Chapter 10
Conclusions

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The major focus of this book is to provide an integrated view of different aspects of group recommender systems. Since early group recommender systems were proposed in the 1990s, many different approaches and systems have been developed that altogether comprise a huge collection of group recommendation-related knowledge. With this book we want to provide a basic summary of the existing state of the art, in order to support persons new to the field as well as recommender systems researchers and practitioners. Following existing research approaches, we introduced two major preference aggregation strategies used for determining group recommendations which are (1) the aggregation of individual preferences into a group profile and (2) the aggregation of item recommendations (or item ratings) determined by single-user recommender algorithms. We showed how these aggregation approaches can be used in the context of collaborative filtering, content-based filtering, constraint-based (including utility-based), critiquing-based, and hybrid recommendation. Thereafter, we provided an overview of techniques useful for evaluating group recommender systems. In order to give insights into the user interfaces of existing systems, we provided an overview of example applications and discussed issues related to preference handling and explanations. Finally, we introduced different examples of group recommendation scenarios that go beyond the recommendation of single items. Examples include group-based configuration, packaging, sequencing, and release planning. Furthermore, we discussed decision biases that can have an impact on the quality of a group decision process. The book is concluded with an overview of concepts that help to make group recommender systems more group-aware. In this context, examples of how to take into account personality and emotion in group recommendation scenarios have been provided. Since group recommender systems can be regarded as relatively young field of research, there are many open research issues that have been discussed in the individual book chapters. Examples thereof are explanation approaches (especially focused on the explanation of recommendations for groups), dataset synthesis and evaluation approaches for group recommenders, counteracting biases in group decision making, and extending recommender systems research to more complex choice scenarios.