

# 10<sup>th</sup> Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS) 2023

Hybrid Event, September 18<sup>th</sup>

## Proceedings

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in conjunction with

17<sup>th</sup> ACM Conference on Recommender Systems (RecSys 2023)

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# Preface

This volume contains the papers presented at the 10<sup>th</sup> Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS), held as part of the 17<sup>th</sup> 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 18<sup>th</sup> at the venue of the main conference, Singapore, 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 10<sup>th</sup> Joint Workshop on Interfaces and Human Decision Making for Recommender Systems (IntRS'23) complements the technical aspects mainly discussed at the Conference with specific topics related to cognitive modeling, decision making, human-centered AI.

Recent research on human-AI collaboration involves several critical areas of investigation, such as Human-in-the-loop, Symbiotic AI, Explainable AI, User-centered design, and Intelligent Interfaces. Overall, this area of research is aimed at developing systems that can work effectively with human users, considering their preferences, cognitive abilities, and ethical values. They should be transparent, interpretable, adaptable, and respectful of the user's autonomy and privacy. The ultimate goal is to develop recommender systems that can support the user's decision-making process, enhance their well-being, and promote social good.

IntRS'23 follows successful workshops on the same topic organized at RecSys conferences in 2014 - 2022. 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 hybrid sessions at IntRS'21 and IntRS'22 opened workshop participation to a broader audience and further increase the number of attendees. We expect that IntRS'23 will continue this trend.

The proceedings include 6 technical papers, that were selected among 8 submissions, through a rigorous reviewing process, where each paper was reviewed by three PC members.

The IntRS chairs would like to thank the RecSys 2023 workshop chairs, Ludovico Boratto, Mi Zhang, and Victor Sheng, 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.

September 2023

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# IntRS 2023 Workshop Organization

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Marco Polignano, *Dept. of Computer Science, University of Bari Aldo Moro, Italy*

**Web Chair:** Pasquale Lops, *Dept. of Computer Science, University of Bari Aldo Moro, Italy*

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Eduardo Veas, *Graz University of Technology, Austria*  
Wolfgang Würndl, *Technical University of Munich, Germany*

# Table of Contents

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## Regular Papers

---

The Interplay between Food Knowledge, Nudges, and Preference Elicitation Methods Determines the Evaluation of a Recipe Recommender System <i>Ayoub El Majjodi, Alain D. Starke, Mehdi Elahi, Christoph Trattner</i>	1
Factors Influencing the Perceived Meaningfulness of System Responses in Conversational Recommendation <i>Ahtsham Manzoor, Wanling Cai, Dietmar Jannach</i>	19
Designing and Personalising Hybrid Multi-Modal Health Explanations for Lay Users <i>Maxwell Szymanski, Cristina Conati, Vero Vanden Abeele, Katrien Verbert</i>	35

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## Short Papers

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Using Visual and Linguistic Framing to Support Sustainable Decisions in an Online Store <i>Alain D. Starke, Kimia Emami, Andrea Makarová, Bruce Ferwerda</i>	53
Concentrating on the Impact: Consequence-based Explanations in Recommender Systems <i>Sebastian Lubos, Thi Ngoc Trang Tran, Seda Polat Erdeniz, Merfat El Mansi, Alexander Felfernig, Manfred Wundara, Gerhard Leitner</i>	63
Leveraging Large Language Models for Recommendation and Explanation <i>Itallo Silva, Alan Said, Leandro Balby Marinho, Martijn Willemsen</i>	74