

# GiftGiver: The Gift Recommender

AAI – Instructor: Prof. Jane Hsu

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## Introduction

Explain the problem and its motivation (why it is important including possible applications).

## Background and Related Work

Briefly explain relevant work.

## Specific Papers

Here, list the 3-4 papers you will focus on, along with a brief intro that ties them together.

## Paper 1 – An Explanatory Title

### Problem Description

The specific problem addressed in the paper.

### Preliminaries

Background material one needs to know to understand this paper (examples could be support vector machines, markov decision processes, visibility graphs etc.) along with brief explanations.

### Approach

How does the paper solve the problem?

### Critique

Pros and cons. Do they make unreasonable assumptions? How do they show the utility of their results? Do they prove them or provide extensive simulations?

## AAI Project

### Problem Description

### Preliminaries

### Approach

### Critique

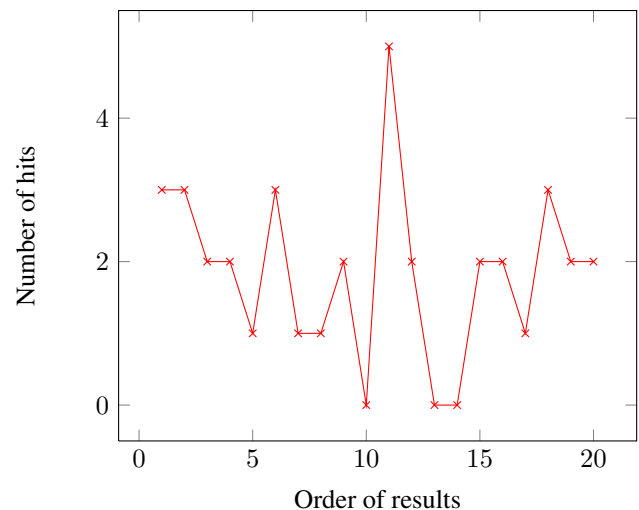
## Evaluation

It is rather hard to evaluate recommender system, and even so with common sense knowledge because there is no common criterions to evaluate common sense. However, since

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we haven't found the state of the art recommender engine using common sense for gift recommendation, we have conducted a couple surveys and user studies to evaluate the accuracy of our recommender system.

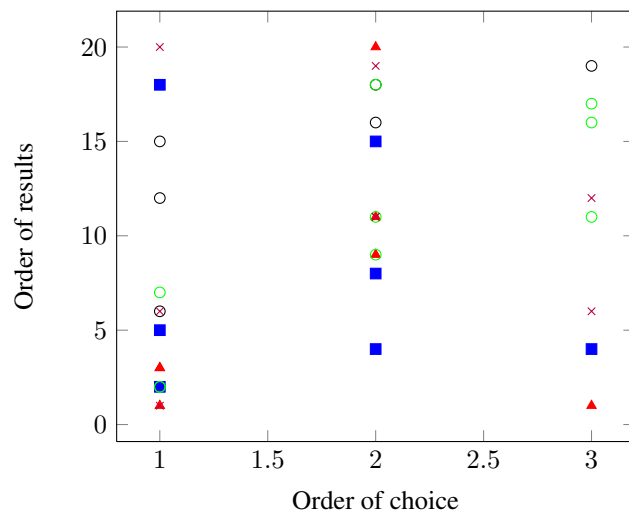
Based on time constraints, we conducted a usability test and two surveys with five National Taiwan University graduate students and alumnae. The results of the surveys and the usability test are listed below.



According to the plot above, the distribution is pretty even through out the search results but some bumpy hills along. We define hit rate as the number of times the tester's desired gift is "hit" on the result list. The higher the number the better our system performs. To illustrate the result of our survey in terms of hit rate, the scatter plot below provides the representation for that.

Table 1: Usability test results

| Question  | Subject 1 | Subject 2 | Subject 3 | Subject 4 | Subject 5 |
|---|-----------|-----------|-----------|-----------|-----------|
| Was the UI easy to use?   | 3         | 4         | 3         | 3         | 4         |
| Did the options cover all my considerations for gift recommendation?      | 3         | 4         | 3         | 4         | 3         |
| Were the ideal gifts in the result list?                                  | 4         | 4         | 3         | 4         | 4         |
| Were most of the recommendations realistic?                               | 5         | 3         | 3         | 5         | 4         |
| Was the price checking feature helpful?                                   | 4         | 5         | 5         | 5         | 4         |
| Will you consider using our system for gift recommendation in the future? | 5         | 4         | 4         | 5         | 4         |



## Conclusion

A comparison of the approaches and contributions of the paper. What is solved, what is left out.