3rd Workshop on Requirements Engineering for Artificial Intelligence (RE4AI)

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1. Introduction

Artificial Intelligence (AI) is embedded in software systems used in everyday life, such as cars, household appliances, wearable devices, healthcare chatbots, as well as in a variety of software applications that support data-driven decisions, e.g. business intelligence services for insurance companies.

For several years, AI researchers have manifested their worries and recommendations for the responsible use of data, employment of discrimination-free algorithms, alignment of AI-based systems and technologies with human values and transparency.

Awareness for the need of approaches for "Responsible AI" has rapidly increased and motivated attention by normative and standardisation organisations (e.g. EU Ethics Guidelines for Trustworthy AI[1], and the IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems[2]), software technology big players, and diverse research communities, including Software Engineering and Requirements Engineering research communities.

The Requirements Engineering for Artificial Intelligence (RE4AI) workshop aims to provide a forum for discussing how Requirements Engineering methods, techniques and tools may be used to support the development of Artificial Intelligence systems that are lawful, ethical and robust. The main goals of the RE4AI workshop are as follows: raising awareness in the RE community about the importance of RE in realizing Trustworthy AI systems; bringing in the same room people from AI and RE industry and academia to discuss pressing issues, such as how RE can contribute to prevent AI systems to fail or to go rogue; setting up the basis for collaboratively producing a report on the challenges, candidate solution paths, and research

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[1]https://digital-strategy.ec.europa.eu/en/policies/expert-group-ai
[2]https://standards.ieee.org/industry-connections/ec/autonomous-systems/

priorities regarding RE4AI; and motivating cross fertilization between AI and RE research. The first edition of the RE4AI workshop was organised in 2020, as a co-located event with the International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ 2020). The format of the workshop mixed paper presentations and interactive sessions. The second edition of the RE4AI workshop was organized with the REFSQ conference in 2021. Both instances were held virtually due to the ongoing pandemic.

This year, the 3rd RE4AI workshop was organised with REFSQ 2022, in Aston Birmingham, the United Kingdom. The workshop received three submissions. Each submission was independently reviewed by four program committee members, and, as a result, two of them were accepted. One paper focuses on software design ethical practices, and discuss them on an industrial case study. The second one focuses on requirements engineering challenges emerging from current practices in building collaborative robots.

Due to the number of submission, which may have been caused by the uncertainty about travel rules due to the COVID-19 pandemic restrictions, and the fact that the Author of the second paper could not confirm his participation to the workshop, the organizers of RE4AI and of another workshop–Natural Language Processing for Requirements Engineering (NLP4RE)–decided to join the two events into a one-day workshop. Therefore, during the workshop the participants had the opportunity to listen to five presentations of research works, and to participate to a panel on the theme of RE4AI.

We deeply thank the authors for submitting their papers to RE4AI'22. We also thank the Program Committee members for their effort and dedication in the review of the submitted works. And we finally thank the REFSQ'22 workshop chairs, PC chairs and the organizing committee for their trust and support.

2. Program Committee

- Khlood Ahmad, Deakin University, Australia
- Amel Bennaceur, The Open University, United Kingdom
- Dan Berry,University of Waterloo, Canada
- Paolo Busetta, Independent consultant, Italy
- Fabiano Dalpiaz, Utrecht University, The Netherlands
- Davide Dell'Anna, Delft University of Technology, The Netherlands
- Chiara Di Francescomarino, ICT-FBK, Italy
- Xavier Franch, Universitat Politècnica de Catalunya, Spain
- Alessio Ferrari, ISTI-CNR, Italy
- Giancarlo Guizzardi, Free University of Bolzano, Italy
- Hans-Martin Heyn, University of Gothenburg, Sweden
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- Tsvi Kuflik, University of Haifa, Israel
- Seok-Won Lee, Ajou University, Republic of Korea
- Emmanuel Letier, University College London, UK
- John Mylopoulos, University of Ottawa, Canada
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