GROUP 20 X MICROSOFT

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- PROOF OF CONCEPT -

BUILDING DATA DRIVEN SOLUTION FOR NEWS AGENCY

Boosting User Engagement, Driving Revenue!

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01

EXECUTIVE SUMMARY

Our News Recommender system is built using the MIND News dataset

- Enhance **user engagement** and **satisfaction** by **anticipating** user preferences.
- **Suggesting** articles more likely to be **clicked**.

02

CHALLENGES

SOKOVIA NEWS AGENCY

1 User **engagement**

2 Customer **satisfaction**

3 Growth of the **platform**

4 Advertising **revenue**

SOLUTION

Proposed

Recommender System

03

VALUES OF RECOMMENDER SYSTEM

1

Personalize the user experience

2

Improve content relevance and quality

3

Increased Customer Satisfaction

4

Targeted advertising

5

Audience expansion

04

INDUSTRIAL LEADERS

NETFLIX

01 About **75%** of what people watch on Netflix comes from recommendations

+65 million members
stream + 100 million hours

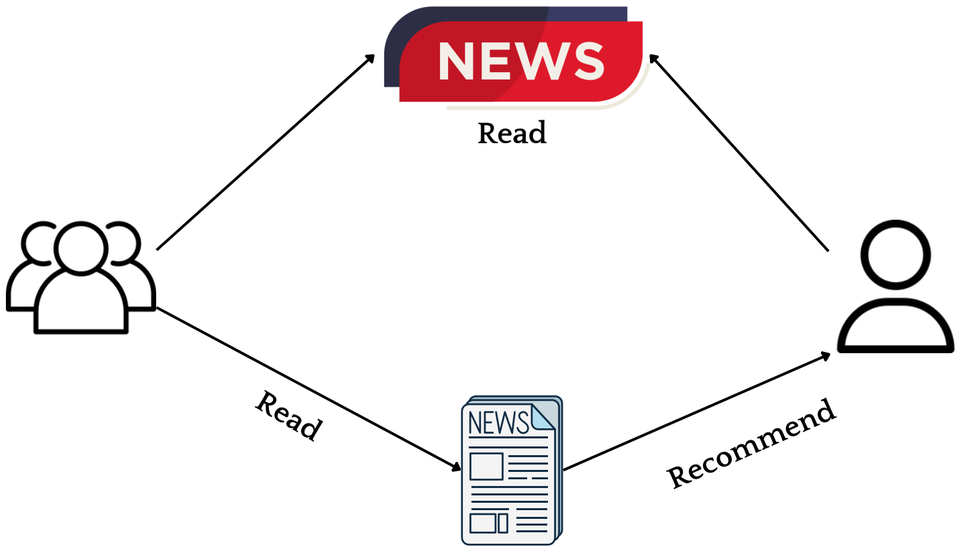
Google

02 Click-through improved rates by **30.9 %** in addition to **30%** increase in user clicks compared to non-personalized ads.

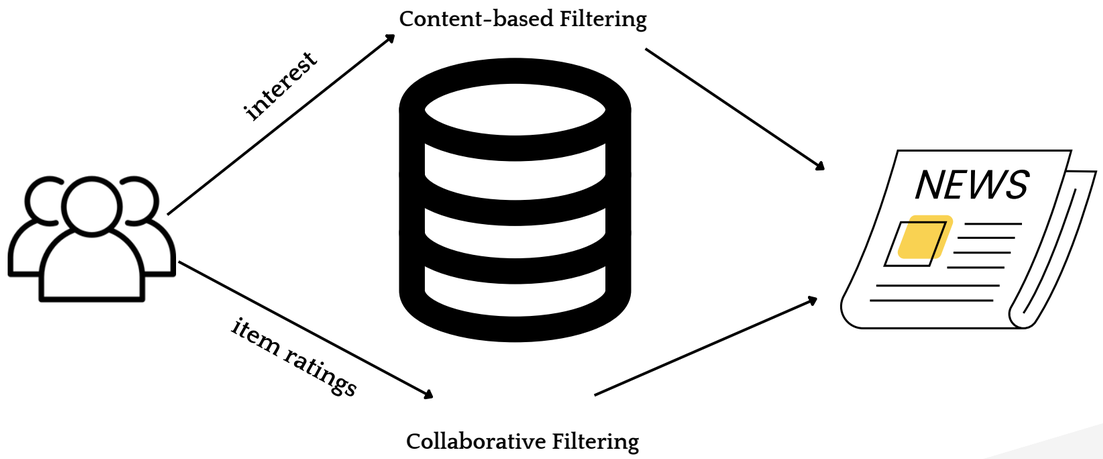
05

PROPOSED SOLUTION

Collaborative Filtering

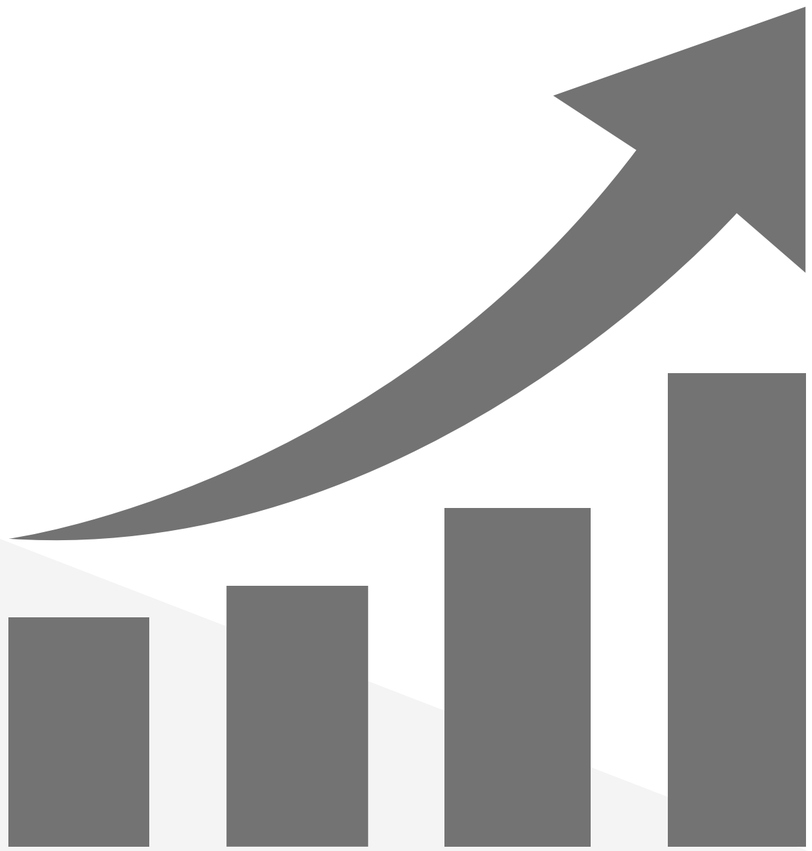


Hybrid Recommendation System



06

ROI



ROI

95.45%

Cost of implementation	**$20,000**
Maintenance of system	**$2,000**
Expected website traffic per year	**14.3M**
% of new conversion rate	**2.4%**
Increased conversions	**20%**
Increased ad revenue	**10%**
First year profit: $1500	
Second year profit: $21,500	

07

FUTURE DEVELOPMENT

Multimodal Recommendations

incorporate not only textual information but also other modalities like images, videos, and audio

News in Different Languages

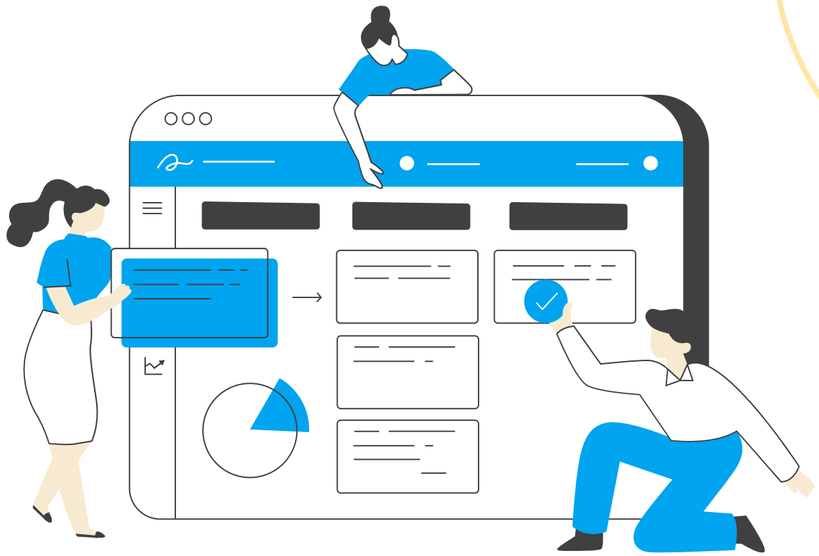
which can support the research of multi-modal and multi-lingual news recommendation

Incorporate Other User Behaviors

such as read and engagement to support more accurate user modeling and per- formance evaluation.

08

ALTERNATIVE APPROACHES



User profiling

Clustering and topic modeling

News sentiment analysis & event detection