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Preference learning and ranking by pairwise comparison. (English) Zbl 1214.68286

Fürnkranz, Johannes (ed.) et al., Preference learning. Berlin: Springer (ISBN 978-3-642-14124-9/hbk; 978-3-642-14125-6/ebook). 65-82 (2010).

Summary: This chapter provides an overview of recent work on preference learning and ranking via pairwise classification. The learning by pairwise comparison (LPC) paradigm is the natural machine learning counterpart to the relational approach to preference modeling and decision making. From a machine learning point of view, LPC is especially appealing as it decomposes a possibly complex prediction problem into a certain number of learning problems of the simplest type, namely binary classification. We explain how to approach different preference learning problems, such as label and instance ranking, within the framework of LPC. We primarily focus on methodological aspects, but also address theoretical questions as well as algorithmic and complexity issues.

For the entire collection see [\[Zbl 1201.68006\]](#).

MSC:

[68T05](#) Learning and adaptive systems in artificial intelligence

[68T20](#) Problem solving in the context of artificial intelligence (heuristics, search strategies, etc.)

Cited in 4 Documents

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