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# Advances in Web-Based Learning – ICWL 2021

20th International Conference, ICWL 2021 Macau, China, November 13–14, 2021 Proceedings



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#### **Preface**

The 20th International Conference on Web-based Learning (ICWL 2021) was held in Macau, China, during November 13–14, and it was organized and hosted by the City University of Macau.

ICWL is an annual International Conference on Web-based Learning, founded by the Hong Kong Web Society. The first ICWL was held in Hong Kong in 2002. Since then, ICWL has been held in Australia (2003), China (2004, 2008, 2010, 2015, 2020), Hong Kong (2005, 2011), Malaysia (2006), the UK (2007), Germany (2009, 2019), Romania (2012), Taiwan (2013), Estonia (2014), Italy (2016), South Africa (2017), and Thailand (2018), Germany (2019) and China (2020). ICWL 2021 featured a technical program of refereed papers selected by the international Program Committee, and keynote addresses offered by eminent scholars.

Due to the influence of the COVID-19 pandemic, this year the conference received 29 submissions. All the submissions were reviewed on the basis of their significance, novelty, technical quality, and practical impact. The Program Committee (PC) consisted of members with diverse backgrounds and broad research interests. After careful reviews by at least three experts in the relevant areas for each paper, and discussions by the PC members, 10 submissions were accepted as full papers (with an acceptance rate 34%) and seven submissions as short papers for presentation at the conference and inclusion in the conference proceedings. The accepted papers cover multiple topics, from algorithms to systems and applications.

ICWL 2021 was made possible by the joint efforts of many people and institutions. There is a long list of people who volunteered their time and energy to put together the conference and who deserve special thanks.

We would like to thank all the PC members for their great effort in reading, commenting, and finally selecting the papers. We also thank all the external reviewers for assisting the PC in their particular areas of expertise.

We sincerely thank the authors of all submitted papers and all the conference attendees. Thanks are also due to the staff at Springer for their help with producing the proceedings and to the developers and maintainers of the EasyChair software, which greatly helped simplify the submission and review process.

October 2021

Wanlei Zhou Yi Mu Kuai Peng Ip Aniello Castiglione Xiang Yang

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