



MOBILE GAMES: BUILDING AN EMPIRE

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THE AGENDA

- Introduction
- How To Make Money
- How To Make a Game That Makes Money
- How To Keep Making Money
- Questions

INTRODUCTION

Education

Master of Science in Applied Computing, *University of Toronto*

Honors Bachelor of Software Engineering (Game Design), *McMaster University*

Work Experience

Software Engineer, *Zynga*

Full Stack Developer, *Uken Games*

Teaching Assistant, *University of Toronto*

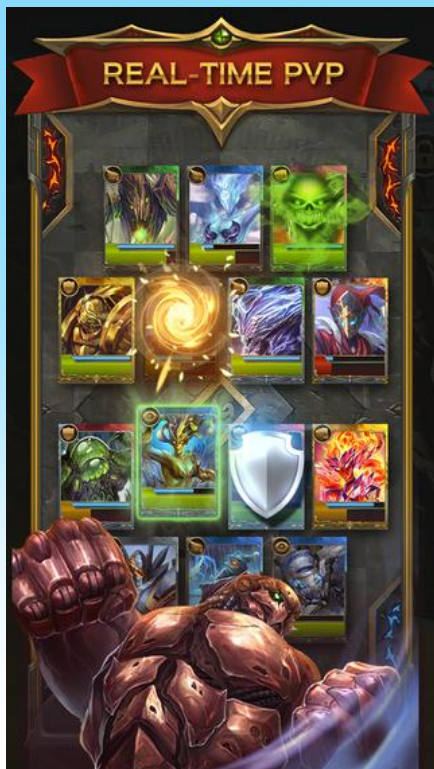
Software Developer, *MiHealth Global Systems*

Teaching Assistant, *McMaster University*

Multimedia Test Tool Developer, *Research In Motion*

Research Assistant, Visual Interactive Design lab, *University of Victoria*

Uken Games

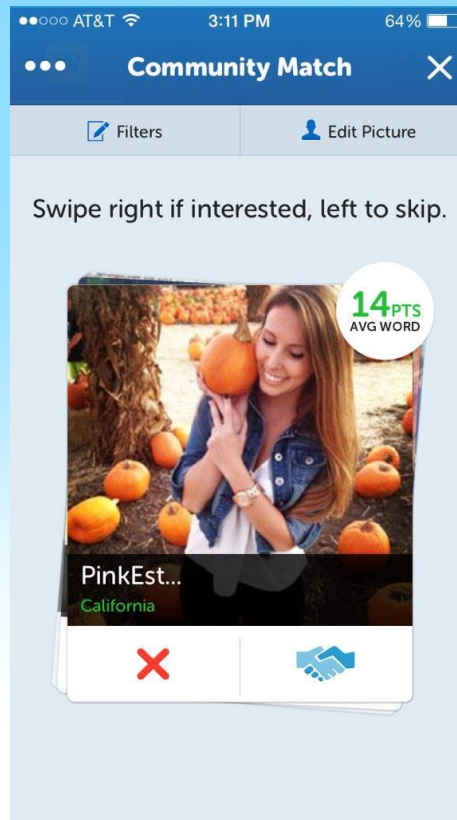




Connecting the word through games...



Community Match and Tournaments

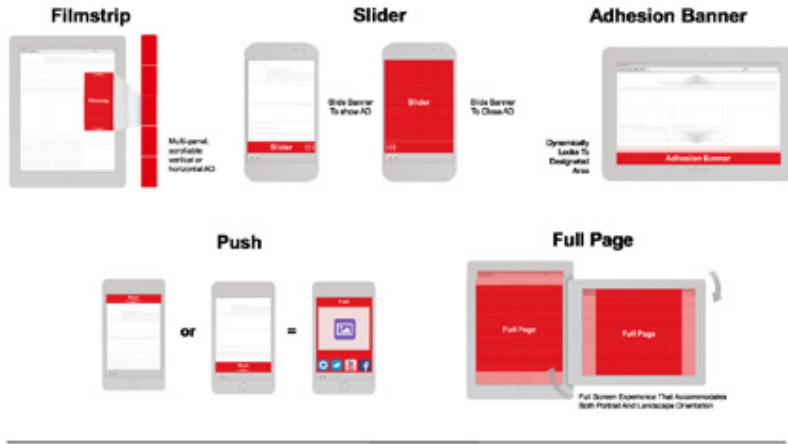


HOW TO MAKE MONEY: REVENUE STREAMS IN GAMING



Ad Revenue

Mobile Rising Stars The Full Range




iab.

- Banner ads
- Interstitial ads
- Incentive-based ads



Strategic Partnerships

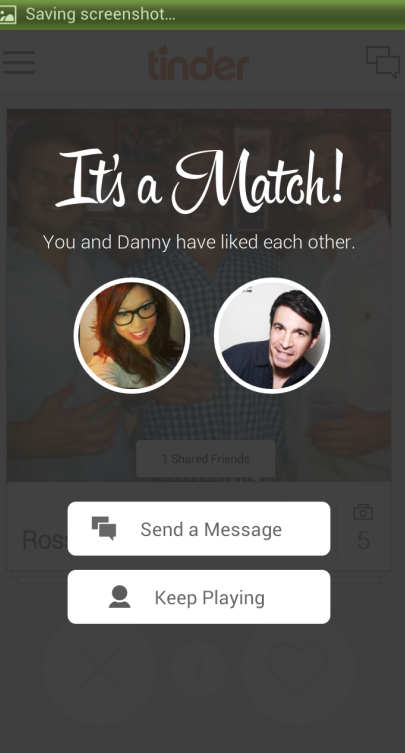


Mindy, 34
act ny, 34
8 miles away
active 1 day ago

About Mindy
Tiny doctor in a big city looking for love, fine donut that's so good it's spiritual. I've got a Witherspoon personality, a Nicki Minaj body, Sinatra eyes (they turn blue in the summer, Looking for the Channing Tatum to my "girl Up." Swipe right if you like a high-powered of a woman who has it all but only recently her DVR. To see more about me, tune-in to PROJECT this Tuesday at 9:30/8:30c on Fi

Danny
1" Italian stallion from Staten Island who can -minute mile. Not sure how I feel about "web Whatever happened to meeting a girl outside stadium, taking her home and playing her s from the William Joel songbook? You wanna ? Look me up in the PHONE BOOK. Ever it? To see more of what I'm all about, tune-in #MINDY PROJECT this Tuesday at 9:30/8:30c

Saving screenshot...



It's a Match!
You and Danny have liked each other.

1 Shared Friends

Send a Message

Keep Playing

Back Mindy More

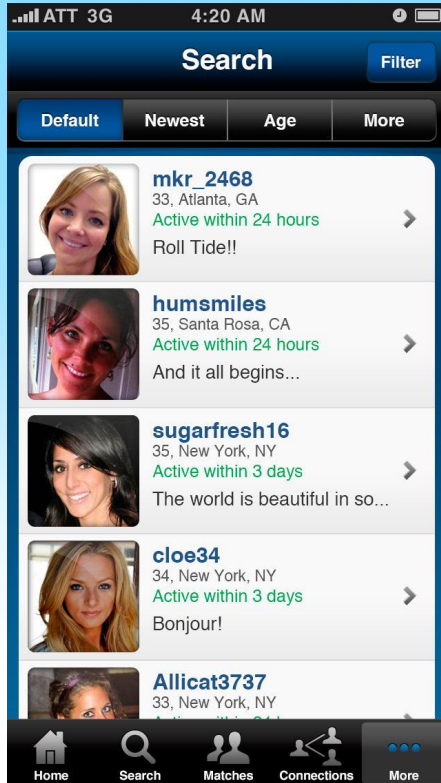
Jan 2, 2014, 9:36 AM

Hey there! Glad we matched. If you're not a Melvin, check this out... <https://www.youtube.com/watch?v=78YXPVUQFg> Admit it, you like me! See more of me this Tuesday at 9:30pm on The Mindy Project #FOX

Message Send

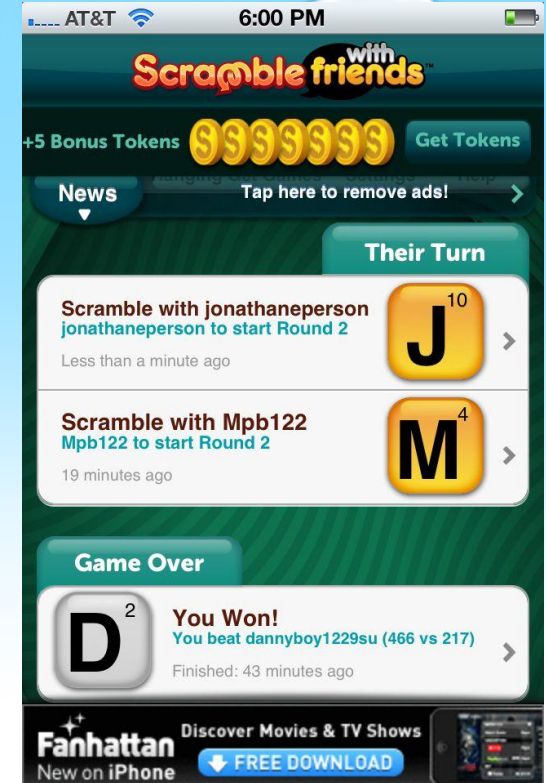
Tinder - Justin Scott

Subscription vs. Freemium vs. Premium

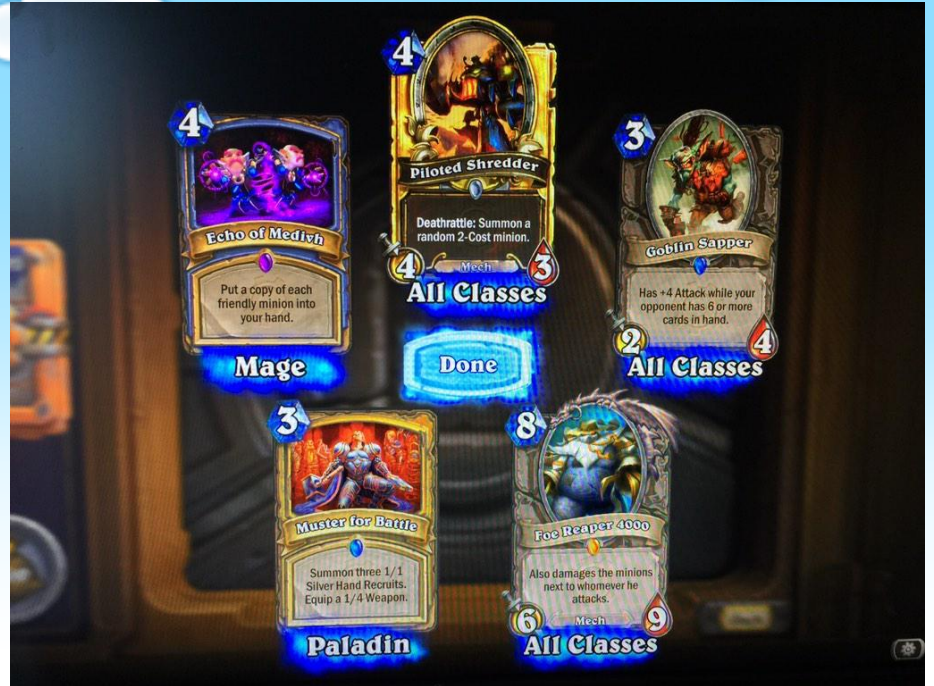


A screenshot of the App Store "Top Apps" list for iOS Games, worldwide, as of December 2014. The list is sorted by downloads and includes app icons, names, rank changes, and company names.

#	App Name	Rank Change	Company
1	Trivia Crack	▲39	Etermax
2	Candy Crush Soda Saga	▼1	King
3	Crossy Road	▲4	HIPSTER WHALE
4	Looney Tunes Dash!	New Release	Zynga
5	Fun Run 2	New Release	Dirtybit
6	My Talking Angela	New Release	Outfit7
7	SimCity BuildIt	New Release	Electronic Arts
8	Candy Crush Saga	▼3	King
9	Dumb Ways to Die 2	▼6	Metro Trains
10	Amazing Ninja	New Release	Ketchapp Studio

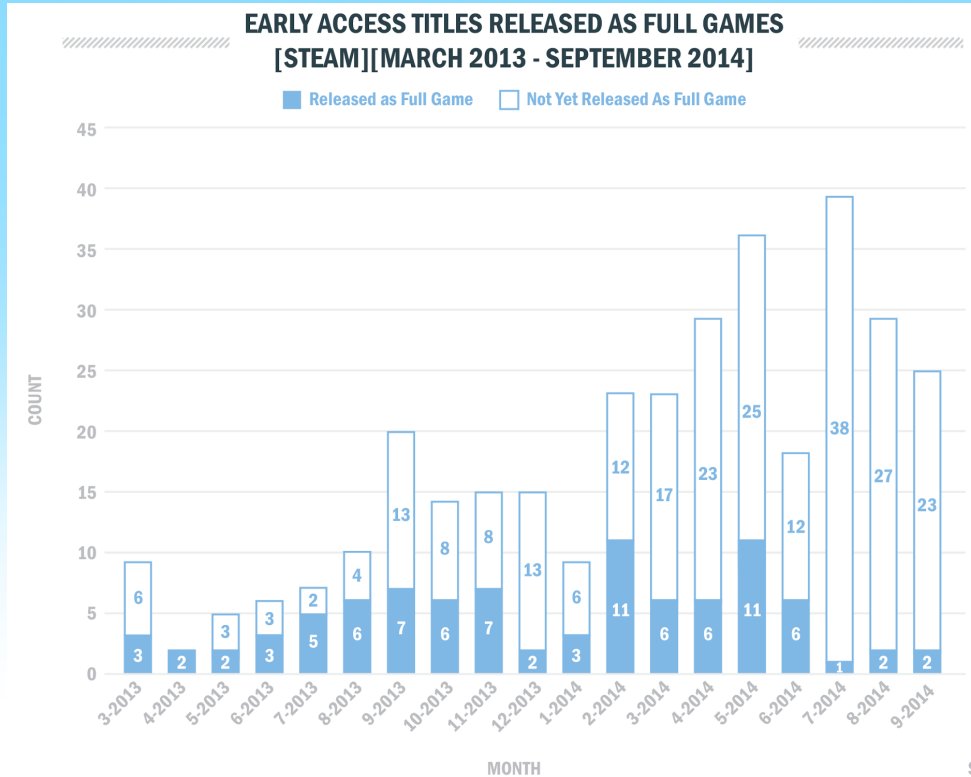


Freemium: Free-to-play or Pay-to-win?

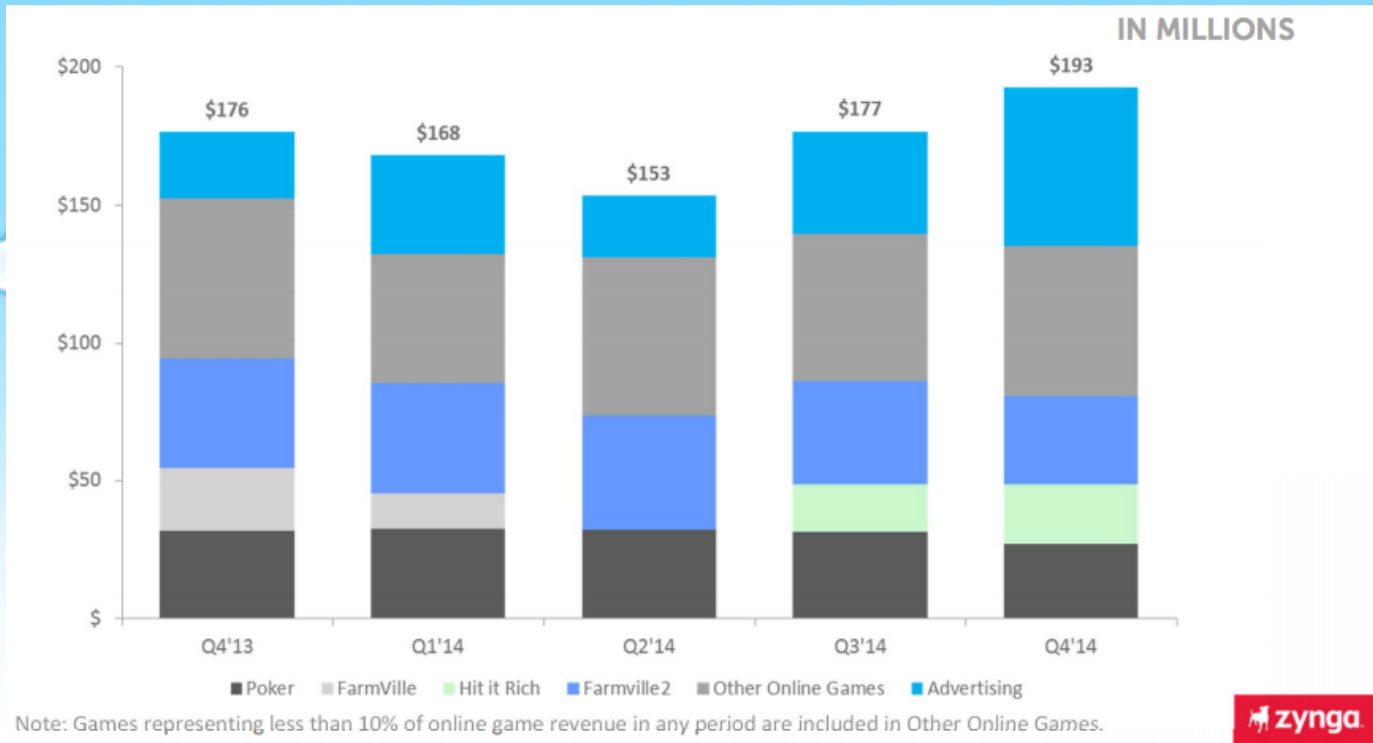


Steam Early Access

Minecraft



How Does Zynga Make Money?



<http://investor.zynga.com/results.cfm>

HOW TO MAKE A GAME (THAT MAKES MONEY)

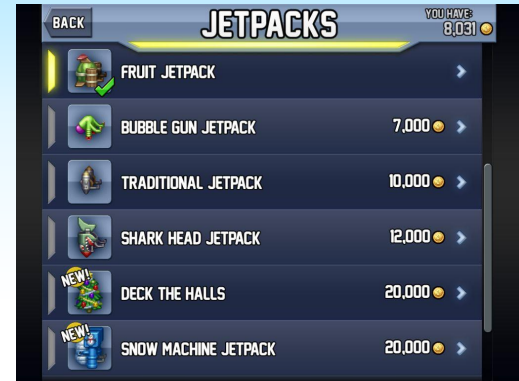
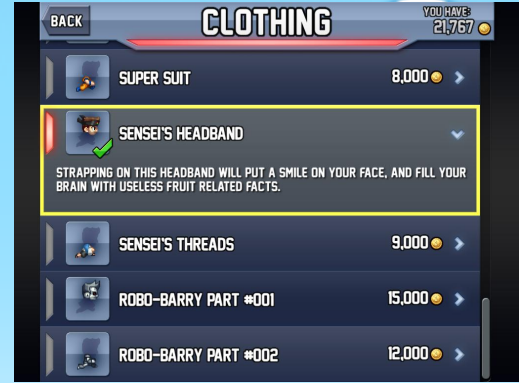
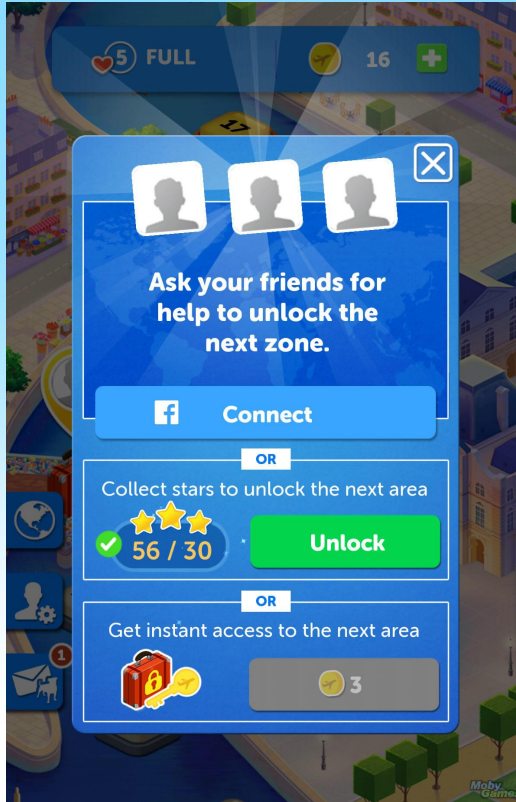


Before you write any code...

Things to think about:

- Can in-app purchases make the game playing experience better?
- If so, what kind of virtual goods will you offer for sale?
- What virtual goods lend them to the playing environment?
- How can I incorporate advertising into the game?

Opportunities for IAPs



Driving Revenue Through Events

Event - limited time content/activity for a social game

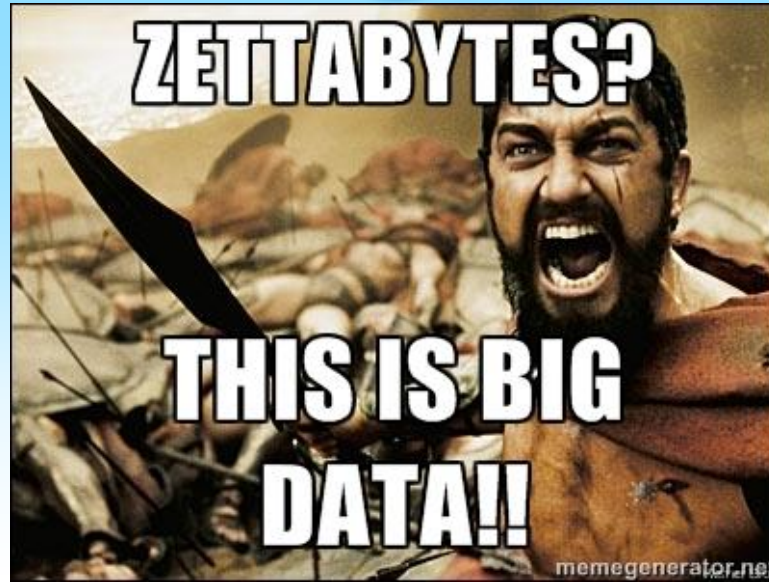
Events are metagames built on top of the existing core mechanics.

Event Design Pillars:

1. Rewards
2. Progression
3. Urgency
4. Competition



HOW TO KEEP MAKING MONEY: DATA, DATA, DATA



Big Data Means HUGE Infrastructure

Zynga's Infrastructure Needs:

- **1,000+ servers** are able to be deployed **in any 24-hour period**
- **100x** increase in Zynga's server infrastructure capacity within the last two years
- **24.5 trillion** rows of data in 2011. This is 20 million times as many rows as even the largest mega-spreadsheet supported by Excel
- **1.4 petabytes** of data in our entire database. This is more than 10x the data required to store every movie offered by Netflix, in HD
- **21 billion** With Friends games played on hundreds of dedicated game servers
- **650 hands** of Zynga Poker played **every second**

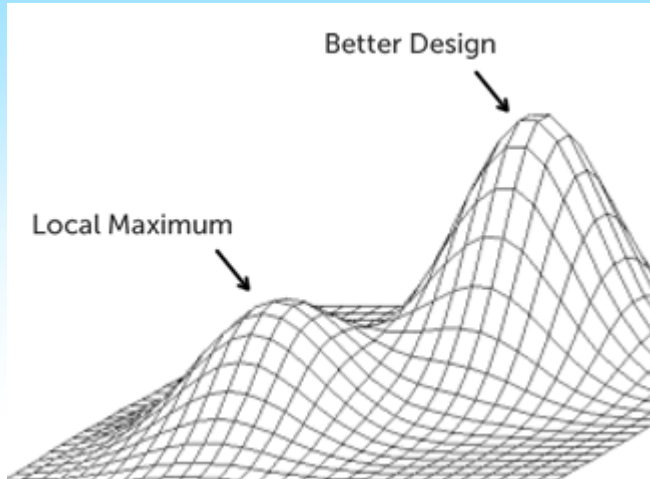
Data Driven Design



Data Driven - Relying on cold, hard data to make decisions

Problems with Data Driven Design

- Data is systematically biased!
- Not everything is an optimization problem



Data can help you iterate towards the local maximum, but that doesn't mean you have the data to get to the best (global) outcome

Andrew Chen

Data Informed Design

Key Performance Indicator (KPI) - quantifiable metrics that are important to measure success in your game

MAU - Monthly Active Users

DAU - Daily Active Users

Retention Rate

Churn Rate / Attrition Rate (100% - Retention Rate)

ARPU - Average Revenue Per User

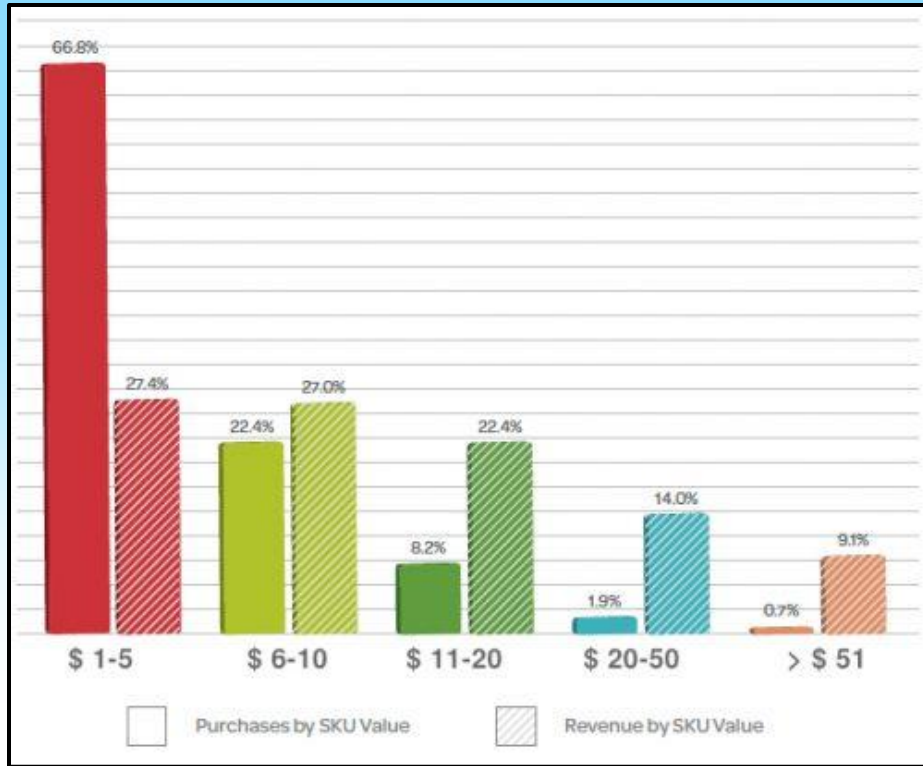
ARPPU - Average Revenue Per Paying User

ARPPU - Average Revenue Per Daily Active User

CPI - Cost Per Install

LTV - Lifetime Value

Know Your Users



Minnows - spend the smallest amount possible

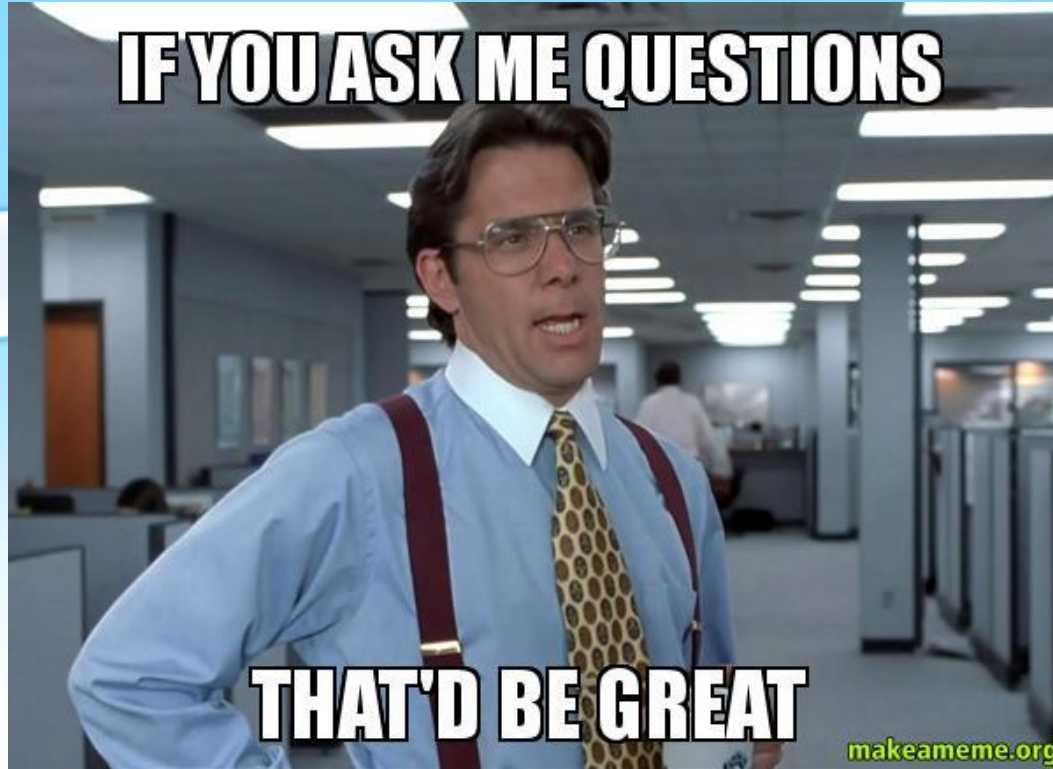
Dolphins - spend a typical amount

Whales - HMUs (highly monetizing users)

Freeloaders - non-spenders

Questions???

IF YOU ASK ME QUESTIONS



THAT'D BE GREAT

makeameme.org