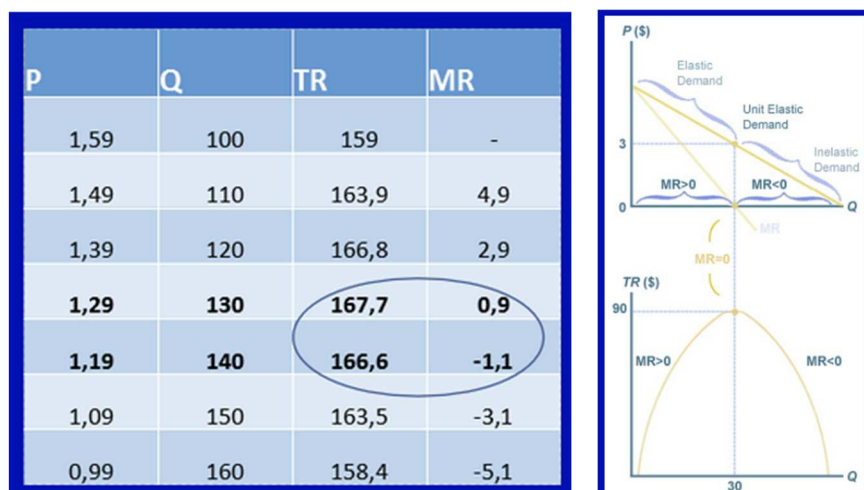# Apprien Automatic Pricing Engine – Boost Your LTV

Monetization is an essential part of the game development process and should be considered as early in the process as possible to ensure a smooth integration in to the gameplay. Many developers include monetization into their development process way too late. Being too protective of player experience generally leads to generous price points and over-giving of value. After this has happened it's almost impossible to pull back. In today's market situation with UA costs rising, it is important that the monetization in the game is bringing in all possible revenue streams and maximal LTV of players.

Apprien is an automatic pricing engine designed to automatically maximise In-App-Purchase (IAP) revenue with dynamic pricing. With dynamic pricing the prices are always optimal for maximising revenue and collecting the highest possible LTV in terms of IAP sales. Apprien calculates optimal prices for IAPs every 15 minutes, in each country, based on Price Elasticity of Demand model and the sales history data of your game.

Price Elasticity of Demand for smarter, data driven pricing

Apprien calculates optimal prices based on the microeconomics theory of Price Elasticity of Demand. Based on the theory in the case of normal goods, when prices are increased, the quantity demanded generally decreases and vice versa. If prices move up or down for example 1% and demand moves more in relation, the demand is said to be elastic. In that case it makes sense to lower prices and gain a boost in quantity sold since the players respond strongly for lowered prices. If, on the other hand the demand moves less in relation to prices, it can be a good business decision to increase prices, as the players keep buying and revenue is increased.

Based on the theory, the optimal point of Unitary Elasticity is reached when the elasticity is exactly -1. At this point the optimal price and optimal quantity are reached and highest revenue generated.

P	Q	TR	MR
1,59	100	159	-
1,49	110	163,9	4,9
1,39	120	166,8	2,9
1,29	130	167,7	0,9
1,19	140	166,6	-1,1
1,09	150	163,5	-3,1
0,99	160	158,4	-5,1

Apprien automatically finds the optimal point every 15 minutes for each IAP in each different market by A-Z testing price points. Unlike other pricing tools, Apprien does not show individual prices to individual players based on various factors. Instead, at the same point in time, in the same country, all players observe the same price. Because Apprien does not collect player data, we are also GDPR compliant.

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How does it work?

Apprien is an automatic calculation engine that calculates the optimal prices based on the sales history data of your game. The calculation is done at our backend, so all you need is a couple of simple integrations. Apprien integrations are available for Android / Google Play Store and later in 2019 also for iOS / Apple App Store.
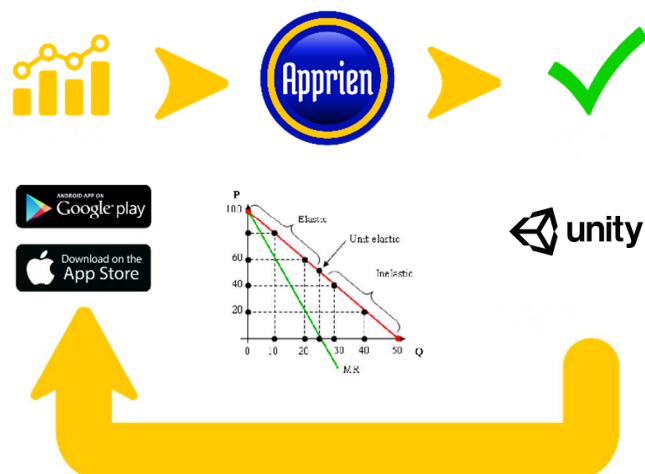
Apprien gets the sales data automatically from Google Play reports. This can be enabled easily by using our Google Play integration guide. Apprien then calculates the optimal prices for each IAP, in each country and the prices are inserted in the game through our Unity SDK so the players can see them.

When transactions happen, the data goes back to the pricing engine through the SDK, as well as Google Play reports, and a new analysis is calculated in the engine. New prices are then shown to the players.

We have made our SDK only a small client for our REST API, so that it does not risk the performance of your game or cause latencies even in poor network connection areas. It can be found in Github: *https://github.com/phzfi/ApprienUnitySDK*

The Uplift

Apprien can be managed through the dashboard. In the dashboard you can adjust the "pricing funnel" by setting and editing minimum and maximum prices for more controlled deviation of the price. You can enable and disable dynamic pricing for different IAPs and different countries. On the analytics view you can follow the performance of Apprien pricing engine and see the produced uplift by Apprien in real time.

The uplift is measured by using a cohort group system, so you can be sure that the produced uplift if generated by pricing only and not for example by a shop featuring or a UA campaign. The cohort group is calculated by sample size, and the only difference between cohort group and the other users is, that the cohort group only sees a fixed price, when others see dynamic prices. The invoice is sent monthly, based on the uplift produced by Apprien.

In short

- **20-40% more IAP revenue**
- **No need to invest in analytics people, UA (unless you want to), or software**
- **Free to use! Revenue share only on added value**

Please contact sales@apprien.com

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FAQ

(Also available in www.apprien.com)

Q: How do the players react if two players see different prices? I'm worried that this will bring negative talk on user forums.

A: Unlike the competitors and traditional A/B -testing done by your internal analytics team, Apprien shows always the same price to all players, in a single country, at any given time. The price might change after 15minutes (or the next day if you want to slow the optimization down), so in our system this is not an issue.

Apprien does support segmentation of users, but for most games, country (and/or channel) based segmentation is enough.

Q: How do the players in Player vs. Player games react to changing prices?

A: Apprien has been previously used to sell Counter-Strike servers. The key is to be open and honest to your customers and show in what direction the prices are going to. All players see the same prices in a certain country at the same time, so the pricing is fair and equal to all players.

Q: Which countries do you represent?

A: Apprien is not an advertisement network, but an automated pricing tool to optimize the IAP pricing. Apprien works globally in all countries where Google Play is presented. In addition, Apprien can be used for any other platform or store, but it needs a customized integration. We are happy to assist in doing integration.

Q: How does changing of prices affect the in-game economics?

A: You can set minimum and maximum prices to limit the effects of automated pricing to your in-game economics and experience? If Apprien prices your products at your higher limit, you should reconsider your product design for the next release, whether you should rebalance the game. If Apprien prices your product at the bottom limit, you should redesign the product by adding more value for to players.

Q: Do we need to create a new build for each price setting and country?

A: No, Apprien SDK will automatically change the prices without need to do any new builds.

Q: If the user has Apple account in Germany, and he flies to Russia, and he keeps playing during the whole flight, how Apprien knows that the prices should be in Russian roubles?

A: As long as your Apple/Google account is registered in Germany, Apprien will show German prices. It won't show you Russian prices even though that you are currently visiting Moscow.

Q: If I don't want to do country-based pricing, how does Apprien work?

A: You can also set a single price to Apple iTunes/Google Play and let Apple to use the fixed price tiers for other countries. However, we advise against this since the purchasing power parity in various countries differs greatly and will result in sub-optimal revenue.

Q: Instead of countries, I want to use region-based pricing.

A: Apprien API has locationId (or segmentation) that you can use to distinguish different regions.

Q: Can we select the people who are in the control group?

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A: No, the people in the control group are selected randomly. The SDK takes the device ID and calculates an 8-bit hash with 256 different groups. Test cohort is calculated with sample size.

Q: How do you handle 3rd party / customer information at Apprien?

A: Apprien handles all customer or 3rd party information with care and confidentiality according to GDPR, LATI legislation for telecom operators and all other relevant legal aspects. We also have NDA`s in place with all our customers. The access to customer data is restricted to only those who need it for the customer work and projects.