

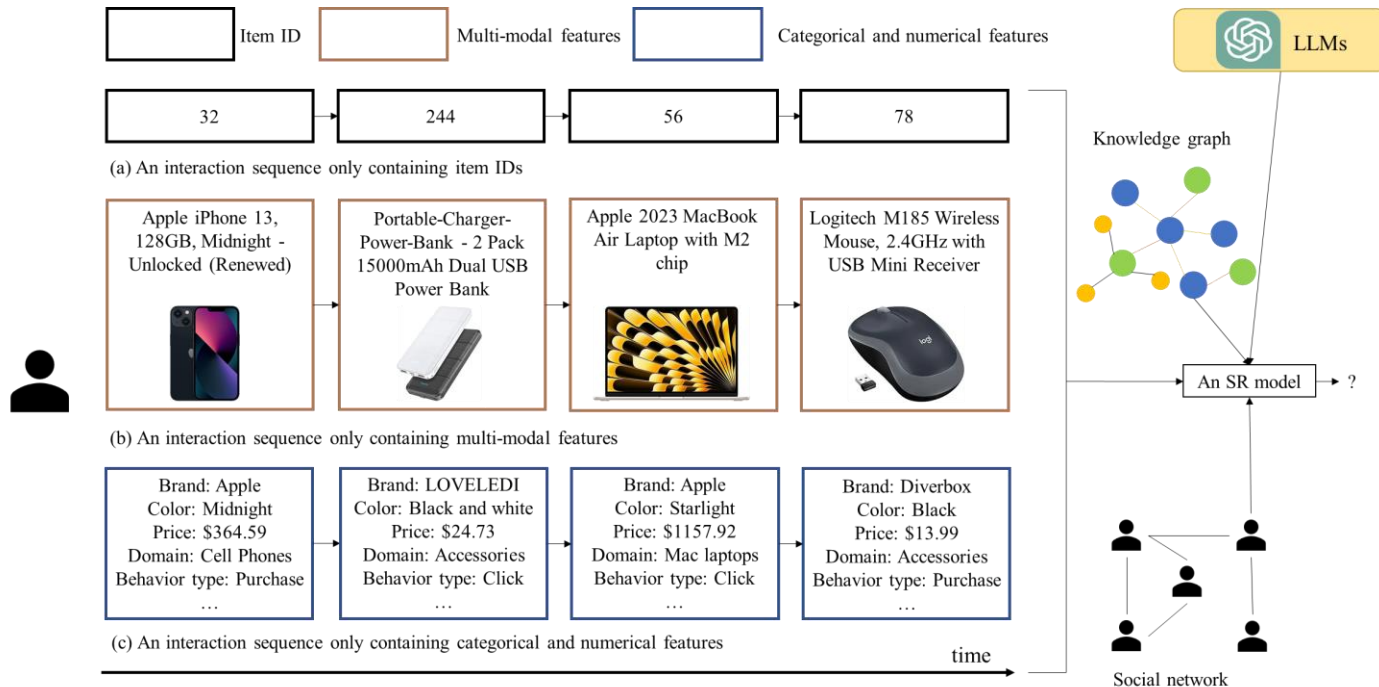
# A Survey on Sequential Recommendation

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# Problems & Ideas

- Problems of sequential recommendation:
  - We often have one or more sequences of interacted items w.r.t. each user, as well as some auxiliary information to help learn user preferences. Our goal is then to generate a ranked list of items accurately for each user.
- Ideas: we study the SR problem from a new perspective (i.e., the construction of an item's properties).



# Main Contributions

- Contributions:
  - Our survey summarizes the early and recent works about SR models from a more comprehensive manner.
  - Our survey categorizes the existing SR models into four categories according to the construction of item properties.
  - Our survey summarizes the latest techniques applied to sequential recommendation.
  - Our survey introduces empirical studies and future research directions in SR models.

Models	Office		Game		Toy	
	HR@10	NDCG@10	HR@10	NDCG@10	HR@10	NDCG@10
SASRec	0.1056	0.0710	0.0186	0.0093	0.0561	0.0312
BERT4Rec	0.0825	0.0634	-	-	0.0352	0.0179
FDSR	0.1118	0.0868	0.0190	0.0101	0.0568	0.0344
S <sup>3</sup> -Rec	0.1030	0.0653	0.0195	0.0094	0.0538	0.0276
UniSRec w/o IDs	0.1013	0.0619	-	-	-	-
UniSRec	0.1280	0.0831	0.0225	0.0115	-	-
MISSRec w/o IDs	0.1258	0.0795	-	-	-	-
MISSRec	0.1301	0.0842	-	-	-	-
RECFORMER	-	-	0.0243	0.0114	-	-
TIGER	-	-	0.0222	0.0114	-	-
SpecGR	-	-	0.0229	0.0115	-	-
P5	-	-	-	-	0.0543	0.0356
POD	-	-	-	-	0.0566	0.0421
Lite-LLM4Rec	-	-	-	-	0.0682	0.0488