

Proposed Method

Collaborative Representation Learning with Interest Sustainability (CRIS)

- First demonstrate how to obtain the interest sustainability score (ISS) that quantifies how much users' interest in items will sustain in the future.
- Then based on the obtained ISS, we propose a metric learning framework for capturing the concept drift of users.

Proposed Method

Interest Sustainability Prediction

- Prior to training the recommender system, train a neural classifier, which predicts whether each item will be consumed in the future, to obtain the ISS for each item.
- Consider that we have user-item interaction data D such that:
 - $D = \{(u, i, t) \mid \text{user } u \text{ consumed item } i \text{ at time } t\}$
 - D : general source to train recommender systems.