

April 2021

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