Guided Research

The purpose of this additional document is to list the meeting outcomes which are relevant to writing the reports, show that I took those important points into account while writing the final report and provide more details about some topics which we discussed in the last meeting.

Note: During the term, I have documented the necessary parts of the research in our GitHub Wiki. In case you want you see, I provided the link below for quick access.

https://github.com/onurporsuk/Guided-Research/wiki

Meeting 4 - 05.12.2022 Outcomes

1. In the final report, I will add my own critical thinking about the subjects' benefits and pitfalls.
2. I will give the citation for everything which does not completely belong to me.
3. When writing a paper, I will always consider the future work section.

Meeting 6 - 09.01.2023 Outcomes

1. In the final report, I will bring everything together in a flow. I will mention some research questions about the methods that have not been used or other relevant topics in RS domain.
2. I will send a document which contains more details about the terms below:
    a. Social feedback type's definition
    b. Clarifying why scalability and data privacy of block chain based RS have disadvantage side

Social Feedback's Definition and Example

Social feedback in recommender systems refers to the use of information about the preferences and actions of a user's social network to make recommendations. This can include information such as the items that a **user's friends have liked or purchased**, as well as demographic information about the user's social network.

As we mentioned and agreed in the last meeting, to clear the confusion part, the social feedback focuses on the feedback of the network of a user. Let's assume the user A, if her/his connections observe items K, L and M; using social feedback allows us use this information (K, L and M) when making recommendation to user A.

Block-Chain Based RS Disadvantages

Scalability: The decentralized and distributed nature of blockchain technology can lead to **increased data storage** and **processing requirements**, which may make it **difficult to scale** the system to handle large amounts of data and users. Also, the consensus mechanism used in most blockchains, such as **proof of work**, can also add to the scalability issues, as it can **increase the time required to validate** transactions and add blocks to the chain.

Data Privacy: Although block-chain provides security of user data, there are potential risks such as **smart contract vulnerabilities** and the **possibility of data breaches**. In addition, it may be **difficult** to ensure that user data is not shared without their consent, as the decentralized nature of blockchain technology may make it difficult to control access to data.