

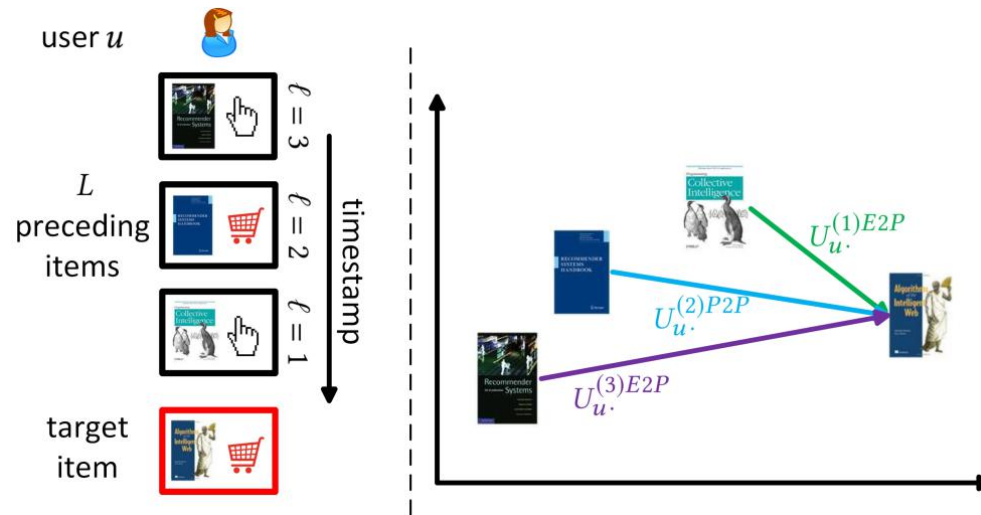
TransRec++: Translation-based Sequential Recommendation with Heterogeneous Feedback

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Problems & Ideas

- Sequential recommendation with heterogeneous feedback (SRHF)
 - The correlation, heterogeneity and interpretability challenges
- Ideas: A translation-based model which is of good interpretability.
 - Adopt TransRec as the backbone model
 - Introduce a series of high-order behavior transition vectors



Main Contributions

- Main Results

	UB		T <small>mall</small>	
	HR@10	NDCG@10	HR@10	NDCG@10
RBPR [5]	0.0303	0.0159	0.0156	0.0075
RoToR [4]	0.0080	0.0043	0.0313	0.0161
FPMC [6]	0.0467	0.0249	0.0352	0.0191
Fossil [2]	0.0508	0.0270	0.0437	0.0241
TransRec [1]	0.0589	0.0342	0.0374	0.0325
TransRec++	0.0661	0.0413	0.0593	0.0377

- Extension to Cases with More Types of Behaviors

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		HR@10	NDCG@10	HR@10	NDCG@10
1	2	0.0661	0.0413	0.0540	0.0387
	4	0.0729	0.0466	0.0546	0.0401
2	2	0.0647	0.0390	0.0593	0.0377
	4	0.0760	0.0451	0.0614	0.0385
3	2	0.0627	0.0355	0.0545	0.0324
	4	0.0726	0.0429	0.0570	0.0337

- Application to Deep Learning-based Methods

