



# Music Recommendations Services

**TiVo's music recommendations services let consumers discover new artists and music by helping them navigate the seemingly infinite amount of content choices available.** Part of our music discovery platform, the services help customers break down decision barriers by providing fewer, more focused recommendations to help users find relevant content quickly and without 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, our music recommendations services provide a variety of increasingly personalized recommendation filters for intriguing and delighting users.

Using collaborative filtering algorithms to gather results based on the content consumption behaviors of a large user population, our music recommendations services further refine and target those results with profile-based algorithms offering recommendations for the behaviors of individual users.

The custom algorithms help solve the challenges of low user interaction, narrow taste preferences and limited user knowledge, working to provide a high level of personalization and optimized results based on local popularity and relevance.

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## 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 and device.

### Smart Taste Profiling

Since tastes change, our services allow for the prominence of a particular artist's/genres influence to decline over time.

### Dynamic Playlist Algorithms

Our services support the dynamic creation of "stations" based on artist, album or tracks.

### Collaborative Filtering

Algorithms based on aggregated user and usage data offer recommendations according to the behaviors and tastes of people with similar interests and habits.

### Trending/Social Filtering

Recommendations are also based on topics and entities that are trending within regional social and global networks, as well as how popular, recent or publicized the entertainment content is.

## BENEFITS



### Hyper-Personalized Recommendations

Unique hybrid algorithms combined with the power of TiVo's knowledge graph and spatiotemporal learning models offer hyper-personalized results.



### Cloud Delivery

Flexible APIs and scalable cloud architecture help maintain performance during peak usage and deliver a seamless experience across platforms and devices.



### Knowledge Graph Engine

Dynamic information on more than 100 million entertainment-related entities drives contextual and semantic relevance.

## KNOWLEDGE GRAPH ENGINE

TiVo's music recommendations services are powered by our knowledge graph engine, a dynamic knowledge base of entertainment metadata capable of understanding trends and popularity, as well as the deep vocabulary needed to organize and identify content for conversational interfaces. TiVo semantically generates this structured set of meaningful connections with an awareness of regional trends and popularity from 100,000 online sources. It 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.

