



# Recommendations Services

TiVo's recommendations services let consumers discover new entertainment by helping them navigate the seemingly infinite amount of content choices available. The system helps customers break down decision barriers by providing fewer, more focused recommendations to help users find the content they are looking for quickly and with out the frustrations of too many choices. Powered by one of the industry's most robust entertainment knowledge graph engines and fueled by a combination of content-based, collaborative filtering and personalized algorithms, TiVo's recommendations services provide a variety of increasingly personalized recommendation filters for intriguing and delighting users with new, relevant, cross-platform content.

Using collaborative filtering algorithms to gather results based on the viewing behaviors of a large user population, TiVo's recommendation services further refine and target those results through profile-based algorithms offering recommendations tuned to the behaviors of individual users.

These custom algorithms help solve the challenges of low user interaction, narrow taste preferences and limited user knowledge, working to provide a variety of increasingly personalized recommendation filters that provide optimized results based on local popularity and relevance.

#### **FEATURES**

#### **Advanced Hybrid Algorithms**

Personalized, collaborative, trending and content-based algorithms optimize recommendations

#### Personalization

Spatiotemporal learning models work to personalize recommendations by day of week, time of day, device and location

## **Cross-Content Recommendations**

Includes linear, VOD and OTT content

## **Recommendations Transparency**

Provides explanations for each recommendation for increased user acceptance

## **Collaborative Filtering**

Algorithms based on aggregated user and usage data offer recommendations based on similar system usage and content usage

## **Trending/Social Filtering**

Provides recommendations based on topics and entities that are trending within regional social and global networks, as well as entertainment content that is most viewed/popular/latest/promoted

# **BENEFITS**



## **Seamless Cross-Platform Experience**

Provides the same robust feature set on mobile, web and set-top boxes.



#### **Delivered Via Cloud**

Flexible APIs and scalable cloud architecture help maintain performance during peak usage.



# Discovery Optimization Manager

Companion tool lets providers customize the user experience.



# TIVO'S KNOWLEDGE GRAPH ENGINE

TiVo's recommendations services are powered by our unparalleled knowledge graph engine, a dynamic knowledge base of entertainment metadata capable of understanding trends and conversations. TiVo's knowledge graph engine semantically generates this structured set of meaningful connections with an awareness of regional trends and popularity from 100,000 online sources. This enables content distributors to deliver more accurate search results and recommendations, and provides content producers greater insight into how their content is faring in the marketplace.



