CALL FOR PAPERS

First Workshop on XCBR: Case-based Reasoning for the explanation of intelligent systems

XCBR is a workshop aiming to provide a medium of exchange for information about trends, research issues and practical experiences in the use of Case-based Reasoning (CBR) methods for the inclusion of explanations to several AI techniques using reasoning-by-example.

The success of the intelligent systems has led to an explosion of the generation of new autonomous systems with new capabilities like perception, reasoning, decision support and self-actioning. Despite the tremendous benefits of these systems, they work as black-box systems and their effectiveness is limited by their inability to explain their decisions and actions to human users. The problem of explainability in Artificial Intelligence is not new but the rise of the autonomous intelligent systems has created the necessity to understand how these intelligent systems achieve a solution, make a prediction or a recommendation or reason to support a decision in order to increase user's reliability in these systems. Additionally, the European Union included in their regulation about the protection of natural persons with regard to the processing of personal data a new directive about the need of explanations to ensure fair and transparent processing in automated decision-making systems.

The goal of Explainable Artificial Intelligence (XAI) is "to create a suite of new or modified machine learning techniques that produce explainable models that, when combined with effective explanation techniques, enable end users to understand, appropriately trust, and effectively manage the emerging generation of Artificial Intelligence (AI) systems".

For this purpose, the XCBR workshop has a structure of activities that helps exchange of ideas and interaction, suited to highlight the main bottlenecks and challenges, as well as the more promising research lines, for CBR research related to the explanation of intelligent systems.

CBR systems have previous experiences in interactive explanations and in exploiting memory-based techniques to generate the explanations that can be successfully applied to the explanation of emerging AI and machine learning techniques.

Research contributions submitted to the workshop will be related to areas that include, but are not limited to, the following:

- Generic explanation methods based on CBR for AI techniques.
- Novel techniques for the visualization of case-based explanations.
- Case-based explanation of deep-learning techniques.
- Case-based explanation of big data techniques.
- Case-based explanation of the massive data obtained from sensor systems, Internet of Things, or wearables.
- Combination of existing AI models and CBR to provide explanation capabilities.
- Application of Case-based explanation capabilities to different domains.
- Lessons learned in XCBR investigations
- Challenge tasks for XCBR systems in novel AI techniques
- Measures for assessing case-based explanations

SUBMISSION

We invite submissions of two types:

- Long research and application papers: a maximum of 10 pages describing original contributions.
- Short position papers: a maximum of 4 pages describing new research ideas and partially developed frameworks

Springer LNCS is the format required for the final camera-ready copy. Authors' instructions along with LaTeX and Word macro files are available on the web at Springer. Please submit your work via the EasyChair system using this link.

DATES

- Submission Deadline: June 8th, 2018
- Notification Date: June 25th, 2018
- Camera-Ready Deadline: July 2nd, 2018
- Workshop Date: July 10th, 2018

WORKSHOP CHAIRS

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