FAIRY: A Framework for Understanding Relationships between Users’ Actions and their Social Feeds

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Personalized Feeds

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Personalized Feeds and Need for Explanation

How do my actions relate to such a feed?

Why is there discrimination against foreigners at workplaces in Germany?

Gerhard’s feed item

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What are the best souvenirs to buy in Germany?

Why is there discrimination against foreigners at workplaces in Germany?

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Gerhard’s feed item

Explanation Paths
What are the best souvenirs to buy in Germany?

Why is there discrimination against foreigners at workplaces in Germany?
FAIRY: Our Proposed Framework

➢ Discovering explanation paths

➢ Ranking explanation paths
  ○ based on usefulness/surprisal
  ○ Using a pairwise LTR based on ordinal regression

➢ Goal: A user-side framework for convincing users of relevance of feed items
Data Collection by Longitudinal User Study

- Initializing profiles
- Interacting with platforms
- Selecting non-obvious feed items
- Judging usefulness and surprisal
Thank you!

Explaining Personalized Feeds

Heterogeneous Information Network (HIN)

Inverse Privacy

Relationship Discovery

Transparency

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