Topics

- Analyzing users’ behavior and tuning a game after publishing
- Integrating with analytics platforms
- Game metrics
- Logging custom events

Key Elements for App Success

- Acquisition
  - How many new users, i.e. downloads your app gets?
- Retention
  - How many users are coming back once they installed your app?
  - Downloads without retention doesn’t mean much (“Leaky bucket!”)
- Monetization
  - What is average revenue by active user?
  - Some apps monetize better than the others
- What can you do influence these parameters?

Game Metrics Glossary

- DAU – Daily Active Users
- MAU – Monthly Active Users
- DAU/MAU, Stickiness
  - Facebook – 50%, Most successful games – 20%, Average games – 10%
- Retention
  - Percentage of returning users N days after install
  - Common days used for retention are 1, 3, 7 and 30
- Conversion Rate
  - The percentage of unique users that have made a purchase out of the total number of users during that time period
- ARPDAU – Average Revenue Per Daily Active User
  - This is a great metric to track before and during user acquisition campaigns
- ARPPU – Average Revenue Per Paying User
- http://blog.gameanalytics.com/blog/metrics-all-game-developers-should-know.html
Get the Data

- First you must acquire usage data
- It's called analytics
- Some basic statistics/analytics can be found in the developer consoles
- If you really want an insight into users' behavior there are several free analytics platforms available
  - Flurry (Yahoo)
  - Fabric.io (Twitter)
  - Firebase Analytics (Google)
- All these platforms support both iOS and Android

Integration with Analytics Platforms

- Basic integration is merely easy, just follow these steps
  1. Create an account
  2. Create an app under your account, get the key
  3. Download SDK
  4. Add it to your project
  5. Put a few lines of code to complete integration
- In the case of Flurry and Android, those are the following lines of code
  - `import com.flurry.android.FlurryAgent;`
  - `onCreate → FlurryAgent.init(this, "YOUR_APP_KEY");`
  - `onStart → FlurryAgent.onStartSession(this);`
  - `onStop → FlurryAgent.onEndSession(this);`

Event Logging

- To enable better understanding how users interact with your app you need to log custom events
- All analytics platform enables that, and it is rather simple to log an event
  - FlurryAgent.logEvent("Level 1 started");
- Your task is to identify events that you want to track
- In Flurry you’re limited to 300 events per app, but they can have parameters, so number of combinations is practically unlimited
  - `Map<String, String> hashParams = new HashMap<String, String>();`
  - `hashParams.put("level", Integer.toString(1));`
  - `FlurryAgent.logEvent("Level started", hashParams, false);
- There’s support for timed events
  - These are events that you start and after some time end
  - Elapsed time is automatically logged with an event

What do you get with Flurry?

- Usage reports (per day/week/month)
  - New users
  - Active users
  - Sessions
  - Session Length (distribution, median)
  - Frequency of use (daily, weekly, monthly)
- Retention reports
  - Return rate after N days/weeks/months
  - Rolling retention

- Audience
  - Geography
  - Language
  - Age
  - Gender
- Events
  - Summary
  - Details
  - User paths
- Crash reports

Live demo
How to interpret gathered data?

- How to know what's good and what's bad?
- Why some trends occur and disappear?
- Can you influence them and how?
- Those are big question!
- You need benchmark data

Benchmark Data

- In-house comparison (between your other apps)
- Flurry provides some basic benchmarks for the following usage metrics
  - Session Length
  - Frequency of Use
- Search Internet for related articles

App Store Optimization and Intelligence

- How your app ranks in the category?
- How other apps ranks in certain categories?
- How your app ranks with certain keywords?
- How other apps ranks with certain keyword?
- How “good” are certain keywords?
- There are freemium services that provide these market insights
  - App Annie [https://www.appannie.com](https://www.appannie.com)
  - Sensor Tower [https://sensortower.com](https://sensortower.com)

A few goodbye tips

- At the beginning focus on acquisition
- Monetization makes sense only with high volume of users
- Retention is the hardest to fix
- Some games cannot be fixed – don’t loose time
- Tough market, but valuable lessons can be learned

Live demo