

The evolution of the digital game industries

Mia Consalvo

Industry origins, North America



PAUSE INIT DONE statement executed
To resume execution, type go. Other input will terminate
go

Execution resumes after PAUSE.

WELCOME TO ADVENTURE!! WOULD YOU LIKE INSTRUCTIONS?

y
SOMEWHERE NEARBY IS COLOSSAL CAVE, WHERE OTHERS HAVE FOUND
FORTUNES IN TREASURE AND GOLD, THOUGH IT IS RUMORED
THAT SOME WHO ENTER ARE NEVER SEEN AGAIN. MAGIC IS SAID
TO WORK IN THE CAVE. I WILL BE YOUR EYES AND HANDS. DIRECT
ME WITH COMMANDS OF 1 OR 2 WORDS.
(ERRORS, SUGGESTIONS, COMPLAINTS TO CROWTHER)
(IF STUCK TYPE HELP FOR SOME HINTS)

YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK
BUILDING . AROUND YOU IS A FOREST. A SMALL
STREAM FLOWS OUT OF THE BUILDING AND DOWN A GULLY.





CENTIPED



From arcades to the home



From arcades to the home + Japan



The logo is a circular seal with a brown, serrated outer edge. Inside the seal, the word "Official" is at the top, "Nintendo" is in the center within a rounded rectangle, and "Seal" is at the bottom. All text is brown.

Official

Nintendo[®]

Seal

GENESIS DOES WHAT NINTENDON'T.

ARCADE GAMES:



Super Monaco GP™



Michael Jackson's Moonwalker™



E-SWAT™

SPORTS GAMES:



Joe Montana Football™



Pat Riley Basketball™



James "Buster" Douglas Knockout Boxing™

ADVENTURE GAMES:



The Sword of Vermilion™

STRATEGY GAMES:



Columns™

ACTION GAMES:



Dynamite Duke™

Get the hottest new video games going. Arcade, sports, adventure, strategy and action hits available only on the 16-bit Genesis System by Sega.®

Today's latest blockbuster arcade hits like Super Monaco GP.™ Climb into the cockpit of the world's fastest Grand Prix machines as you race wheel to wheel through the streets at over two-hundred miles per hour. Or take on the evil villain Mr. Big in Michael Jackson's Moonwalker™ as you use dance-kicks, hat-tricks and finally transform into a powerful robot that does it all. Or become a Cybercop in E-SWAT™ and clean up the city besieged by mad terrorists.

Get ready for the most action-packed sports games ever. In Joe Montana Football,™ check out the defense, make the call, fake a pass and scramble for a touchdown. Or force your opponent to move inside your left hook and nail him with an uppercut that puts him on the mat in James "Buster" Douglas Knockout Boxing.™ Or in Pat Riley Basketball,™ get the ball with seven seconds left in the game, drive the length of the court, slam-dunk and draw the foul which you make to break the tie.

In The Sword of Vermilion,™ make your way through 14 towns and 14 mazes in this adventure thriller where encounters with the evil demons are played in real time on the hand controller. And dazzle your friends with your skills on the puzzle game Columns.™ Or become the ultimate commando warrior in Dynamite Duke™ as you blast the enemy from an over-your-shoulder first person view.

There's only one true 16-bit system and it's got the hottest video game hits going. You can only play these on Genesis by Sega. Genesis does what Nintendo doesn't.



Sega and Genesis are registered trademarks of Sega of America, Inc. Michael Jackson's Moonwalker is a trademark of Universal Productions. Dynamite Duke is a trademark of Seto & Katsuta, Inc. All other game titles are trademarks of Sega of America, Inc. © 1990 Sega of America, Inc. P.O. Box 1467 South San Francisco, CA 94080 Nintendo is a registered trademark of Nintendo of America, Inc.



Who's playing games now?



CANADIAN GAMERS

54% OF CANADIANS ARE GAMERS - AS DEFINED BY SOMEONE WHO HAS PLAYED A COMPUTER OR VIDEO GAME IN THE PAST 4 WEEKS.

 **52%**
male

 **48%**
female

33 YEARS OLD

average age of a Canadian gamer



CHILDREN (8-12 YEARS)

45%

PLAY KID ROLE-PLAYING GAMES

56%

PLAY ACTION AND ADVENTURE GAMES

TEENS (13-17 YEARS)

27%

PLAY ARCADE GAMES

53%

PLAY SHOOTER GAMES

ADULTS (18-34 YEARS)

40%

PLAY EDUCATION GAMES, PUZZLE
OR WORD GAMES AND GAMES THAT
CHALLENGE MENTAL ABILITY

42%

PLAY ROLE-PLAYING GAMES (RPG)

ADULTS (35-54)

56%

PLAY EDUCATIONAL GAMES, PUZZLES
OR WORD GAMES AND GAMES THAT
CHALLENGE MENTAL ABILITY

26%

PLAY SHOOTER GAMES

MATURE GAMERS (55+)

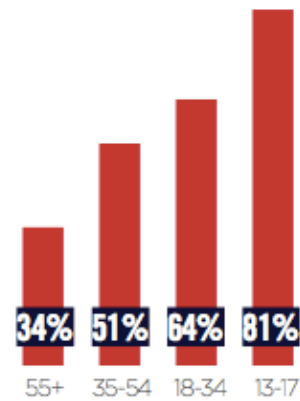
56%

PLAY CARD GAMES

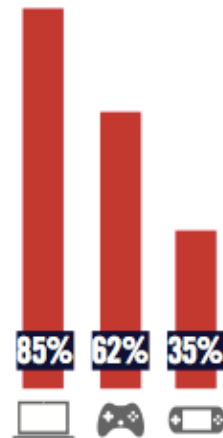
41%

PLAY CARD GAMES

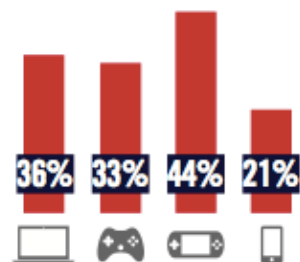
**CANADIANS, BY AGE, WHO HAVE
PLAYED A VIDEO GAME
IN THE PAST 4 WEEKS**



**DEVICE
OWNERSHIP**



**PLATFORM
ON WHICH CANADIANS
PLAY VIDEO GAMES MOST
FREQUENTLY**





Pos	Platform	North America	Europe	Japan	Rest of World	Global
1	PlayStation 2 (PS2)	53.65	55.28	23.18	25.57	157.68
2	Nintendo DS (DS)	57.37	52.07	33.01	12.43	154.88
3	Game Boy (GB)	43.18	40.05	32.47	2.99	118.69
4	PlayStation (PS)	38.94	36.91	19.36	9.04	104.25
5	Wii (Wii)	45.37	33.75	12.77	9.28	101.17
6	PlayStation 3 (PS3)	29.16	34.01	10.31	12.19	85.67
7	Xbox 360 (X360)	48.46	25.67	1.66	9.05	84.84
8	Game Boy Advance (GBA)	40.39	21.31	16.96	2.85	81.51
9	PlayStation Portable (PSP)	21.41	24.14	20.01	15.26	80.82
10	Nintendo Entertainment System (NES)	33.49	8.30	19.35	0.77	61.91
11	Nintendo 3DS (3DS)	16.66	14.25	18.68	3.29	52.88
12	Super Nintendo Entertainment System (SNES)	22.88	8.15	17.17	0.90	49.10
13	Nintendo 64 (N64)	20.11	6.35	5.54	0.93	32.93
14	Sega Genesis (GEN)	16.98	8.39	3.58	0.59	29.54
15	Atari 2600 (2600)	23.54	3.35	0.00	0.75	27.64

Game companies by revenues - 2009

Rank	Name	Revenues, 2009	Country of Origin
1	Nintendo	6,799	Japan
2	Activision Blizzard	4,279	USA
3	Electronic Arts	3,728	USA
4	Sony	1,914	Japan
5	Microsoft	1,741	USA
6	Konami	1,594	Japan
7	Ubisoft	1,249	France
8	Take-Two Interactive	916	USA
9	Square Enix	916	Japan
10	THQ	909	USA

Game development costs in Canada

Platform	Average Cost	Minimum Cost	Maximum Cost	Dev. Days
Traditional Console	\$10 million	\$150,000	\$30 million	380
MMO	\$1.1 million	\$50,000	\$3 million	438
PC	\$1 million	\$15,000	\$15 million	368
Downloadable Console	\$604,000	\$20,000	\$3 million	261
Casual	\$462,000	\$2,000	\$8 million	152
Handheld	\$398,000	\$32,000	\$2.3 million	151
Social	\$238,000	\$6,000	\$1.4 million	197
Mobile	\$166,000	\$2,000	\$3.2 million	96

Team size, production time

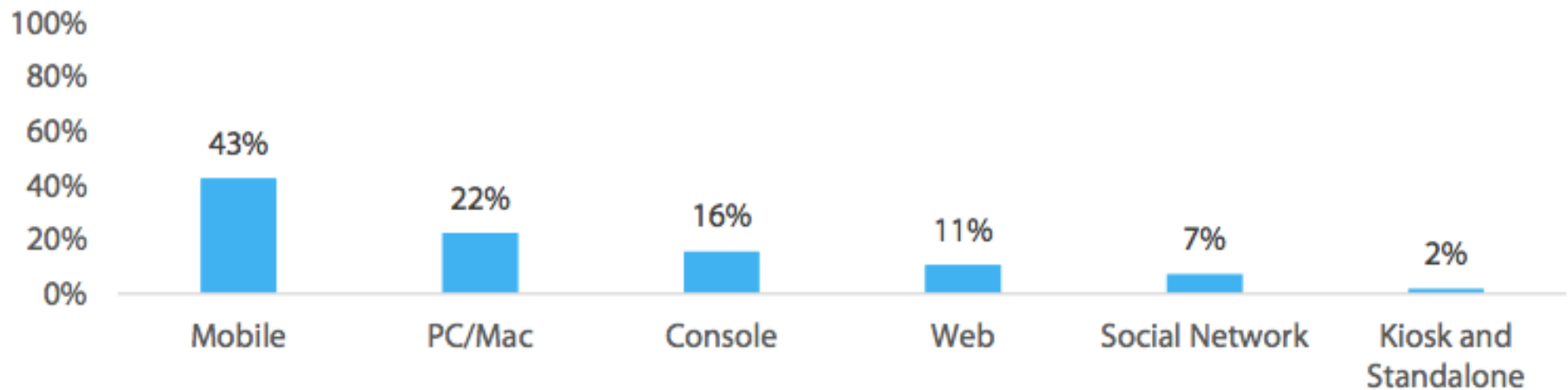
Table 3 – Average project budget, team size and # of days by platform

Platform	Budget	Team Size	# of days
Console	\$ 8,728,125	65	583
PC/Mac	\$ 995,675	10	268
MMO	\$ 834,000	9	259
Web	\$ 651,625	7	172
Mobile	\$ 303,500	7	156
Social Network	\$ 295,000	5	69
Kiosk and Standalone	\$ 30,000	5	65

Source: ESAC Industry Survey 2013
N = 43

What types of games are being made?

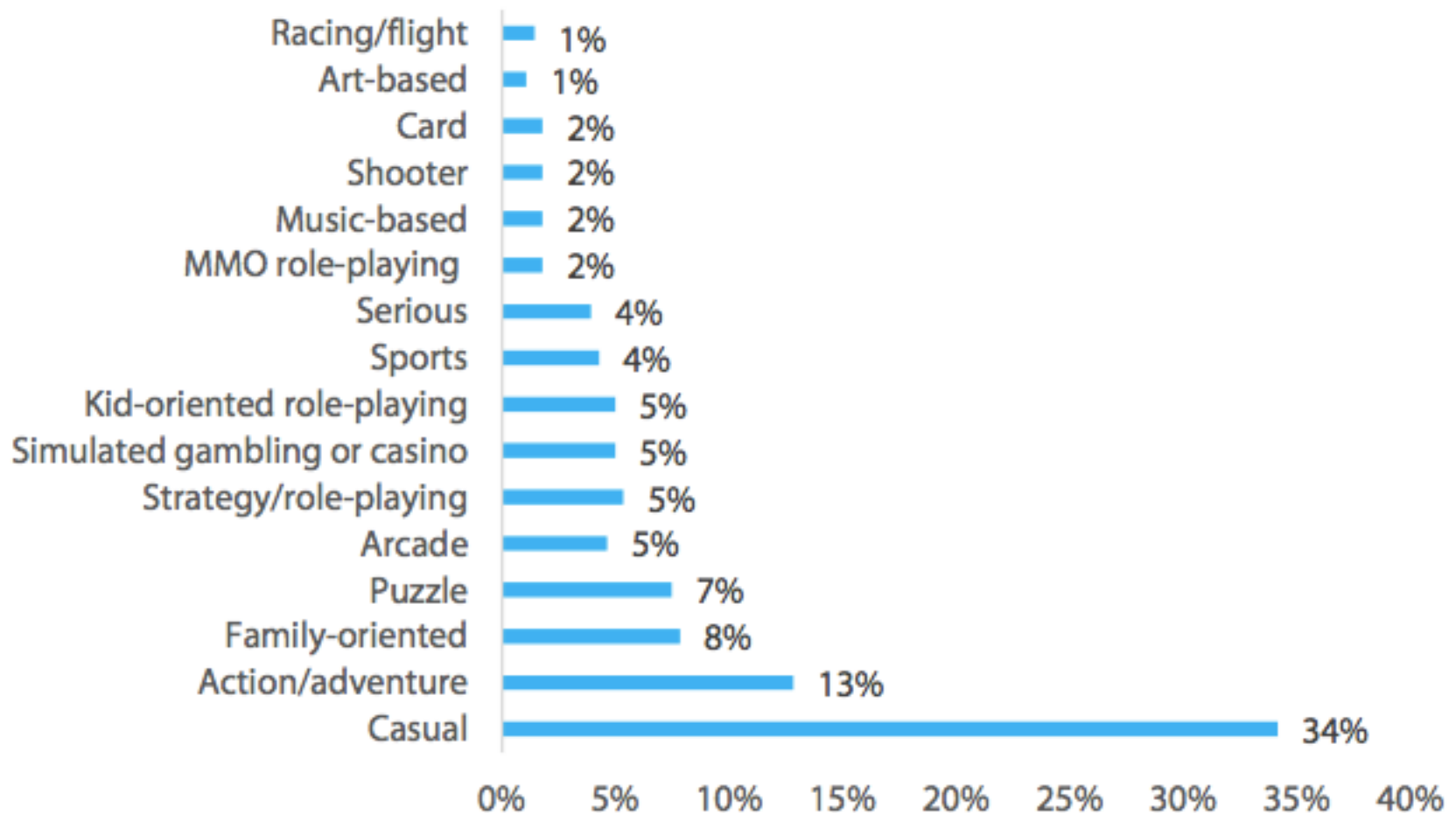
Figure 13 – Number of projects completed in 2012 by platform



Source: ESAC Industry Survey 2013
N = 46

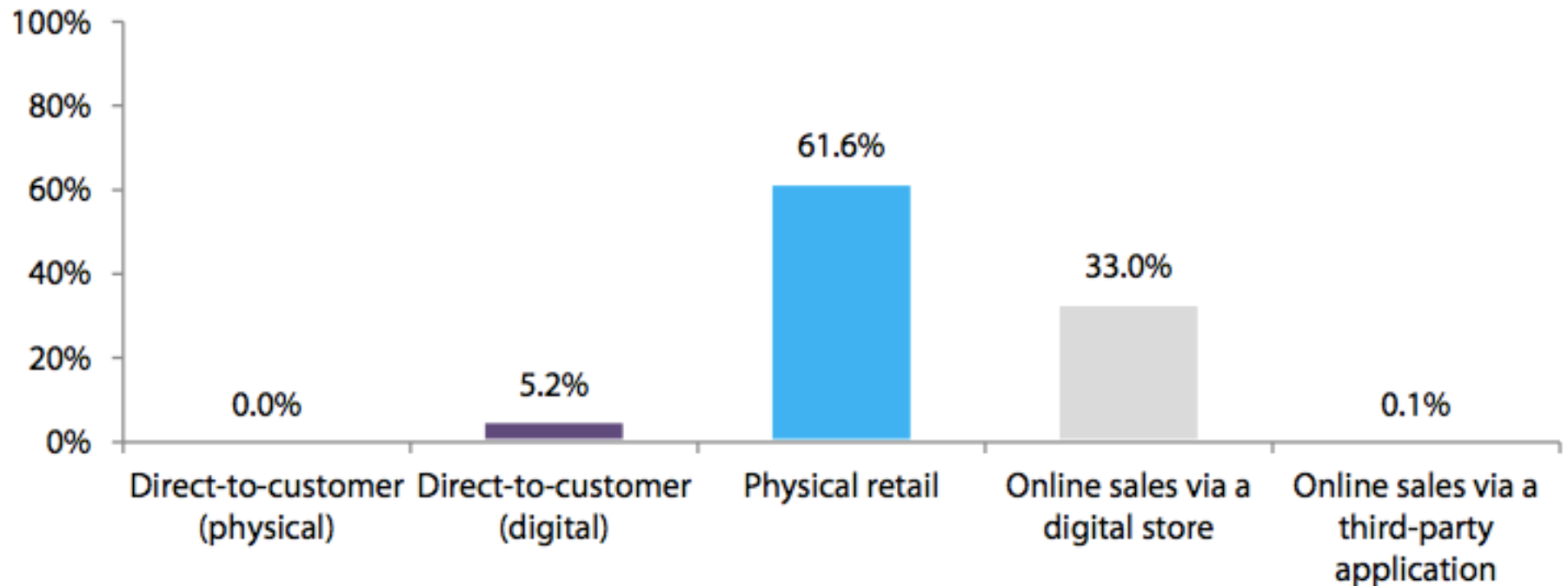
Most created genres

Figure 14 – Number of projects completed by genre



Where games get sold now

Figure 35 – Video game revenue by sales channel, 2012



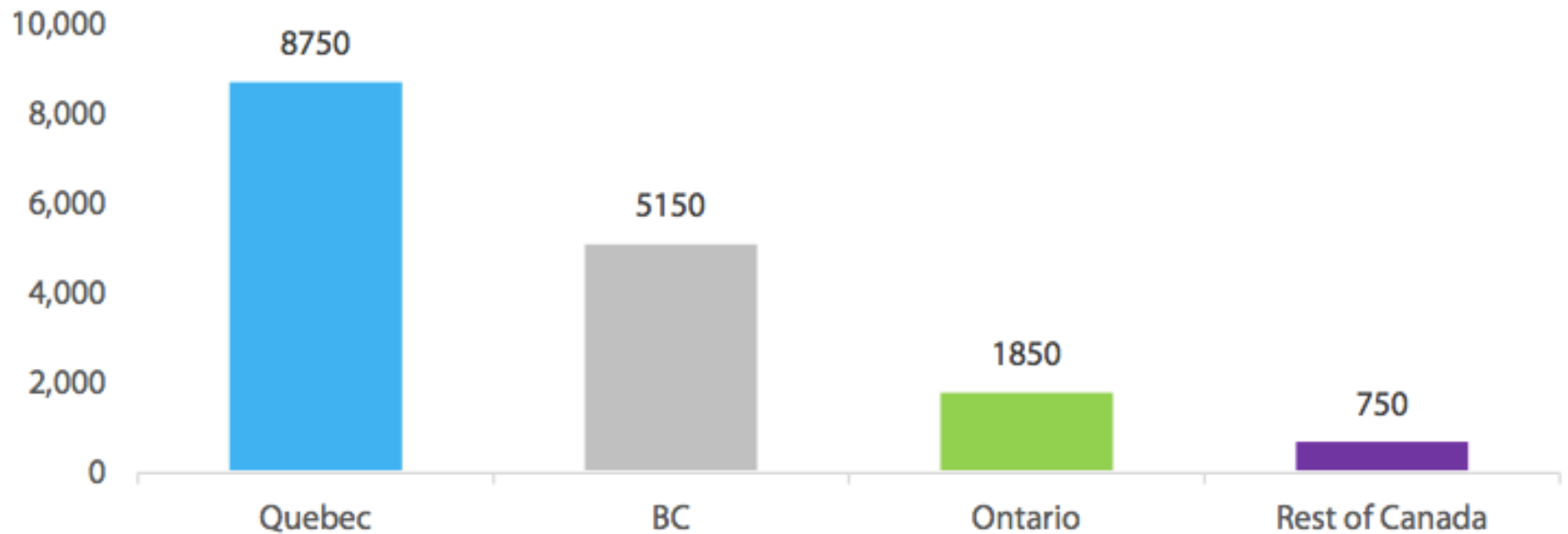
Source: ESAC Industry Survey 2013
N = 24

Game companies by province

Province	No. of Game-Related Companies	Major Companies
British Columbia	94	EA Games, Koei, Take Two, Radical, Relic
Prairie Provinces	22	BioWare, GamesCafe
Ontario	106	Capcom, Disney, EA, Rockstar, Ubisoft
Quebec	65	EA, Gameloft, Eidos, Funcom, Ubisoft, THQ, Behaviour, WB
Atlantic Provinces	18*	HB Studios, Long Tails, Other Ocean

Total employment figures

Figure 25 – Employment (FTEs) by province



Source: ESAC Industry Survey 2013
N = 80

Size of companies

Table 5 – Employment, by province and size of firm

	Micro	Small	Medium	Large
Ontario	1.1%	25.6%	73.3%	0%
Quebec	0.2%	2.0%	10.4%	83.2%
BC	0.1%	8.9%	11.9%	77.9%

Source: ESAC Industry Survey 2013

N = 57

Studio locations & shifts over time

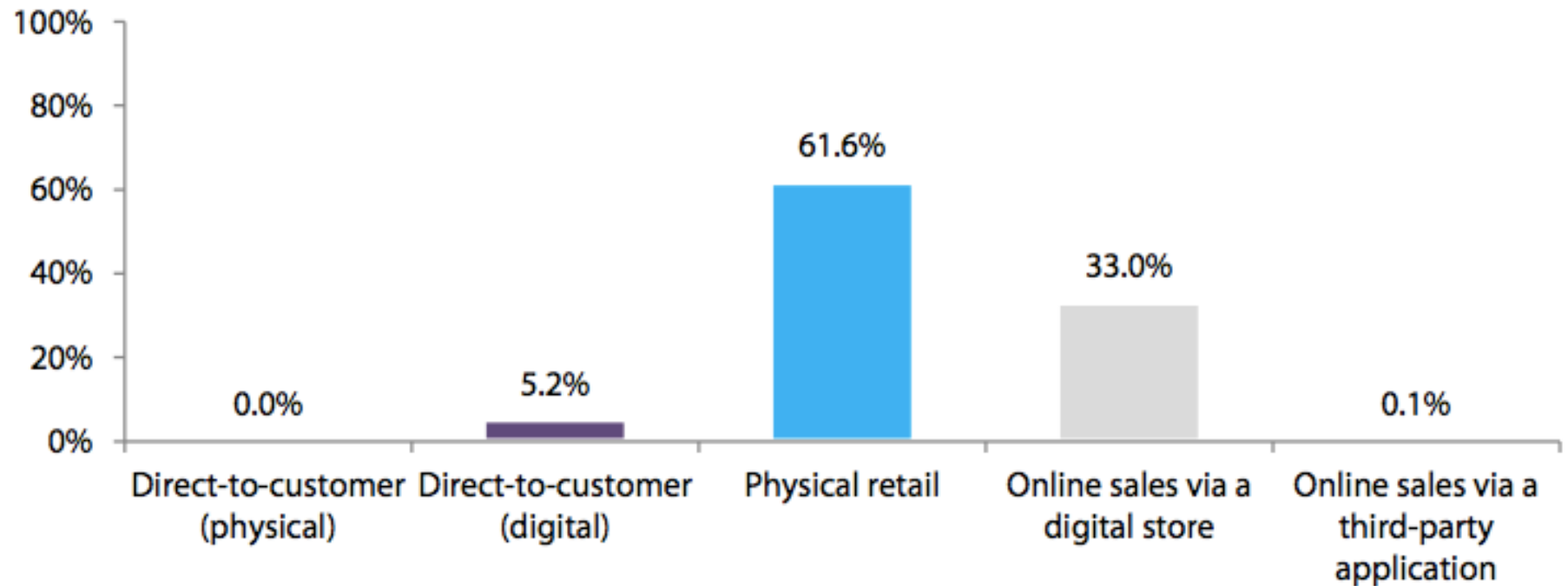
Table 4 – Geographic location of studios

Province	Studio Count 2013	Studio Count 2011
Quebec	97	87
Ontario	96	96
British Columbia	67	83
Alberta	20	30
Manitoba	20	19
Nova Scotia	18	12
PEI	5	10
New Brunswick	3	3
Newfoundland	2	8
Saskatchewan	1	-
Total	329	348

Source: List compiled by ESAC and Nordicity

Revenue

Figure 35 – Video game revenue by sales channel, 2012
















Source: ESAC Industry Survey 2013
N = 24




















The project: what's social about
social games?

80+ games/50 FB for Charts

 Sports City
 PetVille
 Warstorm
 Kingdoms of Camelot 3
 Mafia Wars Game 1
 City of Wonder 3
 EA SPORTS FIFA Superstars: Real football & soccer!
 Carmen Sandiego
 FrontierVille 17
 Cupcake Corner
 MyClub
 Catch A Killer
 Knights of the Crystals
 Legacy of a Thousand Suns
 Party Resort

 Fish World
 The Oregon Trail
 Wordscraper
 Zombie Party
 EA SPORTS™ PGA TOUR® Golf Challenge
 Geo Challenge
 Beachtown
 Zoo Kingdom
 HealthSeeker
 ESPN College Town
 CSI: Crime City
 Pickomino by Reiner Knizia
 Treasure Isle: The Adventure Game

 CityVille 14
 Dragon Age Legends
 Bejeweled Blitz
 Game Requests 100
 App Requests 1
 Café World 16
 Horse Saga
 Coffee Bar
 Chocolatier: Sweet Society
 Ravenwood Fair 4
 Office Daze
 Happy Island
 Island God
 Miscrits: World of Adventure
 NBA Legend: Official NBA Game
 Fantasy Kingdoms

 Lost Cities Solo by Reiner Knizia
 Dungeon Overlord
 Cooking Mama
 Simply Hospital
 My Vineyard
 My Mad Millions
 Writer's Blox
 YoVille
 Monster Galaxy
 Cow Clicker
 IncrediLand
 FameTown
 Texas HoldEm Poker 1
 Pet Society
 Superhero City
 Robot Unicorn Attack
 It Girl
 Crazy Caravans 2
 Country Story

Types of Interactions Found

- Friend bar lends silent presence of friends/family
- Gifting' s different roles
- Visiting
- Challenge & competition
- Communication

Surrounded by your friends

- Majority of games displayed your friends as a part of your interface, usually at the bottom of your screen
 - Pictures of your friends/neighbors greet you as you start the game
 - There's always a slot to invite another friend to join you
 - Many games now auto-populate the interface with friends already playing the game
 - Less tedious than having to invite friends, wait for them to accept, install game, make progress

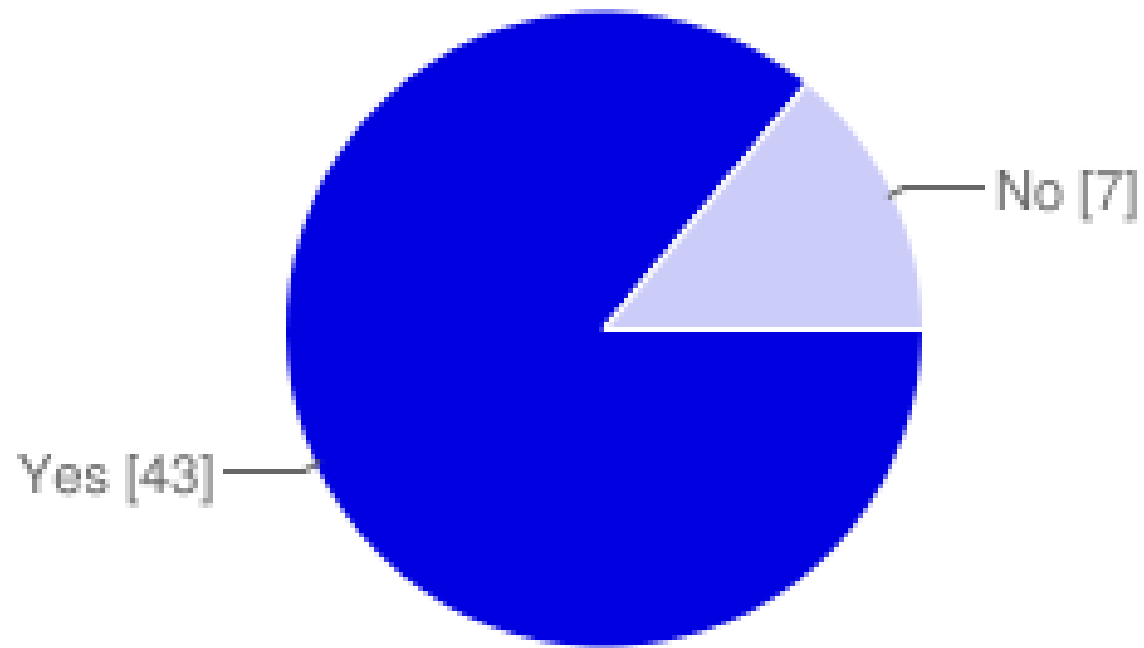


Surrounded by your friends

- Friends are ranked, and you are ranked amongst your friends
 - You can see how your friends are advancing (or not)
 - You can check your progress relative to your friends
 - Encourages more casual as well as intense/overt competitiveness, particularly as friends get started, or as levels become tougher to achieve (the TL Effect)
 - Streamlines how to visit friends/gift friends



Gifts



Gifts as Potlatch

- Impressing Your Friends
 - Games let players show off their status, (large) bank accounts, advanced levels through gifting



Just Me and My Hammer

Tamir is upgrading the Forge in order to craft exciting furniture! If you can help out, you can probably get some gold for your time!



7 hours ago via Dungeon Overlord · [Like](#) · [Comment](#) · [Get Gold](#)

Gifts as Potlatch

- Frequent gifters, or those who respond immediately to requests, can become more valued friends



Gifts as reciprocation/barter

- If I send you a Ribbon, won't you send me one back??
 - Zynga has automated with their toolbar, making process more streamlined



Critical Gifting

- Gifts can be essential to completing quests in games



Is friendship only about trading stuff?

- The less importance the game places on acquiring gifts from friends, the more the game functions as a solo experience (apart from competitive games)

Visiting

- Nearly as ubiquitous as gifting
- More variations emerging
- Balancing act of letting friends interact in other spaces with controlling access
- Most visits assume asynchronicity

Won't you be my neighbor?

- Most common trope: Show up, get stuff



Improve on the existing world

- Cityville watering crops makes them ripen faster, or can revive withered crops



Facebook Beats In Q2 With \$2.91 Billion In Revenue, 62% Of Ad Revenue From Mobile, 1.32B Users

Posted Jul 23, 2014 by [Josh Constine \(@joshconstine\)](#)

2,458
SHARES



Next Story



facebook

CrunchBase

Facebook

FOUNDED
2015

OVERVIEW

Facebook is an online social networking service that allows its users to connect with friends and family as well as make new connections. It provides its users with the ability to create a profile, update information, add images, send friend requests, and accept requests from other users. Its features include status update, photo tagging and sharing, and more. Facebook's profile structure includes ...

LOCATION

Menlo Park, California

CATEGORIES

Revenue by User Geography

In Millions

- Rest of World
- Asia
- Europe
- US & Canada



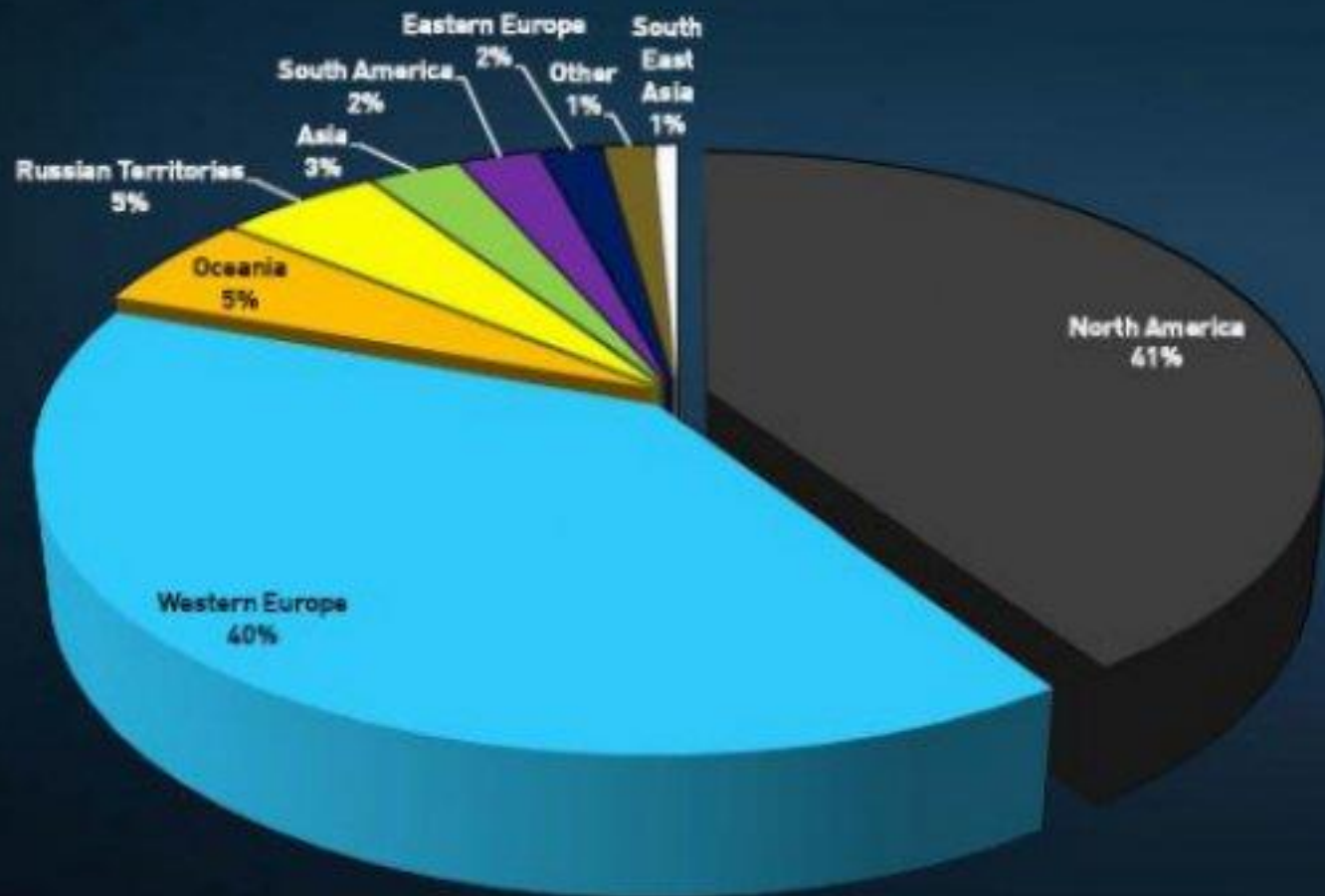
Who's paying?



Steam

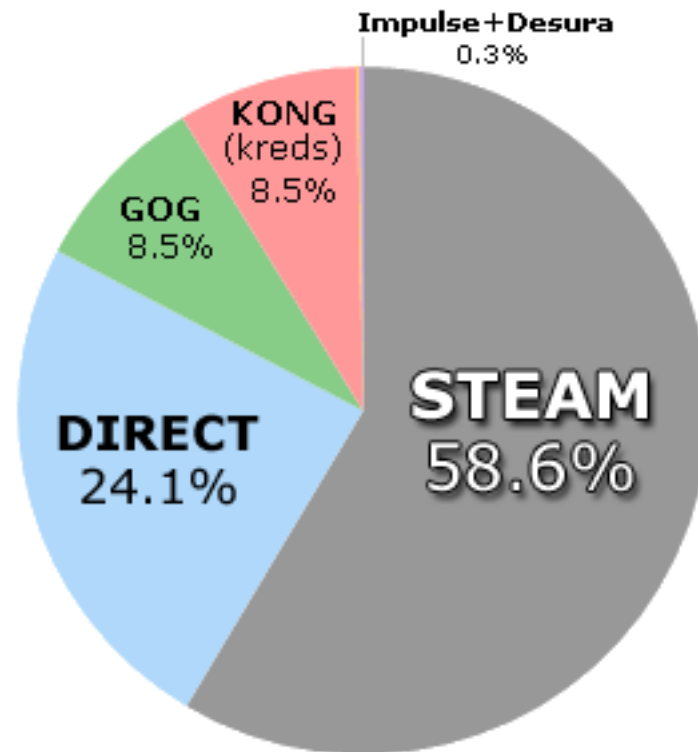


WORLDWIDE STEAM SALES BY REGION 2013

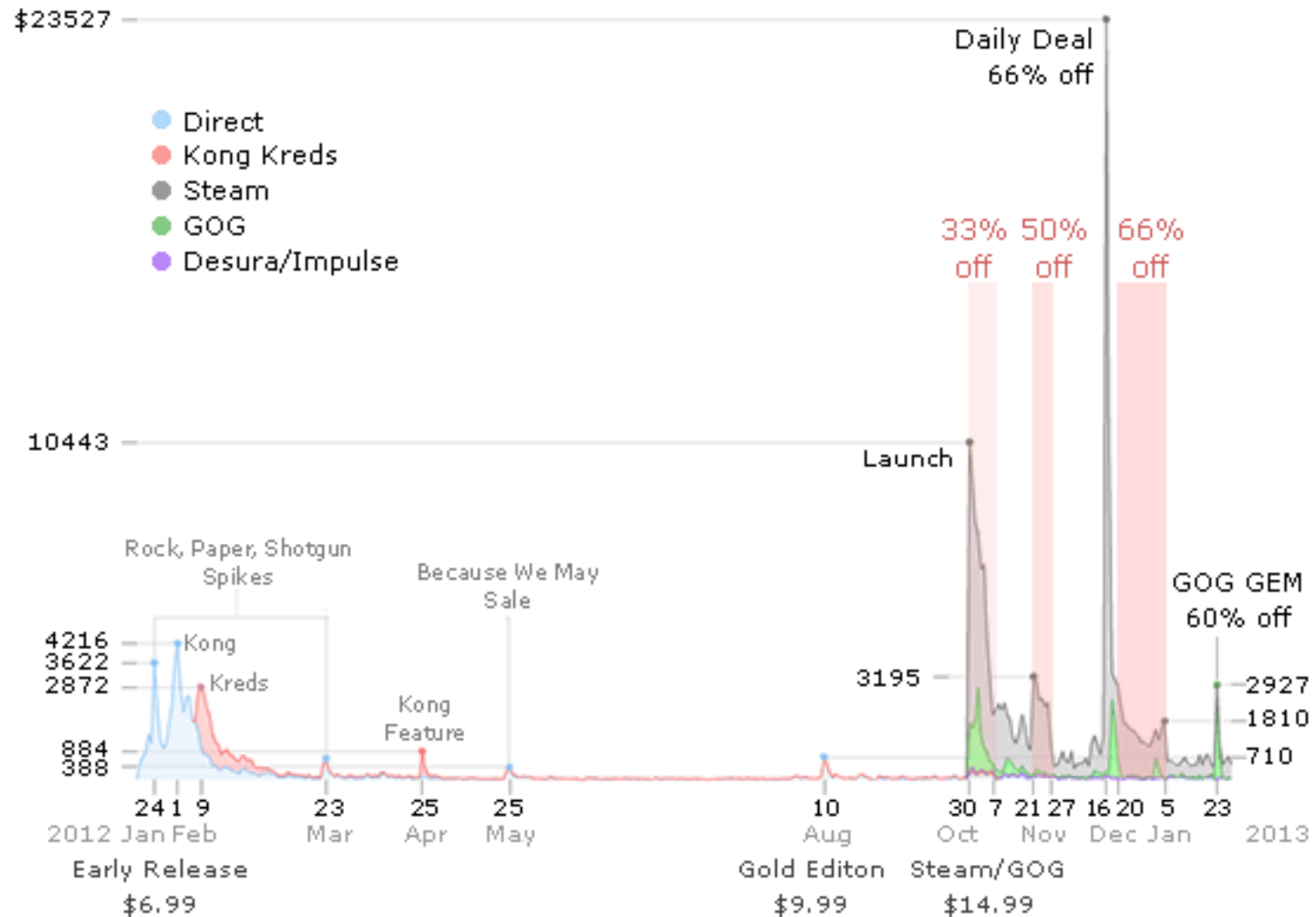


Defender's Quest

Source	\$Gross	Sales
Steam	167,916	20,200
Direct	69,058	12,004
GOG	24,428	3,180
Kong	24,364	4,975
Impulse	445	37
Desura	405	53



Defender's Quest



Play time stats: Defender's Quest: Valley of the Forgotten

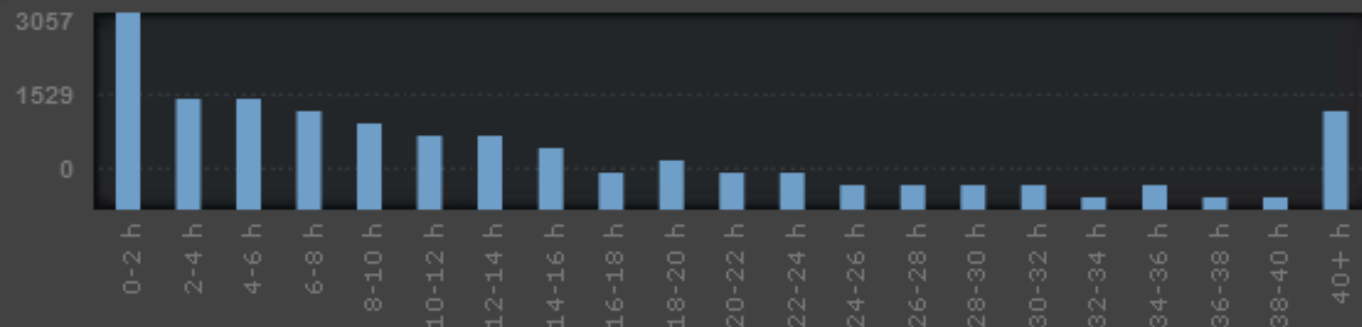
Users measured	19,096	(users who tried the game at least 2 days ago, have played at least one minute, and we've recorded data for)
Average play session length	69 minutes	
Average time played	16 hours 23 minutes	
Median time played	10 hours 5 minutes	
Time played range	1 hour 59 minutes - 28 hours 2 minutes	(one standard deviation of playing time)

Minimum time played	Percentage of users
---------------------	---------------------

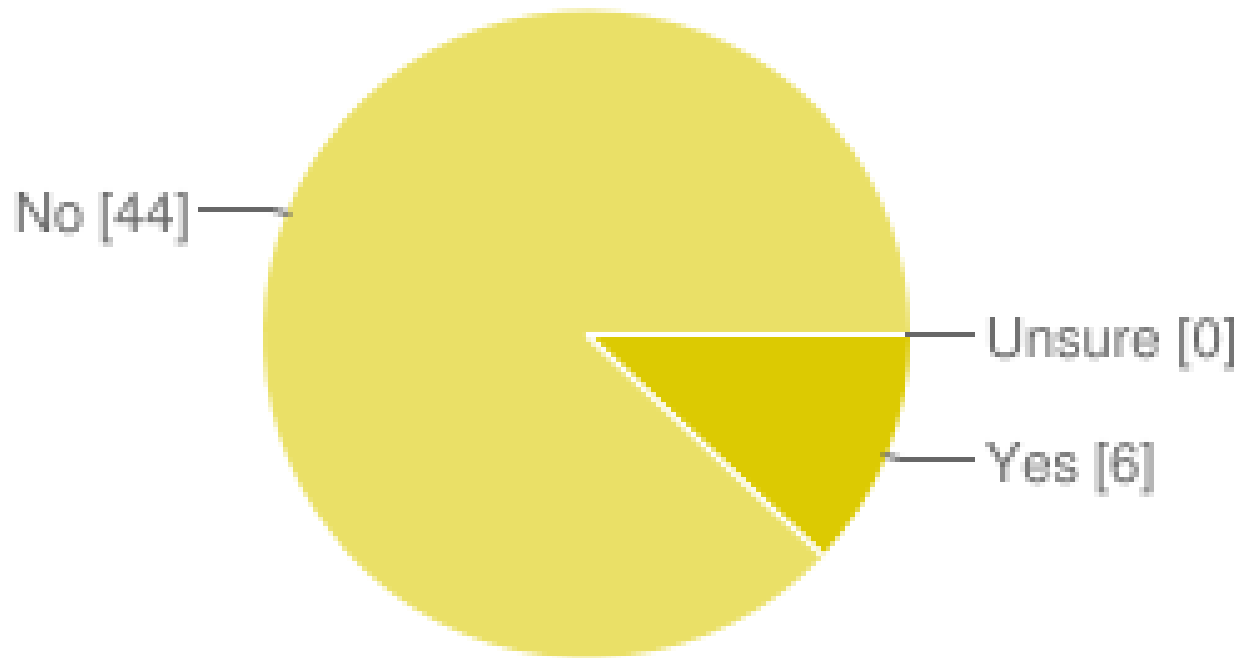
10 minutes	97%
30 minutes	93%
1 hour	89%
2 hours	83%
5 hours	70%
10 hours	50%
20 hours	26%
50 hours	4%
100 hours	0%

(well above average as compared to other Steam games)

Users bucketed by time played



Real time competition offered



Leaderboards

- Global, Friends-only, Weekly, Over Time



Challenges & Competitions

- Tournaments & Matches
 - Predominant in sports games, strategy games
 - FIFA Superstars; PGA Golf, ESPNU

The screenshot displays a game interface with a tournament leaderboard on the left and a team overview panel on the right.

Tournament Leaderboard:

Rank	Player	Team	Score	Stars	Rank
10	Abe Stein	FC Havlowjumper	79	★★★★★	1 st
2	Dean Takahashi	Bobcats	34	★★★☆☆	2 nd
14	Matthew Falk	FC Falkisaur	75	★★★★★	3 rd
3	Mia Consalvo	My Team	72	★★★★★	4

Team Overview Panel (My Team):

Rating	Stars
★★★★★	★★★★★
Formation	4 - 4 - 2
Training	100
Talent	57
Strikers	64
Midfielders	52
Defenders	58

Match Results:

Win	Draw	Lose
XP	000	XP
●	000	●

Challenge your friends for glory and the chance to win extra league matches!

Texas HoldEm Poker



Asynchronous challenges

- Crazy Caravans, City of Wonder let players challenge strangers as they travel (stat based challenges)



Communication

- The majority of games presume an asynchronous experience
 - Leaving messages in the game world for friends to find
 - Posting on wall with standardized messages and possibly personalizing them
 - Dragon Age Legends lets players personalize ‘kill phrase’ which friends will see when they recruit you
 - Friends’ interactions are mainly through gameplay itself, rather than communication about gameplay

How social are social games?

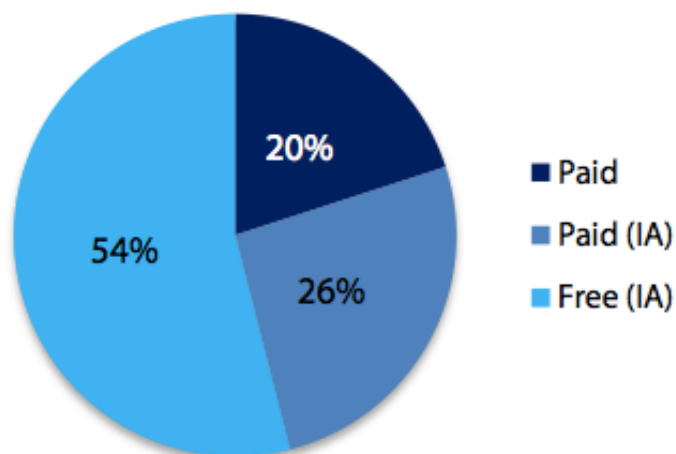
- Friends are a presence in games, but mostly silent
 - Replicating the ‘bowling alone’ experience of many MMOG players
- Friends’ help is mostly transaction based. Very few games utilized friends’ skills in helping players with gameplay
- Skill is mostly evidenced in competitions and the building of stats

The illusion of sociality?

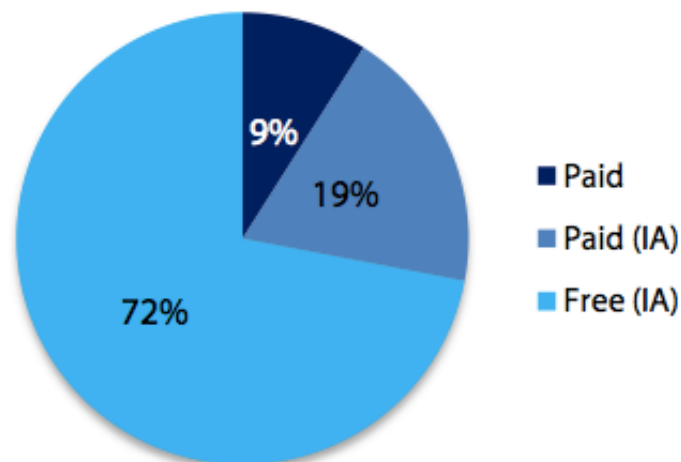
- The more friends you have, the more status you have in a game
- More friends let you advance, unlock areas, gain access to particular shiny objects
- Friends can inspire competition, whether reciprocated or not
- Lapsed friends can be a resource, can signify which of your friends are 'socially absent'
- Friends add content to games through the designed system

Figure 36 – iOS revenue by business model, 2011-12

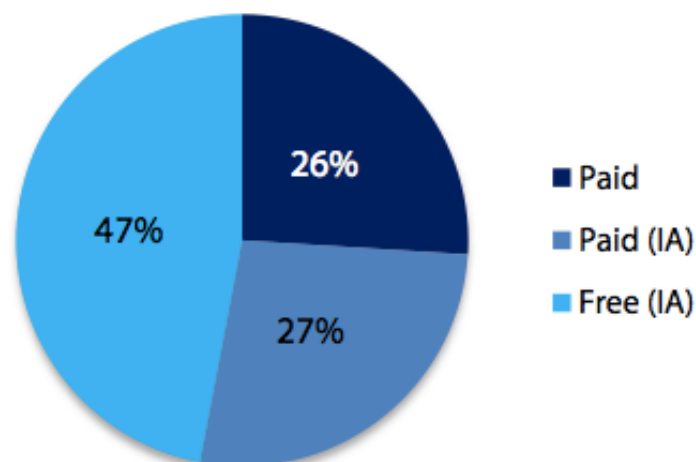
December 2011 (United States)



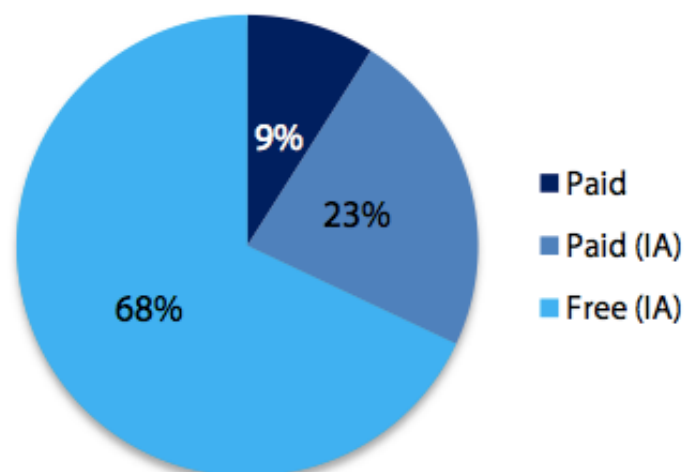
December 2012 (United States)



December 2011 (EU)



December 2012 (EU)



247 game companies generate more than \$1M in mobile revenue in the U.S. alone



Above: Clash of Clans for mobile devices.

Image Credit: Supercell

King Franchises: Platform Most Played On

For Candy Crush, Pet Rescue Saga, Farm Heroes and Papa Pear Saga gamers

Aggregated data for 12 countries:



55M

is the minimum number of gamers for any of these four King franchises

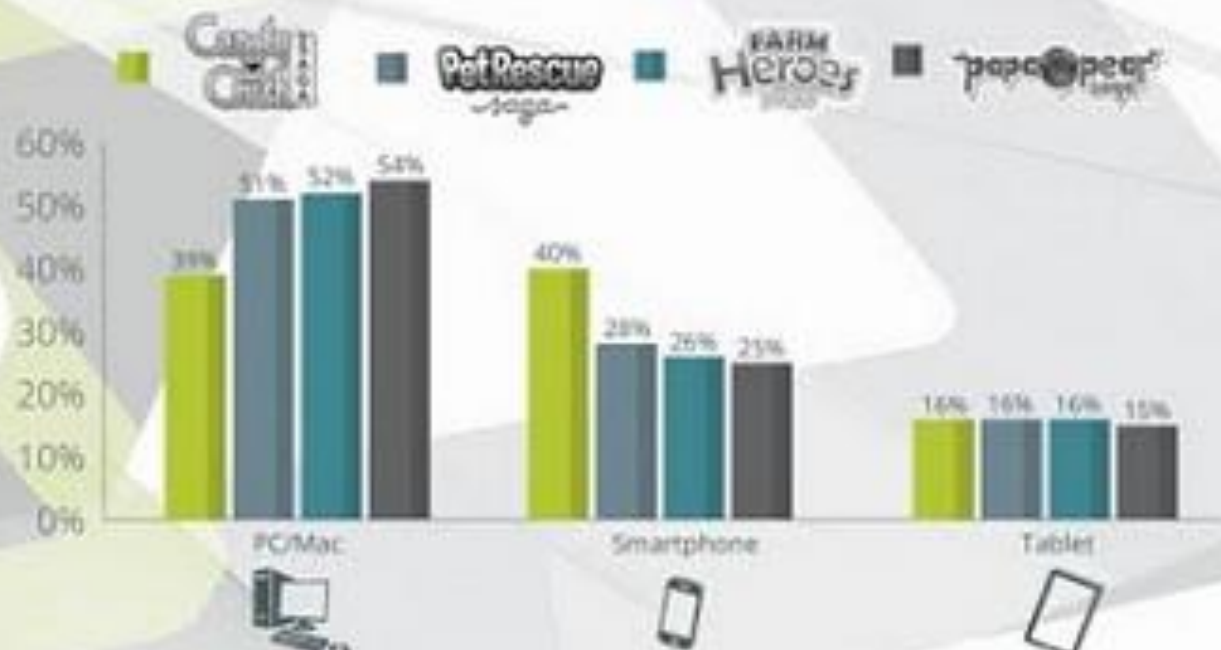


#2

grossing iOS game in the world, #2 for GooglePlay

#6

grossing iOS game in the world, #7 for GooglePlay



48%

of mobile Candy Crush gamers also plays one of King's other mobile titles

53%

of mobile Farm Heroes gamers also plays Candy Crush on mobile

38%

Of Candy Crush gamers has a Samsung phone

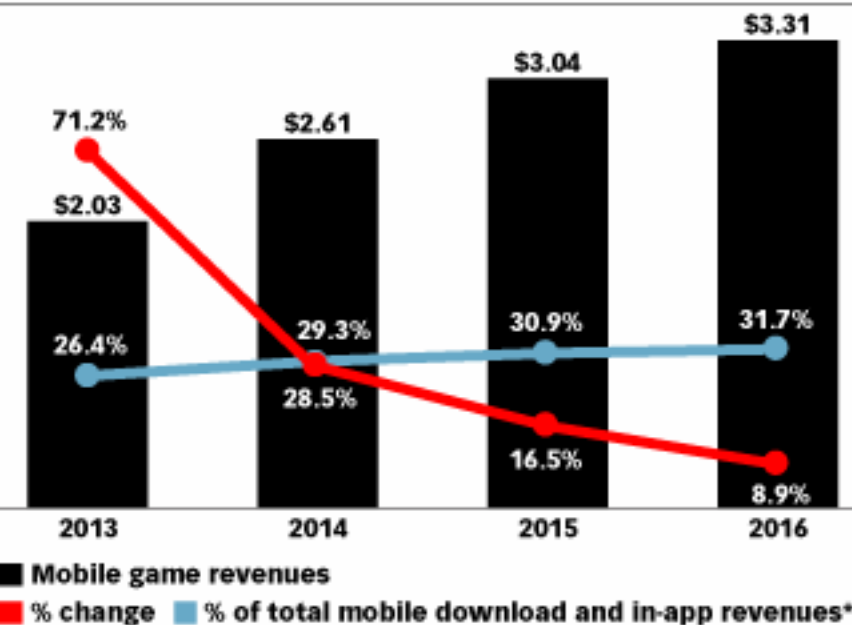
48%

Of Farm Heroes players lives with kids at home

Mobile revenue forecasts

US Mobile Game Revenues, 2013-2016

billions, % change and % of total mobile download and in-app revenues*



Note: includes game downloads and in-app purchases on ereaders, mobile phones and tablets; excludes ad-supported revenues and subscriptions;
*includes downloads of ebooks (including audiobooks), games, music and video, as well as game in-app purchases and other; includes ereaders, mobile phones and tablets; excludes ad-supported revenues and subscriptions

Source: eMarketer, Feb 2015

185159

www.eMarketer.com

US Mobile Game Revenues, by Venue, 2013-2016

	2013	2014	2015	2016
Game in-app purchases (billions)	\$1.12	\$1.51	\$1.82	\$1.99
—% change	99.3%	35.6%	19.9%	9.4%
—% of mobile game revenues	55.0%	58.1%	59.8%	60.1%
—% of total mobile download and in-app revenues*	14.6%	17.0%	18.5%	19.1%
Game downloads (billions)	\$0.91	\$1.09	\$1.22	\$1.32
—% change	46.0%	19.8%	11.7%	8.1%
—% of mobile game revenues	45.0%	41.9%	40.2%	39.9%
—% of total mobile download and in-app revenues*	11.9%	12.3%	12.4%	12.6%

Note: includes game downloads and in-app purchases on ereaders, mobile phones and tablets; excludes ad-supported revenues and subscriptions;
*includes downloads of ebooks (including audiobooks), games, music and video, as well as game in-app purchases and other; includes ereaders, mobile phones and tablets; excludes ad-supported revenues and subscriptions

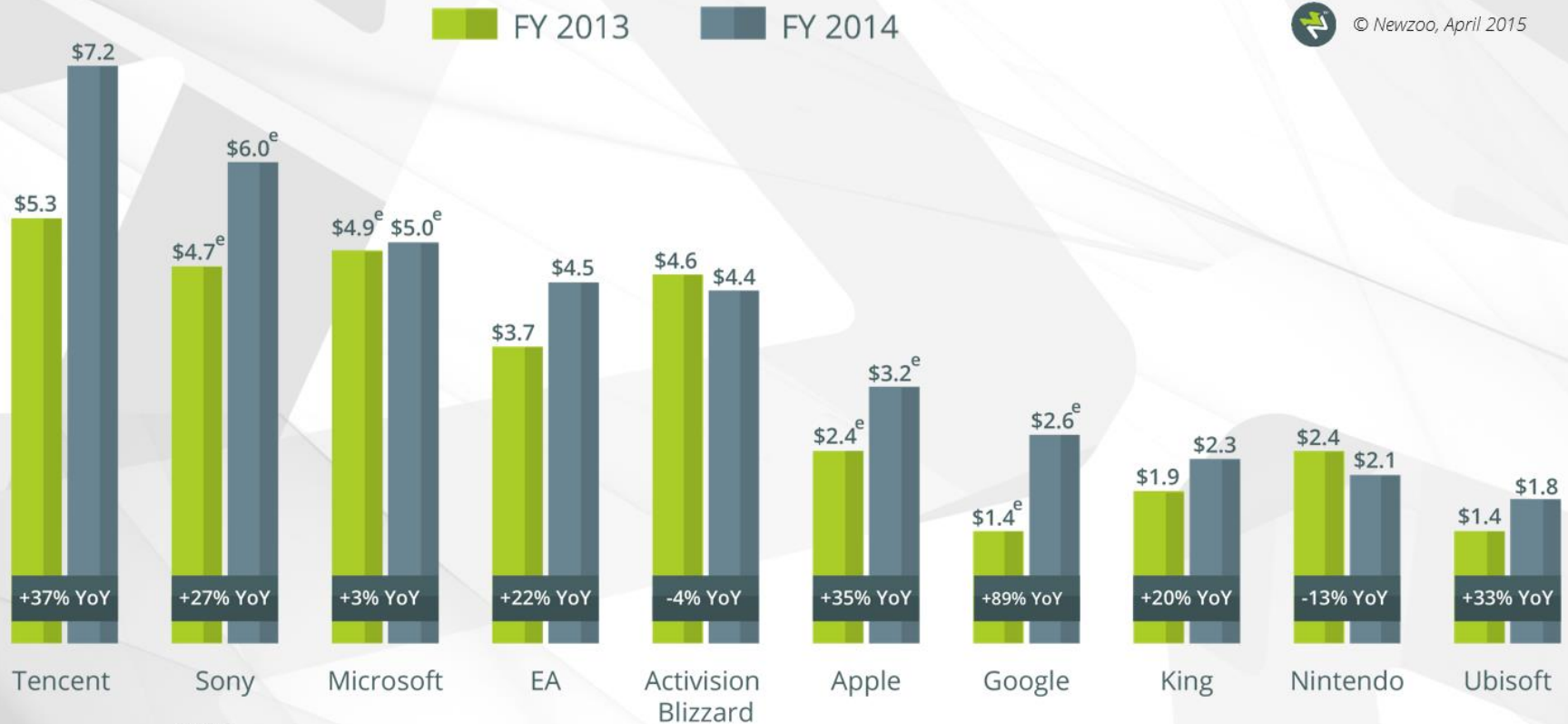
Source: eMarketer, Feb 2015

185160

www.eMarketer.com

Top 10 Public Companies by Game Revenues

Comparison of FY 2014 and FY 2013 Revenues (\$Bn)



© Newzoo, April 2015

Notes

1. Based on US GAAP revenues in Calendar year 2014 and IFRS for Tencent
2. Based on exchange rates as per 31/12/2014
3. e: Estimates of game revenues using quarterly earning reports in which these are not specifically segmented out.

Summing up

- A game's platform, its revenue model and its design are often intertwined
- The models discussed are not globally constant – there are important differences by region and area
- The 'middle' of game development is being squeezed out
- Many devs and players dislike free to play, but its popularity for now makes it a key element of the industry

Summing up

- Digital gameplay is no longer a dedicated activity, or the province of a few players
- New networks for players mean new types of play situations
- Money and games have always been intertwined

Thanks!

@miaC