Unity AI improved revenue per download by over 8% for Idle Farming Empire

How do you balance between optimizing existing features and developing new ones when working on game updates? Finnish gaming company Futureplay continually makes updates in their games to keep players engaged and fight against churn.

Founded in 2015 by 5 Finnish gaming veterans, Futureplay is now a studio of 30, based out of Helsinki. They have released 5 titles that have been played by over 80 million people worldwide, earning more than $15M. Some of their most notable games are Idle Farming Empire, Battlelands Royale, Idle City Empire, among others.

Why optimizing game performance is difficult

Personalization is key to improving game performance, and testing and optimization is a crucial part of that. But each test requires engineering resources and prioritization – how can you manage that at scale?

The goal of Futureplay's game updates is to add features to the games, to keep them fresh and interesting so they can improve retention, engagement, and monetization. Due to their small team size, they can test only a few features at a time. They need to select the right tests, and design and develop them – and then optimize features based on the results.

To do this, Futureplay runs traditional A/B tests. They then have to manually analyze the performance and roll out changes to their game based on these results. This requires the involvement of multiple people, which is a strain for smaller studios, and only a handful of the tests lead to positive results.

"With GameTune, we no longer need to actively monitor tests. When you A/B test, you get the average best results for the players. Instead, GameTune uses Unity's machine learning to automatically optimize the game so that the best results are being delivered for each player. We can now test more, and this has allowed us to save significant engineer hours. We are now going to design our games with GameTune in mind." — Tatu Laine, Designer, Futureplay

GameTune allows you to make your game adaptive and use Unity machine learning to customize the experience for each player

With GameTune, you are able to make parts of your game adaptive. Gamers have different preferences, interests, and styles of gameplay. Personalizing your game for each of these players improves the experience, resulting in better retention and LTV.

Here's how it works:

- Integrate GameTune SDK, which communicates with the GameTune machine learning service.
- Create "optimization points" in your game, that are "questions" to which Unity provides machine learning optimized answers (such as level difficulty).
- Decide what you want to optimize for – retention, engagement, revenue, or any other KPI.
- Specify the alternatives you want to test in each question (e.g., 5 varying levels of game difficulty).
- GameTune automatically starts collecting data and trains a model for your game to get real-time machine learning optimized answers to your questions.
- GameTune uses machine learning to deliver the optimal "answer" for each player in your game.

Futureplay decided to use GameTune to optimize Idle Farming Empire in four optimization points. First, they're using it in a "tutorial" that controls the pacing of the first level. Second is "prestige," which controls when to show the prestige point in the game. The third is "crop," which controls which animal or vegetable can be grown in the next plot. Fourth is "bundle," which controls the duration and the content of an in-app purchase bundle offer. Through these tests, they were able to deliver the most optimal experience to each individual player in their game and increase the D3 retention by over 3% and D7 retention by over 5%.