



# Video Game Business Primer

## The Latest Disruption

Jeff Peters

COO

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Design  
Budgeting  
P&L  
Publishing  
Development Process  
Social Media  
Forecasting  
Contracts and Legal  
Free-to-Play Strategies  
Live Service Strategies  
Starting A New Business  
Hiring / Firing  
Funding Options  
Crowd-Sourcing  
Analytics and Telemetry Modeling

NOT  
COVERING

# YES COVERING

1. Brief History of the Video Game Business
2. How the Business Works
3. Current Business Models and Distribution Channels
4. Breakeven and Revenue Calculations
5. Live Services Overview

“I’ve built this  
game, now  
how do I make  
money with it?”

Q:

“Should I  
build *THIS*  
game?”

Q:

# THIS IS THE BUSINESS

handheld PC grinders

MOBA freaks MMO addicts

sh'mup advocates gamers

pvp streamers card collectors

bubble poppers pve narratives

mobile match 3 social

console casual players LBE

VR / AR / XR Indies eSports

# The History of the VIDEO *GAME Business.*



Those  
that fail to learn  
from history,  
are doomed  
to repeat it.

Winston Churchill 1874 - 1965

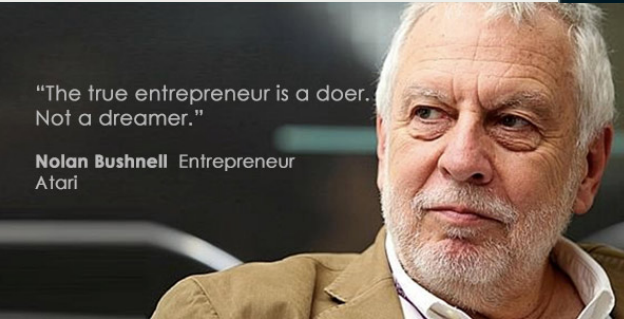
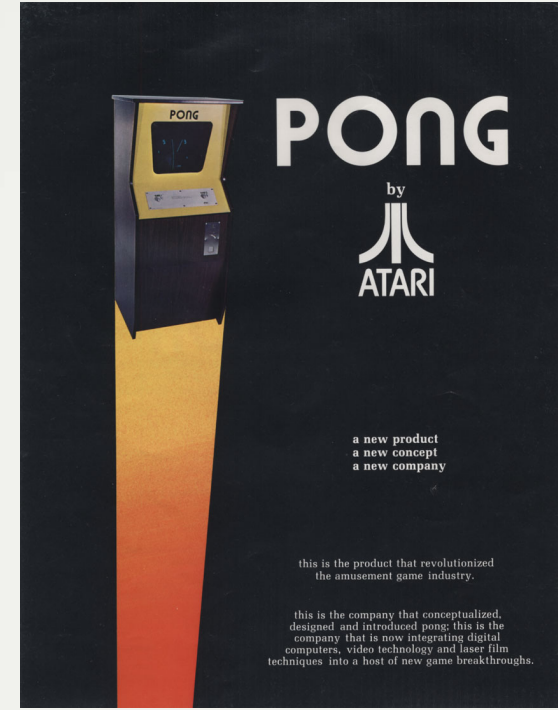
© THEMADLAB.EU



1970s

It begins...

1970's



"The true entrepreneur is a doer. Not a dreamer."

**Nolan Bushnell** Entrepreneur  
Atari

1971



1972



1970's

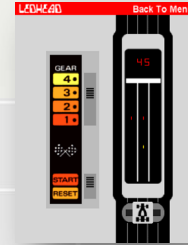


# 1970's

“RALPH H. BAER  
THE FATHER OF VIDEO GAMES

o i .  
o i o e

I find game design  
fascinating;  
it is a new way  
to make art work.



1972														
1973														
1974														
1975														
1976														
1977														
1978														
1979														

[http://www.epocalc.net/pages/mes\\_timeline/video\\_gaming\\_timeline\\_1970-80s\\_by\\_atariboy2600.jpg](http://www.epocalc.net/pages/mes_timeline/video_gaming_timeline_1970-80s_by_atariboy2600.jpg)

# 1970's

The popularity of a classic driving game... the attraction appeal of a realistic race car cabinet design... spectacular new profit opportunity.

## NIGHT DRIVER

- Drivers can select "Nausea", "Fly", or "Expert" tracks.
- Players compete for highest top speed and points based on "distance" traveled.
- "Start" top speed and score previously achieved is displayed when track selection switch is activated.
- Operator adjustable game time to 50, 75, 100, or 125 seconds.
- Optional Extended Play for 300 points operator coin-dial only.
- Coinc switch lets operators select a different set of 3 tracks.

Contact your Atari distributor or contact us for referral at Atari, Inc., 1200 Homeages Avenue, Sunnyvale, CA 95086 (408) 745-2500

ATARI

# BREAKOUT

- A Monitor for 2 players
- Standard 3 balls, operator adjustable to 5 balls.
- Extended play option
- Color overlays on playfield
- Anti-reflective hood
- Sound effects.

ATARI Innovative Leisure

# ASTERIODS

- Explosive reward for space action • 1 or 2 players are challenged to destroy asteroids and enemy spacecraft
- New Atari-designed Quadriscan™ display system • New personal high score table display • Optional "Highscore" • Optional coinage including Service 8. Authentic coin slot • Bonus play at 10,000 points.

ATARI

# 1972-79

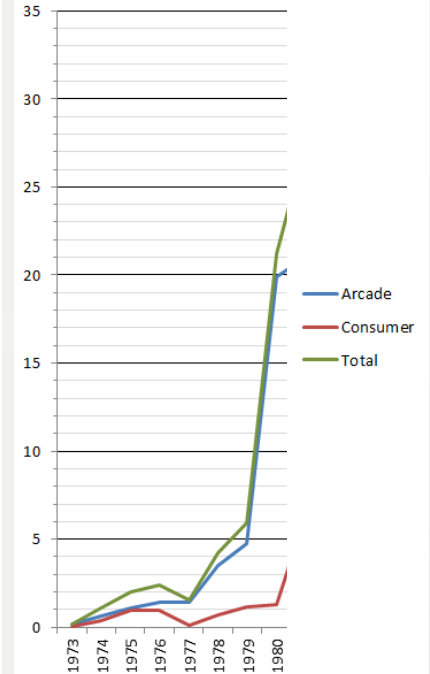


# \$\$\$\$\$

# 1970's

## U.S. Video Game Market Revenues (Billion US Dollars, inflation adjusted for 2012)

Year	Video game industry revenue (nominal US dollars, without inflation) ↕	Inflation-adjusted revenue (2012 US dollars) <sup>[93]</sup> ↕
1973	\$40 million (US) <sup>[104]</sup>	\$207 million (US)
1975	\$22 million (US retail) <sup>[104]</sup>	\$94 million (US retail)
1976	\$242 million (US retail) <sup>[104]</sup>	\$977 million (US retail)
1977	\$400 million (worldwide) [32] ↗	\$1.5 billion (worldwide)
1978	\$1.8 billion (US & Japan)	\$6.34 billion (Japan & US)
	\$1.2 billion (US) <sup>[104]</sup> \$600 million (Japan arcade cabinet sales of <i>Space Invaders</i> ) <sup>[30]</sup>	
1979	\$1.88 billion (US) <sup>[104]</sup>	\$5.95 billion (US)



SOURCE: [http://vgsales.wikia.com/wiki/Video\\_game\\_industry](http://vgsales.wikia.com/wiki/Video_game_industry)

# First in a Series of Boring Charts...

# 1970s

Pay-Per-Play : Retail

Business Models

1980s

It Crashes...



# 1980's



1980's



1980's

# U.S. National VIDEO GAME TEAM®



<https://www.usnationalvideogameteam.com/>

1980's



1980's



# 1980's



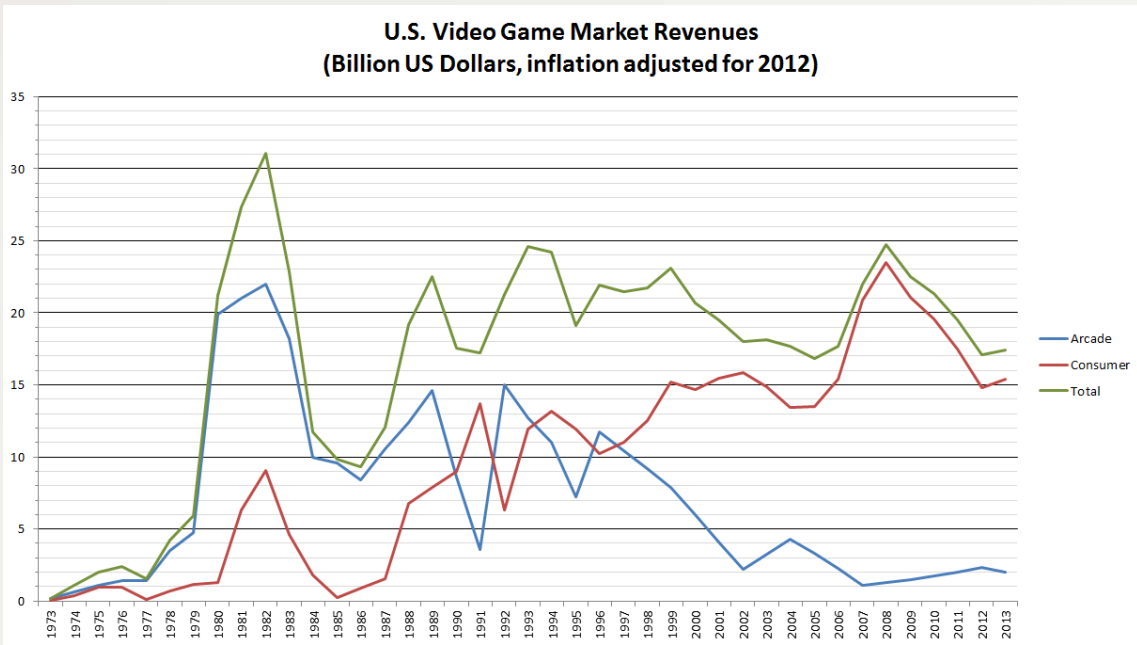
http://

timeline\_1970-80s\_by\_atariboy2600.jpg

# 1980's

# ...More Boring Charts...

1980	\$7.614 billion (US) <sup>[1][4]</sup>	\$21.22 billion (US)
1981	\$20-\$35 billion (worldwide estimate) <sup>[1][28]</sup>	\$50-\$88 billion (worldwide estimate)
1982	<u>\$17.73 billion (worldwide)</u>	\$42.18 billion (worldwide)
	\$15.6 billion (US) <sup>[1][4]</sup>	
	\$1.33 billion (Japan retail) <sup>[30]</sup> \$800 million (EU) <sup>[1][27]</sup>	
1983	<u>\$11.65 billion (US &amp; Japan)</u>	\$26.86 billion (US & Japan)
	\$9.9 billion (US) <sup>[1][4]</sup> \$1.75 billion (Japan retail) <sup>[30]</sup>	
1984	<u>\$6.82 billion (US &amp; Japan)</u>	\$15.07 billion (US & Japan)
	\$5.3 billion (US) <sup>[1][4]</sup> \$1.52 billion (Japan retail) <sup>[30]</sup>	
1985	<u>\$7.21 billion (US &amp; Japan)</u>	\$15.38 billion (US & Japan)
	\$4.6 billion (US) <sup>[1][4]</sup> \$2.61 billion (Japan retail) <sup>[30]</sup>	
1986	<u>\$8.71 billion (US &amp; Japan)</u>	\$18.25 billion (US & Japan)
	\$4.43 billion (US) <sup>[1][4]</sup> \$4.28 billion (Japan retail) <sup>[30]</sup>	
1987	<u>\$4.45 billion (Japan &amp; US retail)</u> \$3.7 billion (Japan retail) <sup>[30]</sup> \$750 million (US retail) [31] <sup>6</sup>	\$8.99 billion (Japan & US retail)



[http://vgsales.wikia.com/wiki/Video\\_game\\_industry](http://vgsales.wikia.com/wiki/Video_game_industry)

# 1980s

Pay-Per-Play : Retail

## Business Models



1990s

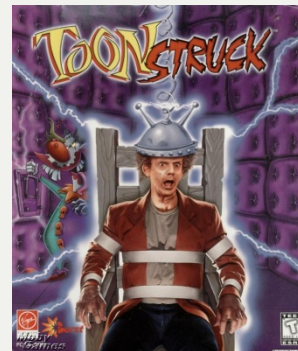
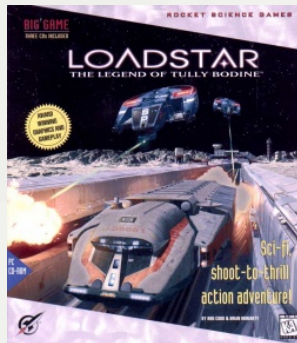
Hollywood and CDROMs to the Rescue!  
[OR]  
VR Part 1

# 1990's

## Video Games Live!

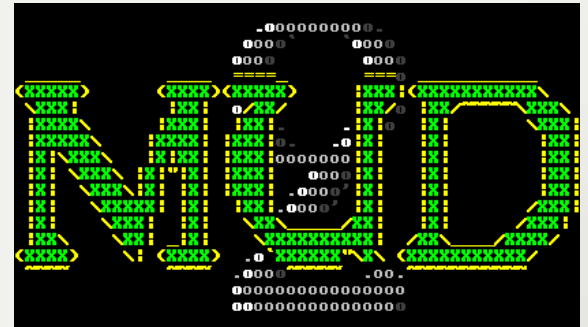
1990	 NEC TurboGrafx-16	 Nintendo Super Famicom	 SNK NEO-GEO	 SEGA GENESIS	 NEC TurboExpress	 AMSTRAD GX400														
1991	 SUPER NINTENDO	 ATARI LYNX II	 NEC Turbo Duo	 SEGA MEGA-CD																
1992	 SEGA CD	 PHILIPS CD-i																		
1993	 ATARI JAGUAR	 Panasonic 3DO	 AMIGA CD32	 ATARI LYNX	 ATARI LYNX	 SEGA MEGA-CD	 SEGA MEGA-CD													
1994	 GoldStar 3DO	 SEGA GENESIS II	 SEGA SATURN	 SEGA 32X	 SEGA SATURN	 SEGA SATURN	 SEGA SATURN	 Nintendo Virtual Boy	 SNK NEO-GEO CD	 SEGA SATURN										
1995	 SONY PlayStation	 SEGA SATURN	 ATARI JAGUAR CD	 ATARI LYNX	 MARTY	 Playdia														
1996	 NINTENDO 64	 GAME BOY pocket	 ATMARK PIP																	
1997	 TIGER game.com	 COLOR GAME BOY	 SUPER NINTENDO SNP	 Nintendo Super Famicom																
1998	 GENESIS	 SNK NEO-GEO POCKET COLOR	 SEGA Dreamcast	 GAME BOY LIGHT	 GAME BOY COLOR															
1999	 SEGA Dreamcast	 SNK NEO-GEO POCKET COLOR	 SEGA Dreamcast																	

1990's



1990's

# Ultima Online™



1990's

Wolfenstein  
3D

DOOM

# 1990's



# 1990s

Pay-Per-Play : Retail : Subscription : Ads : Shareware  
Demo

## Business Models

2000s

Social and Mobile Ruin it All...

[OR]

Is Retail Dead?



# 2000's



<b>2000</b>							
<b>2001</b>							
<b>2002</b>							
<b>2003</b>							
<b>2004</b>							
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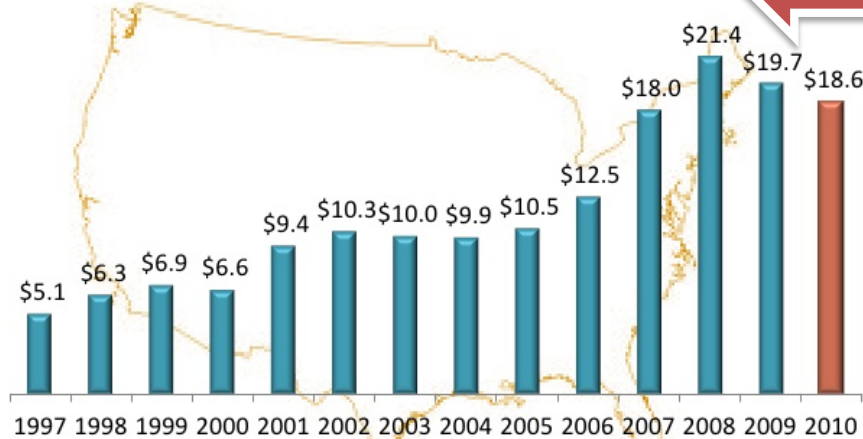
2000's

...Even More Boring Charts...

## The Rise and Fall of Retail

### U.S. Videogame Industry Revenue (in Billions)

Retail Only, Subscriptions and Digital Distribution Excluded



Source: NPD?

Theseus Games, Inc. 10

What happened here?



2000s

Pay-Per-Play : Retail : Subscription : Ads : Shareware  
Demo : IAP : Digital : Free-to-Play

Business Models

2010s

Free-to-play takes over...

[OR]

VR Part 2; of course it will work this time!?

2010's

PSVITA

NINTENDO 3DS  
Wii U

PS4

NINTENDO  
SWITCH

XBOX ONE

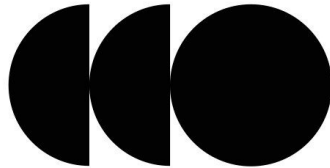
2010's



SONY



Microsoft  
HoloLens



VALVE INDEX



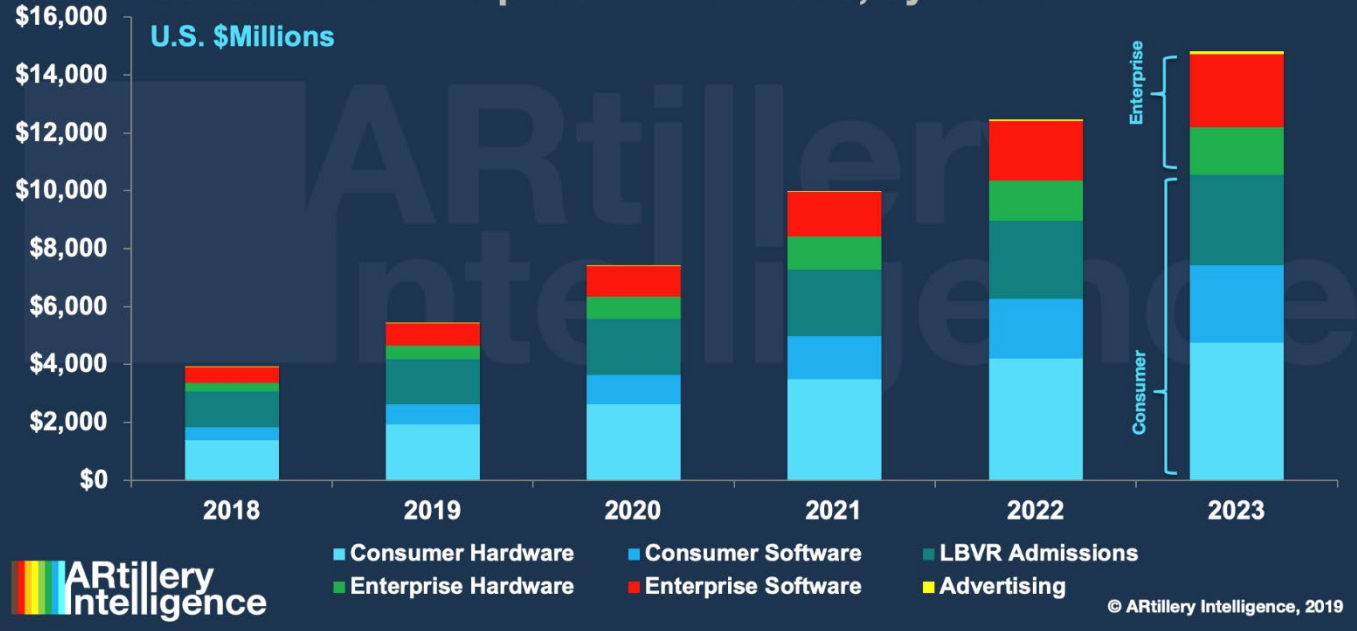
magic leap



2010's

# Global VR Revenue

Consumer & Enterprise VR Revenues, by Source



And the Data...

2020's

# VR LBE market analysis

\$450 Billion  
Gambling

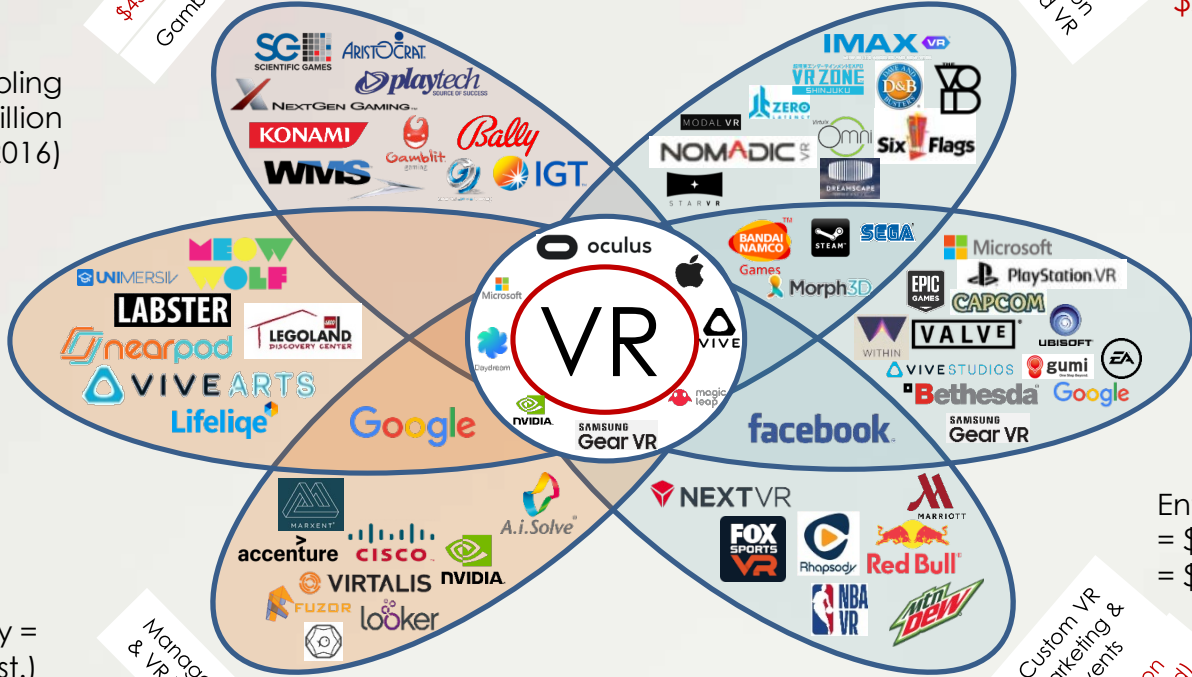
US casino gambling revenue = \$129 Billion (2016)

\$1.5 Billion  
Location Based VR

\$2+ billion invested in AR/VR in 2017

Education & Museums

\$1.1 Billion  
Entertainment  
VR Home



enterprise VR industry = \$16 billion (2025 est.)

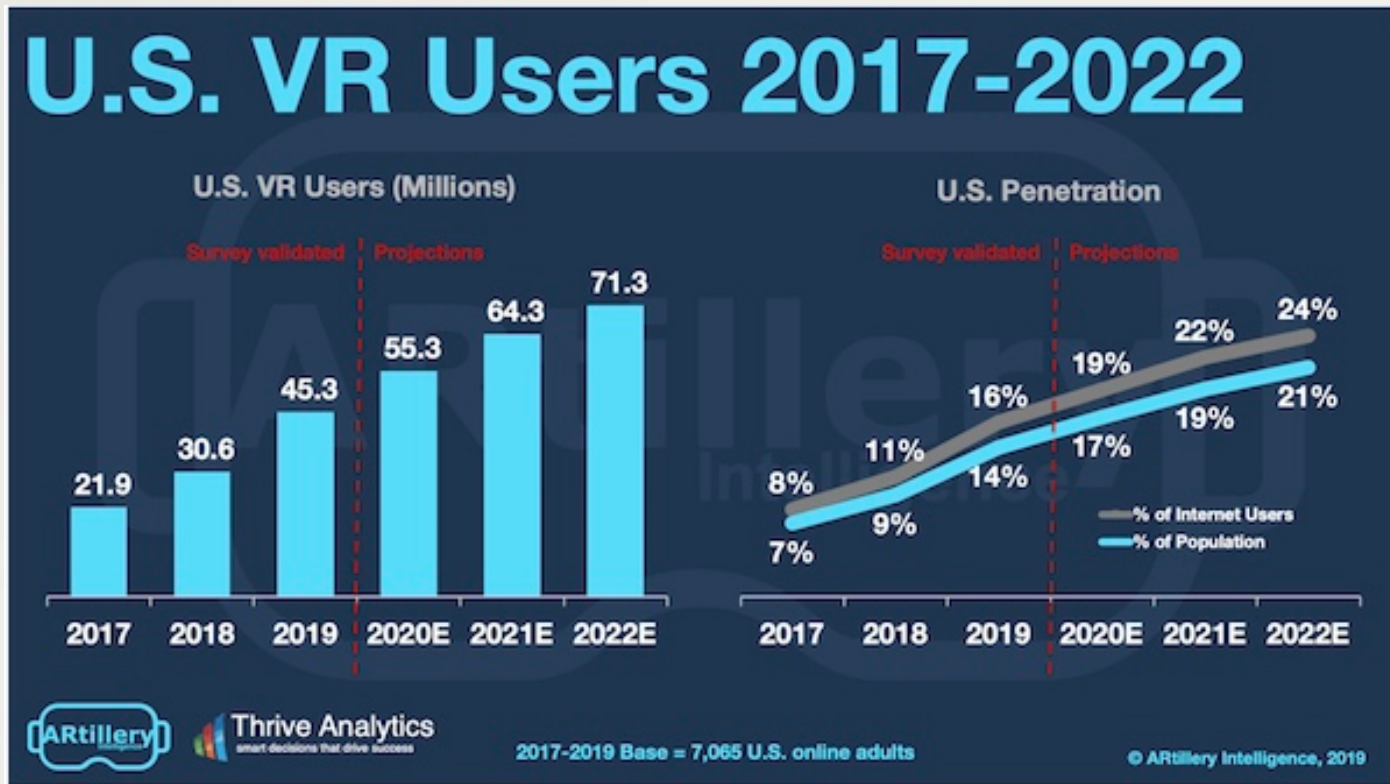
Entertainment VR Revenue = \$16 Billion (2018) = \$75 Billion (2021 est.)

Custom VR Marketing & Events  
\$4 Billion (projected)

Management & VR Training



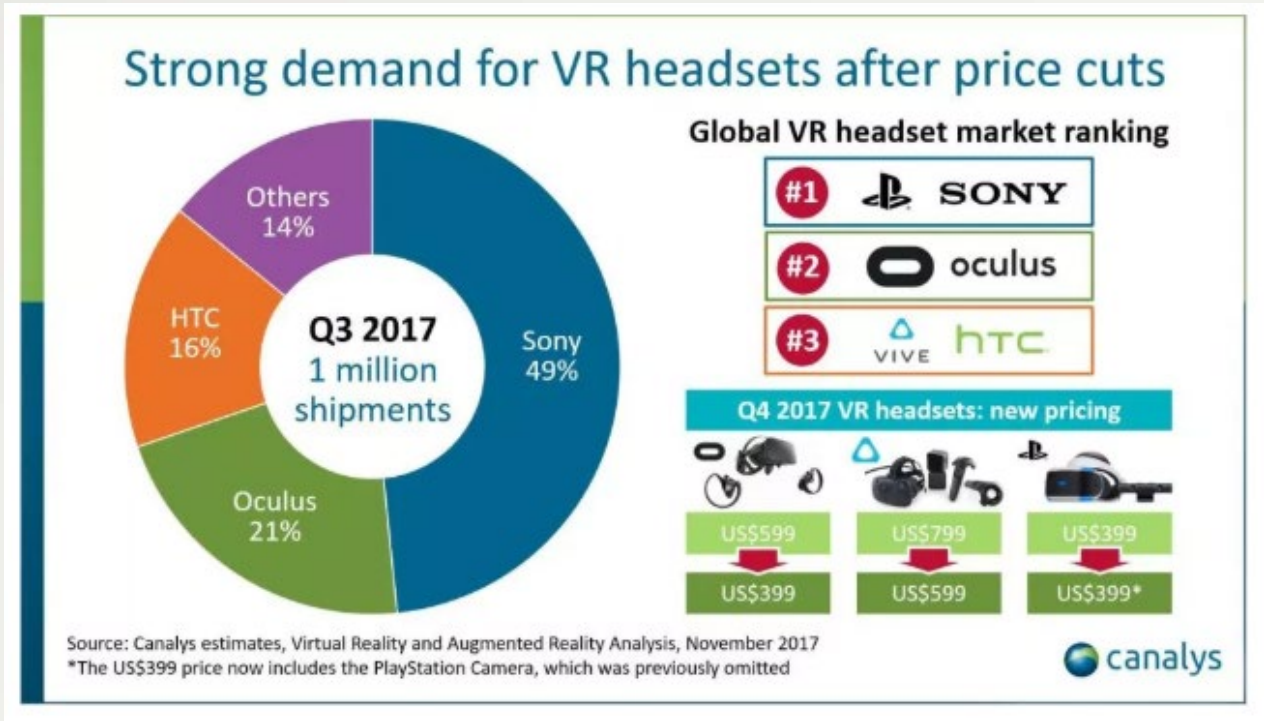
2010's



More Data...

2020's

PSVR = 5 Mil !



<https://variety.com/2017/digital/news/vr-headset-shipments-q3-1202624703/>

Seriously, More Data?

2020's

NOW



2020's



**BettingOnVideoGames.com**  
LEARN HOW TO BET ON PS3, XBOX 360, WII, DS, PC, AND PSP VIDEO GAMES

## ESPORTS HOURS WATCHED ON TWITCH

FOR LEAGUE OF LEGENDS, CS:GO & DOTA 2 | AUGUST 2015 - JUNE 2016



Twitch Top Games by Esports & Total Viewing Hours:  
<https://newzoo.com/insights/rankings/top-games-twitch/>



Major League Gaming



play everyday



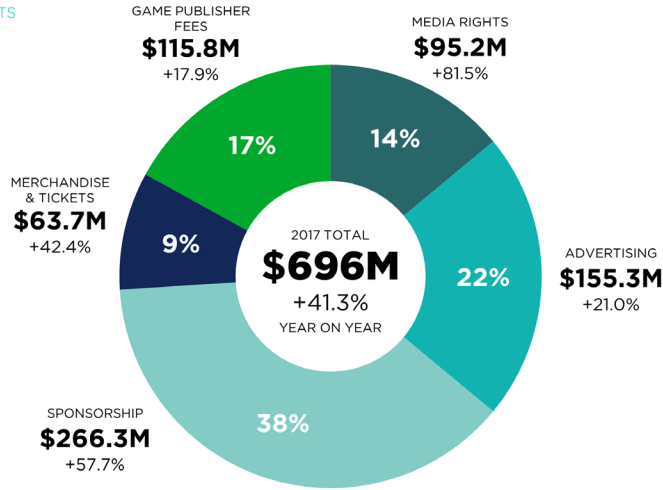
**skillz**  
eSports for Everyone

# 2020's



## 2017 ESPORTS REVENUE STREAMS | GLOBAL

INCLUDING YEAR-ON-YEAR GROWTH | FEATURING ELEAGUE MEDIA RIGHTS | Q1 2017



Newzoo's esports revenue figures always exclude revenues from betting, fantasy leagues, and similar cash-payout concepts, as well as revenues generated within games.

©Newzoo | 2017 Global Esports Market Report

### MEDIA RIGHTS: TURNER LICENSES ELEAGUE CONTENT ACROSS THE GLOBE



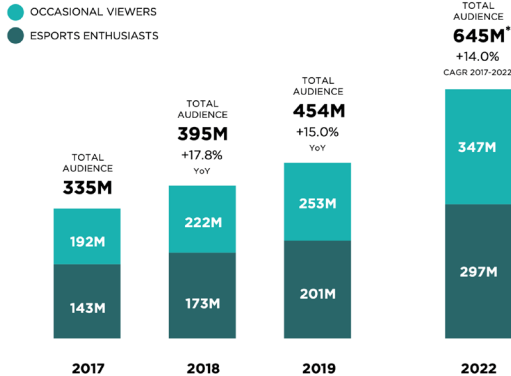
REGION/COUNTRY	BROADCASTER
SE ASIA	ASTRO
SE ASIA	TURNER
LATIN AMERICA	EL SPORTIVO
PAN NORDIC	TV3 / VIASAT
CHINA	HUOMAO
RUSSIA	STARLADDER
NEW ZEALAND	TVNZ
ISRAEL	ZOOM TV
CZECH REPUBLIC	O2
UK	GINX
BALKANS	SPORTSKLUB
ROLAND	MTG
MENA	OSN
FRANCE	GROUP AB
FRANCE	O'GAMING
AFRICA	SUPERSPORT
HUNGARY	TV2
TURKEY	SARAM MEDIA
GERMANY	FREAKS4U GAMING
ROMANIA	PROTV/SPORT.RP

# eSPORTS



## ESPORTS AUDIENCE GROWTH

GLOBAL | FOR 2017, 2018, 2019, 2022

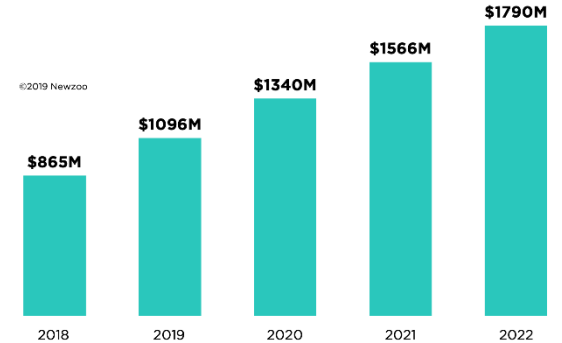


\*Due to rounding, Occasional Viewers (347M) and Esports Enthusiasts (297M) add up to 645M.  
©Newzoo | 2019 Global Esports Market Report



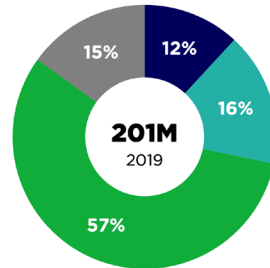
## 2018-2022 GLOBAL ESPORTS MARKET

FORECAST PER SEGMENT TOWARD 2022



©Newzoo | 2019 Global Esports Market Report, June 2019  
[newzoo.com/esportsreport](http://newzoo.com/esportsreport)

Asia-Pacific will account for **57%** of Esports Enthusiasts in 2019

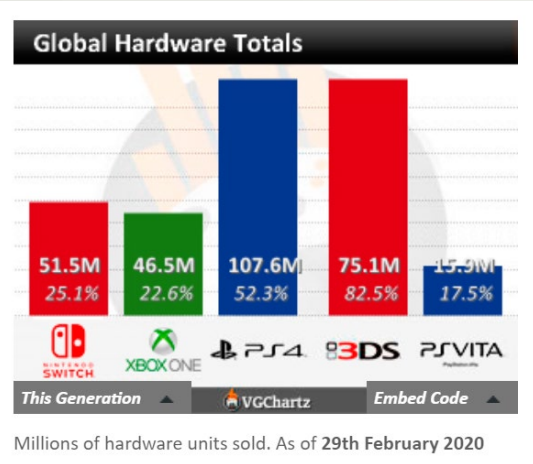


● NAM ● EU ● APAC ● REST OF WORLD

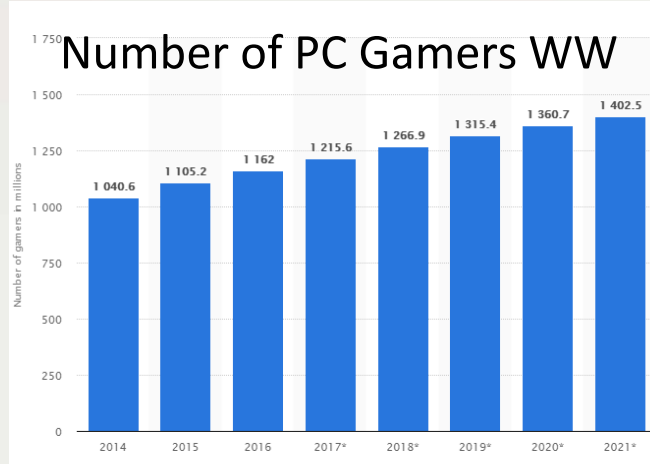
# eSPORTS

# 2020's

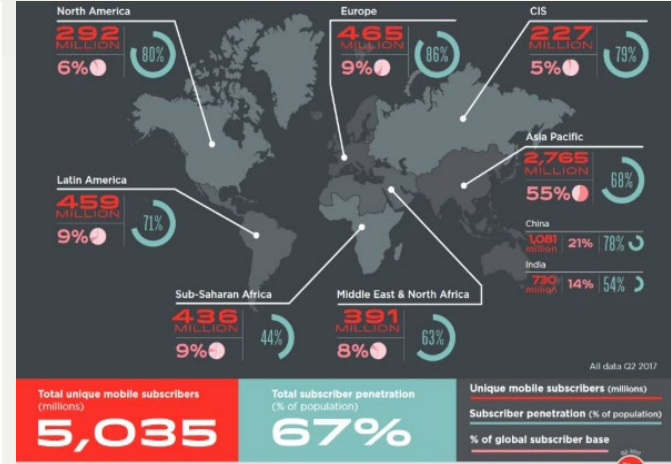
# NOW



Vgchartz.com - 2020\*



Statista.com - Sept. 2018\*\*



Venturebeat.com - 2017\*\*\*

290+ Million  
(all consoles)

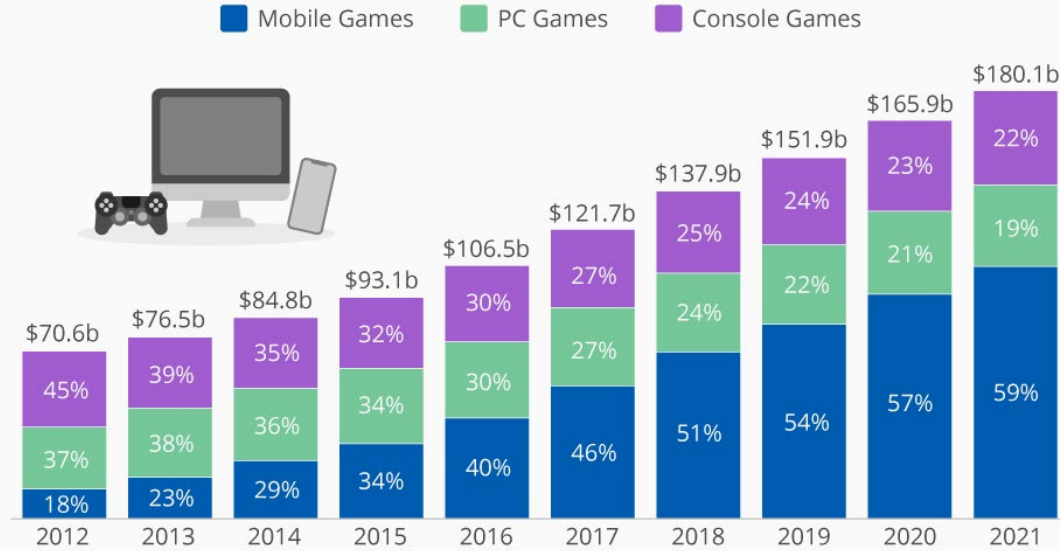
1.2+ Billion  
(PC Gamers WW)

5+ Billion  
(Mobile Phone Subscribers)

# 2020's

# NOW

Estimated global gaming software revenue by platform



@StatistaCharts

Source: Newzoo



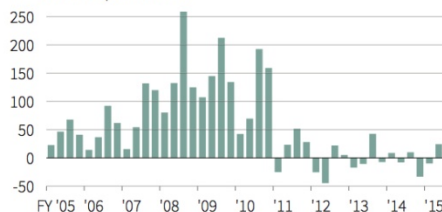


# CASE STUDY

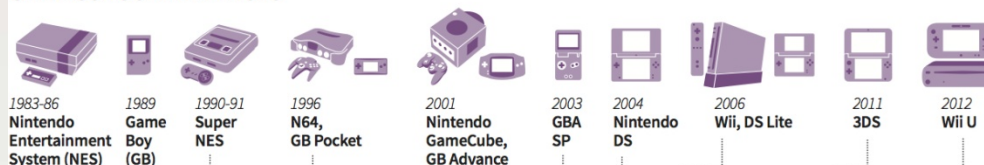
## Nintendo profit forecast

Japanese videogame maker Nintendo Co Ltd on Thursday forecast annual operating profit to double in the year through March, with its entry into smartphone games widely expected to help make up for weak sales growth of its traditional consoles.

**Net income**  
In billion Japanese Yen



### GAME CONSOLE RELEASES



**Share price**

'000 yen



Sources: Reuters; Nintendo

F. Chan; C. Inton, 07/05/2015



<http://blog.thomsonreuters.com/index.php/tag/video-games/>

Playing Cards  
Arcade Games  
Consoles  
Portables  
Fitness  
Licensing  
Mobile  
Cardboard  
Amibos  
???

Today...

Business Models

**Pay-to-Play**

**Subscription**

**Retail**

**Digital**

**Demo**

**Share Ware**

**Premium**

**Ad Driven**

**Contract**

**Free-to-Play\***

**IAP / DLC**

**Whatever-you-pay**

# BUSINESS MODELS

## VR/AR



## CONSOLE



## DIGITAL



## MOBILE



# DISTRIBUTION CHANNELS



= ~500 / day\*

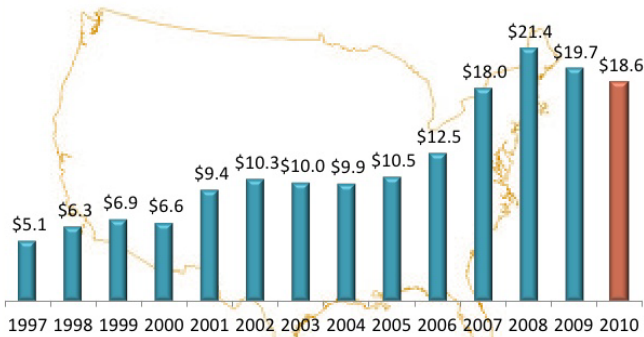


= ~250 / day\*

## The Rise and Fall of Retail

### U.S. Videogame Industry Revenue (in Billions)

Retail Only, Subscriptions and Digital Distribution Excluded



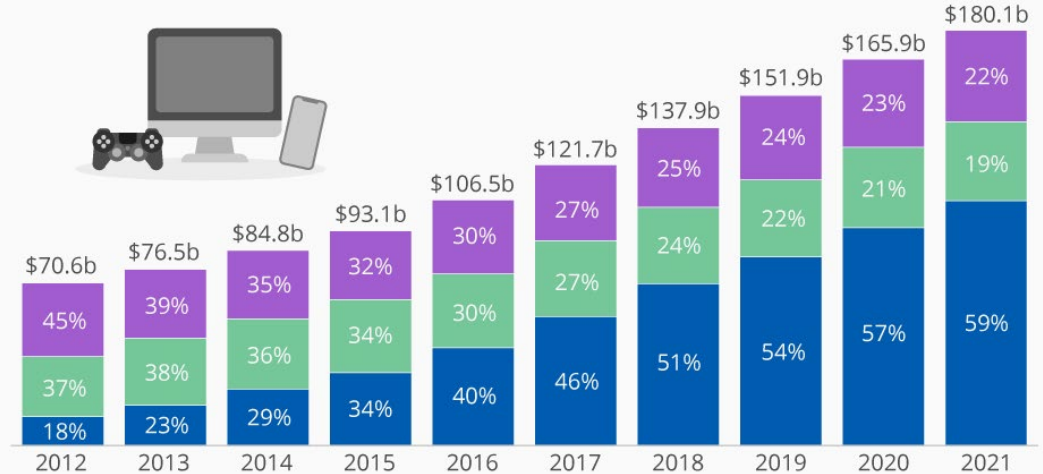
Source: NPD?

Theseus Games, Inc. 10

## PCs to Become the Smallest Gaming Platform in 2018

Estimated global gaming software revenue by platform

Mobile Games PC Games Console Games



@StatistaCharts Source: Newzoo

statista



STEAM

= ~30,000 Games\*\*

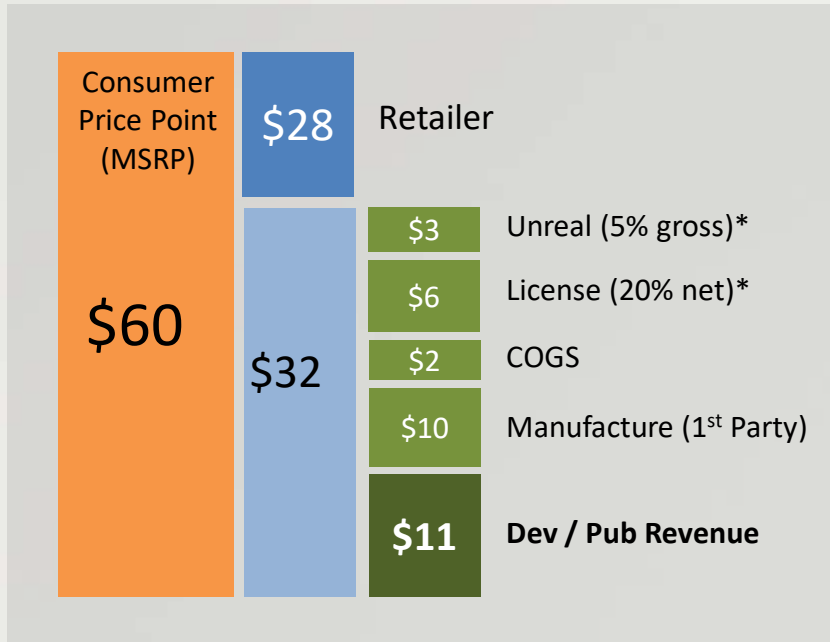
\*[http://www.gamasutra.com/view/news/237811/500\\_games\\_launched\\_per\\_day\\_on\\_ios\\_last\\_year\\_and\\_other\\_digital\\_sales\\_facts.php](http://www.gamasutra.com/view/news/237811/500_games_launched_per_day_on_ios_last_year_and_other_digital_sales_facts.php)

\*\*<https://www.pcgamer.com/steam-now-has-30000-games/>

# So, How Does this Work?

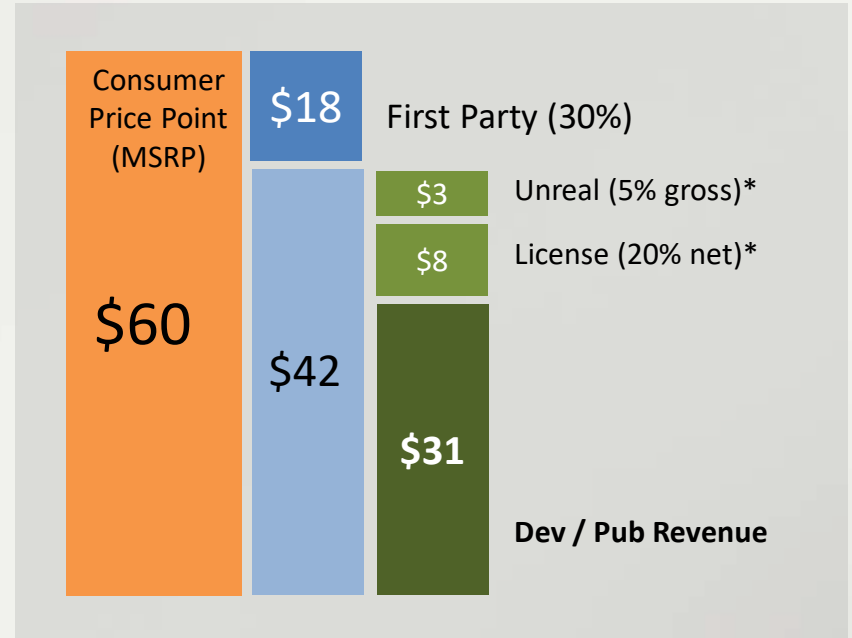
## Simple Revenue Models

## Retail



**\$11** Revenue to Dev/Pub Per Unit Sold

## Digital



**\$31** Revenue to Dev/Pub Per Unit Sold

## Gross Revenue?

(MSRP Revenue per Unit ) X  
(Estimated Units Sold)

## Net Revenue?

(Dev / Pub Revenue per Unit ) X  
(Estimated Units Sold)

## Breakeven?

(Total Product Costs) /  
(Dev / Pub Revenue per Unit )

## EXAMPLE

### Product Cost Assumptions

Development Budget	\$12,000,000
Marketing	\$3,000,000
Public Relations (PR)	\$1,500,000

**Total Product Costs: \$16,500,000**

## Breakeven

### Retail

$\$16,500,000 / \$11 = 1,500,000$  (units)

### Digital

$\$16,500,000 / \$31 = 532,260$  (units)

## Revenue

### GROSS

$2,000,000 \times \$60 = \$120,000,000$

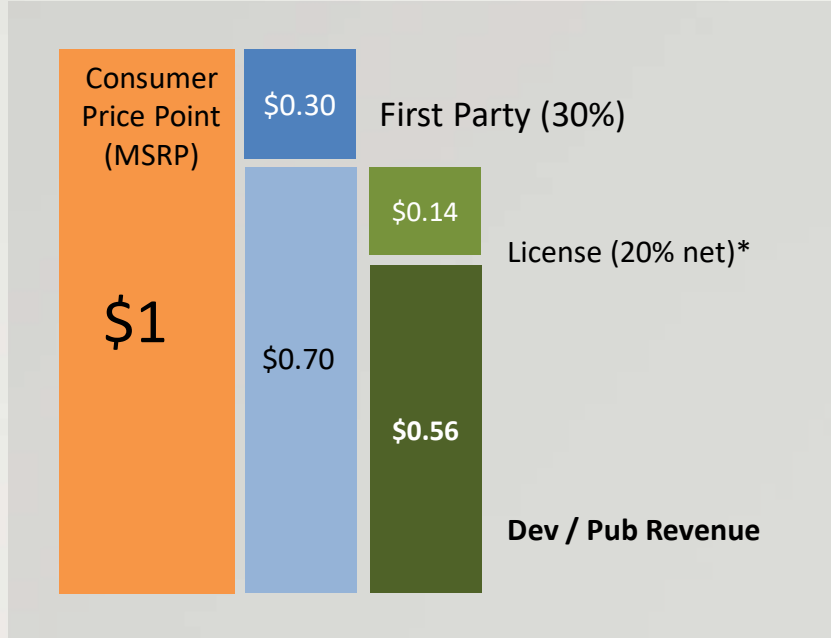
### Net

$2,000,000 \times \$31 = \$62,000,000$

$2,000,000 \times \$11 = \$22,000,000$



# Mobile / Free-to-Play



**\$0.56** Revenue to Dev/Pub Per Dollar Spent

## Key Factors:

- Downloads
- Daily Active Users (DAU)
- Revenue Per Download
- Average Revenue Per DAU
- Conversion %

## Averages:

- Downloads = (est.)
- Daily Active Users (DAU) = (est.)
- Revenue Per Download = (est.)
- Average Revenue Per DAU = \$0.03
- Conversion % = 2%

# Mobile / Free-to-Play

**Gross Revenue  
Per Day**  
(ARPPDAU) X (DAU)

**Net Revenue  
Per Day**  
(ARPPDAU) X (DAU) X (70%)

**Breakeven?**  
(Total Product Costs) /  
(Revenue Per Download)

## EXAMPLE

### Product Cost & KPIs

Development Budget	\$1,200,000
Marketing / PR	\$2,000,000

**Total Product Costs: \$3,200,000**

Daily Active Users	40,000
Revenue Per Download	\$0.25
ARPPDAU	\$0.06
Conversion %	2%

### Breakeven

$\$3,200,000 / \$0.25 = 12,800,000$   
(Downloads)

### Revenue (Per Day)

#### GROSS

$\$0.06 \times 40,000 = \$2400$

#### Net

$\$0.06 \times 40,000 \times 70\% = \$1680$

Net Per Month:

$\$1680 \times 30 = \$50,400$

Net Per Year

$\$1680 \times 365 = \$613,200$

New daily installs **8,000** ← **Q: So How Do I Maintain This?**  
 Current ARPDAU **\$0.06**

	Days since player launch	Retention %	# of interval days	# players in this duration bucket	
D0	0	100.0%	0	8,000	<-- New players that day
D1	1	35.0%	1	2800	<-- D1 players (i.e. players remaining since yesterday)
D3	3	25.0%	2	4400	<-- D2-3 players (players remaining since 2-3 days ago)
D7	7	10.0%	4	5000	<-- D4-7 players
D14	14	2.0%	7	3040	<-- D8-14 players
D29	29	5.0%	15	4320	<-- D15-29 players
D90*	90	0.15%	61	12372	<-- D29-90 players

\*D90 retention % is a guestimate. No data is available

**Daily Average Users (DAU): 39,932** (assumes daily install rate does not change over 90 day period)

**Daily Average Revenue: \$2,395.92** (assumes ARPU does not change)

# LOOKING FORWARD



130+ Million  
Users

10% 1<sup>st</sup> Party



85+ Million  
Users

12% 1<sup>st</sup> Party

Waive 5%  
Unreal  
Royalty



125+ Million  
Users

30% 1<sup>st</sup> Party

Indie Program  
  
+\$10 Million  
Sales Lower  
25%-20%



New  
Subscription  
Service

 **Arcade**

## MISC

Airline Inflight

Restaurant  
Ordering

Streaming  
Services



**STADIA**



**XBOX ONE**

## Post Launch Revenue Options

### Retail & Digital

IAP (in app purchases)

ADs

Sponsorships

eSport Streaming/TV

Subscription

DLC

Episodes

# Biggest Industry Disruption?

# Biggest Industry Disruption?

LIVE Services.

# Live Services Model...





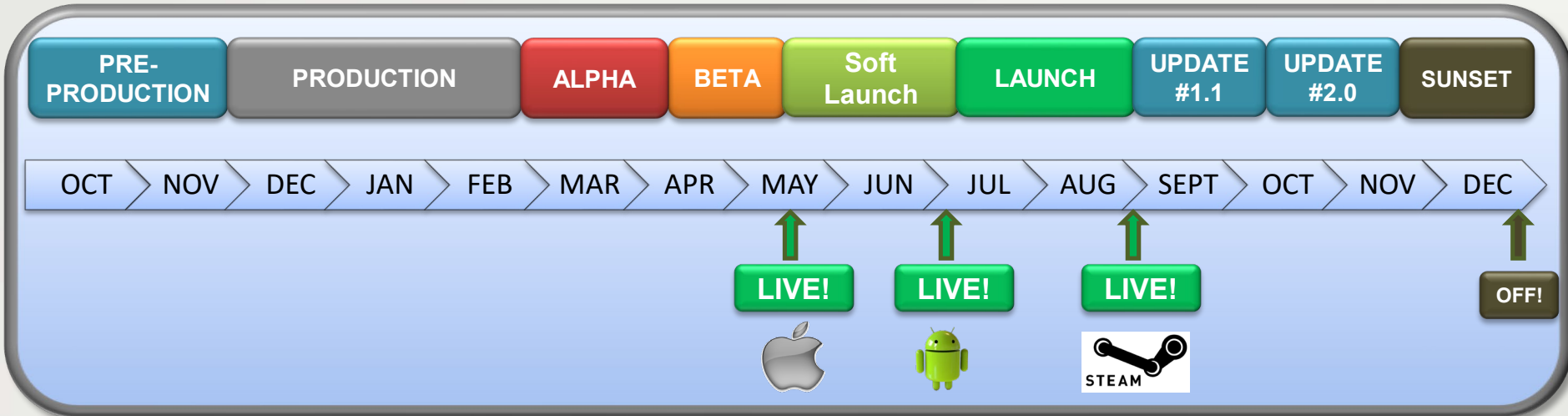
ARPU  
DAU  
ARPPU  
RETENTION  
D1, D7, D30  
ENGAGEMENT  
MONETIZATION  
SESSIONS  
ARPD  
MTX  
IAP  
Analytics



UA  
CPi  
eCPM  
CTR  
Fill Rates  
Funnel  
Onboarding  
FTUE  
Tutorials  
Compulsion Loop  
Telemetry  
Cohort

# Language of Live Services

# Live Services Model...



How to Measure?

How to Report?

What do you want to know?



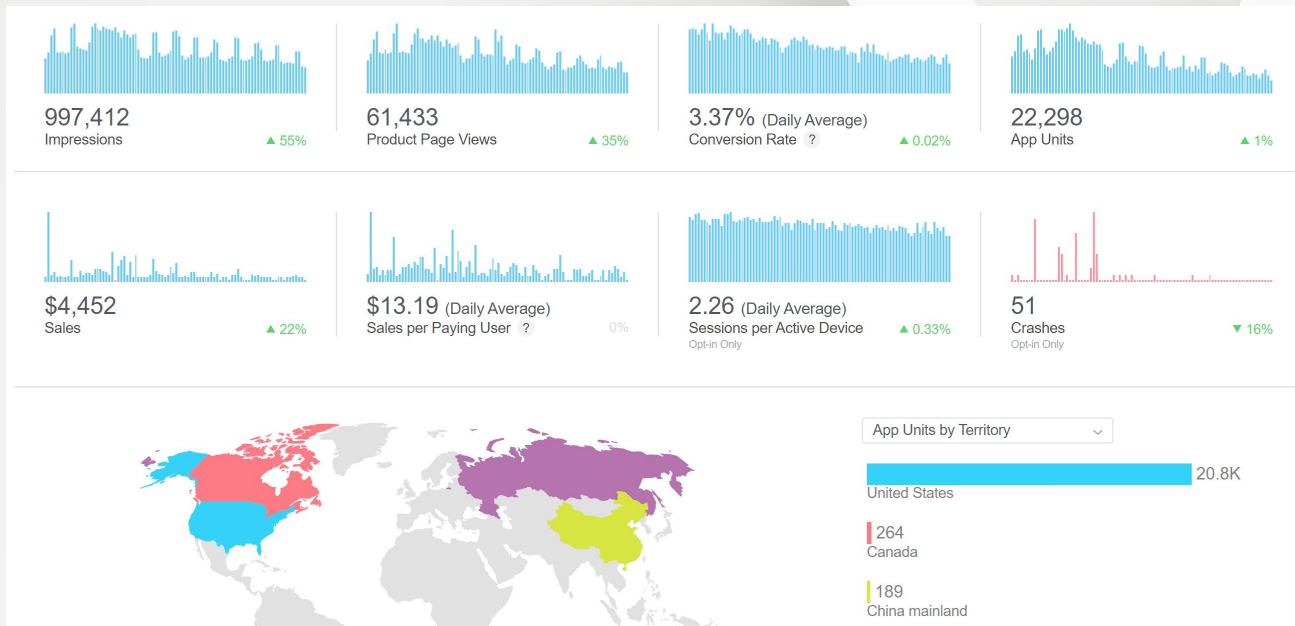
Analytics What is it...  
How do I plan for it?  
How do I use it?

“Microtransactions have tripled the value of the game industry.”\*

- PC Gamer 2017

## KEY QUESTIONS:

- What do you want to know about your game?
- How do you quantify it?
- How do you measure it?
- How do you report it? (to be usable)



# Game Industry History...

Development = Game

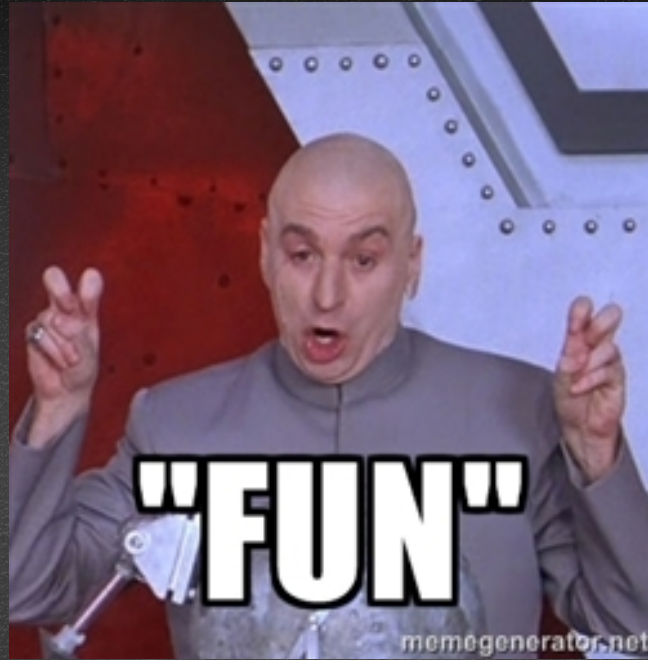
Game = Product

Product = Business

---

Business = \$\$

PASSION or PROFIT?



What Happened to FUN?!?!

American Psychologist says that (Feb. 2014):

“**P**laying video games, including violent shooter games, may boost children's learning, health and social skills.”

Business Insider says that (Sept. 2014):

“**G**ames are: “...often portrayed as antisocial, violent, and as an addictive waste of time that encourages obesity.”



## Biggest Business Questions:

- Who's going to *play* it?
- Who's going to *pay* for it?

ALSO....

Where do they live?

Where do they Game?

When do they Game?

How do I fit in their lifestyle?

How can I connect to them?

How will they know about my Game?

FOR CONSIDERATION...



[www.gamasutra.com](http://www.gamasutra.com)

[www.Gameindustry.biz](http://www.Gameindustry.biz)

<https://businessofindiegames.com>

[www.venturebeat.com](http://www.venturebeat.com)

<https://www.roadtovr.com/>

<http://immersioninsights.com>

<https://www.utahden.org/>

# VIDEO GAME BUSINESS REFERENCE