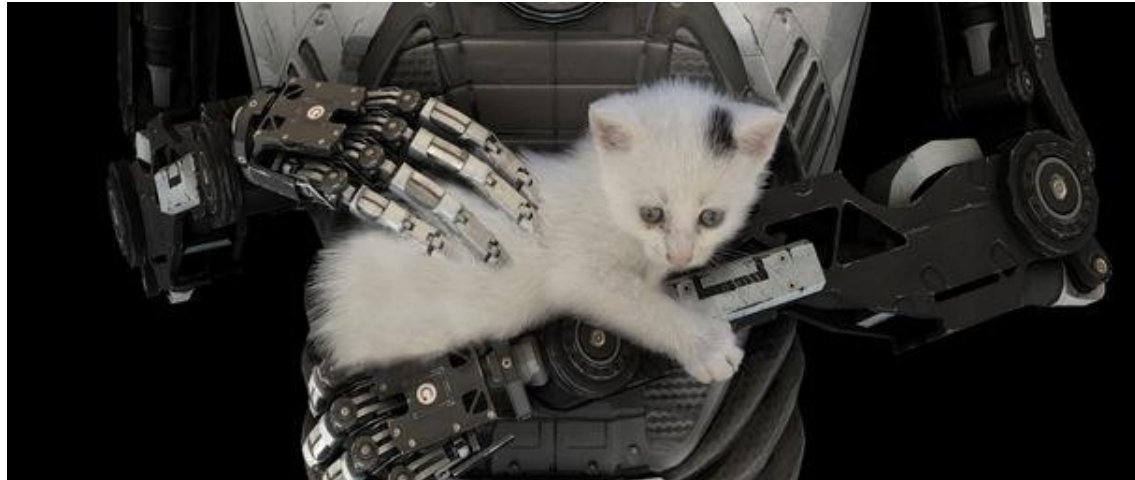


Handy Guide to Games Investment

By Dr.Tomas Rawlings,
Co-director of Bristol Games Hub



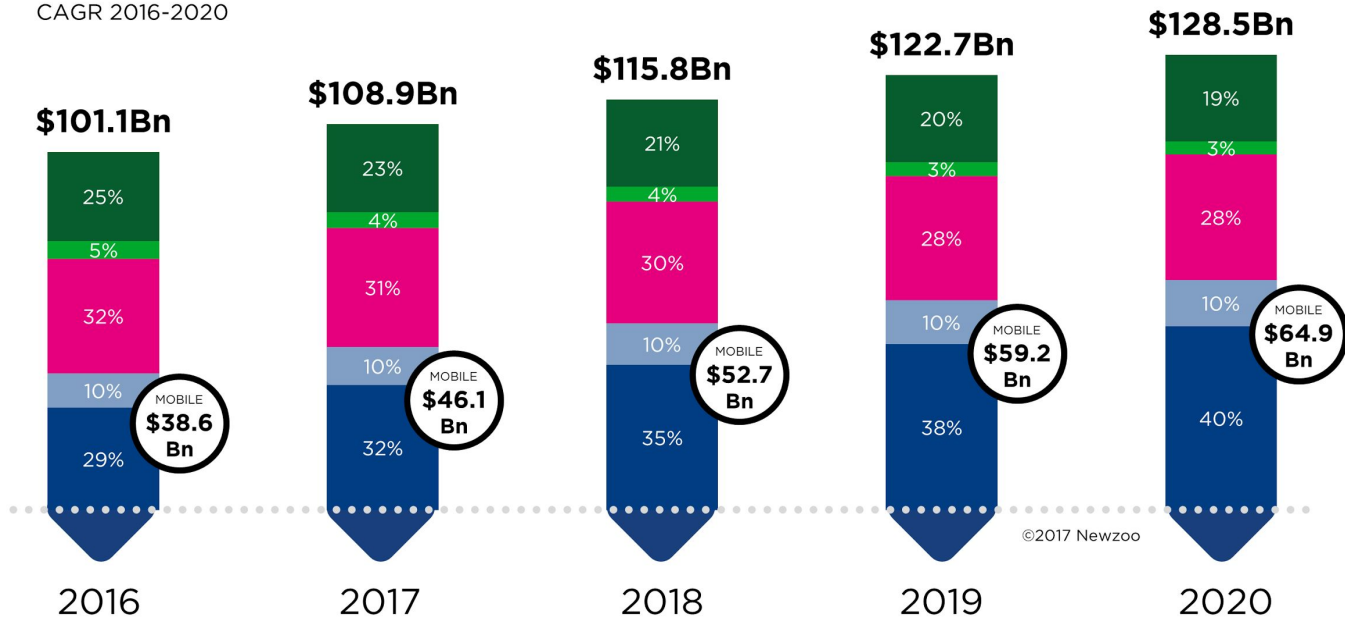
Global Market Growth

TOTAL MARKET

+6.2%

CAGR 2016-2020

● Boxed/Downloaded PC ● Browser PC ● Console ● Tablet ● Smartphone

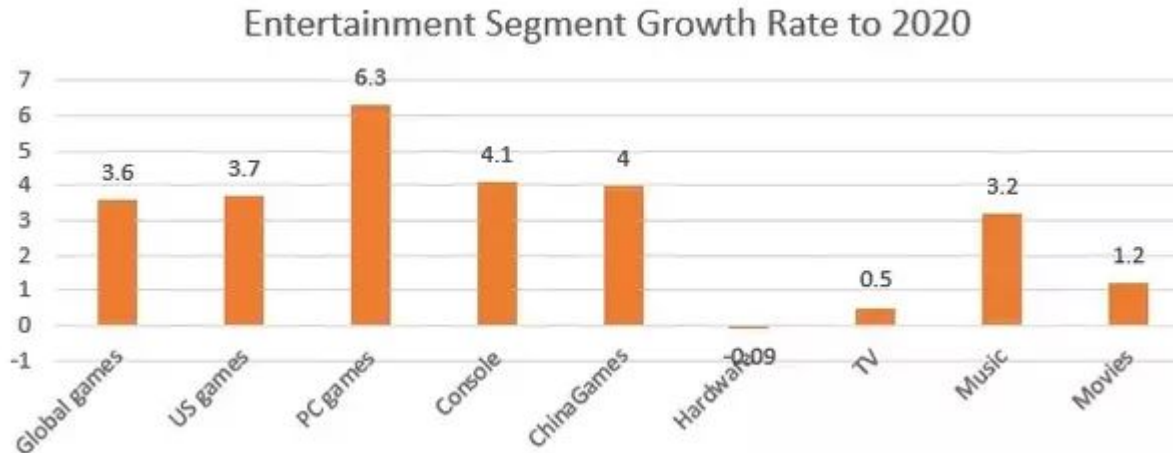


Games vs other Media

Global Music Industry: \$16 Billion

Global Film Box Office: \$38.6 Billion

Console Gaming: \$30 Billion

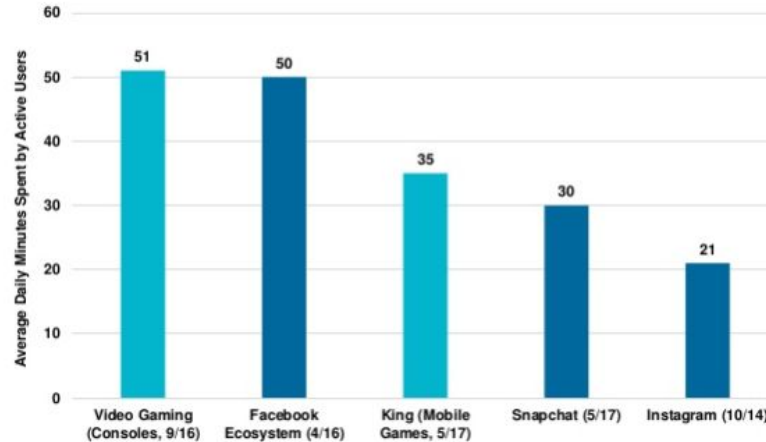


See: <https://www.quora.com/Is-the-Video-Game-industry-bigger-than-the-Film-and-Music-Industries>

Mary Meeker's Internet Trends - Engagement

Video Gaming =
Most Engaging Form of Social Media

Daily Minutes Spent per User Across Select Digital Media Platforms



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Source: Kleiner Perkins (KPI), Facebook Q4 16 earnings call at 10:30 AM EDT on 1/17/17, Activision Q4 16 earnings call at 11:00 AM EDT on 1/17/17, Snapchat Q4 16 earnings call at 11:00 AM EDT on 1/17/17, Instagram Q4 16 earnings call at 11:00 AM EDT on 1/17/17. Note: Video Gaming (Consoles) - Q4 16 survey of console users aged 18-34, which found that many hours of console gaming on game consoles during a typical day. Includes Xbox One, PlayStation 4, PS4, Xbox 360, and Wii U. Average time spent per day. King (Mobile Games) - Q4 16 survey of mobile game players during a typical day. Includes iOS and Android. Average time spent per day. Snapchat - Average of the 25-34 minutes of daily usage found in the Q4 16 survey.

KP INTERNET TRENDS 2017 | PAGE 114



114 of 355



UK Market



UK Market

HARDWARE:

£1.13bn

CONSOLE HARDWARE

£507.5m

-26.7%

(REVISED 2015: £696.2m) SOURCE: GFK ENTERTAINMENT

PC GAME HARDWARE

£258m

+64.3%

(REVISED 2015: £157m) SOURCE: GFK ENTERTAINMENT

PERIPHERALS & ACCESSORIES

£300.1m

-16.6%

(2015: £359.7m)

SOURCE: GFK ENTERTAINMENT

VR HARDWARE

£61.3m

NEW FOR 2016

SOURCE: SUPERDATA

UK Market

OTHERS:

£100.5m



Mary Meeker's Internet Trends - Leadership

...~Ten Years Later = Entrepreneurs Often Fans of Gaming Experience

I like video games. In fact, that's what got me into software engineering when I was a kid. I wanted to make money so I could buy a better computer so I could play better video games.

- **Elon Musk**, CEO Tesla & SpaceX, 10/16

As a child I played a lot of Avalon Hill board games. And each board game is actually a complex set of rules and circumstances... So it was actually in fact my childhood gaming — for being able to build a model of what a game was — that was essentially the fundamental thing that informs my strategic sense.

- **Reid Hoffman**, Co-Founder of LinkedIn, 8/15

I do think this dynamic around kids growing up, building games, and playing games, is an important one because I think this is how a lot of kids get into programming. I definitely wouldn't have gotten into programming if I hadn't played games.

- **Mark Zuckerberg**, CEO Facebook, 5/15

**KLEINER
PERKINS**

Sources: Elon Musk: Forbes Interview (10/1/16), Reid Hoffman: Interview on the Tim Ferris Show (8/31/15), Mark Zuckerberg: Facebook Q&A Session (5/14/15)

KP INTERNET TRENDS 2017 | PAGE 148

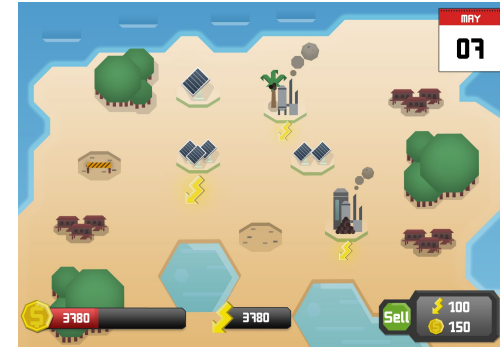


148 of 355



Games as Outreach: Making it *Positive!*

- 52% of gamers report playing games where they think about moral and ethical issues
- 44% report playing games where they learn about a problem in society
- 43% report playing games where they help make decisions about how a community, city or nation should be run.
- 76% of young people report helping others while gaming



Reference Civic Survey reported at:

<http://www.pewinternet.org/2008/09/16/major-new-study-shatters-stereotypes-about-teens-and-video-games/>

Less a 'Games Market' More 'Games Markets'

- Steam
- Mobile
- Console
- Physical Games
- AR
- VR
- YouTube/Twitch
- eSports
- Applied Gaming

Steam



Steam

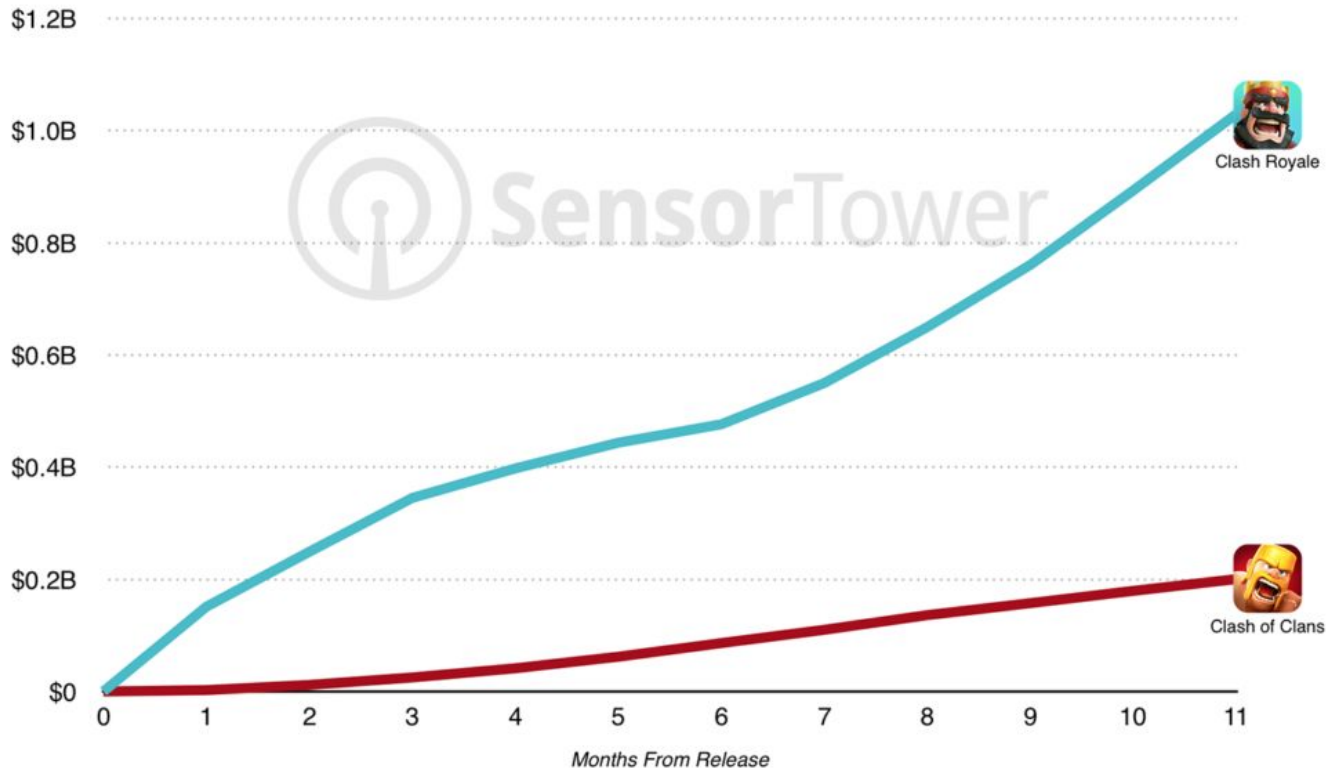


Mobile



Mobile

Clash Royale Cumulative Gross Revenue
App Store and Google Play, Worldwide

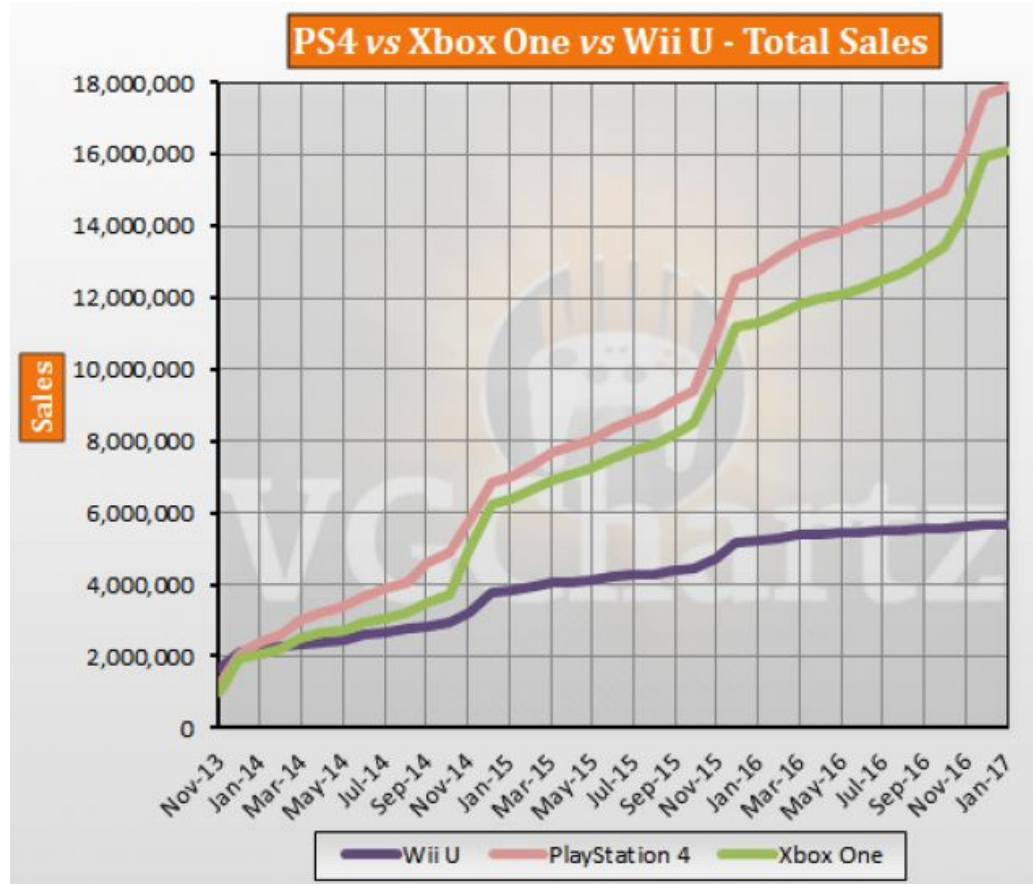


Note: Clash of Clans was not available on Google Play until six months after its worldwide launch.

Console



Console



Physical Games

Physical games are going through a renaissance in terms of creativity and sales.

- **\$1,600,000,000+**, size of total "games and puzzles" (i.e. includes non-"hobby game" games) market in US territories in 2015
- **10% to 20%**, estimated growth of boardgame sales in past decade. This has continued in 2016, with ICv2 confirming a growth of 10%.



Augmented Reality (AR)



Virtual Reality (VR)

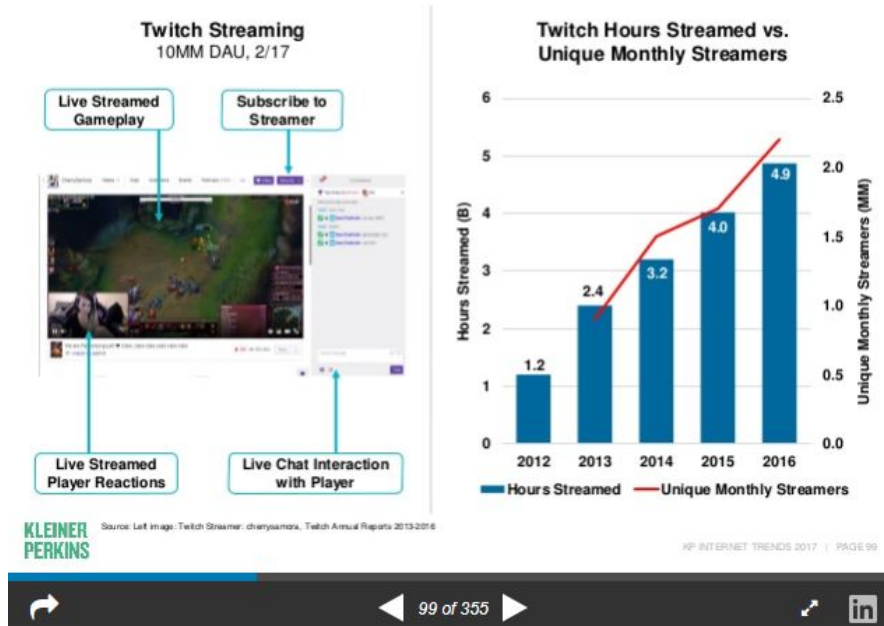


YouTube/Twitch



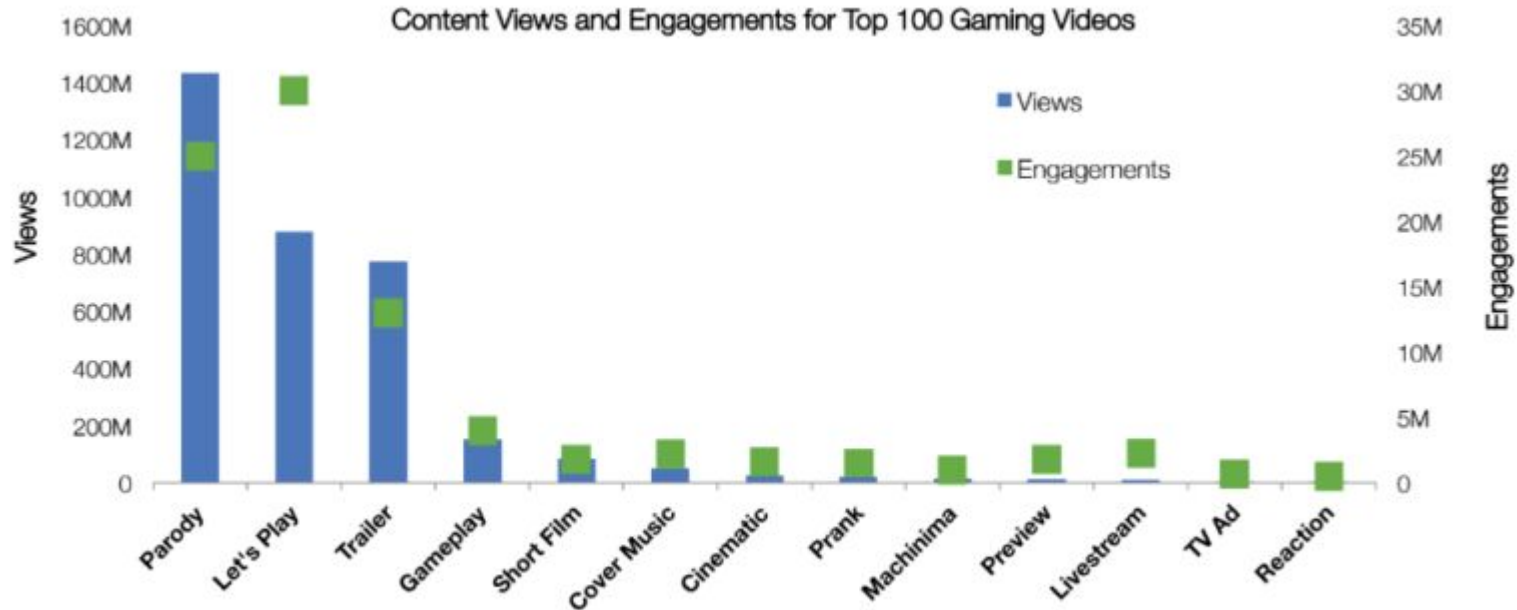
YouTube/Twitch

...Observing =
Learn From Watching Others Perform...



See: <http://www.kpcb.com/internet-trends> - gaming starts on slide 84.

YouTube/Twitch

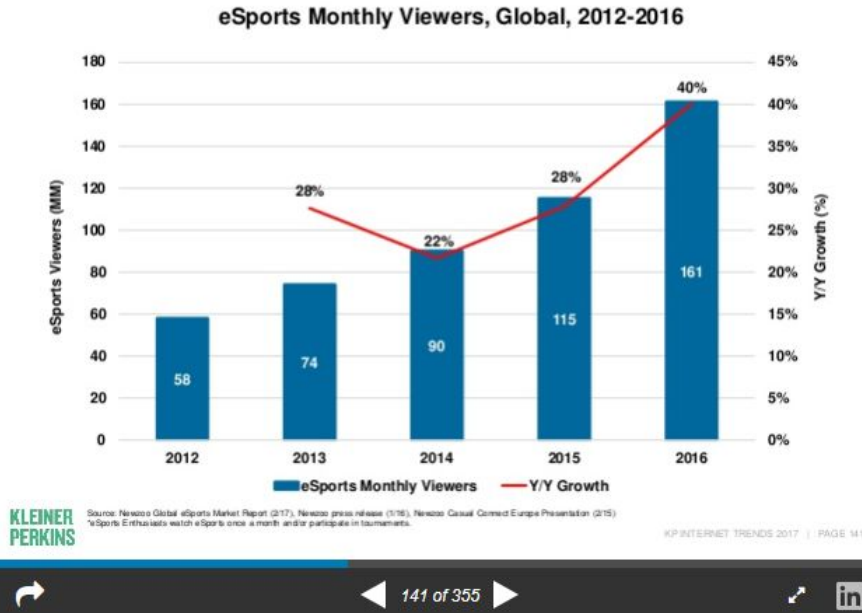


Source: Pixability Video Radar, April 2016

See: <http://www.kpcb.com/internet-trends> - gaming starts on slide 84.

eSports

eSports Monthly Viewers @ 161MM...
+40% Y/Y & Accelerating



See: <http://www.kpcb.com/internet-trends> - gaming starts on slide 84.

Applied Gaming

...Gamification =
Influencing Multiple Businesses...

Healthcare Research
Foldit



Military Training



Work Productivity
Betterworks



Pilot Training
Boeing



Healthcare Training
Simulated Surgery



Neuroscience
PTSD Therapy



**KLEINER
PERKINS**

Source: Top Left Image: Foldit, Top Middle Image: US Army Sgt 1st Class Caleb Barrios, Top Right Image: Betterworks, Bottom Left Image: Boeing, Bottom Center Image: Simulated Surgical Systems, Bottom Right Image: Archpaper.com

KP INTERNET TRENDS 2017 | PAGE 109

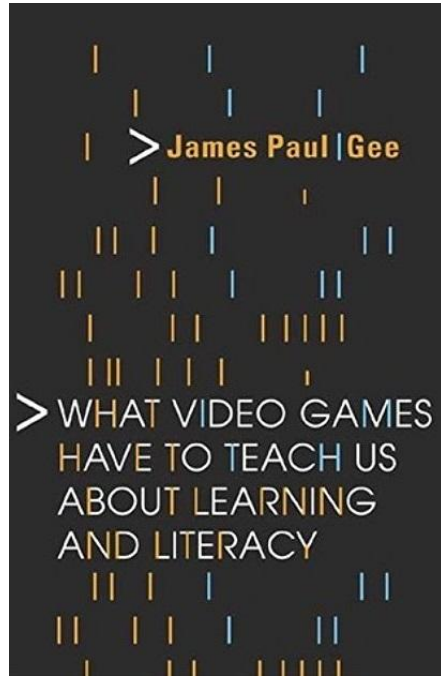


129 of 355



See: <http://www.kpcb.com/internet-trends> - gaming starts on slide 84.

Applied Gaming - Education



Dr. James Paul Gee is one of the major advocates for the use of games in education. His seminal 2004 book, '**What Video Games Have to Teach Us About Learning and Literacy**' concludes that video games in learning, intermix instruction and demonstration and that has proven a more effective learning technique than the “memorize-and-regurgitate style” found in most classrooms. This quote from a more recent paper of his reiterates this position:

“While games are good for learning, learning is good for games. Video games are, at heart, problem solving spaces. Learning is integral to their design and success. Good games create good learning in order to create good problem solving and, in the act, create deep engagement and satisfaction.”

Thanks and on with the pitches!