

Interdisciplinary Seminar 'Algorithms and Society' (ISAS)

October 26, 2023 - 13:45-15:15

Université Paris Dauphine
Room B503

speaker:

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Interactive Recommendations and Explanations for Decision Support

Abstract

To provide convincing recommendations that can be fully understood and accepted by a decision-maker, a decision-aider must often engage in interaction and consider the decision-maker's responses. This feedback can lead to revising the model used to represent the decision-maker's preferences. Our objective in this work is to equip an artificial decision-aider with this adaptive behavior. To do that, we build, on the one hand, on decision theory to propose a principled way to select decision models. On the other hand, we grounded on argumentation-based dialogue to support such an interaction and to justify the outcomes. Argumentation theory is a rich, interdisciplinary area of research across philosophy, communication studies, linguistics and psychology. It can be used to specify autonomous agent reasoning and to facilitate agent interaction. More recently, argumentation theory has received particular attention in the XAI field as it naturally provides a means to construct explanations and justifications

Related papers

- Christophe Labreuche, Nicolas Maudet, Wassila Ouerdane, Simon Parsons. A dialogue game for recommendation with adaptive preference models. International Conference on Autonomous Agents and Multiagent Systems, May 2015, Istanbul, Turkey. pp.959-967. <https://dl.acm.org/doi/10.5555/2772879.2773275>
- Wassila Ouerdane, Yannis Dimopoulos, Konstantinos Liapis, Pavlos Moraitis. Towards automating Decision Aiding through Argumentation. Journal of Multicriteria Decision Analysis, 2011. <http://dx.doi.org/10.1002/mcda.486>
- Wassila Ouerdane, Nicolas Maudet, Alexis Tsoukiàs. Argument Schemes and Critical Questions for Decision Aiding Process. Proceedings of the 2nd international conference on Computational Models of Argument (COMMA2008), May 2008, Toulouse, France. <https://ebooks.iospress.nl/volumearticle/4197>

The **Interdisciplinary Seminar 'Algorithms and Society' (ISAS)** focuses on the societal, legal, political and economic issues related to the development of algorithmic decisions. It aims at confronting the perspectives brought by the different specialists, by emphasizing the definitions of the key concepts and by supporting the interdisciplinary exchanges between social sciences, data science and artificial intelligence specialists.

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