

Paper:

Eligibility Mechanisms: Auctions Meet Information Retrieval

Grading

- *if some of the key phrases are in the answer, and the answer is well written, and there are no red flags, then give full marks*
 - *Key phrases or their paraphrases*
- *if none of them are in the answer, and there are no red flags then give half marks.*
- *If word limit exceeds then deduct 0.5 marks*
- *if there are more than or equal to 2 red flags, then give zero marks (even if key phrases are present).*

Contributions

The following key phrases should in the answer

they designed incentive based IR system, where incentive means likes and dislikes (preferences) of the bidders (bidders = companies who wants to show their ad to the world)

first IR system gives top-k recommendations, then second price auction (or vickrey auction) happens using a probability (click-through rate) and the bid amount

first-best is not achievable because IR system wont be truthful if agents (or bidders) starts misreporting numbers after having a rough idea about click-through rate of competitors

truthful (stochastic) probing i.e. auction independent IR system or auction independent probing system

if an IR system (or probing system) is truthful then it means that it follows "eligibility mechanism"

"eligibility mechanism" also means that the bidder (or agent) cannot influence the IR stage (or probing stage)

there is a gap between first-best welfare and second-best welfare

Multi-stage eligibility mechanisms i.e. a multi-stage IR system where elimination happens in multiple rounds (like a reality show). Each round represents a state in a markov chain. The probability (click-through rate) is determined by the state you are standing on and the immediate previous state (also called markov assumption)

If you find the following phrases in the answers, then assume it as a red flag (generated from chatGPT)

allocating resources

Eligibility Auction

simulation

resource allocation

search engine result pages (SERPs)

using auctions to determine the eligibility of documents

agent submits a query to a search engine

Limitations

The following key phrases should in the answer

less empirical evidence or lack of comparison

hard to implement by independent researchers

haven't specified the details of the model that calculates the probability (click-through rate) or the IR system that generates top-k recommendations

If you find the following phrases in the answers, then assume it as a red flag (generated from chatGPT)

proposed approach is complex,

no fraud prevention and dispute resolution or fairness

eligibility scores

scalability concerns

users are willing to pay for search results