

Recommender Systems

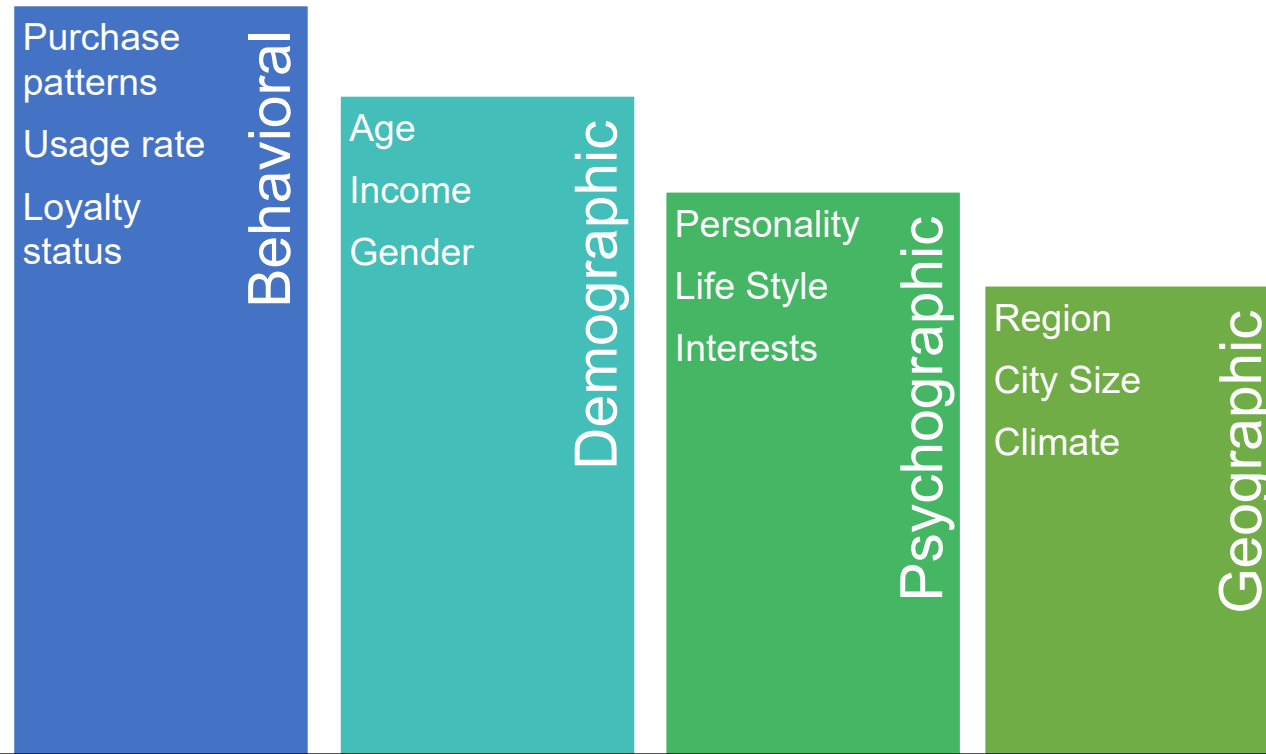
- Machine Learning in Recommender Systems
- Adoption of Machine Learning in Recommender Systems
- Content Based Filtering with Machine Learning
- Collaborative Filtering with Machine Learning

Overview

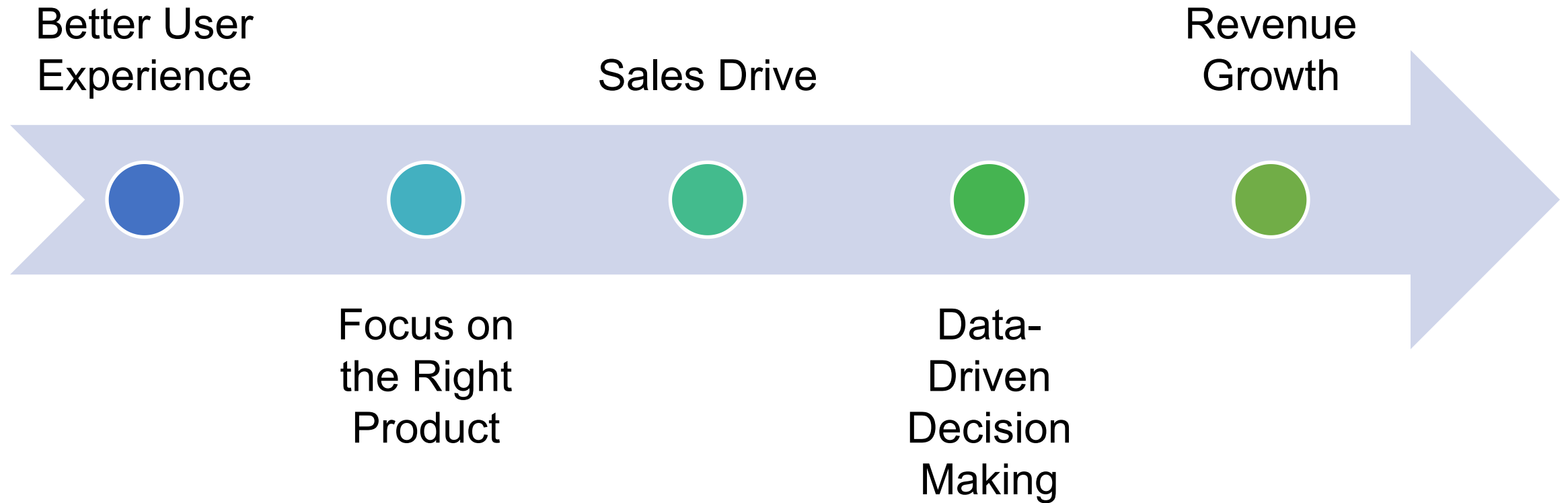
- Machine Learning in Recommender Systems
- Benefits of Machine Learning in Recommender Systems
- Design Approaches for Recommender Systems using Machine Learning
- Guidelines for Machine Learning based Recommender Systems
- Content Based Filtering using Machine Learning
- Item based Collaborative Filtering using Machine Learning
- User based Collaborative Filtering using Machine Learning

Machine Learning in Recommender Systems

- These are powerful engines
- Deploys machine learning algorithms for customer segmentations
- Identifies customer behavioral patterns
- Target customers with personalized products



Benefits of Machine Learning in Recommender Systems



Guidelines for Machine Learning based Recommender Systems

Approaches

- Business Scenario
- Targeted Audience
- Product Range

User-driven strategies

- Identify Customer Journey
- New User
- Regular User

Page context-driven strategies

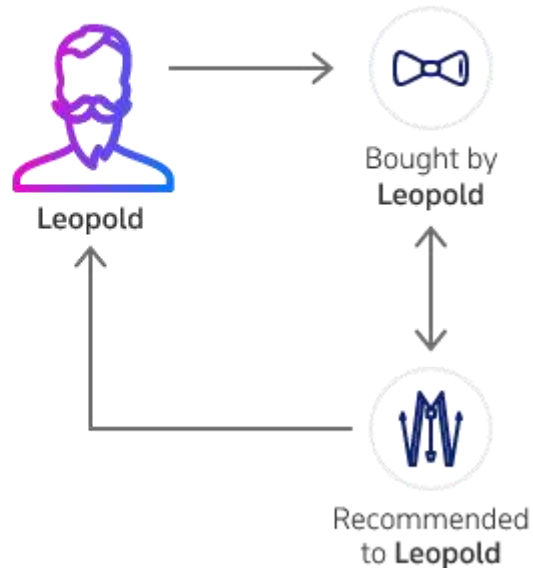
- Most Popular Products
- Similar Products
- Bought Together

Ready-made solutions

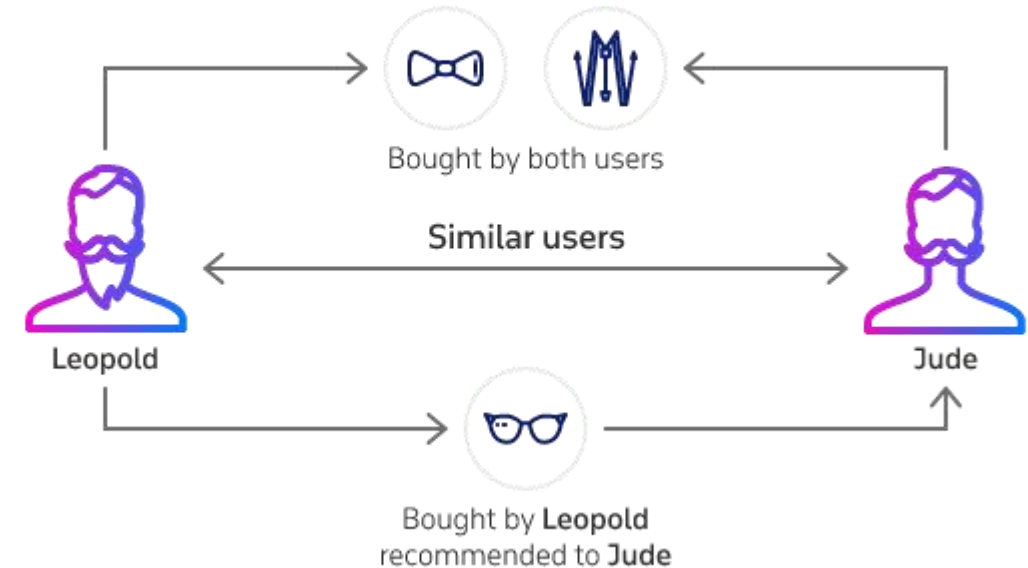
- Evergage
- Adobe Target
- IBM Watson Real-Time Personalization

Design Approaches for Recommender Systems using Machine Learning

Content-based filtering



Collaborative filtering



Content based Filtering with Machine Learning

- Steps to make a machine learning based content based recommendation systems

Data Preparation



Data Insights



Implement Time Frequency and Inverse Document Frequency



Build the Recommendation Engine



Test Recommender System



Item-based Collaborative Filtering

- Steps to make a machine learning based content based recommendation systems

Data Preparation



Data Insights



Implement k-Nearest Neighbors



Build the Recommendation Engine



Test Recommender System



User-based Collaborative Filtering

- Steps to make a machine learning based content based recommendation systems

Data Preparation



Data Insights



Implement Surprise for CoClustering, baseline and Normal Predictor



Build the Recommendation Engine



Test Recommender System

