

Link Predictions in an Online Health Community for Smoking Cessation

Sulyun Lee, Hankyu Jang, Kang Zhao, Michael S. Amato, Amanda L. Graham

Goal

Predict new links among users in an online health community considering different types of communications

Data

BecomeAnEX community with communication channels:

- Blogs & comments
- Group discussions
- Message boards
- Private messages

Multi-relational link prediction (MRLP)

- Construct one sub-network for each channel
- Compute proximity measures on node pairs for each network
- Supervised link prediction

MRLP + additional features

- Community-based
- Embedding-similarity
- text-similarity

Result

