

International Workshop on Explainable AI for Recommender System

Under the framework of

The 21st IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology

WI = Artificial Intelligence in the Connected World

November 17-20, 2022, Niagara Falls, Canada

A Hybrid Conference with both Online and Offline Modes

Conference web page: <https://www.wi-iat.com/wi-iat2022/index.html>

Introduction:

With the rise of various e-commerce, online video sharing & social media platforms, and many other web services, recommender systems have attracted more and more attention in the past few decades. Recommender systems aim to suggest relevant items to users by studying past behaviors, preferences, ratings and other relevant data. Despite the rapid advances of recommender systems recently, the application of “black-box” decision mechanisms to recommender systems has become one of the key challenges, lacking explainability and interpretability. This is especially problematic for downstream tasks in industries such as healthcare, manufacturing, insurance, and autonomous vehicles. Explainable artificial intelligence (XAI), which refers to a set of methods that empower the decision-making process with accuracy, transparency and fairness while allowing users/ system designers to understand and trust the results generated by machine learning algorithms, is a possible solution to tackle the problems stated above.

By bringing these two concepts together, the aim of this workshop is to engage top-tier researchers from recommender systems and explainable AI communities, to combine perspectives across different domains, to deliver the state-of-the-art research insights, and to tackle the existing and foreseeable challenges together. It will focus on various applications of explainable AI techniques to recommender systems and different use cases. For example, we can target the human-computer interaction perspective of explainable recommendations with explainable information sources and display explanation format. We can also target different machine learning models, including but are not limited to topic modeling, graph-based models, deep learning-based models and knowledge graph-based approaches, that generate explainability for recommender systems. We can also extend explainable AI to different downstream recommendation tasks, such as e-commerce, social media, financial product recommendations and medical recommendations. This workshop will present a stage for researchers to showcase their research on the advancement and the next generation of explainable recommender systems, thus promoting human-in-the-loop AI applications and bringing high-quality research results to the common public.

Topics of interest:

We solicit original contributions developing explainable AI for recommender systems, including but are not limited to the following topics:

- Explainable models that deliver persuasive explanations on model outputs, and/or generate faithful interpretations to reflect and justify the decision-making process*
- Using Explainable AI to identify bias in recommender system*

- Explainable recommender systems with low-quality data and/or uncertainties
- Explainability and Human-in-the-Loop development of AI in recommender systems
- Explainable AI to support interactive recommender systems
- Presentation and personalization of AI explanations to the recommendation results for different target groups
- Privacy-aware recommender systems, including but are not limited to federated learning, privacy protection mechanisms for ranking.
- Explainable AI for transparency, fairness and unbiased decision making in recommender systems
- The recommender system developers' perspective on explainable AI
- The recommender system users' perspective on explainable AI
- Surveys, evaluations or benchmarking on the state-of-the-art research in the area of explainable recommender systems

Important Dates:

- Submission deadline: Aug 20th, 2022
- Acceptance notification: Oct 1st, 2022

Submission Information:

Accepted papers of this workshop will also be invited to publish an extended version in a special issue of the Computational Intelligence: An International Journal.

<https://wi->

[lab.com/cyberchair/2022/wi22/scripts/submit.php?subarea=S17&undisplay_detail=1&wh=/cyberchair/2022/wi22/scripts/ws_submit.php](https://wi-lab.com/cyberchair/2022/wi22/scripts/submit.php?subarea=S17&undisplay_detail=1&wh=/cyberchair/2022/wi22/scripts/ws_submit.php)

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