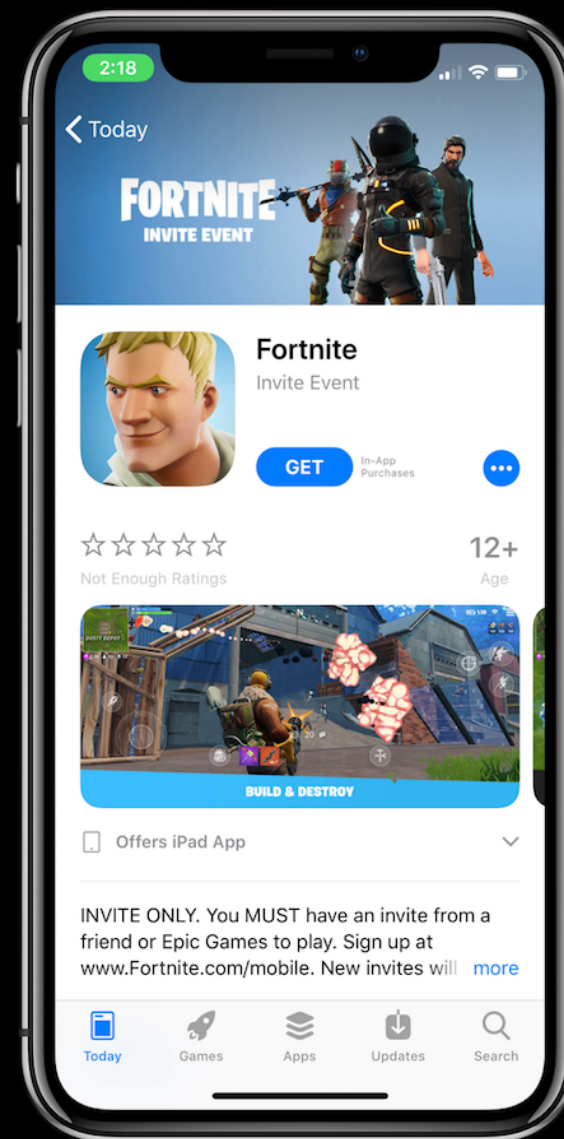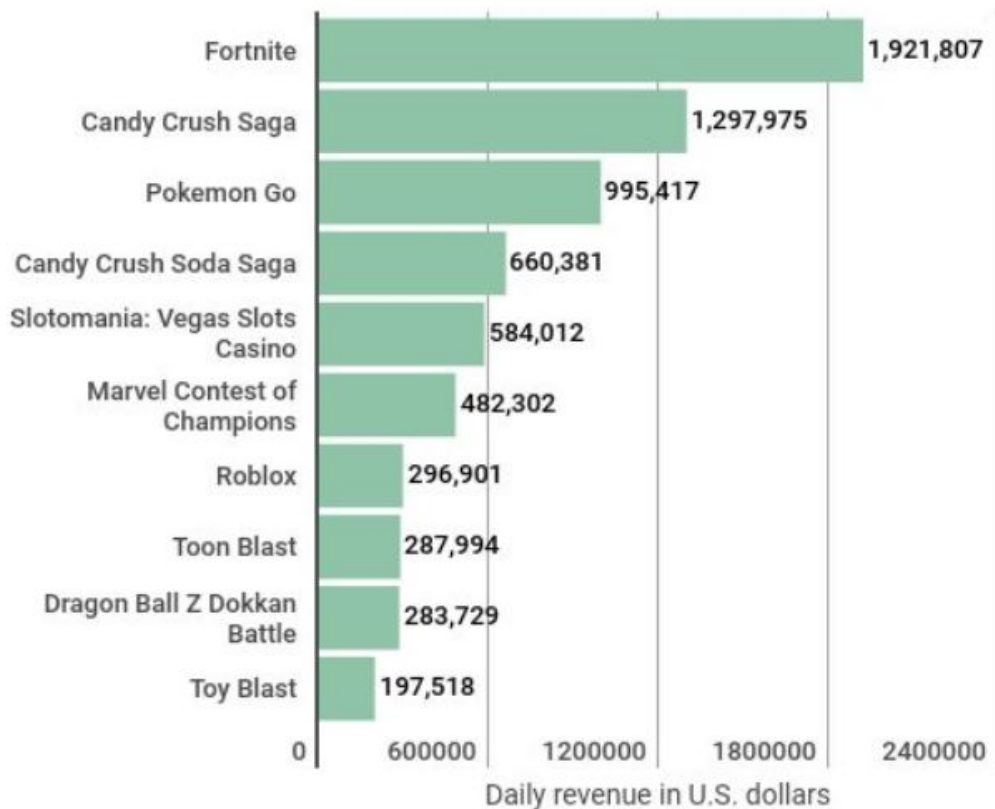# A Star is Born:

How Platform Hubs Orchestrate the Success of Complements

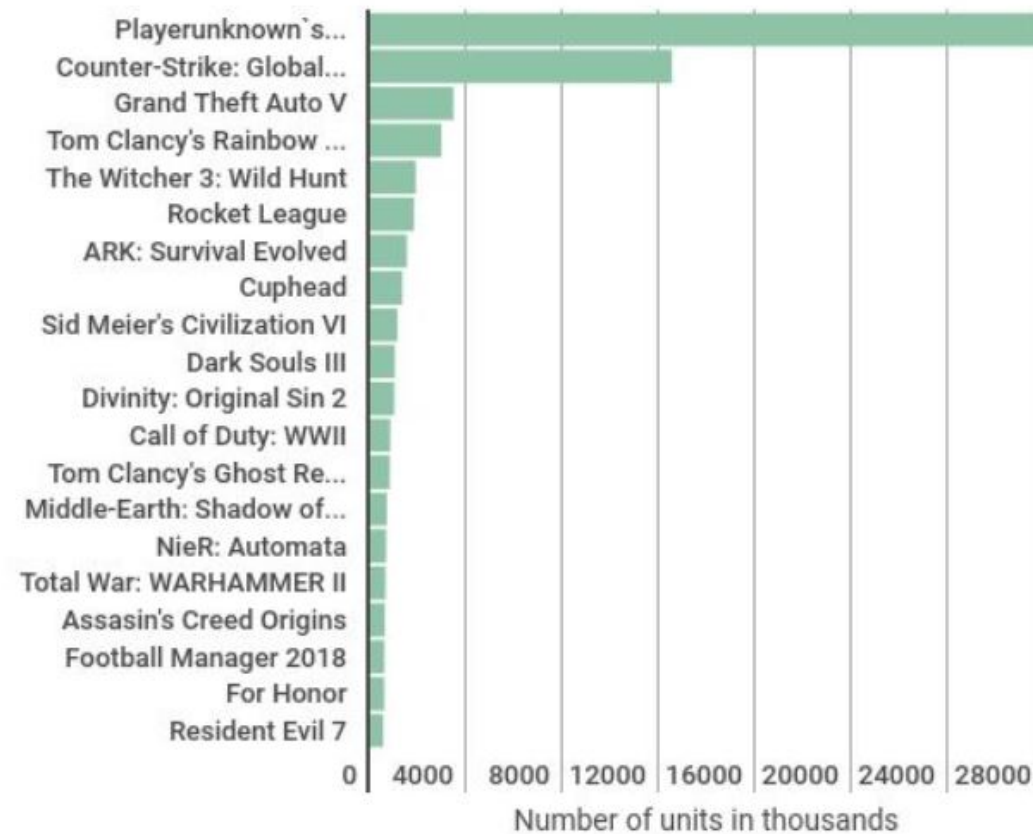Joost Rietveld & Melissa Schilling

Markets with Blockbuster Hits

The List of iPhone's Top Grossing Mobile Gaming Apps in the United States in U.S. dollars, ranked by daily revenue (as of January 2018)

App	Daily revenue in U.S. dollars
Fortnite	1,921,807
Candy Crush Saga	1,297,975
Pokemon Go	995,417
Candy Crush Soda Saga	660,381
Slotomania: Vegas Slots Casino	584,012
Marvel Contest of Champions	482,302
Roblox	296,901
Toon Blast	287,994
Dragon Ball Z Dokkan Battle	283,729
Toy Blast	197,518

Daily revenue in U.S. dollars

Markets with Blockbuster Hits

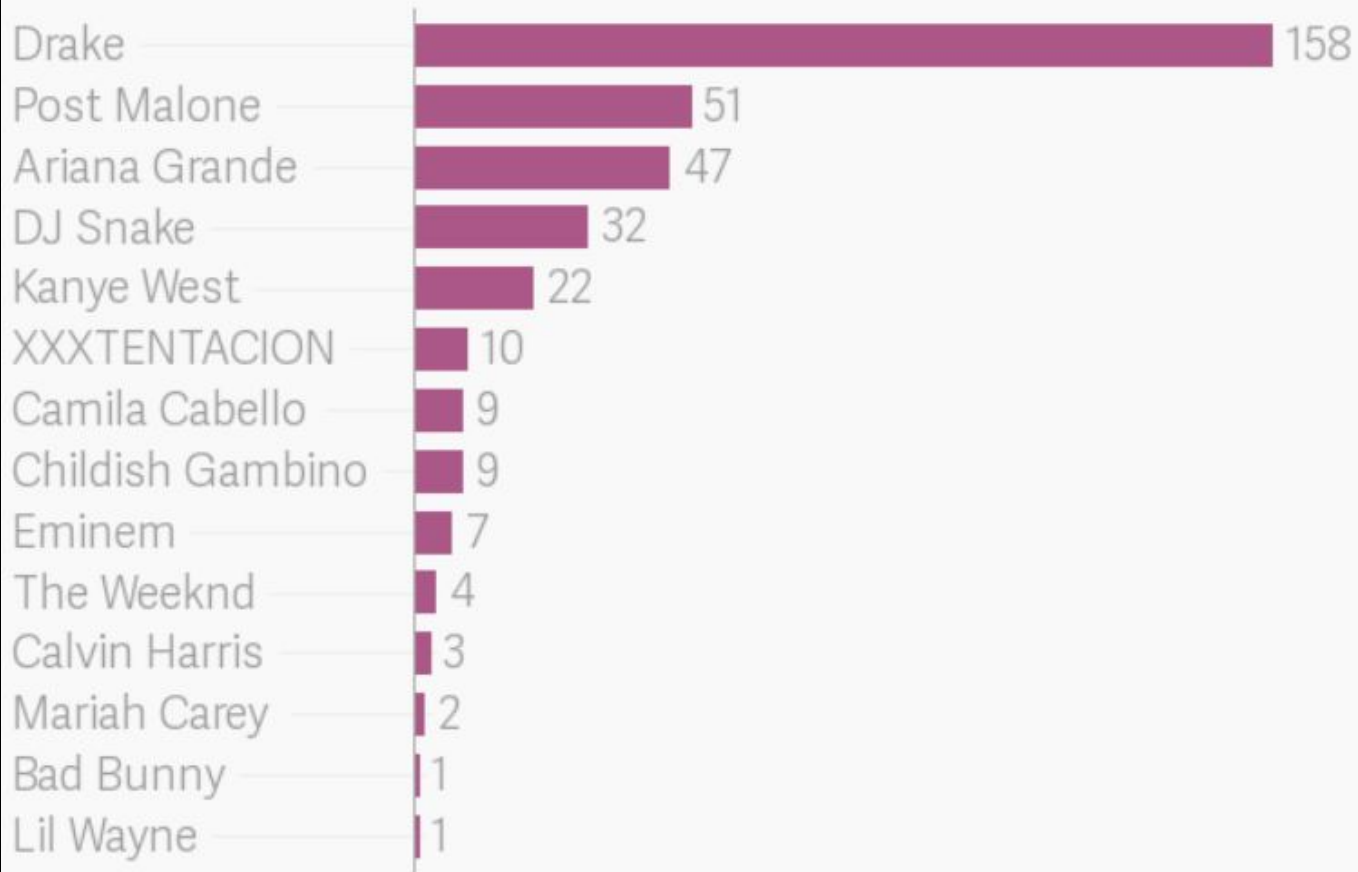The Highest Paid Steam Game Titles by Number of Units Sold in 1000s (2017)

Game	Number of units in thousands
Playerunknown's...	~29000
Counter-Strike: Global...	~15000
Grand Theft Auto V	~4500
Tom Clancy's Rainbow ...	~4000
The Witcher 3: Wild Hunt	~3000
Rocket League	~3000
ARK: Survival Evolved	~2500
Cuphead	~2500
Sid Meier's Civilization VI	~2000
Dark Souls III	~2000
Divinity: Original Sin 2	~2000
Call of Duty: WWII	~2000
Tom Clancy's Ghost Re...	~2000
Middle-Earth: Shadow of...	~1500
NieR: Automata	~1500
Total War: WARHAMMER II	~1500
Assasin's Creed Origins	~1500
Football Manager 2018	~1500
For Honor	~1500
Resident Evil 7	~1500

PLAYERUNKNOWN'S BATTLEGROUNDS

Markets with Blockbuster Hits

Overall ▶ Q1 Apps by Worldwide Downloads

Legend: ■ App Store ■ Google Play

App	
WhatsApp	
Messenger	
TikTok	
Facebook	
Instagram	
SHAREit	
YouTube	
LIKE Video	
Netflix	
Snapchat	
Spotify	
UC Browser	
Biugo	
Hotstar	
YouTube Music	
PicsArt Photo Studio	
MX Player	
Uber	
Twitter	
Amazon	

Axis: 0   50M   100M   150M   200M   250M

SensorTower   Data That Drives App Growth   sensortower.com
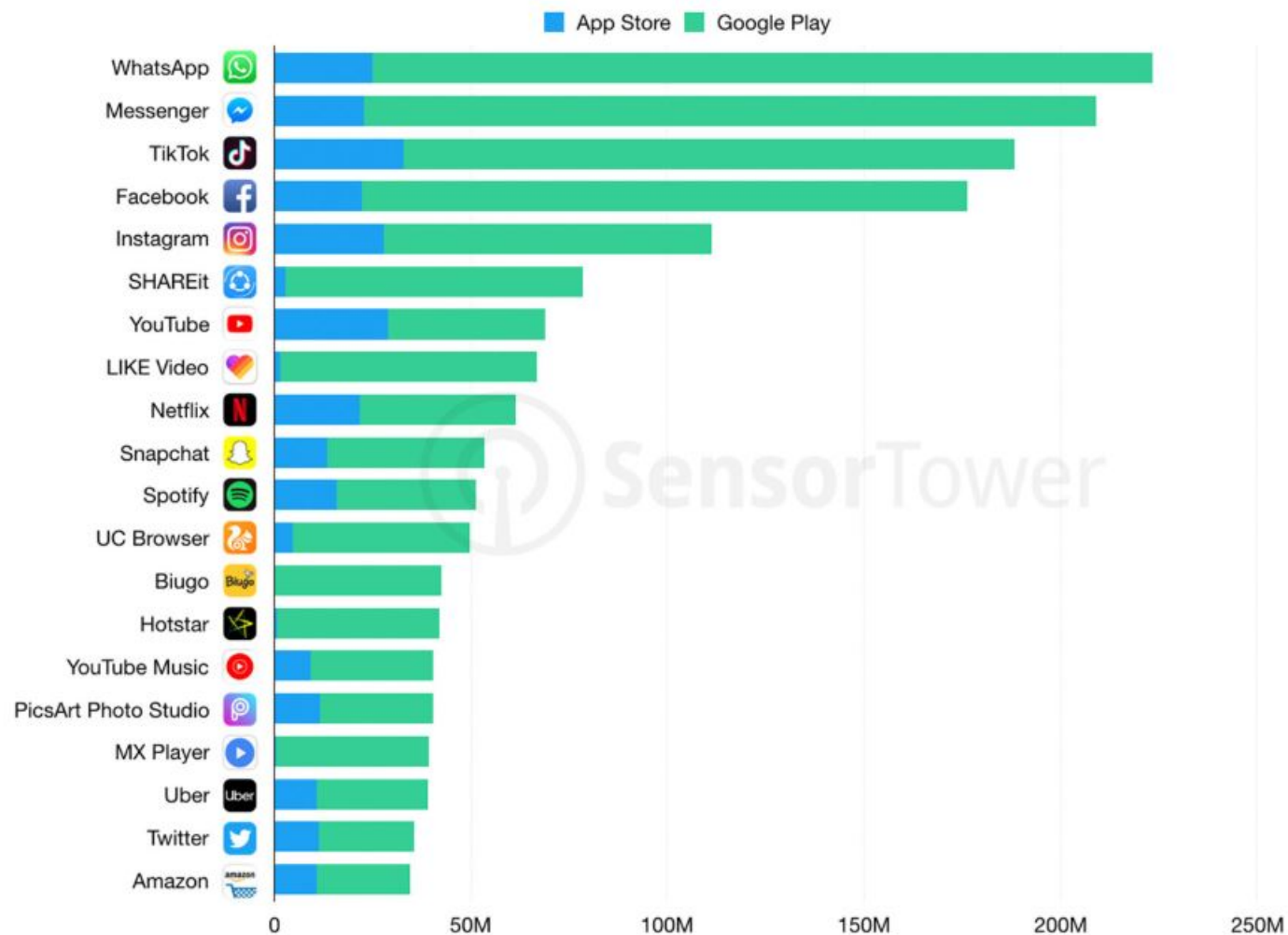
Markets with Blockbuster Hits

Days with the most-streamed song on Spotify in 2018

Artist	Days
Drake	158
Post Malone	51
Ariana Grande	47
DJ Snake	32
Kanye West	22
XXXTENTACION	10
Camila Cabello	9
Childish Gambino	9
Eminem	7
The Weeknd	4
Calvin Harris	3
Mariah Carey	2
Bad Bunny	1
Lil Wayne	1

ATLAS | Data: Spotify

Drake
God's Plan
(Future Bass Remix)
Prod. leenam3

Markets with Blockbuster Hits

Top Grossing Films of 2018

Rank	Title	Distributor	Worldwide gross
1	*Black Panther*	Disney	$909,827,710
2	*Detective Chinatown 2*	Wanda Media	$496,457,056[2]
3	*Operation Red Sea*	Huaxia Film / Horgos Bona	$473,469,208[3]
4	*Monster Hunt 2*	EDKO	$351,849,148[4]
5	*Fifty Shades Freed*	Universal	$346,202,480
6	*Maze Runner: The Death Cure*	20th Century Fox	$279,062,145
7	*Insidious: The Last Key*	Universal	$165,606,025
8	*Forever Young*	United Entertainment	$118,640,000[5]
9	*The Monkey King 3*	China Film Group	$113,037,989[6]
10	*Peter Rabbit*	Sony	$102,589,133

Two Main Mechanisms Creating "Tippy" Markets

- 1. Network Externalities

Size of Installed Base

The availability of complementary goods attracts users, increasing the installed base

A large installed base attracts producers of complementary goods

Availability of Complementary Goods

Two Main Mechanisms Creating "Tippy" Markets

- 2. Social Referral
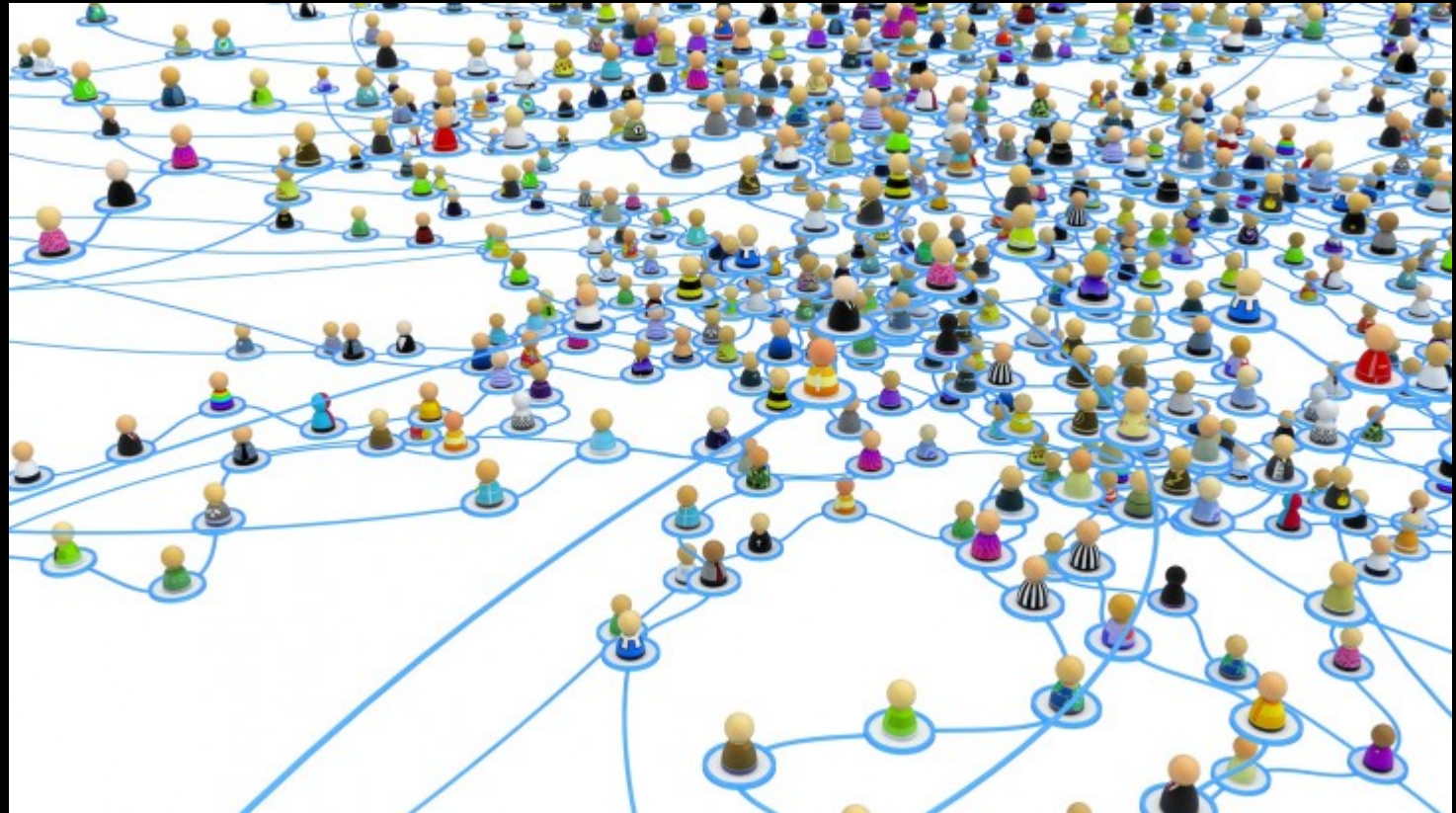
Platform owners orchestrate attention in ecosystem

- Platform owners can direct attention using recommender systems, "featured" listings, prime positioning on website, bundling, awards, and more.

- The effect is LARGE.

'IF YOU LIKE...' ARE BENEFICIAL FEATURED CATEGORIES
Average Download Increase per Category, Apple App Store, U.S.

| Category	Start Date of the Feature	End Date of the Feature	Average Download Growth	Example App
If You Like... Candy Crush	14 / 02 / 2014	20 / 02 / 2014	279%	Puzzle Craft
If You Like... Minecraft	21 / 02 / 2014	27 / 02 / 2014	175%	Tiny Tower
If You Like... The Room	28 / 02 / 2014	06 / 03 / 2014	255%	The Silent Age
If You Like... Badland	07 / 03 / 2014	13 / 03 / 2014	395%	Sea Stars

"Ed Sheeran 'owes career to Spotify'" -

http://www.bbc.com/news/entertainment-arts-30436855

"*Games that warrant a Platinum release are the cream of the crop, the very best games that have been published . . . They're often titles that are innovative in their design and feel, offer immersive gameplay, wowed game critics and received their fair share of accolades and awards.*" – Sony website
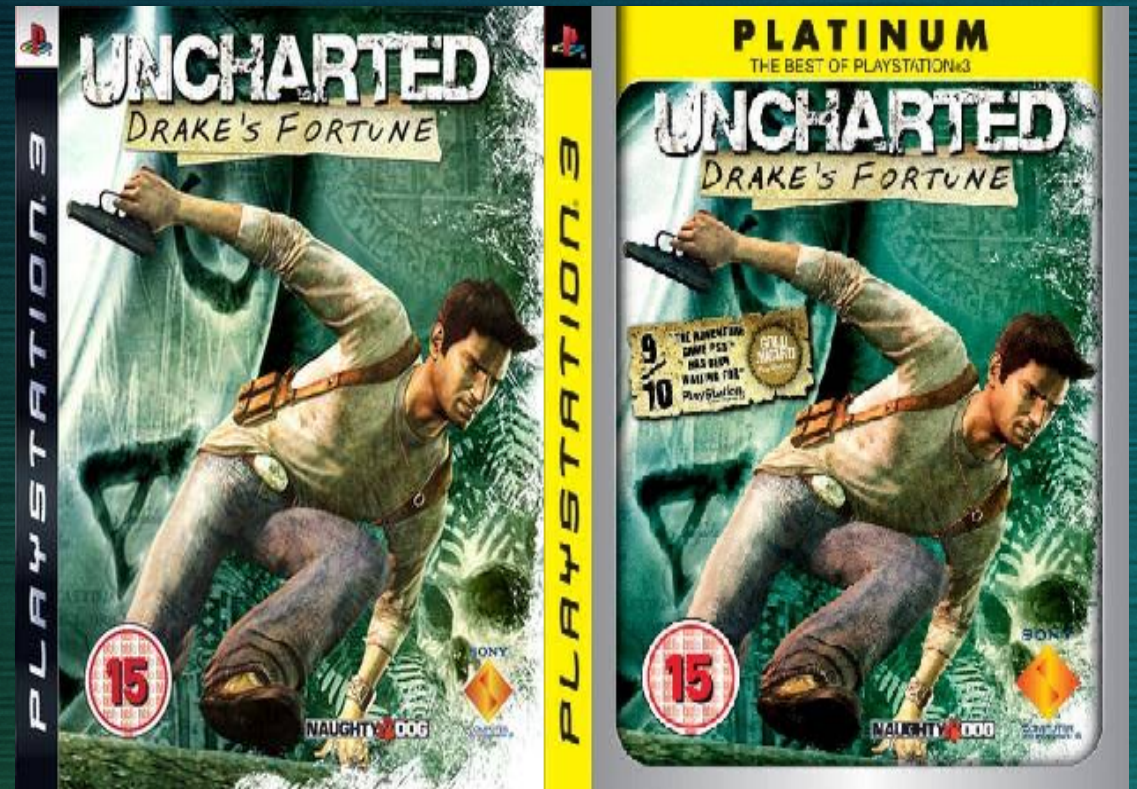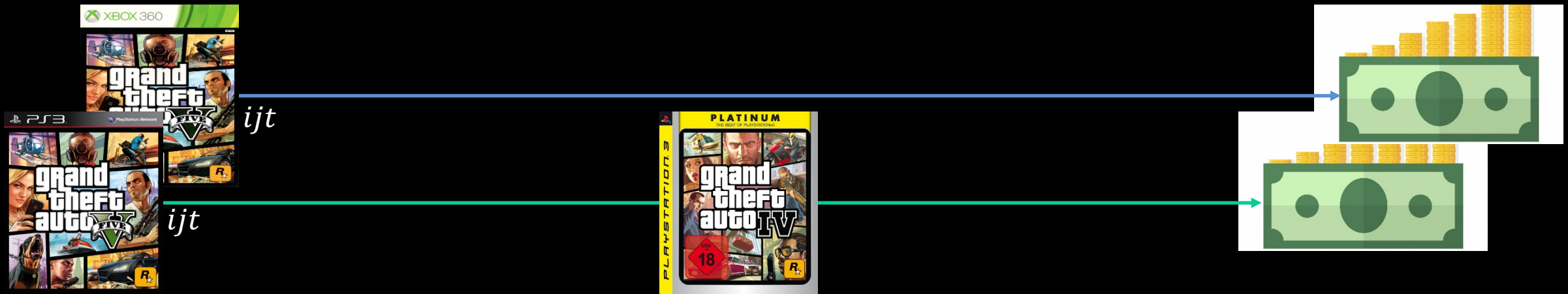
Analysis of 25 identical game-pairs:
- Endorsed re-releases enjoy a weekly sales increase of 269 units for a period of eight weeks
- The effect is more pronounced for games with lower initial sales
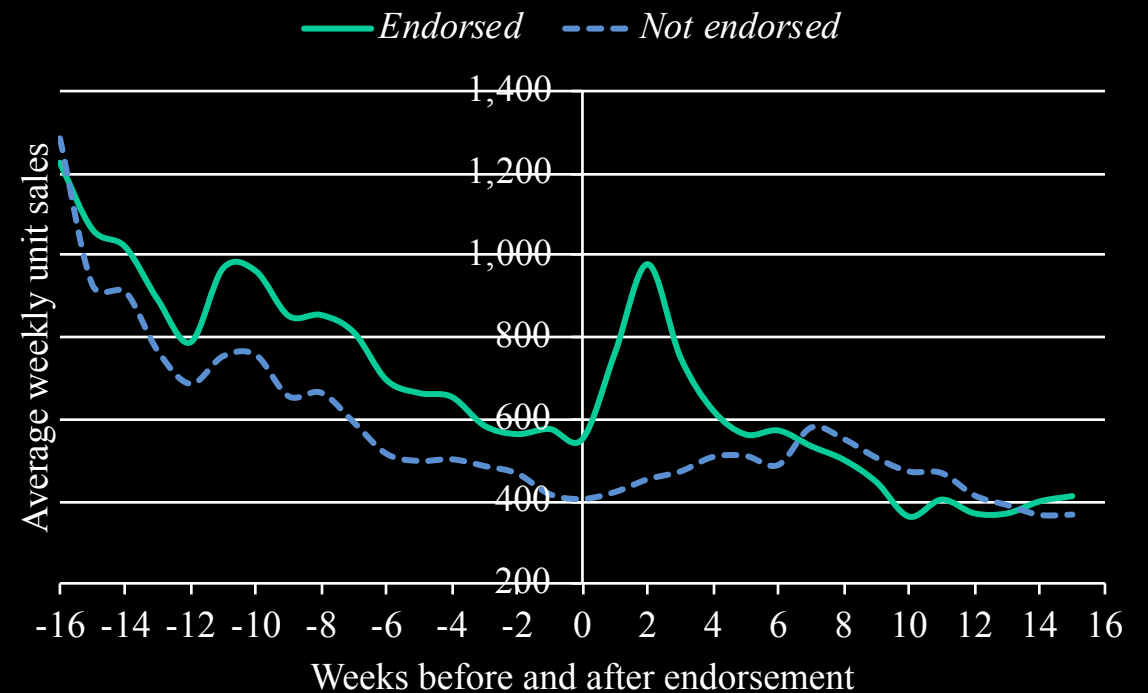
Question

- Which complements do platform owners want to boost?
  - The highest selling?
  - The ones with best reviews?
  - The ones that give them the best royalty terms?
  - Only their own complements?

Data

- All 7th generation video games released in UK between 2007-2011:
  - Excluding games released in 2011 to allow for 1 year lifecycle
  - Excluding games released on Nintendo Wii due to fundamental differences
- Final sample of 487 PS3 and 551 Xbox 360 games of which 65 and 68 games were chosen for endorsement, respectively:
  - UK sales data at game-platform-week level from platform sponsor
  - Game characteristics (genre, publisher, release date, exclusivity, etc.) at game-platform level from platform sponsor
  - Game quality data at game-platform level from Metacritic.com
  - European sales data at game-platform level from VGChartz.com
- We also interviewed senior execs at the gaming units of Microsoft, Sony, & Amazon

To whom do platform owners want to direct attention?

- **Up-and-comers**
  - Up-and-coming games have a probability of endorsement that is 12.85% higher than for games in the *top 2.5% sales rank* category ($p < 0.01$), and 15.75% higher than for games in the bottom 80% sales rank category
  - →More value to be unlocked & better royalty terms for platform

- **Ecosystem completers**
  - Games in high value genres without recent hits are 13.58 times more likely to be endorsed than games in high value genres with recent hits
  - →Rounds out ecosystem, attracting more customers to platform

- **Platform showcasers**
  - Games that showcase distinct advantages of platform ("Plays best on…")

"We have a portfolio team and we look at how the games round out the portfolio and sell the console. Our first-party games are designed to showcase what the console can do. With our third-party games, we are asking, 'Does it look best on Xbox? Does it play best on Xbox?" (Founding member of Xbox team)

Implications

- Sophisticated platform owners use selective promotion to strategically manage value creation and value capture in the overall ecosystem.

- By directing attention to particular complements in "tippy" markets, platform owners can make **stars**.

- Often complements that receive "best of" awards aren't the best on any particular performance metric, or even any combination of typical performance metrics

- New platforms can learn to be more strategic by studying platforms that have mastered strategic orchestration

- One of the papers based on our research (**"Platform Strategy: Managing Ecosystem Value Through Selective Promotion of Complements"**) is now available (open access) at https://pubsonline.informs.org/doi/pdf/10.1287/orsc.2019.1290

- Feel free to reach out!

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- *Thanks!*