The Engagement-Diversity Connection: Evidence from a Field Experiment on Spotify

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Recommender systems

What effect do recommender systems have on...

**Individual-level** consumption diversity

**Intragroup** consumption diversity
Treatment intervention changed the podcasts displayed to users in “Podcasts to try” on Spotify’s mobile app

**Control:** Recommended the 10 most popular podcasts among users in their demographic group

**Treatment:** Recommended 10 podcasts based on an ML model that uses music listening history and demographic info to predict podcast follows (Nazari et al. forthcoming)

- Removed once a user streams or follows their first podcast
Recommender systems can create an “engagement-diversity trade-off” for firms when optimizing solely for engagement:
- Increase the amount of content users consume
- Increase the homogeneity of content that individual users consume
- Increase the dissimilarity between what different users consume

Exposure to personalized recommendations affects recommended consumption and “organic” consumption.

Short-term exposure does not cause long-term changes to consumption volume or diversity:
- Possible to “correct course” after audits of recommender systems