9th Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS) 2022

Hybrid Event, September 22nd

Proceedings

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Preface

This volume contains the papers presented at the 9th Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS), held as part of the 16th ACM Conference on Recommender Systems (RecSys), the premier international forum for the presentation of new research results, systems and techniques in the broad field of recommender systems. The workshop was organized as a hybrid event: the physical session took place on September 22nd at the venue of the main conference, Seattle, with the possibility for authors to present remotely.

Recommender systems were originally developed as interactive intelligent systems that can proactively guide users to items that match their preferences. Despite its origin on the crossroads of HCI and AI, the majority of research on recommender systems gradually focused on objective accuracy and ranking criteria paying less and less attention to how users interact with the system as well as the efficacy of interface designs from users' perspectives. This trend is reversing with the increased volume of research that looks beyond algorithms, into users' interactions, decision making processes, and overall experience.

The series of workshops on Interfaces and Human Decision Making for Recommender Systems focuses on the "human side" of recommender systems. The goal of the research stream featured at the workshop is to improve users' overall experience with recommender systems by integrating different theories of human decision making into the construction of recommender systems and exploring better interfaces for recommender systems.
The event brings together an interdisciplinary community of researchers and practitioners who share research on novel (psychology-informed) recommender systems, including new design technologies and evaluation methodologies, and who aim to identify critical challenges and emerging topics in the field.

The main research strands covered by the workshop are:

- User interfaces for recommender systems (e.g., visual interfaces, explanation interfaces, conversational recommender systems, incorporating User Experience into interfaces);
- Interaction, user modeling and decision making (e.g., cognitive, affective, and personality-based user models for recommender systems, decision biases, cognitive biases, persuasive recommendation and argumentation, explainable recommendation models);
- Evaluation (e.g., user-centric evaluation, beyond-accuracy objectives and metrics, case studies, benchmarking platforms, empirical studies of new interfaces and interaction designs, evaluations in real-world contexts);
- Influence of recommender systems on user's behavior. An interesting research direction that has recently received renewed interest is to investigate how users interact with recommenders based upon their cognitive model of the system. We believe that the paradigm that describes the relationship between humans and recommender systems is changing and evolving toward "symbiotic recommender systems", in which both parties learn by observing each other.

The 9th Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS'22) complements the technical aspects mainly discussed at the Conference with specific topics related to cognitive modeling and decision making. In particular, the workshop topics have been extended with two specific themes: explainability of *decision-making* models (not only recommendation models) and User-adaptive eXplainable AI (XAI) systems, that recently gained significant research interest in various domains (such as banking, insurance, medical care, criminal justice, hiring) where recommended options might have ethical and legal impacts on users.

IntRS'22 follows successful workshops on the same topic organized at RecSys conferences in 2014 - 2021. The workshop series was created by merging two original RecSys workshops series: Human Decision Making and Recommender Systems (Decisions@RecSys, 2010–2013) and Interfaces for Recommender Systems (InterfaceRS'12). The idea of merging the two workshops was motivated by the strong inter-relationship between the user interface and human decision-making topics. The combination of these two aspects seems to be highly attractive. Earlier workshops, such as the IntRS'15 workshop in Vienna, the IntRS'16 in Boston, the IntRS'17 in Como, the IntRS'18 in Vancouver, the IntRS'19 in Copenhagen were attended by over 50 participants. The

virtual edition of IntRS'20 and a hybrid session at IntRS'21 opened workshop participation to a broader audience and further increase the number of attendees. We expect that IntRS'22 will continue this trend.

The program includes an invited talk by Denis Parra, Associate Professor at the Department of Computer Science, in the School of Engineering at PUC Chile, on Visual Explainable Artificial Intelligence, and 10 technical papers, that were selected among 12 submissions, through a rigorous reviewing process, where each paper was reviewed by three PC members.

The IntRS chairs would like to thank the RecSys 2022 workshop chairs, Allison Chaney, Daniela Godoy, and Chirag Shah, for their guidance during the workshop organization. We also wish to thank all authors and all presenters, and the members of the program committee. All of them secured the usual workshop's high-quality standards.

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IntRS 2022 Workshop Organization

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