

SocRecM: A SCALABLE SOCIAL RECOMMENDER ENGINE FOR ONLINE MARKETPLACES



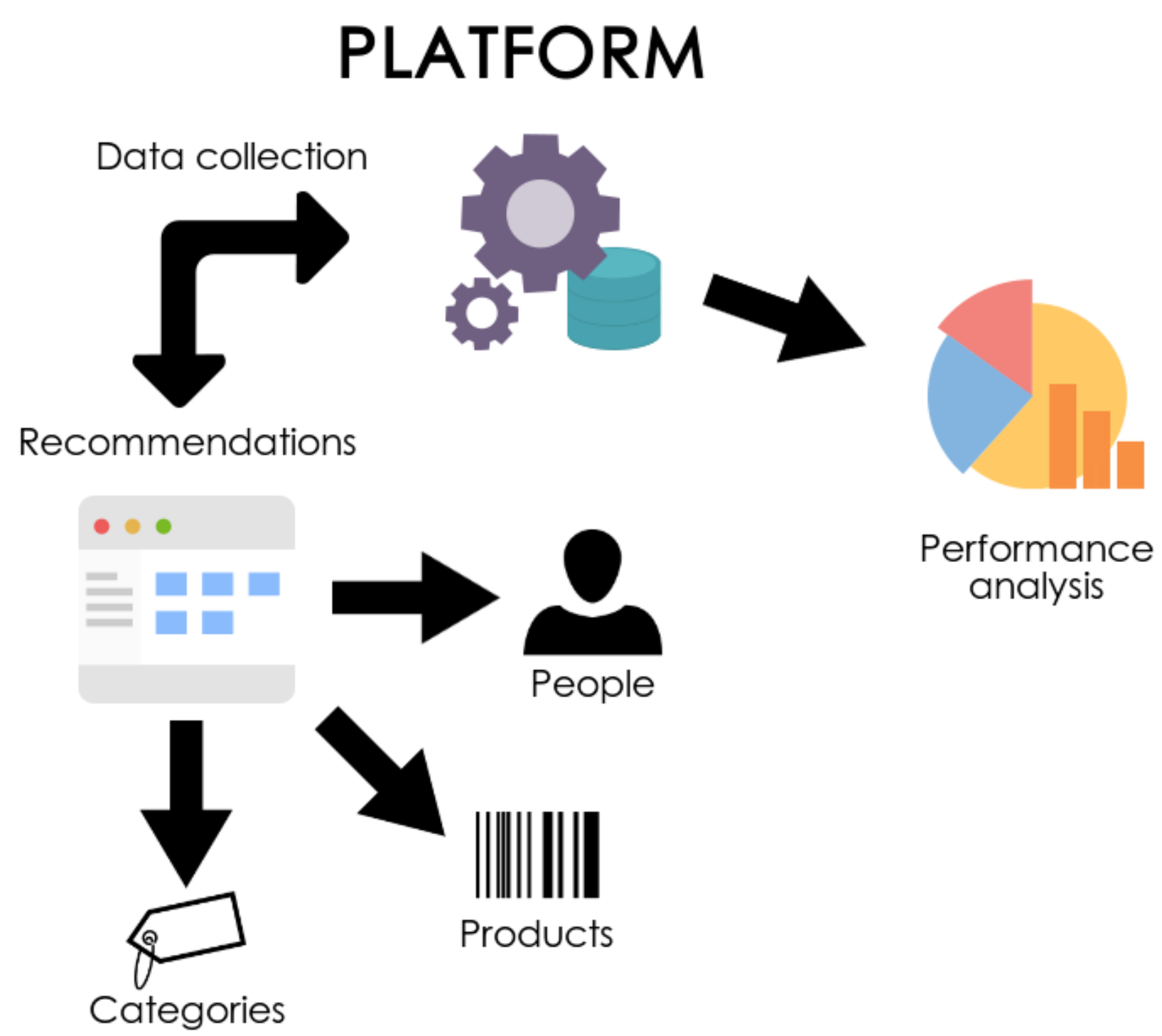
EMANUEL LACIC, DOMINIK KOWALD AND CHRISTOPH TRATTNER

ELACIC@KNOW-CENTER.AT, DKOWALD@KNOW-CENTER.AT, CTRATTNER@KNOW-CENTER.AT



ABOUT THE FRAMEWORK

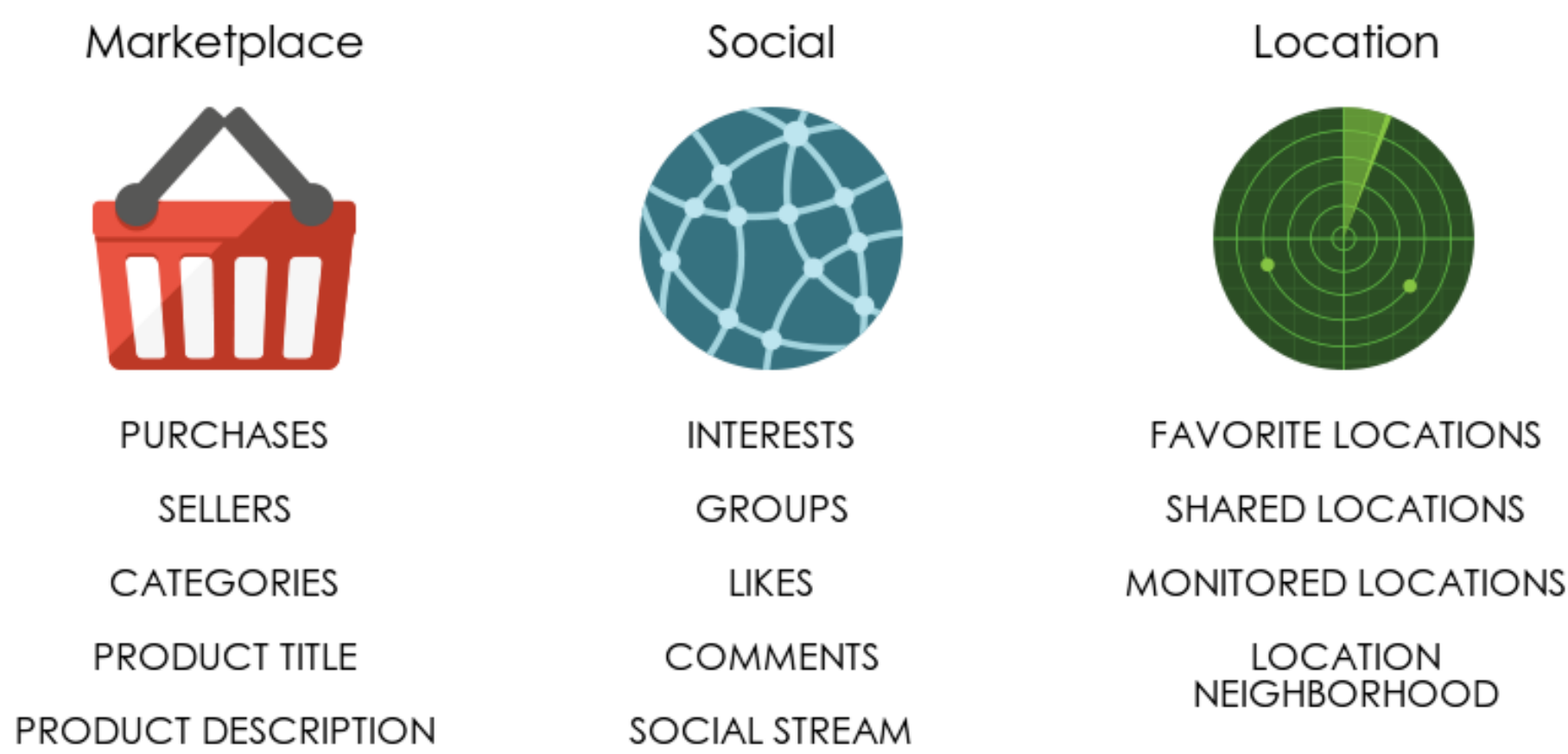
SocRecM



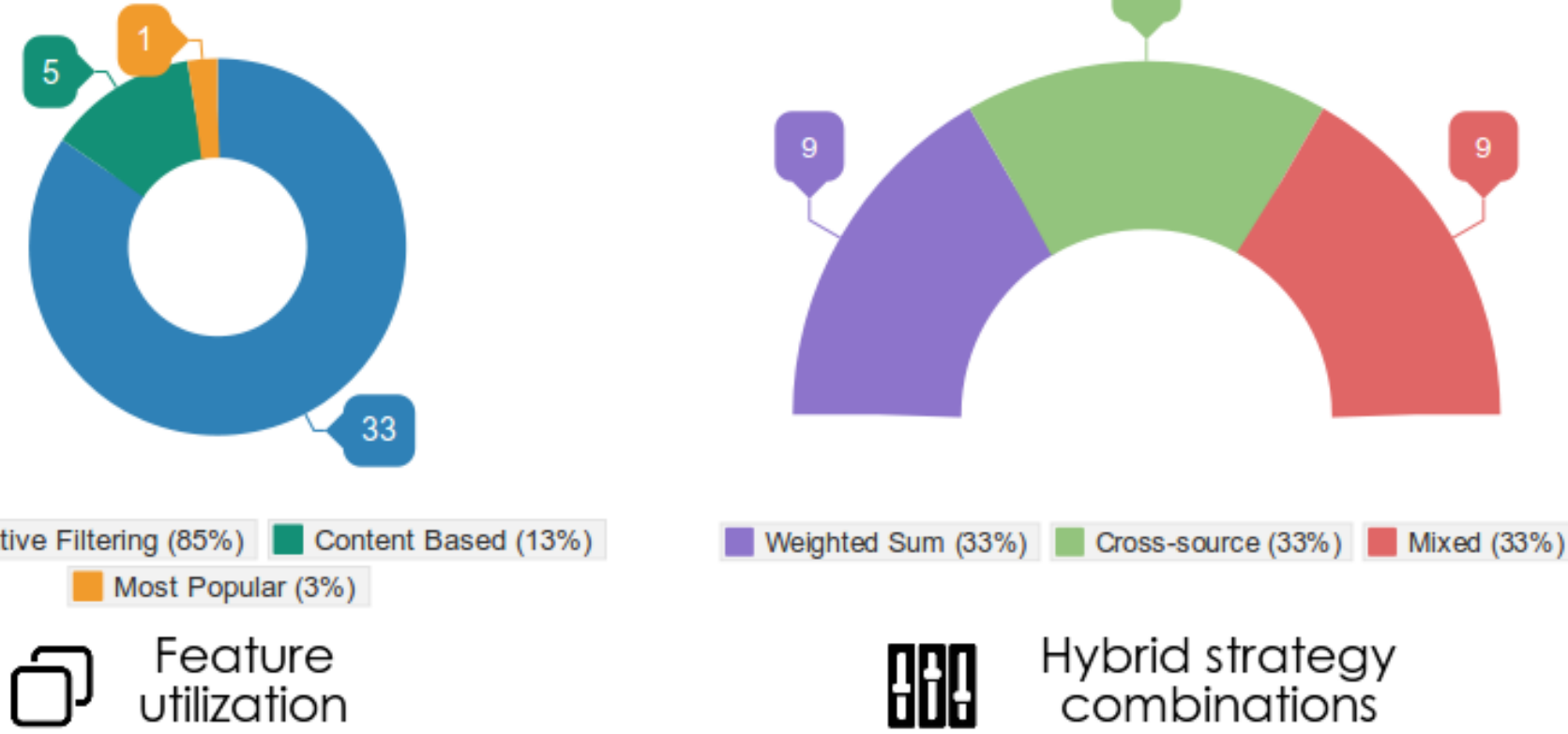
FEATURES



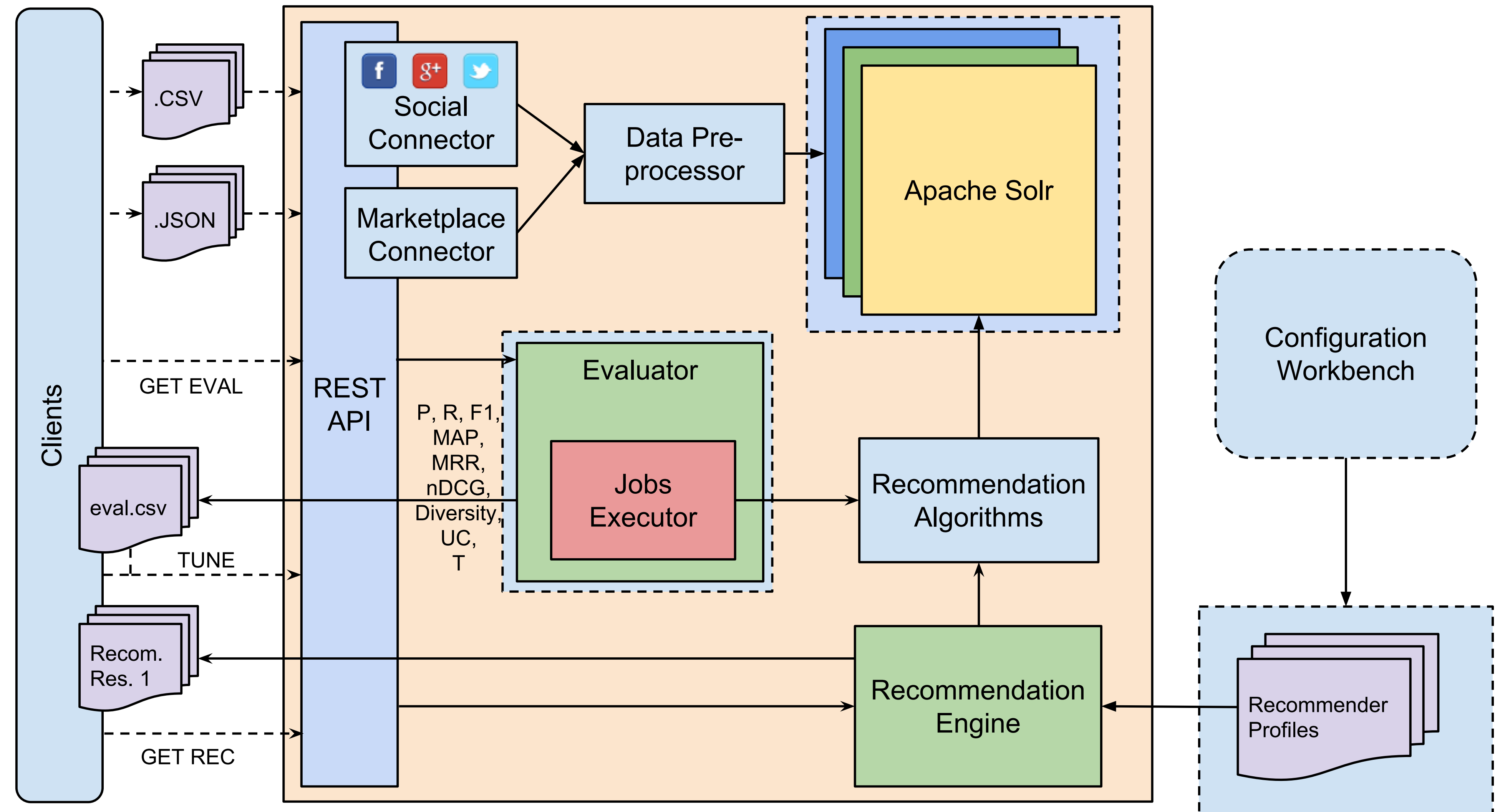
DATA



APPROACHES



SYSTEM ARCHITECTURE

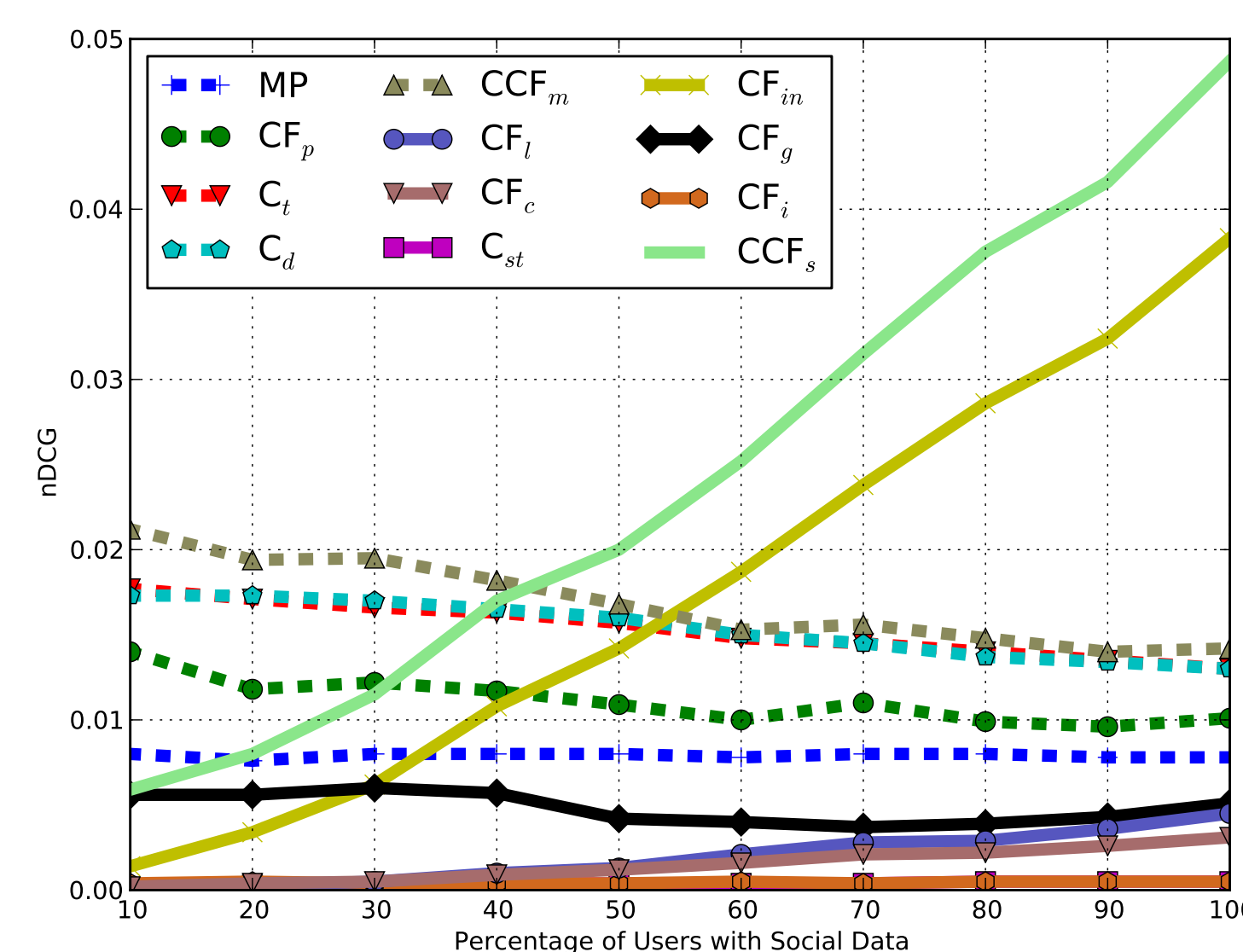


Some of the advantages having the SocRecM architecture built on top of Apache Solr :

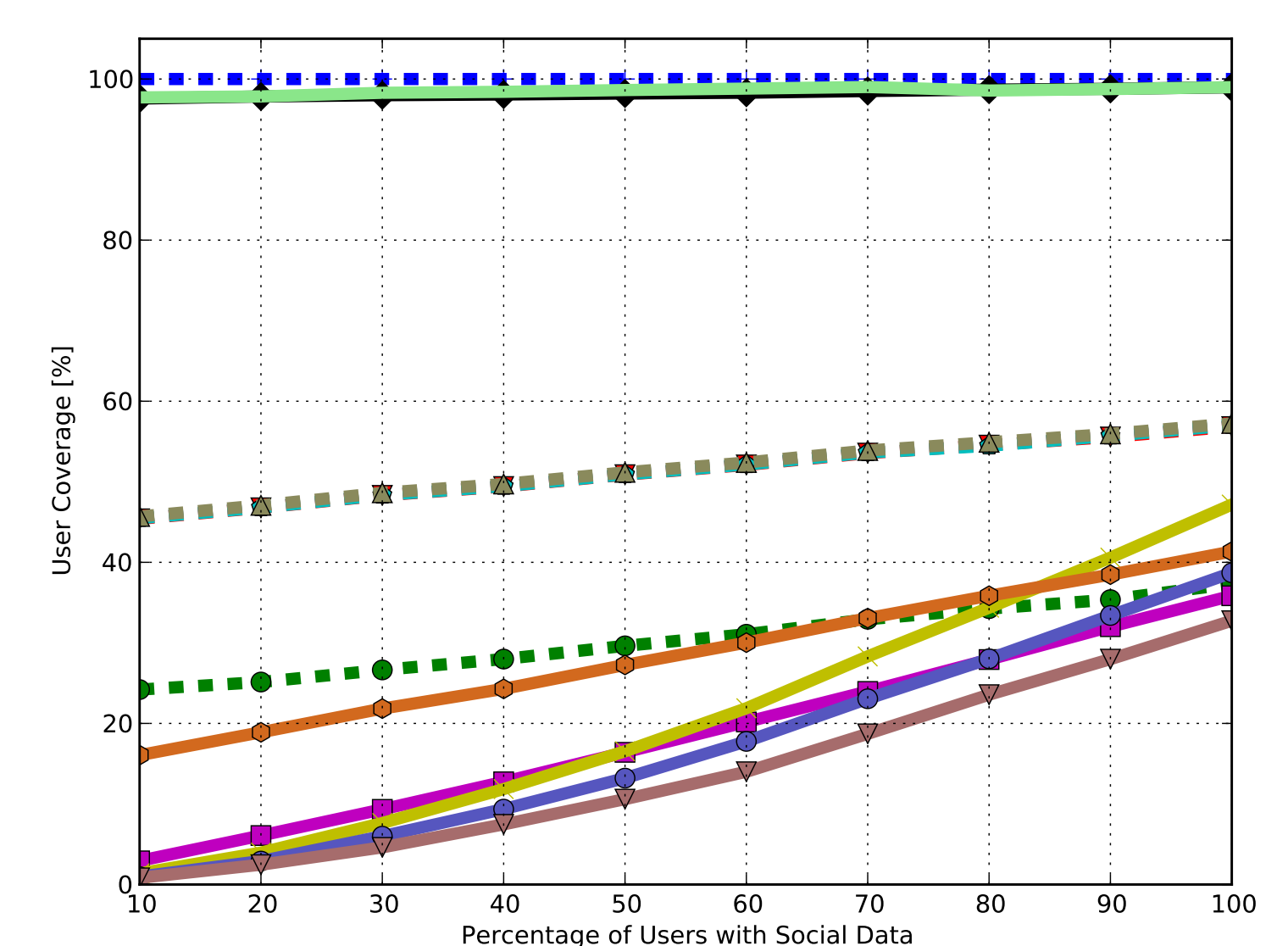
- Advanced **full-text** search capabilities
- Fast **near real-time** indexing and replication
- **Highly scalable** distributed search across multiple hosts
- Support for **geospatial** data

EXPERIMENTS

Experiment 1: Improving the recommendation quality by providing the users' social data in addition to the marketplace data.

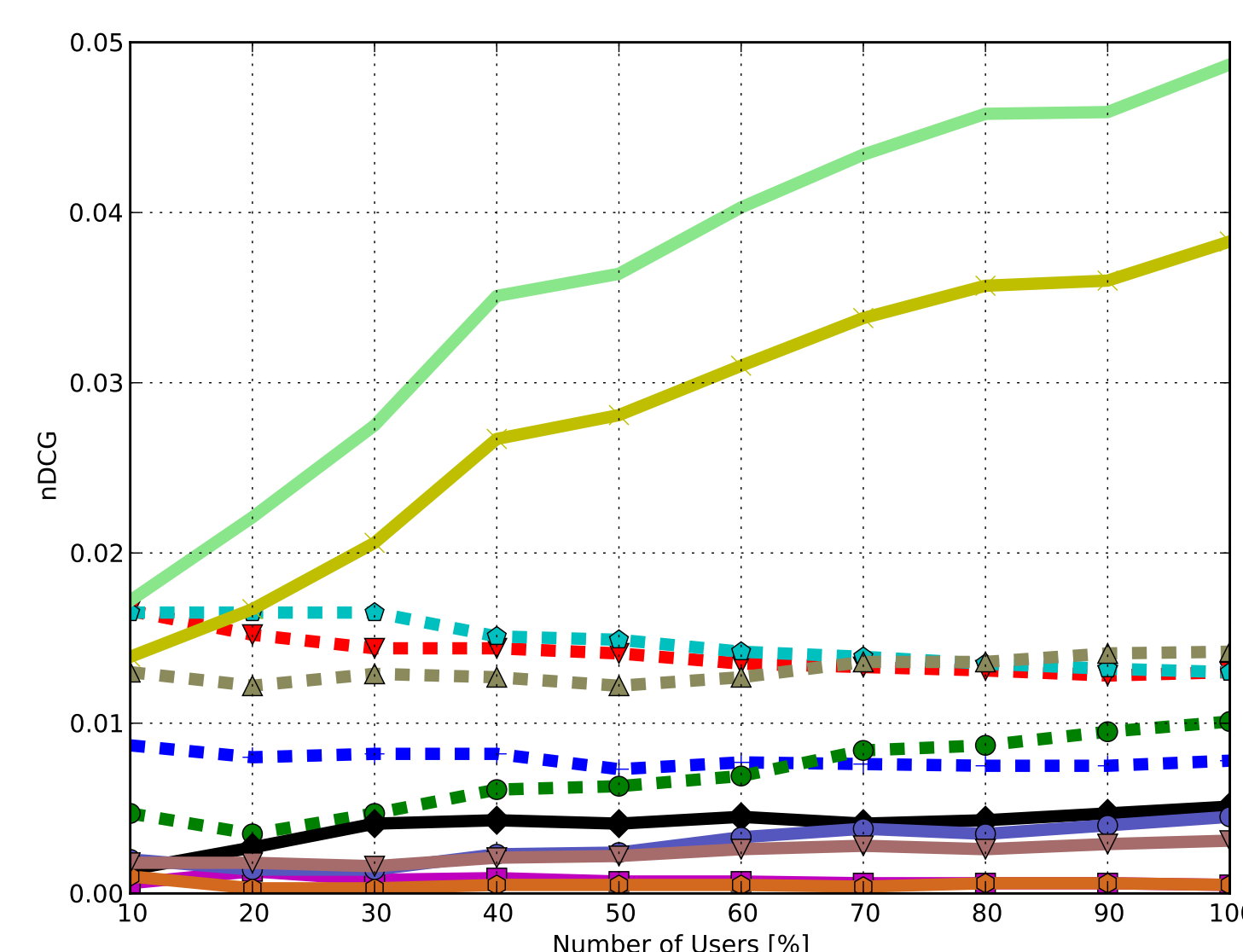


(a) Recommendation quality

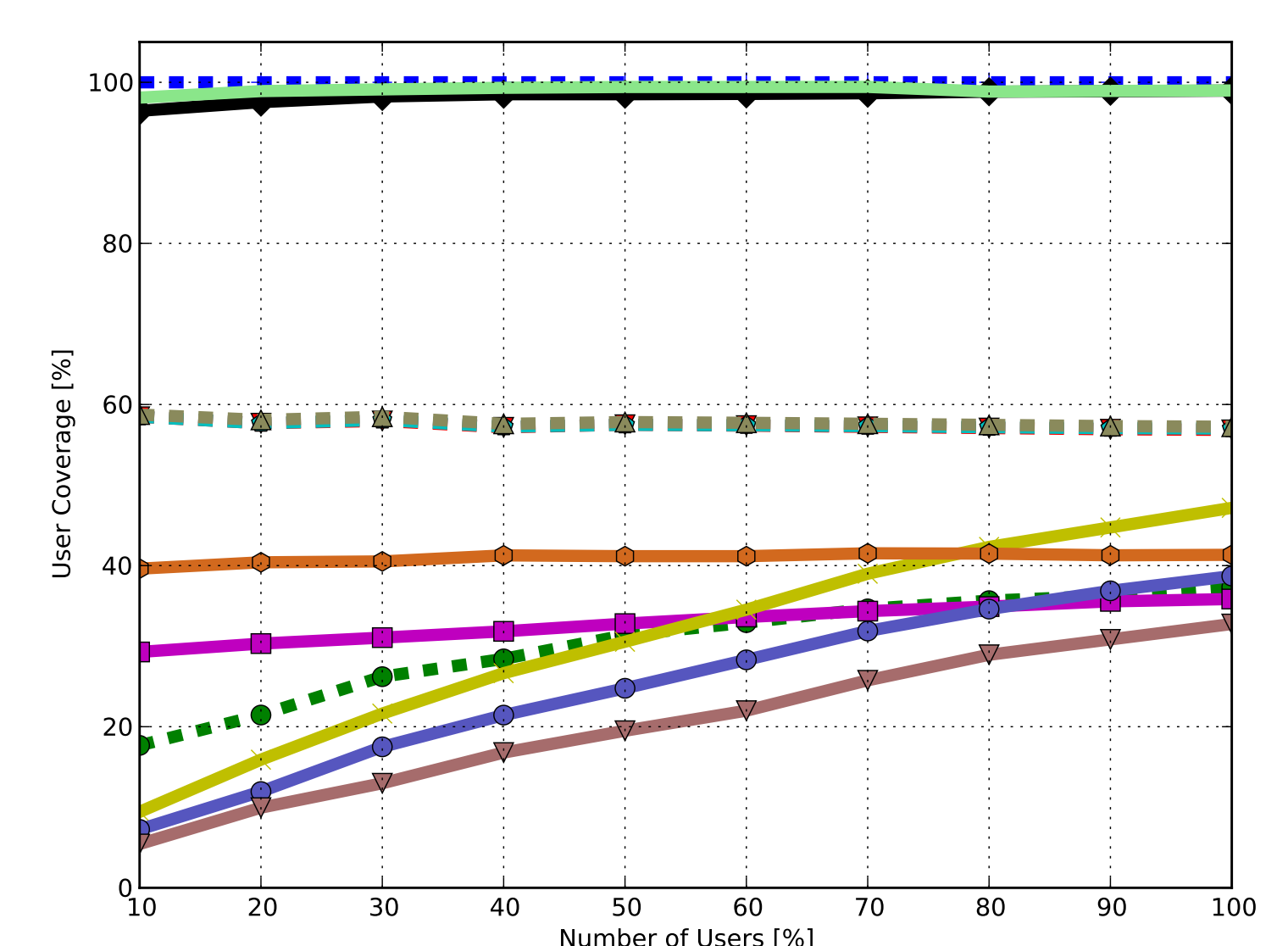


(b) User Coverage

Experiment 2: Simulation of a cold-start scenario for a new social marketplace system where we assume that all new users provide social data.

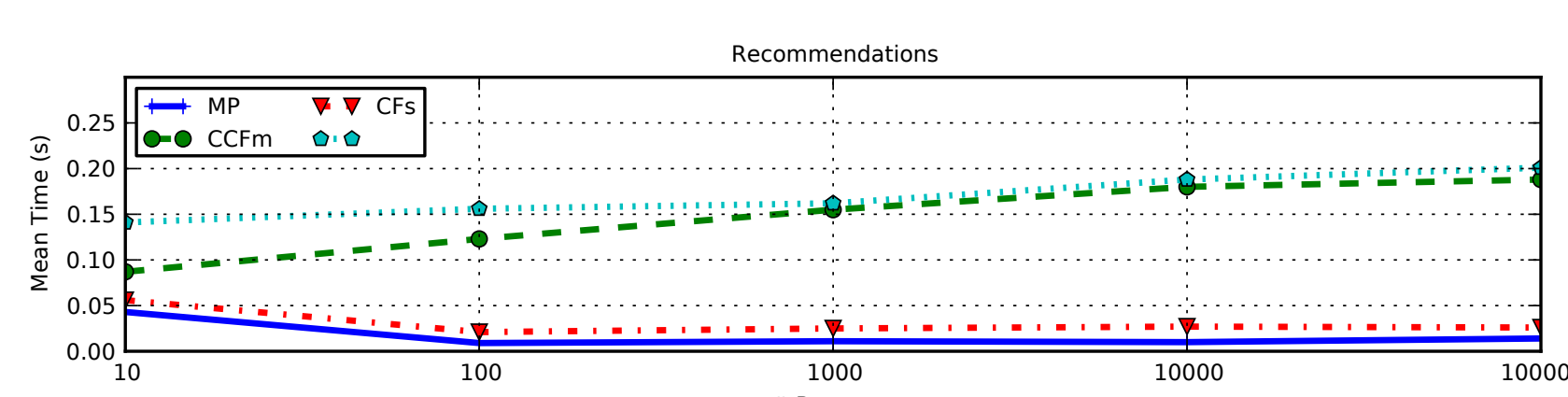


(c) Recommendation quality

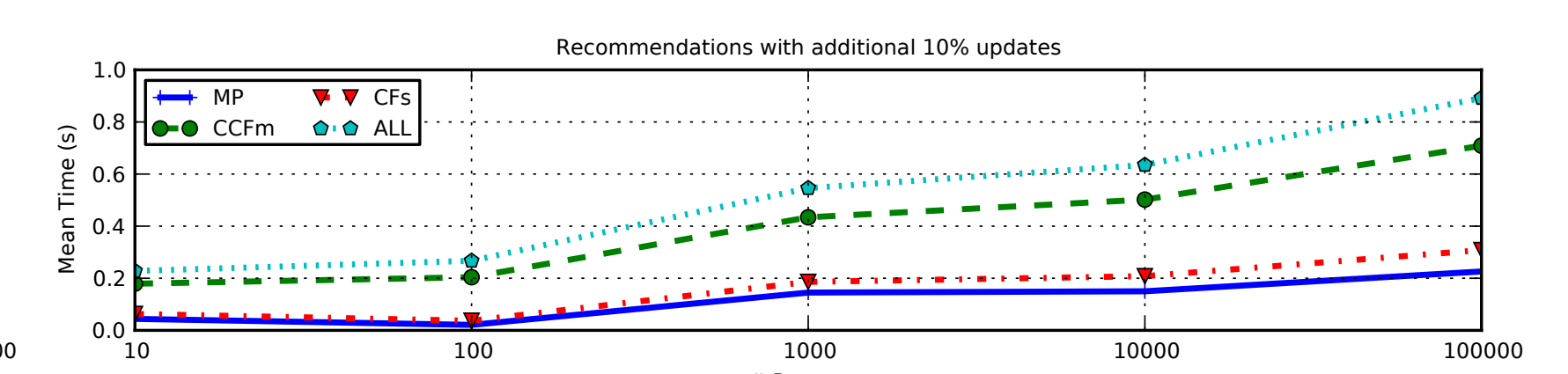


(d) User Coverage

Experiment 3: Mean runtime of the hybrid approaches in SocRecM.



(e) No updates



(f) 10% additional update requests

REFERENCE

- [1] E. Lacic, D. Kowald, and C. Trattner. SocRecM: A Scalable Social Recommender Engine for Online Marketplaces. In *Proc., HT '14. ACM*, 2014.

