Paramount Practicum Project

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Meet the team

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Detecting the content interactions can help Paramount make strategic exploitation decisions

Challenge

Although content interactions exist, a solution to detect them has not yet been found

Method

A systematic method to detect consistent interactions between shows

Opportunity

Inform and therefore make content exploitation decisions

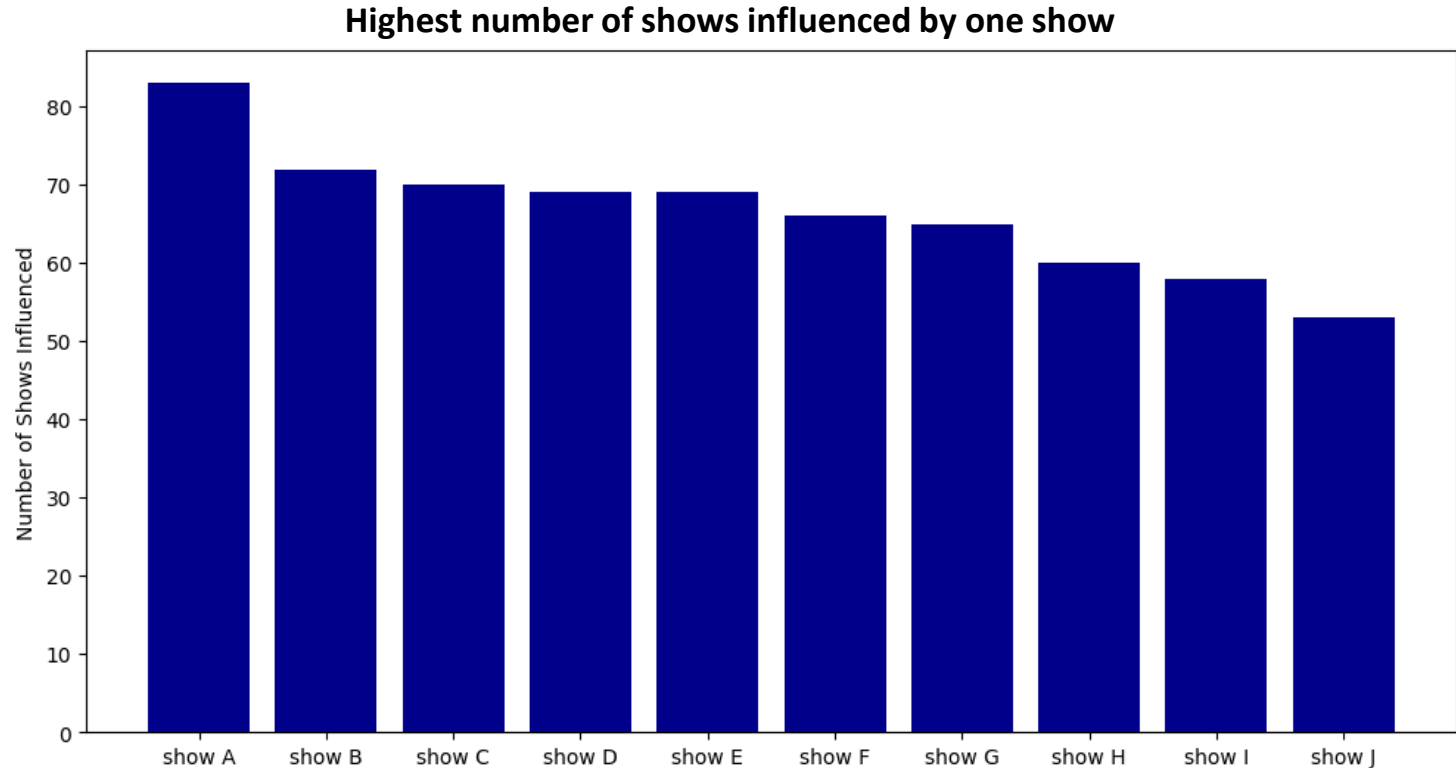# The insights of content interaction detection have positive impacts on various business divisions at Paramount

Division	Action
Contents Production	Optimize user engagement through refine production cycle and strategies
Contents Marketing	Identify personalized marketing opportunities and foster content collaboration through cross-promotion to enhance user retention
Platform Management	Improve user acquisition by improving content discovery and recommendation algorithms to drive deeper market penetration
Contents Exploitation	Explore potential opportunities for content partnerships and expansion into new platforms to unlock growth potential and generate revenue streams

14 pairs of shows exhibit high similarity, enhancing viewership acquisition or viewership retention

Show Pairs		Similarity
B	D	0.66
C	D	0.65
A	D	0.64
A	C	0.61
D	E	0.57
A	B	0.56
J	K	0.55
E	F	0.54
B	H	0.54
C	H	0.53
A	H	0.53
D	I	0.52
B	C	0.51
L	O	0.50

Value of high similarity pair

Show B
Show D
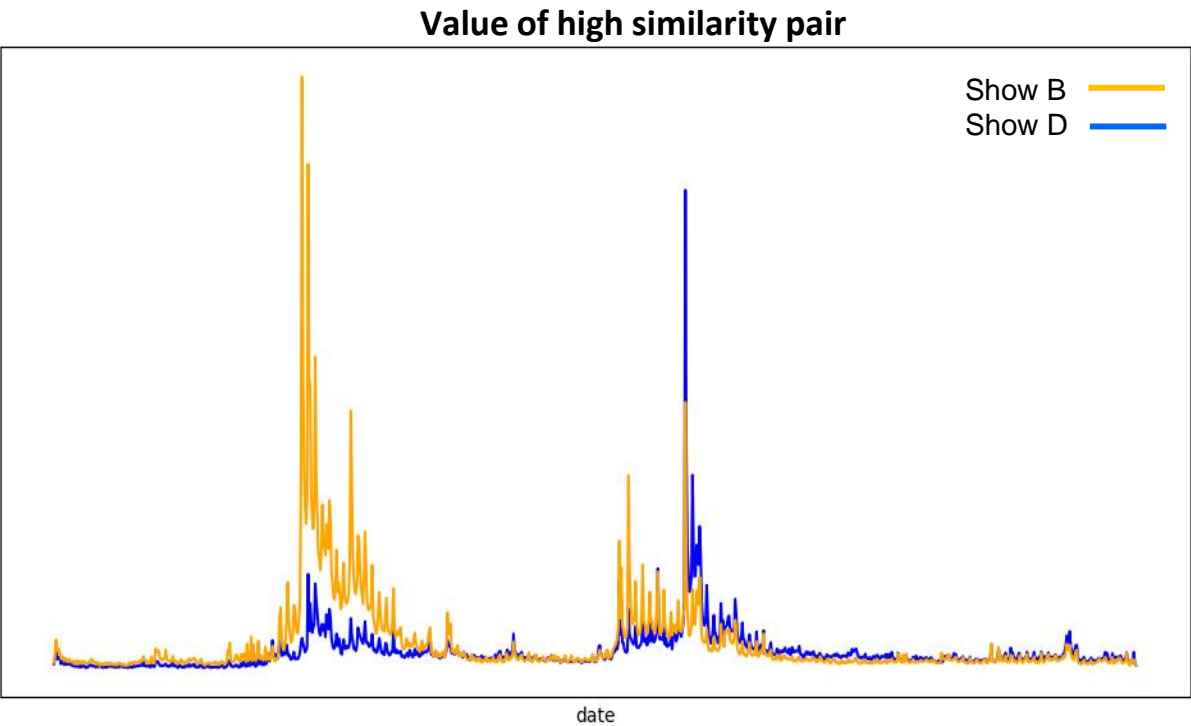
Super boosters are improving the performance of more than one show

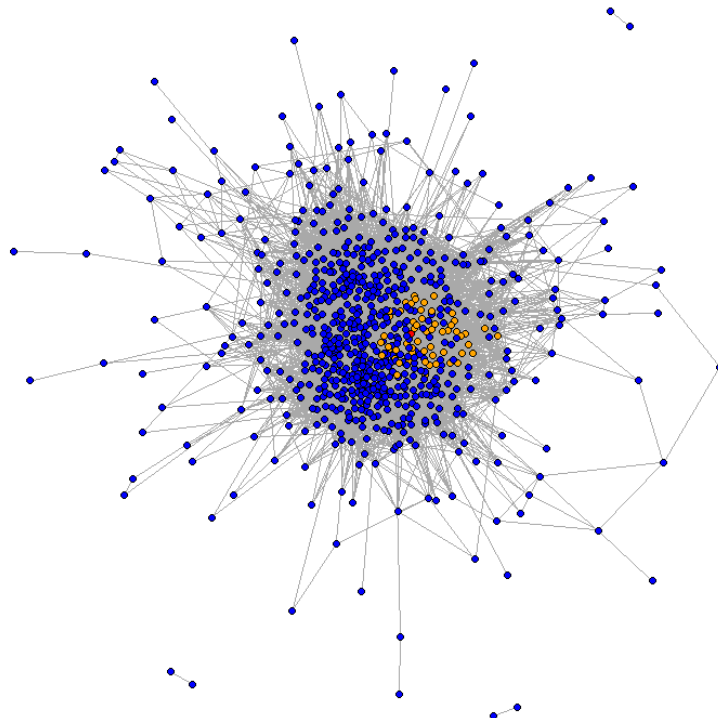**Highest number of shows influenced by one show**

Contents can be grouped based on their similarity with one another and a super booster can be identified within each cluster
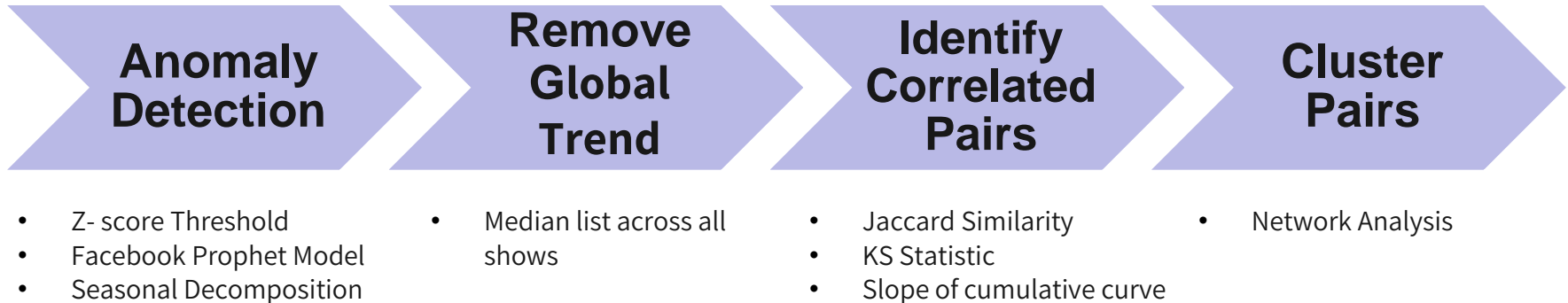
Nine clusters based on similarity
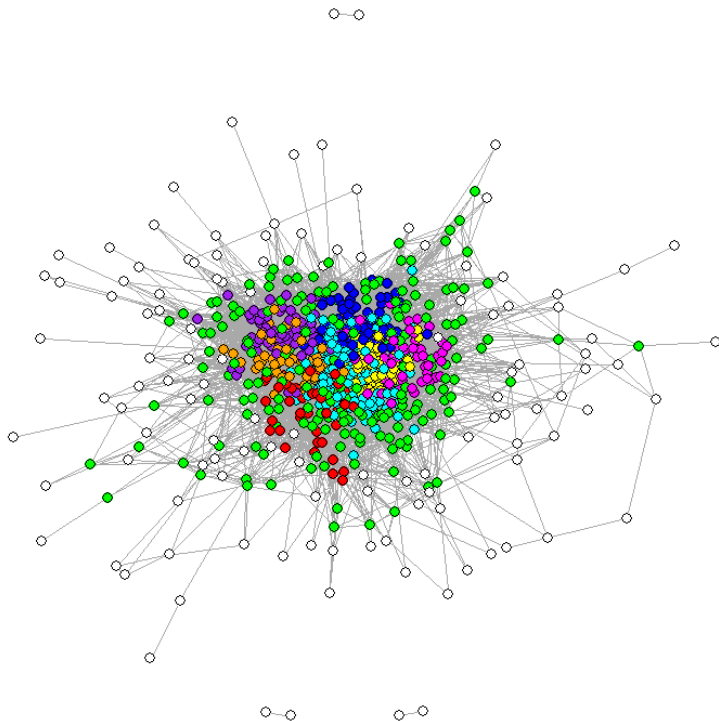
One of the cluster and its super booster

Content interactions process covers anomaly detection, trend removal, identifying correlated pairs and clustering

Contents Interactions Detection solution

Anomaly Detection	Remove Global Trend	Identify Correlated Pairs	Cluster Pairs

Anomaly Detection
- Z- score Threshold
- Facebook Prophet Model
- Seasonal Decomposition

Remove Global Trend
- Median list across all shows

Identify Correlated Pairs
- Jaccard Similarity
- KS Statistic
- Slope of cumulative curve

Cluster Pairs
- Network Analysis

Future business applications and thinking ahead with additional data resources

Future promotion campaigns can focus on super shows, realizing expanded reach and maximizing marketing impact with the same resources

Cross-promote correlated shows at the household level, enabling content to reach new audiences and provide valuable content to existing customers

Design phase promotions to enhance viewership by optimizing the scheduling of same-cluster contents

Paramount can mitigate potential risks associated with the implementation of the Contents Interactions Detection solution

Risks	Mitigation Plan
Increase cross-promotion: Competitive Conflicts	Develop a strategic cross-promotion plan that strikes the right balance between exposure and exclusivity
Reduce cross-promotion: Failing to capture the attention of not overlapped audiences	Segment the target audience based on their interests, preferences, and viewing habits to tailor cross-promotion efforts effectively
Licensing: Losing customers	Detailed cost and benefit analysis on the decision