Only for You: Relevant Board Game Suggestions from BoardGameGeek.com

Sanni Isokirmo[1], Ahti Katiska[1], and Miika Mäki[1]

[1]*University of Helsinki*

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Abstract

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special contents, but the length of words should match the language.

Keywords xx · yyy

Introduction

Play—coming together to engage in a common activity—is a human universal (**brownHumanUniversalsHuma** and essential part in human development (**smithPlayTypesFunctions2005**; **pellegriniRolePlayHuman2009**). Board games are a popular and accessible form of play that bring family, friends and strangers alike together, and promote well-being across the life-span (**dellangelaBoardGamesEmotional2020**; **solway2011wellness**).

But what if a group of people have outplayed the games they own and would like to find some new ones? There are at least 150.000 different board games out there (**wordsratedBoardGamesStatistics2025**) so finding a good match can be a time consuming process. A service that would suggest new board games based on the individual taste could come in handy on such occasions.

This technical report will outline the steps we made to create a recommendation system for new board games based on the user's ratings in BoardGameGeek.com (BBG) database as well as the technical details of setting up a webpage *LINK TO WEBSITE* through which users can find recommendations for new board games. To achieve this, we used non-negative matrix factorization (NMF) with a selected users' review scores to create tailored suggestions for new board games.

Data

Since there are 2.7 million users and 150.000 boardgames in BBG (**didymus-trueBoardGameGeeksSupportD wordsratedBoardGamesStatistics2025**), fetching all of them would not be feasible with the API interface, at least within this project. Since many users have left no or few reviews, the data would be too sparse if we had taken a random sample. To get a compromise between training matrix sparsity, time constraints and selection bias, we decided to choose x guilds (online discussion groups) that represent different geographic regions, target audiences (teens, parents, seniors), genres as well as general and special interest groups. This way we could get X reviews from Y reviewers about Z games. The sampling strategy did bias our distribution towards active users, but also allows for reliable training. Users with only few reviews would make the estimation computationally intensive and possibly unreliable.

Methods

Results

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Discussion

Appendix

Appendix I