



## From Netflix to iLottery & Leveraging AI Inside Brightstar's Game Recommendation Engine

Today's diverse iLottery games offer some unique challenges to their creators and players. One major challenge is the fact that players can experience choice overload. With some lotteries offering more than 100 active eInstant games in their catalogue, players can feel overwhelmed.

Without guidance, they may struggle to discover eInstant games that match their preferences or playing style. Players who do not find relevant or exciting games may disengage quickly. This leads to lower session times and fewer repeat visits due to low engagement and retention. Without personalized recommendations, lotteries may fail to surface eInstant games that are trending or have high

conversion potential, resulting in missed revenue opportunities.

That is why Brightstar Lottery has introduced the Game Recommendation Engine. Like Netflix, Brightstar's Game Recommendation Engine provides an enhanced, personalized consumer experience.

**The Game Recommendation Engine algorithm uses player behavior and game attributes to uncover latent preferences**, providing tailored suggestions such as: *"Because you played X, you might like Y," "Trending games among similar players,"* and *"Games similar to your favorites."*

Plus, the Game Recommendation Engine introduces players to new and relevant eInstant games they might not

have found on their own, increasing satisfaction and excitement.

Delivering personalized suggestions in the game discovery process **highlights the games that the individual player finds most interesting, which reduces the need to search through options they may find less interesting. This makes the experience smoother and more enjoyable.**

Launched in 2025, Brightstar's Lottery Game Recommendation Engine allows lotteries to offer an enhanced iLottery experience to players. Brightstar has effectively deployed AI in the lottery space, enabling the Game Recommendation Engine **to recommend games to**

players. It provides lotteries with an opportunity for data-driven optimization with insights from the Recommendation Engine informing game design, marketing strategies, and game portfolio management.

#### Brightstar's Game

**Recommendation Engine also leverages techniques and algorithms that are used by some of the biggest e-commerce platforms, such as Amazon and Netflix.** The algorithm analyzes player-game interaction data, such as game play, wagering, and session. By decomposing this data, latent features can be identified, providing hidden characteristics of both player behaviors and games.

#### Brightstar's Game

**Recommendation Engine uses a hybrid approach that combines the strengths of player interaction data and content data.** Instead of treating users and items as isolated entities, they are represented as a sum of the latent representations of their features. This allows the model to learn more general patterns from the data. Using principal components helps reduce the total number of parameters the model needs to learn, which can be beneficial for training, especially with large datasets.

**The Game Recommendation Engine is highly effective for making iLottery eInstant game recommendations.** It scales well with large game portfolios and player bases. It can learn hidden preferences without needing explicit game metadata. It adapts and refines its recommendations over time as players interact with more eInstant games. Finally, it supports hybrid

models when combined with trending data and content-based filter. These latent features are not explicitly defined (like genre or jackpot size) but are learned from the data.

## Market Impact

Brightstar's Game Recommendation Engine has had a meaningful impact since launch.

Following implementation in a North American lottery, **a significant uptick in user engagement has been observed, with a growth of 35% in wager transactions.**

One of the goals for the Game Recommendation Engine is to encourage players to discover new eInstant games via cross-selling. **Since launch, the number of different games played per user has increased by 24%.**

An A/B test for Game Recommendation Engine performance measurement was done with a control and test group to measure differences between the two groups. The experiment involved splitting players into two groups; the Test Group received personalized recommendations from the recommendation engine while the Control Group did not receive any personalized recommendations.

During the test period, **players who were given personalized recommendations engaged with 62% more eInstant game titles, on average, compared to those in the Control Group.** The Game Recommendation Engine was able to improve discovery of new games for these players.

Additionally, players who were given personalized recommendations made

more wagers compared to those in the control group.

Given the measurable impact since this lottery adopted the Game Recommendation Engine, the technology has been shared with other lotteries that are keen to adopt it. **Lotteries want to incorporate this meaningful capability into their iLottery eInstant game launch plan so that recommendations can be used to promote new games launched and track engagement over time.**

The immediate plans for the Brightstar Game Recommendation Engine are to expand into other major lotteries where Brightstar offers eInstant games. Brightstar plans to add more APIs that can be integrated into the front-end of Mobile and Portal.

With these new APIs, lotteries will be able to offer more personalized recommendations by having additional carousels recommending games by categories, such as Themes, Mechanics, and "Other players who played this also played...".

Inspired by the successful use of AI by brands such as Amazon and Netflix, **the Brightstar team is working on continuous enhancements to the Game Recommendation Engine algorithm by engineering more features to capture player and game characteristics.**

"Our aim is to support Brightstar customers in offering their players an experience that is like the ones they have with other top brands they engage with for digital content," says Karri Paavilainen, Vice President, Services, Brightstar. "Lotteries can leverage the Game Recommendation Engine to grow their player base, stay competitive in a growing digital landscape, and generate more revenue for good causes."

*Want to learn more about the Game Recommendation Engine? Contact your Brightstar representative.*



In a test of Brightstar's Game Recommendation Engine, players who were given personalized recommendations played 62% more eInstant games, on average.

