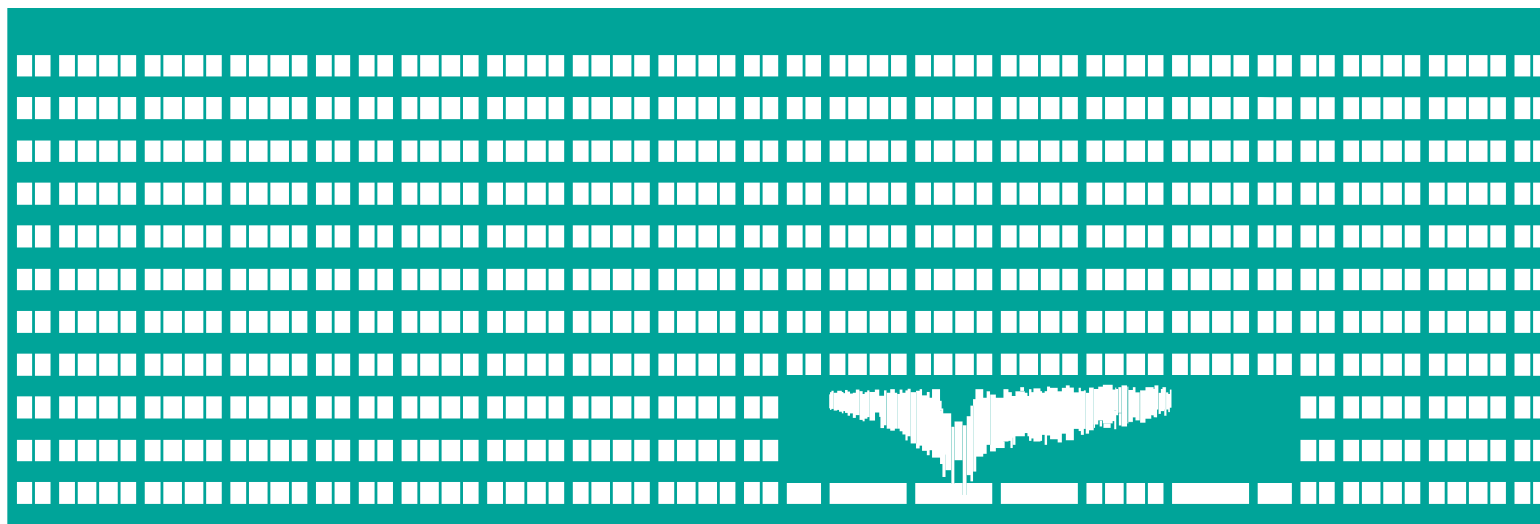


VŠB TECHNICKÁ
UNIVERZITA
OSTRAVA

VSB TECHNICAL
UNIVERSITY
OF OSTRAVA



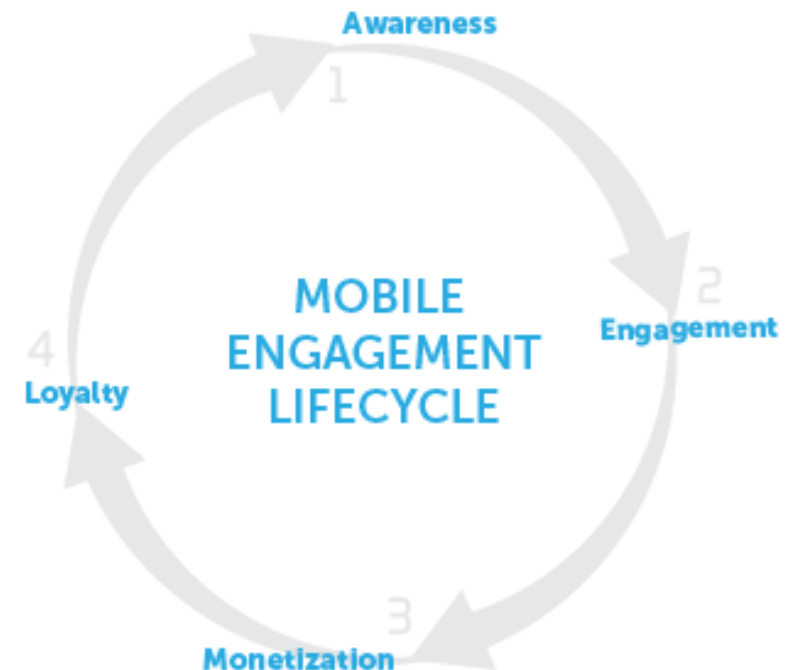
www.vsb.cz

Introduction to Android Marketing

Michal Krumnikl

Introduction

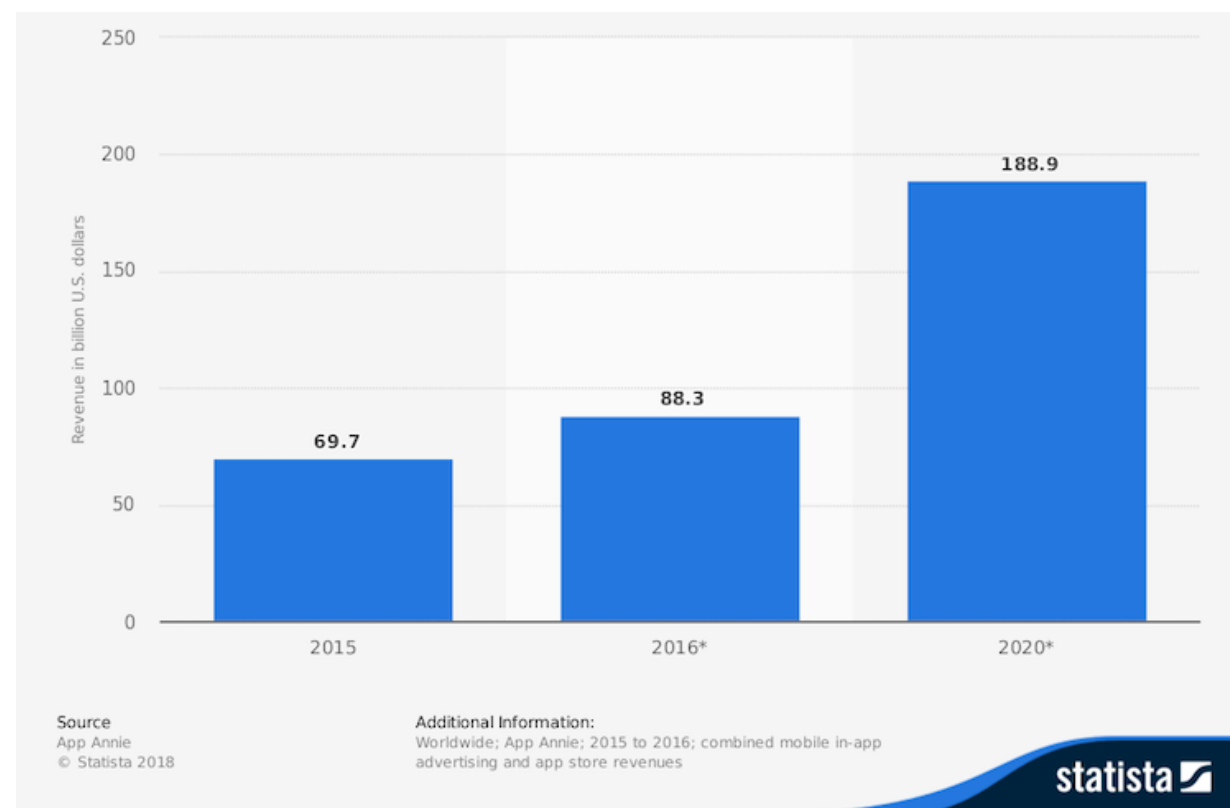
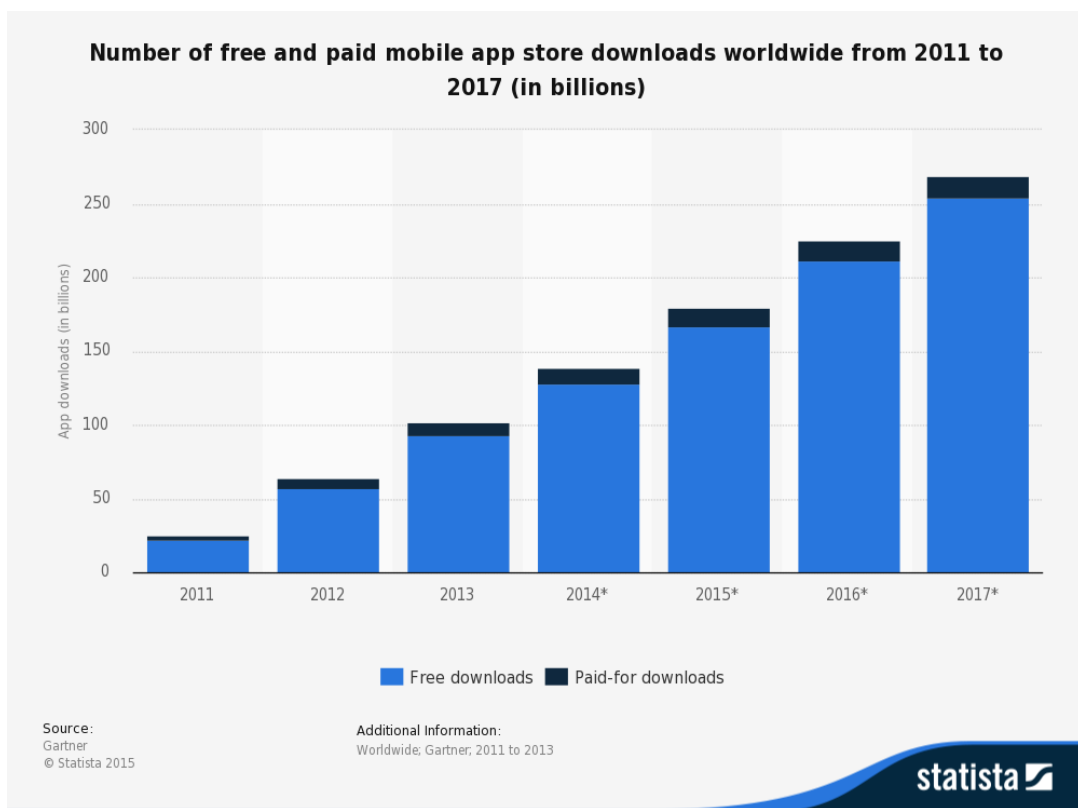
- **Monetizing applications is not an easy task.**
- **Ability to create good app \neq ability to sell app**
- Main approaches
 - Make money by selling applications
 - Make money after the user has installed “free” application
- **You should keep your users and the user experience relatively intact**



Selling Apps on Google Play

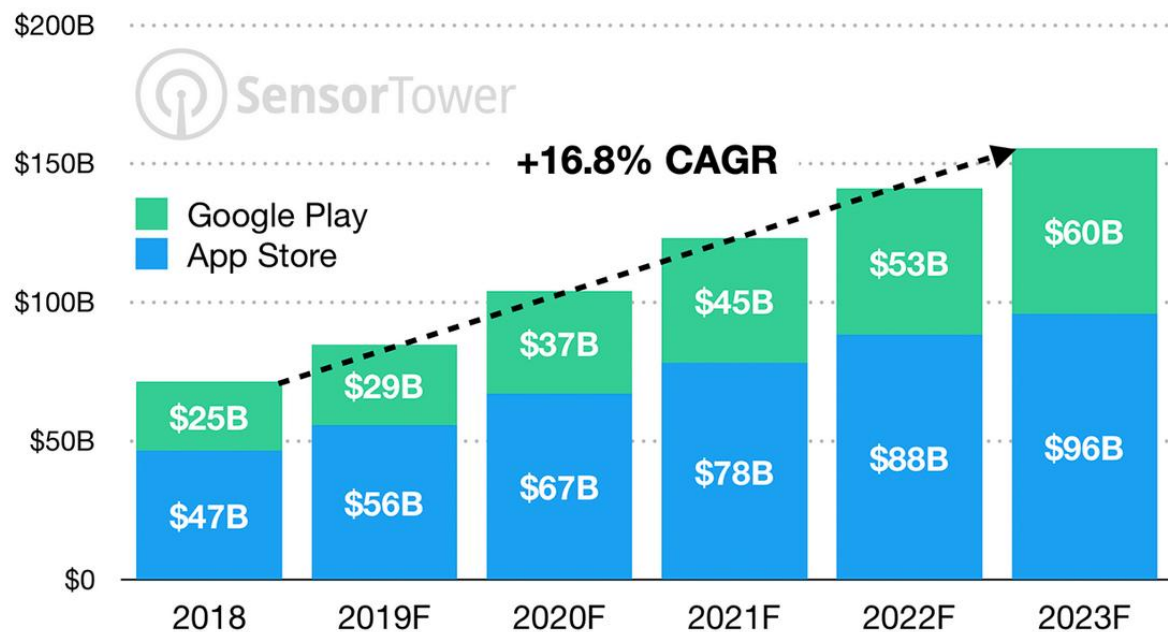
- \$25 USD one-time registration fee
- **Živnostenský list (1000 Kč)**
- VAT registration (free)
- You receive 70% of the payment. The remaining 30% goes to the distribution partner and operating fees. (But you receive 100% of VAT)
 - Starting January 1, 2018, the transaction fee for any subscribers you retain after 12 paid months will be 15% (instead of 30%).

Free / Paid Application Ratio and Revenues



Consumer Spending – Google Play vs. App Store

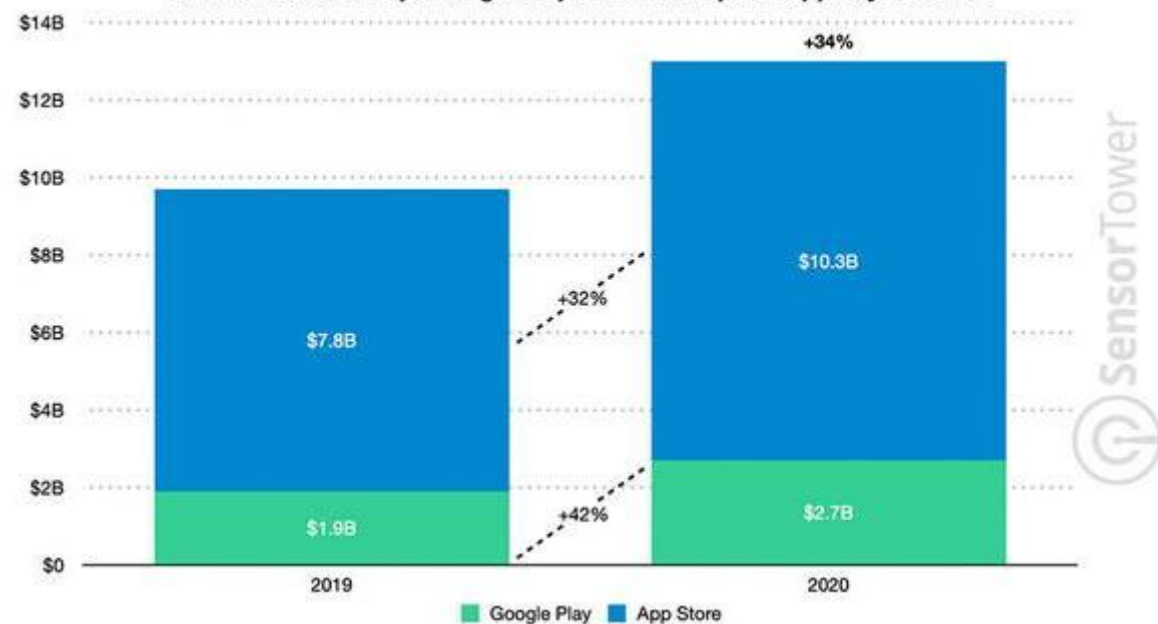
Global App Store and Google Play User Spending 2018-2023



Does not reflect spending on third-party Android stores in China.

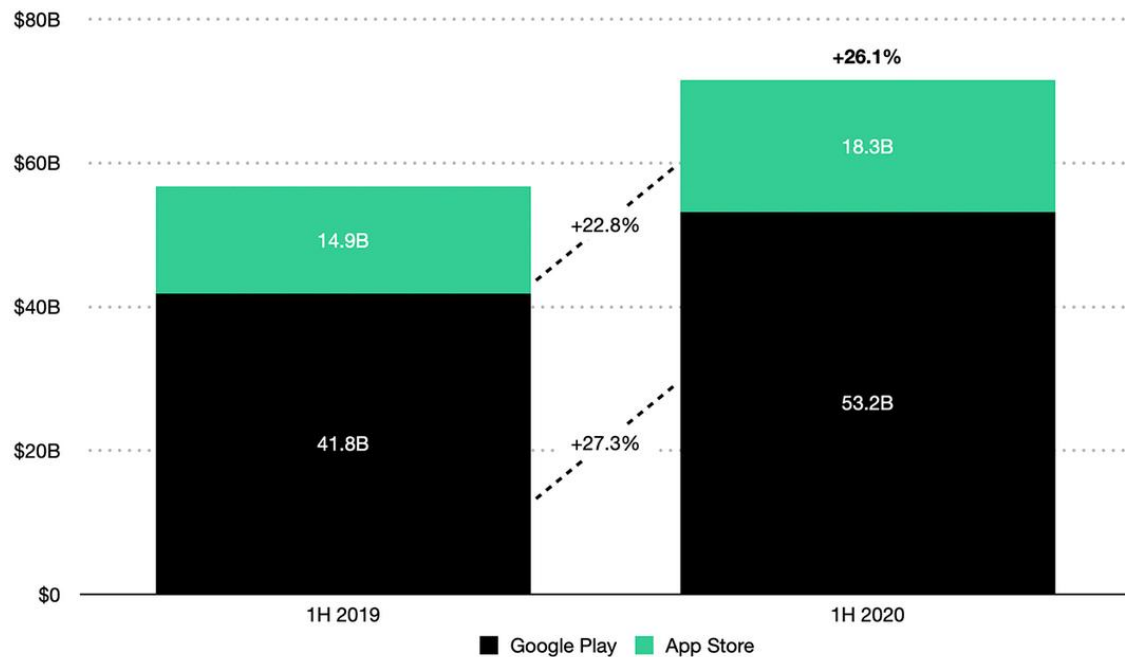
Source: Sensor Tower Store Intelligence

Global Consumer Spending in Top 100 Subscription Apps by Revenue

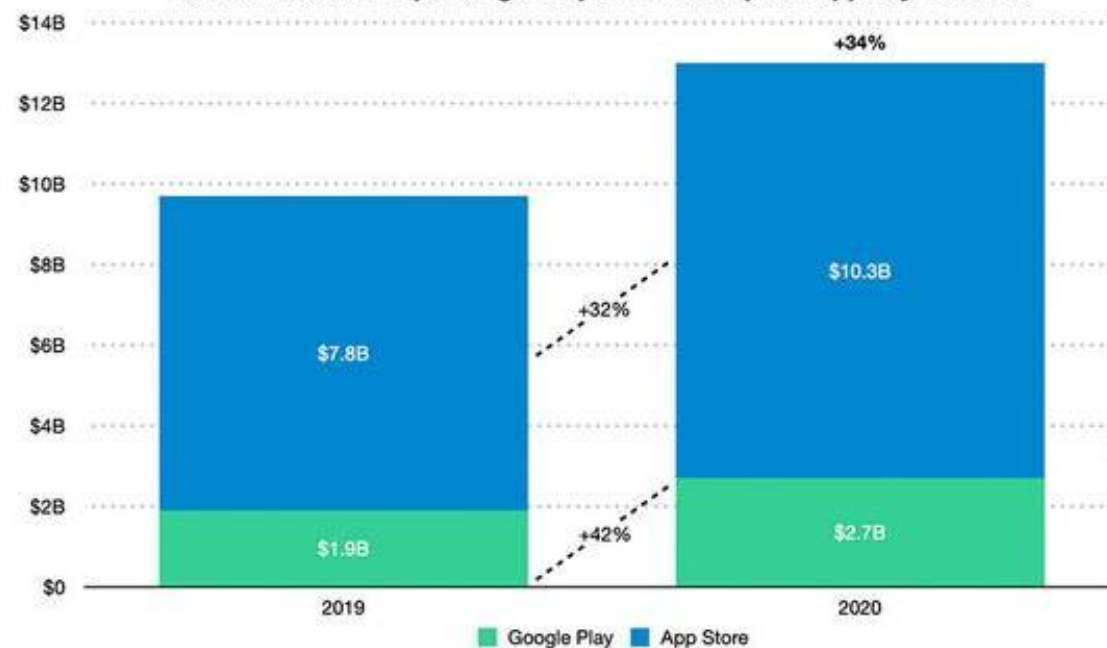


Downloads ≠ Revenue

Global Downloads of Mobile Apps and Games for First-Half 2020



Global Consumer Spending in Top 100 Subscription Apps by Revenue



Five Ps of Marketing – Marketing Mix

- **Product** - The goods and/or services offered by a company to its customers.
- **Price** - The amount of money paid by customers to purchase the product.
- **Place** - The activities that make the product available to consumers.
- **Promotion** - The activities that communicate the product's features and benefits and persuade customers to purchase the product.
- **People** - Customers looking for goods or services.

PREDICTING THE SUCCESS OR
FAILURE OF A NEW PRODUCT
BASED ON WHAT ENGINEERS AND
PROGRAMMERS ARE SAYING ABOUT IT.

IF THEY SAY...	IT MEANS...
"IT DOESN'T DO ANYTHING NEW"	THE PRODUCT WILL BE A GIGANTIC SUCCESS.
"WHY WOULD ANYONE WANT THAT?"	
"REALLY EXCITING"	THE PRODUCT WILL BE A FLOP. YEARS LATER, ITS IDEAS WILL SHOW UP IN SOMETHING SUCCESSFUL.
"I'VE ALREADY PREORDERED ONE."	
"WAIT, ARE YOU TALKING ABOUT <UNFAMILIAR PERSON'S NAME>'S NEW PROJECT?"	THE PRODUCT COULD BE A SCAM AND MAY RESULT IN ARRESTS OR LAWSUITS.
"I WOULD NEVER PUT <COMPANY> IN CHARGE OF MANAGING MY <WHATEVER>."	WITHIN FIVE YEARS, THEY WILL.

Pay per Download, B2B

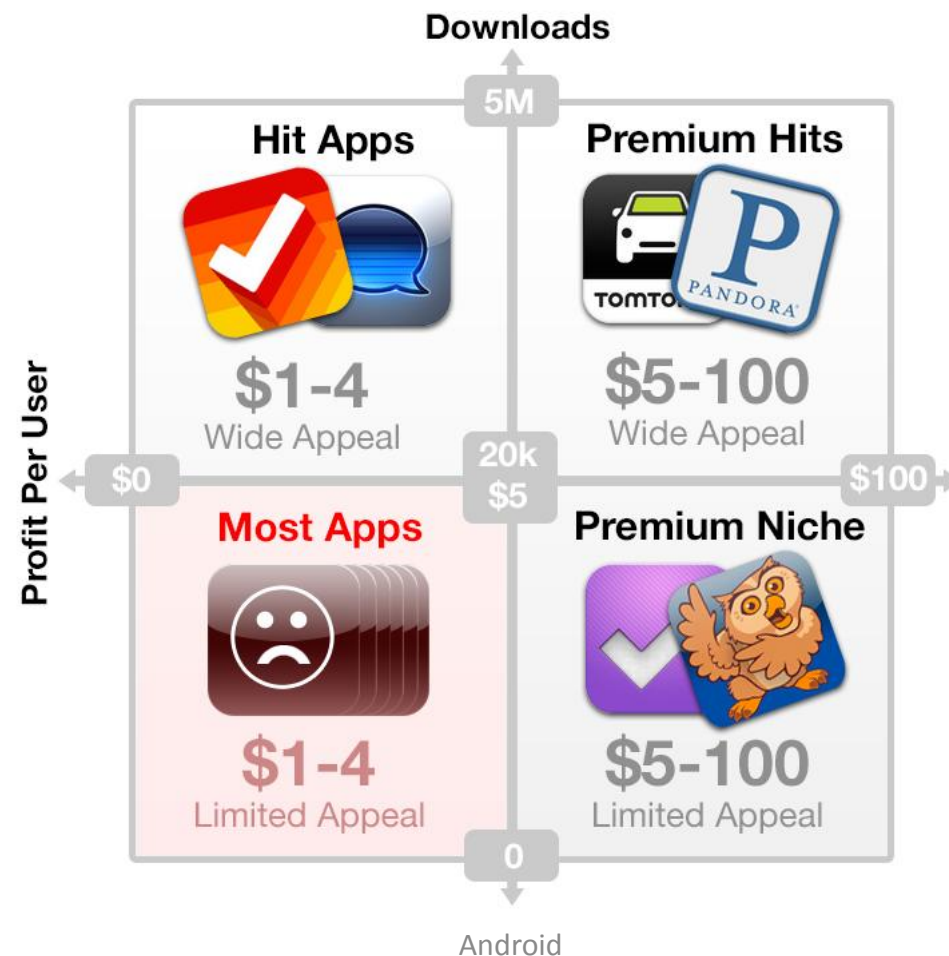
- **Pay per download model**

- Simple, frequently used model.
- Sell and forget
- User is charged before the application is installed.
- Application store takes it's share.
- Disadvantages
 - Upgrades – paid by new users, existing users get upgrades for free.
 - Upgrades \neq increased number of users

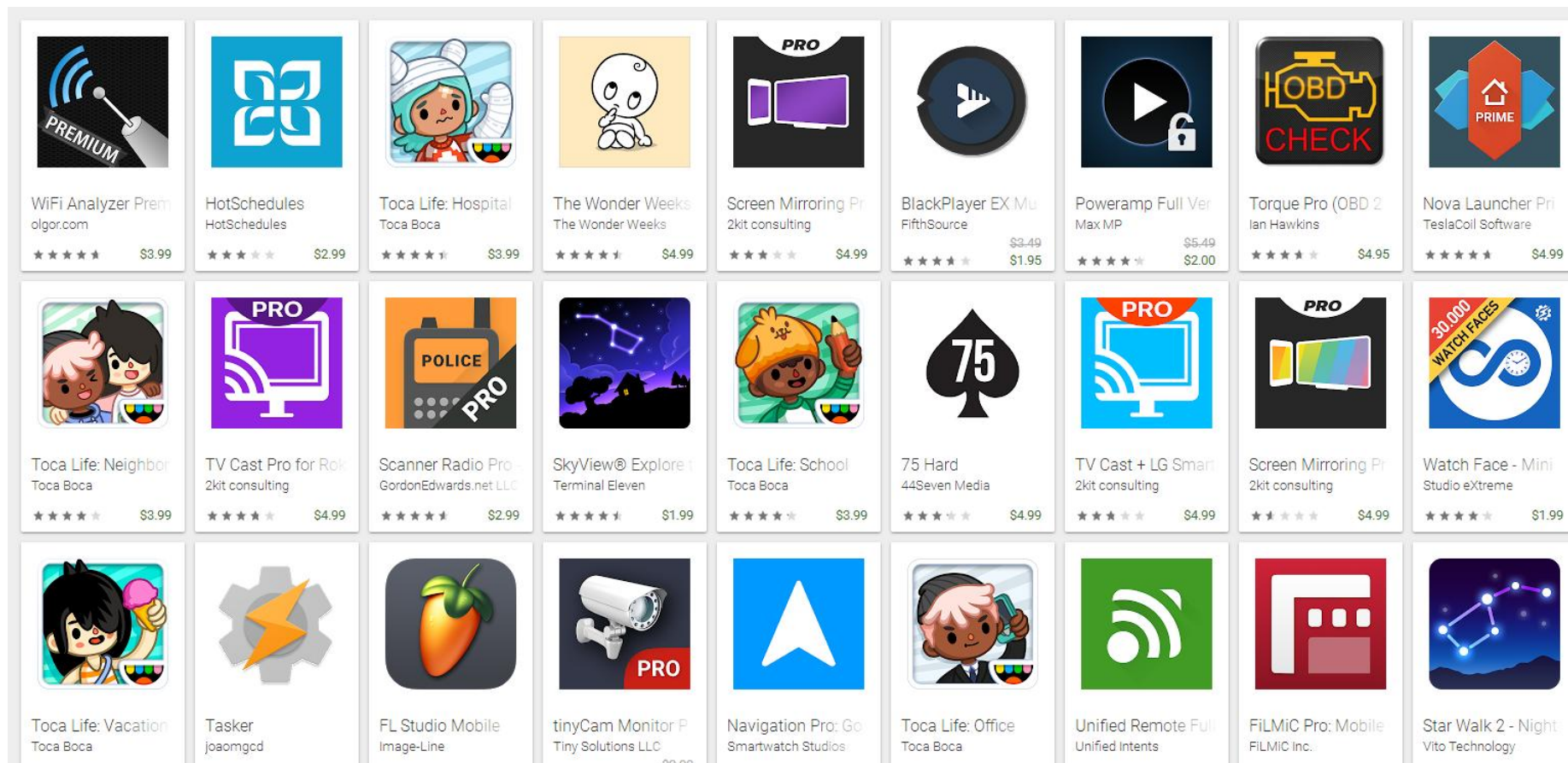
- **B2B Sales Model**

- Traditional software sales model.
- Selling mobile applications directly to the customers.
- Suitable when making mobile apps for specific customer

Application Categories



Top Paid Application on Google Play (11/2021)



Application Categories

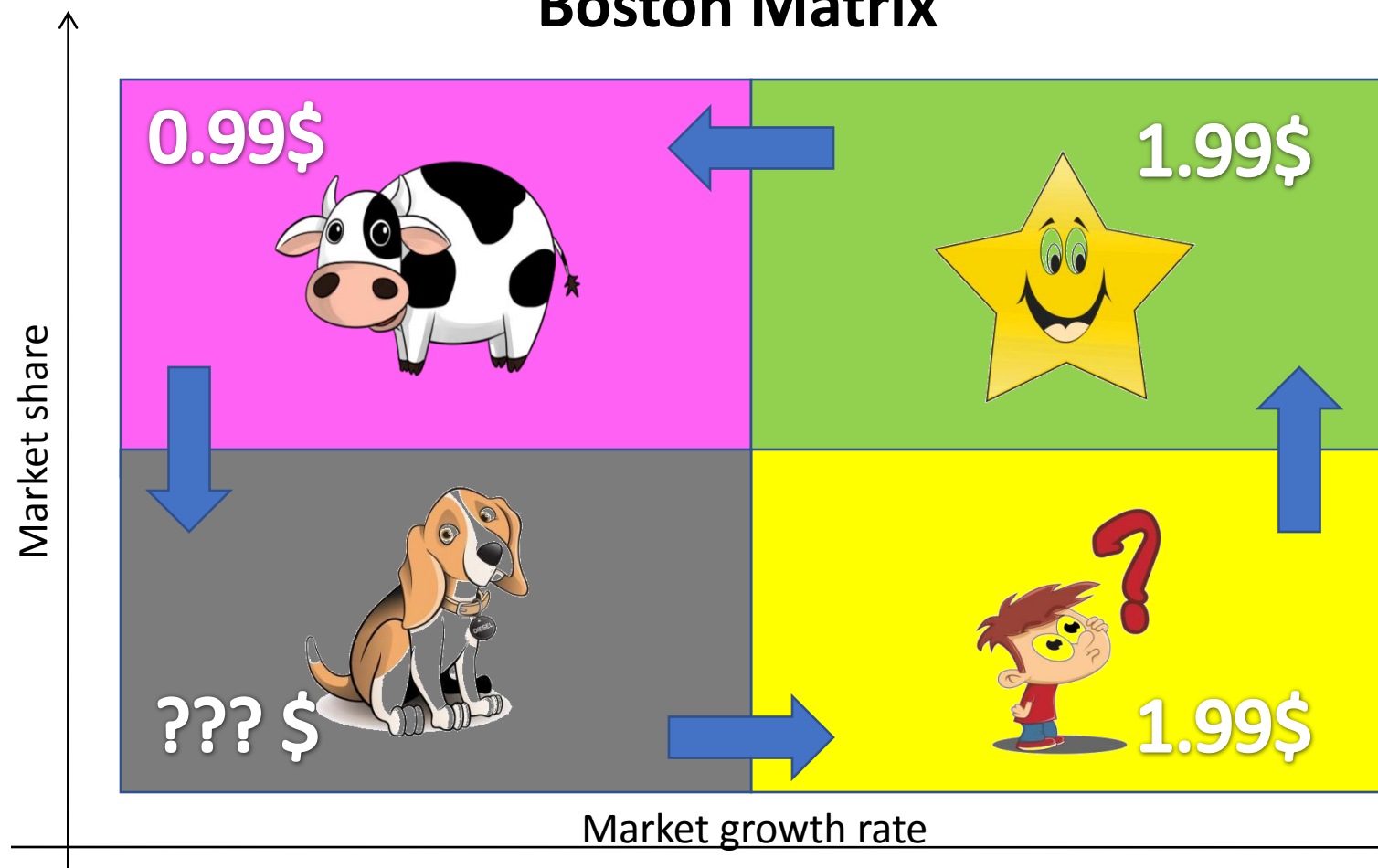
**What is wrong with
0.99 USD / EUR / CZK ?**

Application Categories

What is wrong with
0.99 USD / EUR / CZK ?

30/11/21

Boston Matrix

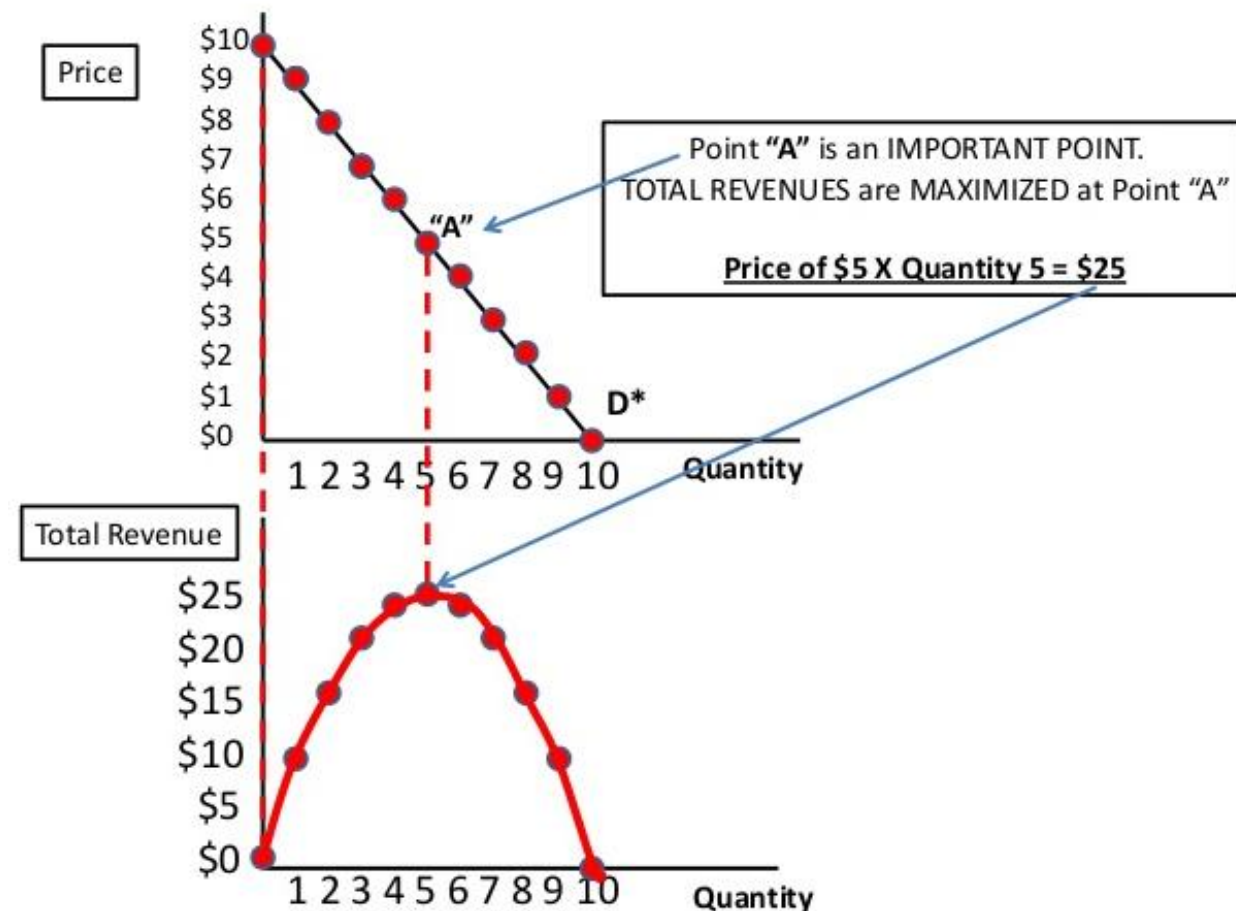


How to Price Your Product

- Know the market. You need to **find out how much customers will pay**, as well as how much competitors charge ...
- Choose the **best pricing technique** ...
- Work out **your costs** ...

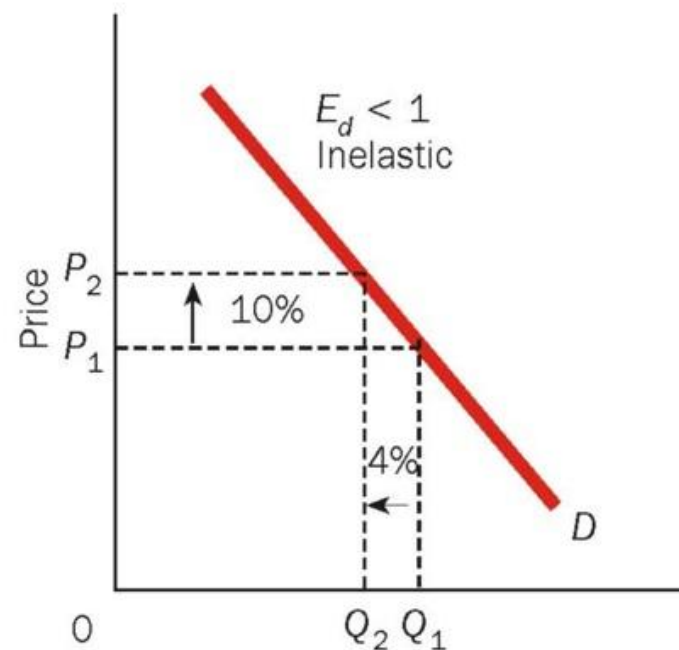
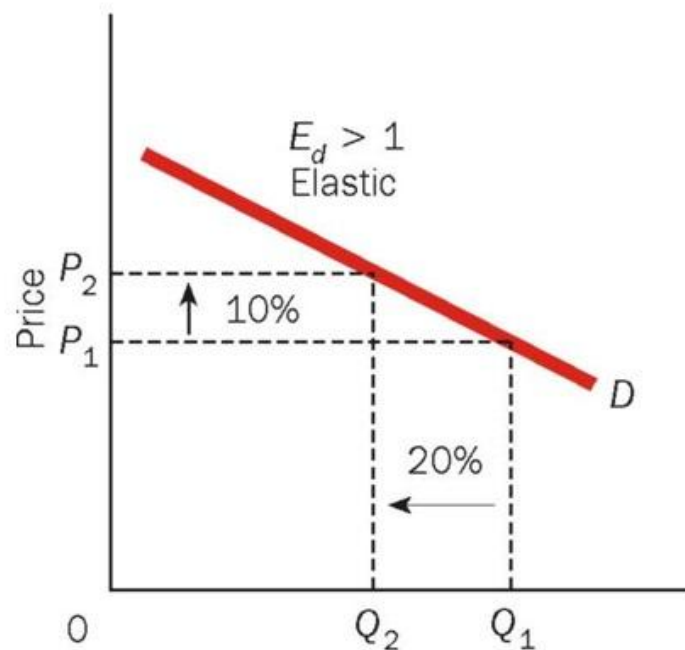
Demand Curve

- The **demand curve** is a graphical representation of the **relationship between the price of a good or service and the quantity** demanded for a given period of time.



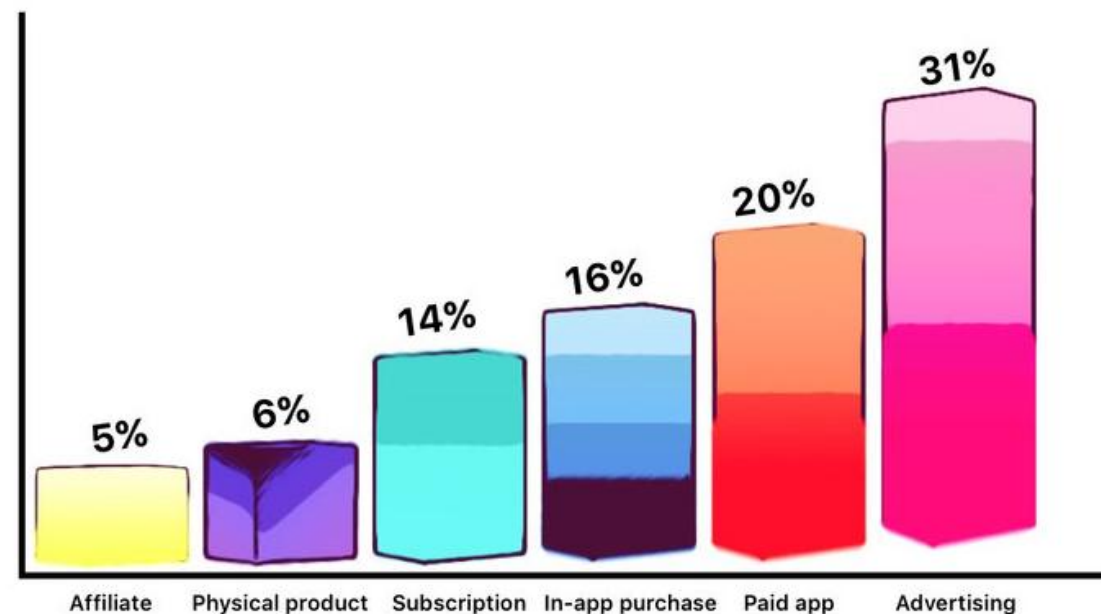
Price elasticity of demand

- Price elasticity of demand** (PED or E_d) is a measure used in economics to show the responsiveness, or elasticity, of the quantity demanded of a good or service to a change in its price.



Pay Models

- Pay per download
- Subscription and Freemium model
- Data Monetization
- In-app purchases, Virtual Currencies
- Transaction Fees
- Transactional Apps



Source: https://www.tamoco.com/blog/ultimate-app-monetization-guide/#Transactional_apps

Advertising Based Revenue

- **Create revenue from ads in applications**
- In-app advertising using 3rd party SDK
 - Visual ads (impressions)
 - Click ads (clicks)
 - Install ads (installs)
- Client campaigns
- House ads
- Advertising mechanisms
 - Notification, roll, display, ...
- **Many disadvantages**
 - Negative impact
 - Seasonal changes
 - Not enough place to fit in

Advertising Based Revenue

- **Banner Ads**
 - Ugly and intrusive. They divert the user's attention from the app experience.
- **Interstitial Ads**
 - Deliver an interstitial ad is at the end of a flow. For example, when a level is complete in a game app
- **Native Ads**
 - Ads integrate seamlessly into the app, e.g. feed of some sort, where the ad looks like another post in the timeline.
- **Affiliate Ads**
 - Generate commission from other apps, products, and services by advertising them through your app.
- **Reward Ads**
 - E.g., in a game, you may be offered an extra life if you watch a 30-second advert.

Advertising Based Revenue

- **Small income volume**

“For a simple banner, the click-through-rate (CTR) is around 0.1 percent to 0.2 percent. That means that if the app displays 50,000 impressions, you will get around 75 clicks. At \$0.05 per click that means you make \$3.75. If the 50,000 impressions are made over a month, then this isn’t very much money. If you have a more popular app and you can get 50,000 impressions per day, then you can make around \$100 per month. To make \$1000 a month you need half a million impressions per month...” -- Gary Sims, *How to monetize your Android app*

Advertising Based Revenue

- Quick to implement, simple app monetization process
- Demos
 - <https://developers.google.com/admob/android/banner>
 - <https://github.com/googleads/googleads-mobile-android-examples>

Freemium

- **Provide basic functionalities for free**
 - Very successful model (e.g. antiviruses, games)
 - Charge users for the additional features
 - e.g., games - additional levels, maps, weapons, ...
 - e.g., dictionaries – technical words, languages, ...
 - Predecessor of in-app billing model
- **Important is to balance between free and paid features**

In-app Purchasing

- **Potentially the best way to earn money**
- Offer free application, earn from in-app purchases of upgrades, additional services and functionalities
- **Platform API** have built-in functionalities for fast and secure purchase

Various models

- One time purchasing
- Micro transactions
- Subscriptions
- Shopping other products



Service / Subscription

- Subscription model
 - e.g. Skype, NetFlix, newspapers ...
 - Access to all or some features of the app for a specific time. Once this period is over, they will need to pay a recurring fee to keep using the app.
- The costs of software development are diluted in price of service.
- **Good protection against piracy**
- Positive cash flow
- Little effect on the user experience

Data Monetization

- User interacts with your app = they **generate a form of data**
- Valuable insights into customer behavior
- This app monetization model operates in the background



Models Summary

Model	Downloads	Income rate	Income volume	Revenue	User experience
Free	Large	None	None	Shared	Positive
Ads	Large	Continuous	Small	Shared	Negative
Paid	Small	One time	Large	Shared	Positive
In-app	Large	Multiple	Large	Shared	Positive
Subscription	Large	Continuous	Medium	Not shared	Indifferent
Proprietary in-app	Medium	Multiple	Medium	Not shared	Negative
Proprietary ads	Large	Continuous	Medium	Not shared	Negative

Place – Where to Sell

- **Google Play**
 - Mainstream
 - Huge concurrency, lot of free applications
- **NextPIT** (Android PIT)
- **Samsung Galaxy Store** (Samsung Apps)
- **Xiaomi Mi GetApps**

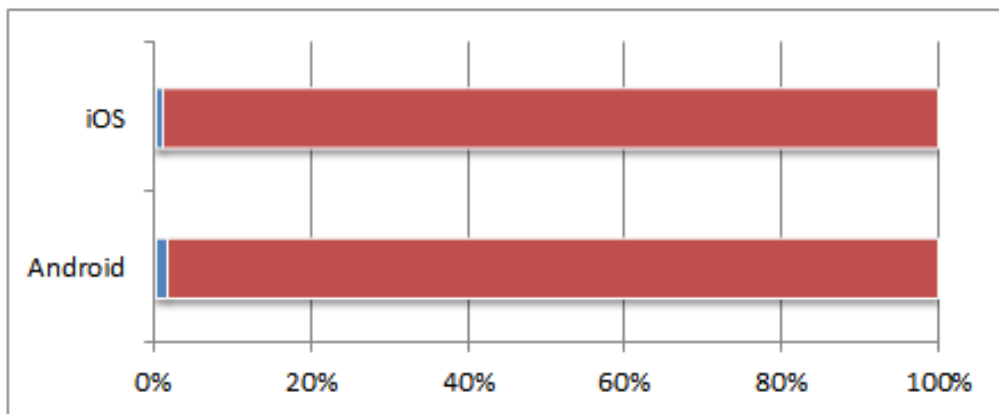
https://en.wikipedia.org/wiki/List_of_Android_app_stores

Propagation

- **Good looking application**
- **Good looking page on Google Play**
- **Reviews in media**
- **Advertisement – printed / electronic**
- **Word of Mouth**
- **Social Networks (+integrations)**

Piracy

- **Economic aspects**
 - “Steals” money from developers
- Creates illusions that Android is unsafe platform
- **Cracked application crashes => support problem ?**



DeathMetal HD: Sales and piracy rate for October 2012

	Sales	Piracy	Rate
Android	403	24565	98,3595%
iOS	85	8250	98,9697%

AntiLVL

- **Android License Verification Library Subversion**
- **Old automatic hacking tool ~ 2011- 2014**
 - <https://sourceforge.net/projects/antilvl/>
- **Subvert standard license protection**
 - Android License Verification Library (LVL)
 - Amazon Appstore DRM
 - Verizon DRM

Tasks:

- Decompiles the APK
- Perform regular expression matching
- Carry out defined modifications
- Recompile, update classes.dex
- Resign and zipalign

Lucky Patcher

- **One of AntiLVL successor ...**

“Remove or block ads on Android apps and games. Block in-app purchase verification with the app. Removing in-app purchase verification. Crack many games easily with Lucky Patcher APK. Get free coins and gems on many games. Remove unwanted permissions from any apps or games.”



References

Monetizing mobile applications. Zlatko Stapić, Marko Mijač, Boris Tomaš University of Zagreb Faculty of Organization and Informatics Pavlinska 2, 42000 Varaždin, Croatia <http://www.foi.unizg.hr/> CASE25 – Developers conference - 11.06.2013. – Zagreb, Croatia

Thank you for your attention

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