Reflection on Forecast of the Gaming Industry in the Coming Decade and a Plan for Sony PlayStation essay

This was a very fascinating project for me. As a game and technology enthusiast, and, at the time I wrote this, Microsoft supporter, this gave me an interesting opportunity to research the diversity as well of similarities with the company, the unseen aspects of the industry, as well as formulate some thoughts as to how Sony could improve to better rival Microsoft.

More interesting still is looking over my work in retrospect. While I'm sure we could grade this assignment based off spelling and grammar, or perhaps the effort and merit behind the ideas and concepts portrayed in this piece, I believe we would be best served to compare notes with those who have a stake in Play station's best interest all along; the minds behind Sony PlayStation. Reviewing my notes, I see that my suggestion was that PlayStation cut funding for advertising and invest in R&D. Furthermore I believed PlayStation should include more cross platform features such as Microsoft Xbox glass app for smartphones, which allows you to message and somewhat use your smartphone as a controller, and finally I believed that Sony should try to gain more leverage in the mobile market.

I single out these three ideas specifically because I have not seen many PlayStation specific commercials recently, but I have seen Sony, and PlayStation moving forward with some incredible innovations. This assignment was submitted some months before the release of the PlayStation 4. On this day, now April 16th 2015, I hold in my hand the Sony Xperia, the only Smartphone capable of second screen gaming with the PlayStation 4, both locally or over the internet, and can be used as a controller/screen, or you can connect the DualShock 4 controller to it and use that as a second screen; two feats not accomplished by Microsoft. This is accomplished by the PlayStation Vita handheld console, so in these two ways and additionally, by developing games specifically for smartphones, Sony has successfully broken into the mobile market as well as won my support.

Forecast of the Gaming Industry in the Coming Decade and a plan for Sony PlayStation Evan W. Lawrence

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The Video Game Industry is constantly changing due to new technologies and changing trends. The author uses research and hypothesis in an attempt to produce an accurate forecast for the gaming industry up to 2020. Using this forecast along with examining trends over recent

history the author attempts to formulate a plan designed so that Sony PlayStation can stay ahead and successful over the next decade.

I. The Past Decade

The last decade has brought so many advancements in video game technology, including the PlayStation 3, PSP, PSV, Xbox 360, Wii, Wii U, DS, 3DS, Smartphones, Tablets and all kinds of advancements therein, such as Xbox's Kinect, and PlayStation's Move. All this innovation has brought on a new age of gaming where nearly everyone plays videogames in some form.

If we look back to 2004, however, the industry was not so booming. Gaming consoles sold less than 4m units and only an estimated 4.3m games for these consoles were sold. It is likely these low sales could be due to the aging platforms. The prior generation of consoles was on its way out and no longer very impressive. It was time for innovation and companies such as Microsoft, Sony, and Nintendo saw this window of opportunity.

Microsoft announced the Xbox 360 on MTV May 12, 2005. The console launched in the US and Canada as of November 22, 2005 and as of January 1, 2006, Microsoft had already sold over 1.5 million units.

During Microsoft's unveiling of the Xbox 360 at E3 2005, in a move of one-upmanship, Sony announced their player in the game, the PlayStation 3. PlayStation 3 initially was slated to launch spring 2006. However, refusing to release a subpar product, Sony delayed the PS3 launch several times until it was finally released in North America November 17, 2006. PlayStation 3 reached Europe, Australia, the Middle East, Africa and New Zealand March 23 2007, when it reportedly sold over 600,000 units in the first two days.

Nintendo had a different strategy in mind. Forgoing the expensive Blu-ray player and high tech graphics, Nintendo launched their affordable Wii on November 19, 2006, only two days after the PS3. At a price of only $200, compared to PlayStation's $799.99, one might

consider Nintendo's plan was to offer an affordable solution to the gamer that needs a new console immediately. Affordability wasn't Nintendo's only play at building a larger audience. With the Wii's simple and fun to use motion based controls, Nintendo aimed to draw in a more diverse audience ranging from young children only starting to develop coordination, to the elderly too easily frustrated by too many buttons.

These combined strategies brought instant life back to the stagnant Gaming Industry. Statistics show a +1,141% boost in hardware sales, and +555% boost to Hardware in 2005 compared to 2004. This trend of dramatic increase continued on for approximately 3 years before tapering off and eventually turning into a dramatic decrease in annual sales (**Figure 1**). Looking back on the life span of the prior generation of consoles it becomes easy to notice a trend. A logical prediction would be that sales will again skyrocket at the launch of the next generation of video games and consoles, and then again taper off as the life of the console nears its end.

Year	**Hardware Sales**	**Software Sales**

2012 WiiU US Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
3DS	14,406,901 (+9%)	27,656,963
PS3	12,734,949 (-13%)	73,830,282
X360	11,097,669 (-20%)	74,867,113
Wii	5,246,228 (-54%)	98,674,459
PSP	4,280,470 (-43%)	77,451,548
PSV	3,673,233 (+663%)	4,154,806
DS	3,012,615 (-66%)	152,996,125
WiiU	2,247,216 (-66%)	2,247,216
Total	**56,699,281 (-19%)**	

Global Software by Platform

Platform	Yearly (change)	Total
X360	135,596,735 (-12%)	729,327,308
PS3	128,418,262 (-14%)	633,811,392
Wii	72,955,521 (-46%)	832,642,297
DS	40,469,391 (-50%)	756,162,968
3DS	39,232,012 (+46%)	66,029,306
PC	33,355,879 (+13%)	N/A
PSP	15,011,507 (-53%)	270,017,303
PSV	9,010,891 (+2,019%)	9,436,121
WiiU	4,584,523 (++2,019%)	4,584,523
Total	**478,634,721 (-21%)**	

2011 3DS/ PSV US Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
PS3	14,706,691 (+6%)	61,095,333
X360	13,808,365 (+4%)	63,769,444
3DS	13,250,062 (++4%)	13,250,062
Wii	11,522,685 (-33%)	93,428,231
DS	8,759,675 (-57%)	149,983,510
PSP	7,459,539 (-20%)	73,171,078
PSV	481,573 (-20%)	481,573
Total	**69,988,590 (-6%)**	

Global Software by Platform

Platform	Yearly (change)	Total
X360	154,515,522 (+16%)	593,730,573
PS3	148,974,355 (+13%)	505,393,130
Wii	135,502,236 (-26%)	759,686,776
DS	81,003,668 (-33%)	715,693,577
PSP	31,654,789 (-29%)	255,005,796
PC	29,631,542 (+89%)	N/A
3DS	26,797,294 (++89%)	26,797,294
PSV	425,230 (++89%)	425,230
Total	**608,504,636 (-3%)**	

2010 X360 Slim Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	20,620,707 (-25%)	141,480,558
Wii	17,320,956 (-18%)	82,096,418
PS3	13,896,438 (+7%)	46,388,642
X360	13,253,914 (+32%)	49,961,079
PSP	9,243,328 (-6%)	65,532,833
Total	**74,335,343 (-9%)**	

Global Software by Platform

Platform	Yearly (change)	Total
Wii	182,659,103 (+1%)	624,192,454
X360	133,691,251 (+25%)	439,223,109
PS3	131,311,968 (+36%)	356,145,017
DS	121,814,412 (-15%)	634,727,081
PSP	45,302,493 (+11%)	223,821,477
PC	15,728,587 (+154%)	N/A
Total	**630,507,814 (+9%)**	

2009 PS3 Slim Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	27,573,530 (-7%)	121,371,545
Wii	21,295,417 (-12%)	64,991,750
PS3	12,997,974 (+27%)	32,376,827
X360	10,160,518 (-7%)	36,932,992
PSP	9,855,987 (-30%)	56,289,505
Total	**81,883,426 (-8%)**	

Global Software by Platform

Platform	Yearly (change)	Total
Wii	181,775,778 (+3%)	442,089,742
DS	143,959,471 (-7%)	513,250,799
X360	107,118,181 (-2%)	305,531,858
PS3	96,837,921 (+9%)	224,833,049
PSP	40,816,572 (-15%)	178,518,984
PC	6,187,437 (+6%)	N/A
Total	**576,695,360 (-1%)**	

2008 X360 Price-Cuts

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	29,663,772 (+1%)	93,798,015
Wii	24,188,263 (+46%)	43,696,333
PSP	14,048,403 (+10%)	46,433,518
X360	10,913,123 (+38%)	26,772,474
PS3	10,204,758 (+29%)	19,378,853
Total	**89,018,319 (+19%)**	

Global Software by Platform

Platform	Yearly (change)	Total
Wii	177,044,396 (+137%)	260,313,964
DS	155,417,503 (+41%)	369,291,328
X360	108,909,458 (+77%)	198,413,677
PS3	88,788,171 (+139%)	127,995,128
PSP	48,081,613 (+24%)	137,702,412
PC	5,857,447 (+101%)	N/A
Total	**584,098,588 (+80%)**	

2007 PS3 Price-Cut

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	29,508,695 (+42%)	64,134,243
Wii	16,553,289 (+460%)	19,508,070
PSP	12,814,297 (+35%)	32,385,115
PS3	7,922,055 (+533%)	9,174,095
X360	7,879,552 (+16%)	15,859,351
Total	**74,677,888 (+81%)**	

Global Software by Platform

Platform	Yearly (change)	Total
DS	109,862,848 (+47%)	213,873,825
Wii	74,814,653 (+785%)	83,269,568
X360	61,447,450 (+144%)	89,504,219
PSP	38,699,924 (+28%)	89,620,799
PS3	37,173,227 (+1,728%)	39,206,957
PC	2,920,185 (+423%)	N/A
Total	**324,918,287 (+130%)**	

2006 PS3/ Wii US Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	20,776,966 (+89%)	34,625,548
PSP	9,488,584 (-1%)	19,570,818
X360	6,801,532 (+477%)	7,979,799
Wii	2,954,781 (++477%)	2,954,781
PS3	1,252,040 (++477%)	1,252,040
Total	**41,273,903 (+89%)**	

Global Software by Platform

Platform	Yearly (change)	Total
DS	74,888,738 (+190%)	104,010,977
PSP	30,305,351 (+52%)	50,920,875
X360	25,207,607 (+785%)	28,056,769
Wii	8,454,915 (++785%)	8,454,915
PS3	2,033,730 (++785%)	2,033,730
PC	558,074 (-2%)	N/A
Total	**141,448,415 (+188%)**	

2005 X360/PSP US Launch

Global Hardware by Platform

Platform	Yearly (change)	Total
DS	10,991,195 (+285%)	13,848,582
PSP	9,613,346 (+1,950%)	10,082,234
X360	1,178,267 (++1,950%)	1,178,267
Total	**21,782,808 (+555%)**	

Global Software by Platform

Platform	Yearly (change)	Total
DS	25,828,840 (+684%)	29,122,239
PSP	19,943,845 (+2,869%)	20,615,524
X360	2,849,162 (++2,869%)	2,849,162
PC	568,968 (++2,869%)	N/A
Total	**49,190,815 (+1,141%)**	

Figure 1. VGCharts.com, [Hardware & Software Sales Last Decade]

Although a definite birth to death decline cannot be confirmed, rereleases of a "slim" or updated model of a console can account for small periods of increased system sales. It would appear that any new technology is enough to bring core gamers back to the store to freshen up their entertainment room. Another method of boosting sales is the price drop as shown along the margin of **Figure 1**. According to Moore's Law "the number of transistors on integrated circuits doubles every two years", which to an extension suggests the price of manufacturing a given integrated circuit should decrease along the same timeline. This being said, it should not be unreasonable to expect consumer prices to drop as the manufacturing process also becomes less expensive. These price drops may be enough to convince a thrifty consumer it is finally time to make that purchase they have been putting off.

II. The Coming Era in Innovation

With examples of technological leaps such as Super Nintendo's Super Mario Bros to N64's Super Mario 64;

from N64's famous first person shooter Golden Eye to Xbox's first person shooter Halo;

from Xbox's Elder Scrolls III: Morrowind, to the incredible detail of Xbox 360's Elder Scrolls V: Skyrim,

it is easy to spot a trend of incredible increases in realism from one generation to the next. If this trend of massive visual improvement were to continue, what will the next generation look like?

a. Innovation in Interface

Traditionally a new generation of console brings visual displays hundreds even thousands of times better than its predecessor, but is this feat of technological advancement even still possible? Randy Pichford, president of Gearbox Software doesn't think so. Pichford (as cited in Shea, 2010, p. 2) said he believes "Moore's Law will take a back seat to design and interface" and the next leaps in innovation will be around how we interact with the game, whether advancements in controller design, or motion sensing. Kelly Zmak (as cited in Shea, 2010, p. 2), President of Radical Entertainment agrees, stating "design will be the next major milestone; the controller of today will be a relic tomorrow." However, Gareth Wilson, Lead Designer at Bizarre Creations isn't so sure. Wilson's vision is somewhat a hybrid of current technologies. Gareth (as cited in Shea, 2010, p. 2) said "The traditional console pad will still be the usual control input for most games, but I'm sure gesture and motion based control ala Natal will be refined and have its niche in casual games, as well as being combined with more traditional control methods (e.g. detecting head movements and body position while holding a pad)."

Gareth makes a strong argument for persistent familiarity. While we are all eager for change in the form of new technologies, it is important to realize too much change at once can cause the consumer unnecessary confusion, frustration, and even distaste towards the product. The ideal scenario is a product that has significant advances over its predecessor, is still familiar to the user, has a natural usability, and is intuitive of the user.

b. Innovation in Access

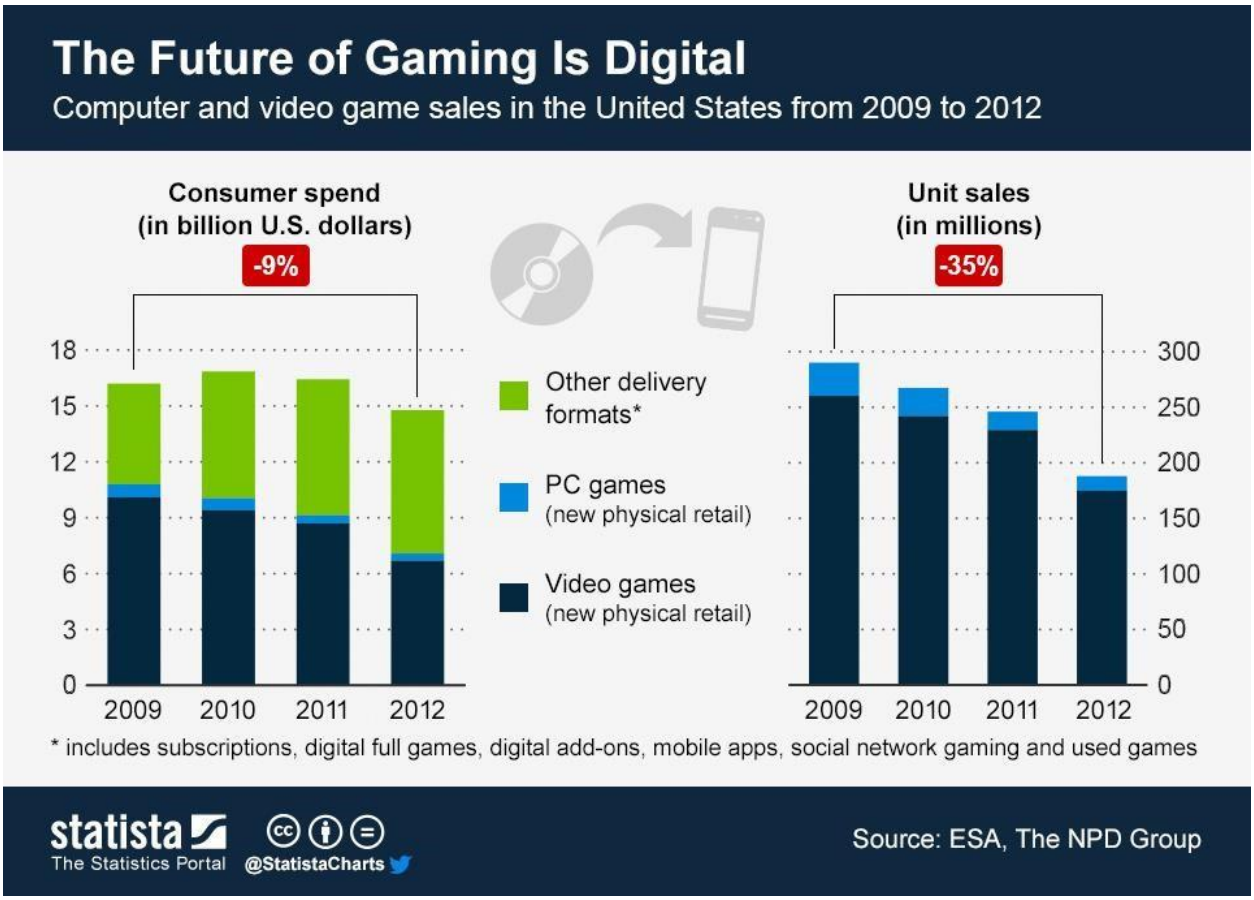


Figure 2. Statista.com [Growth of Digital Sales]

Digital Distribution has been a growing trend in the Gaming Industry over the last several years (As Shown in **Figure 2)**. Digital downloads of add-ons, expansion packs, and entire games have become common within the PlayStation and Xbox marketplace. William D'Angelo (2013) wrote an article on EA's sales trends, which states "[Electronic Art's] Digital revenue continued to climb, while packaged goods took a hit. Digital sales jumped to $482 million, from $342 million a year ago. Packaged goods sales dropped to $452 million, from $592 million." This trend seems to be industry wide. In another article by William D'Angelo (2012)**,** GameStop is cited reporting "Revenue for the month [of October, 2012] decreased $0.18 billion year-over year to $1.77 billion…Digital sales increased 31.1 percent to $127 million" These are trends that higher ups in the industry cannot deny. When asked to make a prediction for what games will be like in 2020 Jeremiah Slaczka(as cited in Shea, 2010, p. 2), Co-Founder and Creative Director of

5th Cell responded saying "I think digital distribution will be huge. It changed the way music is sold and I think it will have a huge impact on games as well." Kelly Zmak (as cited in Shea, 2010, p. 2) was even more confident in his statement saying "Digital distribution is a given and retail will become an extension of the online business." Referencing the progress already made towards the age of Digital Distribution, Yoshinori Ono (as cited in Shea, 2010, p. 2), producer of Super Street Fighter IV IGN quotes him saying "I'm sensing a more disc-less market in the future for the current main markets (JPN, EUR, NA). Since DLCs and expansions are so common already in 2010, the way games are provided may fundamentally change." Yoshinori goes on to make the prediction that "Developer survival is dependent on whether they can create a fitting title for that particular market or not." Dan Greenawalt Game Director at Turn 10 Studios sees Digital Distribution as more than just an ease of access mechanism. Greenawalt (as cited in Shea, 2010, p. 1), points out that "digital distribution having effectively leveled the publishing field so you have risky, experimental indie games coexisting with huge blockbuster titles in a virtual and sustainable marketplace" Gareth Wilson is the naysayer among those heavily invested in the idea of Digital Distribution. Wilson (as cited in Shea, 2010, p. 2) is cited saying "Although online distribution will become even more important (expect full game downloads to be commonplace) people will still be buying games from shops in ten years' time. There will be people who simply prefer to physically own a title, and a download doesn't make a good birthday present" Wilson goes on to voice his support for a similar technology saying "streaming technology like OnLive will mean you can stream any game from a massive data center to a set-top box and pay a monthly subscription." Peter Warman (as cited in Gaudiosi, 2013), CEO of the research firm Newzoo seems to be thinking along these same lines, describing a technology that "could be something you plug into TV and gives you access to all the stuff." However, Warman does not seem to place much hope in the continuation of the console as we

know it, saying “You might want an Xbox dongle for exclusive IP that works with other screens. I don’t think it will be a box like we have now.”…“There’s not a lot of room for growth when it comes to spending on console games in Western markets,” said Warman. “Today’s consumer has three or four screens and the majority of gamers play across all of these screens. It used to be a 50/50 split between PC and console, but now mobile – both smartphones and tablets – and even

Smart TVs, are impacting the games space.” The concern of other devices entering into the same playing field as gaming consoles as we know them is a definite concern, and one which we will touch on in a later section of this paper.

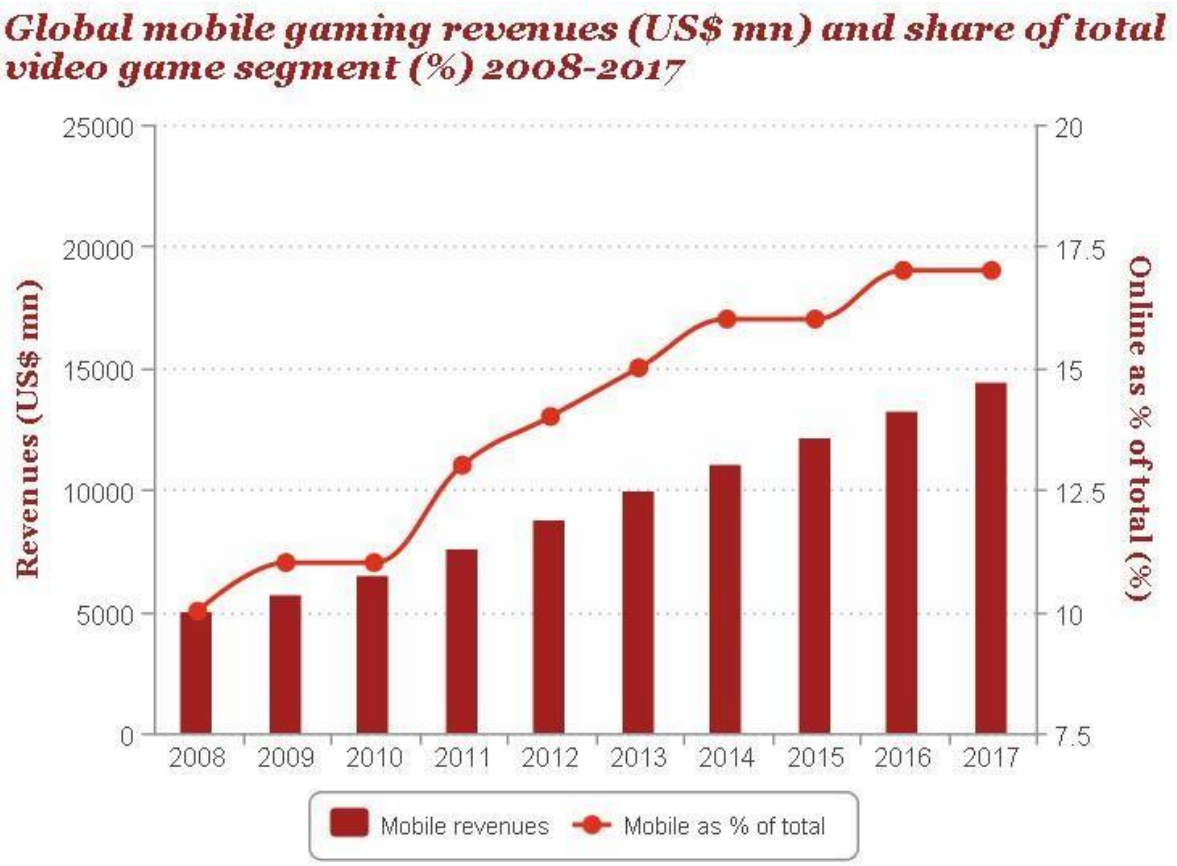
c. Innovation in Connectedness

The Video Game Industry has come a long way since the first console connected to the internet. Before that, the majority of games were single player, and the ones that were designed for multiplayer had to be played on a shared screen. In those days gamers were typically considered anti-social, whereas now we are coming into an age where gamers are the most social of anybody, connecting with potentially hundreds even thousands of other people around the world on a daily basis. Even in single player games, you are still connected to the internet and can communicate with your friends and see what they are up to. In games that are traditionally single player, such as Fable 2, you are occasionally able to glimpse at other players as they complete missions. In some cases you even have the option to join them turning the single player campaign multi-player in a seamless manner. **J**. Allen Brack, Production Designer for World of Warcraft is a strong supporter of connectedness. When asked his thoughts on the Video Game Industry in 2020 Brack (as cited in Shea, 2010, p. 1) responded “There'll still be single player games, but there'll be a lot more connectedness in games than we have now. I think potentially you'll look back on the idea of connecting to small numbers of players like we have

right now as kind of quaint. I'm a big believer in the 'everyone playing together' kind of model and there will be more games that come along that are everyone playing together."

One of the biggest impacts on social gaming as of late is the incredible amount of games available for social media such as Facebook and mobile devices. Not only has this converted many gamers to social-gamers, but the ease of access and user friendly interface, as well as viral marketing has caused the conversion of untold amounts of non-gamers into social gamers. According to a study by market consulting company Parks Associates (as cited in Obscene Jeans Corp., 2012) "Thanks largely to a new breed of games played via Facebook and mobile devices, the number of people playing video games in the U.S. has risen 241 percent since 2008" Claiming that "135 million Americans now play at least an hour a month compared to 56 million four years ago. Most tellingly, 17 percent of all gamers have downloaded a title on their smartphone, up from seven percent in 2008, and about 80 percent play free-to-play (FTP) games online. What's more amazing is the ability to scale quickly. Zynga's Farmville gained 10 million active users in the first six weeks and CityVille reached 20 million users in 11 days."

The Industry's top players don't predict the trend of easy access and mobile gaming to slow any time soon. **"**I expect to see is the disappearance of a clear distinction between home consoles and handheld consoles" said Hermen Hulst (as cited in Shea, 2010, p. 2), Managing Director of Guerrilla Games. Kelly Zmak (as cited in Shea, 2010, p. 2) agreed predicting that "Mobile gaming will be integrated into all our technology delivery systems and all technology will talk with each other seamlessly." We can be certain the industry is already moving in this direction when your Smartphone can control your Desktop at home to control your Xbox 360 to start downloading a new game that just hit the marketplace.



.**Figure 3.** PWC.com [Mobile Gaming Revenues and Share of Total Video Game Segment]

According to a paper by Jamin Warren (2012), "From a cultural standpoint, games have never been bigger."… "Half of all American households have a console, and the amount of time spent playing games has increased 7% since last year (due mostly to mobile and tablet games)."(p. 72) But while the current generation of gaming consoles is aging "two of the biggest movements in games -- the rise of social and mobile gaming -- were pioneered not by the establishment but by outsiders like Apple, Facebook, and Zynga."(Warren, p. 72) The effectiveness of the mobile strategy and its percentage of growth with the Video Game Industry as compared to console gaming as well as continued predicted growth over the next four years can be seen in **Figure 3**.

Perhaps with hopes of using the mobile invasion as an opportunity rather than a threat, Steve Stamatiadis(as cited in Shea, 2010, p. 2), Creative Director, Krome, goes on the record

with IGN's Cam Shea stating "The biggest changes I think will be how we access our games. I think streaming games will let us play almost exactly the same game wherever we are on whatever device we want. No more cut down handheld version or having to wait to get home to play your current favorite." Certainly any gamer would like to take their passion with them wherever they go. With technologies that allow the user to access their home computer on the go, it is not difficult to imagine the same technology being applied to gaming consoles in the near future.

Backing this theory is Erik Noreke (as cited in PC Gaming, 2013), Executive Director of the PCGA who states "The power of the latest portable PC hardware is allowing gamers for the first time to bring the full gaming experience with them on the road. They are no longer confined to their home for game play. The traditional desktop is no longer the gaming platform of choice as we are seeing more and more laptops with powerful GPUs and high end audio systems. PC gaming is going mobile."

d. Other Areas of Innovation

Futurologists have predicted everything from holographic displays to brain implants as a method to play future generations of video games. This section focuses on realistic albeit nonmainstream theories as to what the Gaming Industry of 2020 may look like. Perhaps one of the most vivid predictions comes from PC Gaming. Pichford (as cited in Shea, 2010, p. 1) envisions a 2020 in which "we will have virtual identities and all of our content will be associated to those identities through digital credentials." This concept is similar to the gamer profiles of Xbox Live or the Sony Entertainment Network; however, Pichford seems to suggest the existence of one identity that will be the account for all your games and devices. Pichford goes on to predict "We [will be able to] choose between a number of related but unique small devices that act as interfaces to access and play the content we own. These devices, when in

proximity to other devices, [will be able to] do things like display our content on a nearby TV screen or allow us to wirelessly connect to a variety of different input devices (such as a somewhat standard feeling video game controller)." This is certainly an ideal goal for many gamers out there, but perhaps my favorite, albeit unrealistic expectation Pichford voiced stating "Sony and Microsoft will both still be very relevant in the game business and, in fact, the relationship between them will be less competitive and more collaborative. I believe Sony will leverage its strengths in consumer electronics and being a media/content company and Microsoft will leverage its strengths as a software company. Nintendo will still be in the toy business and will continue to be very successful" A world in which Sony and Microsoft could work symbiotically would certainly be a world with rich in content functionality and compatibility but it is unrealistic to expect industry giants and major competitors such as these to come to such an alliance

Gareth Wilson (as cited in Shea, 2010, p. 2) wagers on the continued appearance of 3D technology, however validating his claim saying "3D TVs and 3D gaming will be making an appearance but until they solve issues like motion sickness and special accessories (glasses, special TVs etc.) it'll remain a novelty." Wilson makes it clear what technology would really impress him, adding "—wireless power. Out of anything on the horizon I'd love this to actually happen. Imagine a world without wires!"

Perhaps one of the most anticipated technologies of the future is Augmented Reality. While this has been tried repeatedly in the past and met equally with failure, it's likely that recent technological advancement may be the key to succeeding in this genre. Recently we have seen the success of Augmented Reality games on the PSP, but will that be enough to bring it to the mainstream? Jeremiah Slaczka believes it is. Slaczka's(as cited in Shea, 2010, p. 3) belief is the technology will catch on once production prices can be lowered, stating he "think[s]

augmented reality will become a large part of games, and life, the tech is there now, it's just too expensive." Slaczka is not the only one to be excited for Augmented Reality. Herman Hulst (as cited in Shea, 2010, p. 1) said "I'm not sure if there will be a complete virtualization by 2020, but I like the idea of a wearable device - one that we control and interact with through natural hand gestures, and that we use to augment our physical world."

III. Heading Towards the Mainstream

Gone are the days when gaming had a stigma attached to it. No longer do designers cater exclusively to a "nerdy" fan base. Certainly this is reason for members of the Gaming Industry to rejoice. J. Allen Brack (as cited in Shea, 2010, p. 1) goes on the record saying "I think it's amazing and fantastic that games have reached beyond the nerdy core, as it were. No one is raised in society today that doesn't play games. It doesn't matter their age or gender at this point – everyone is kind of dialed in to games." This statement is backed by research by the ESRB which states the average age of gamers as well as the national percentile of gamers is on the rise, as well as the % of female gamers, as shown in **Figure 4.**

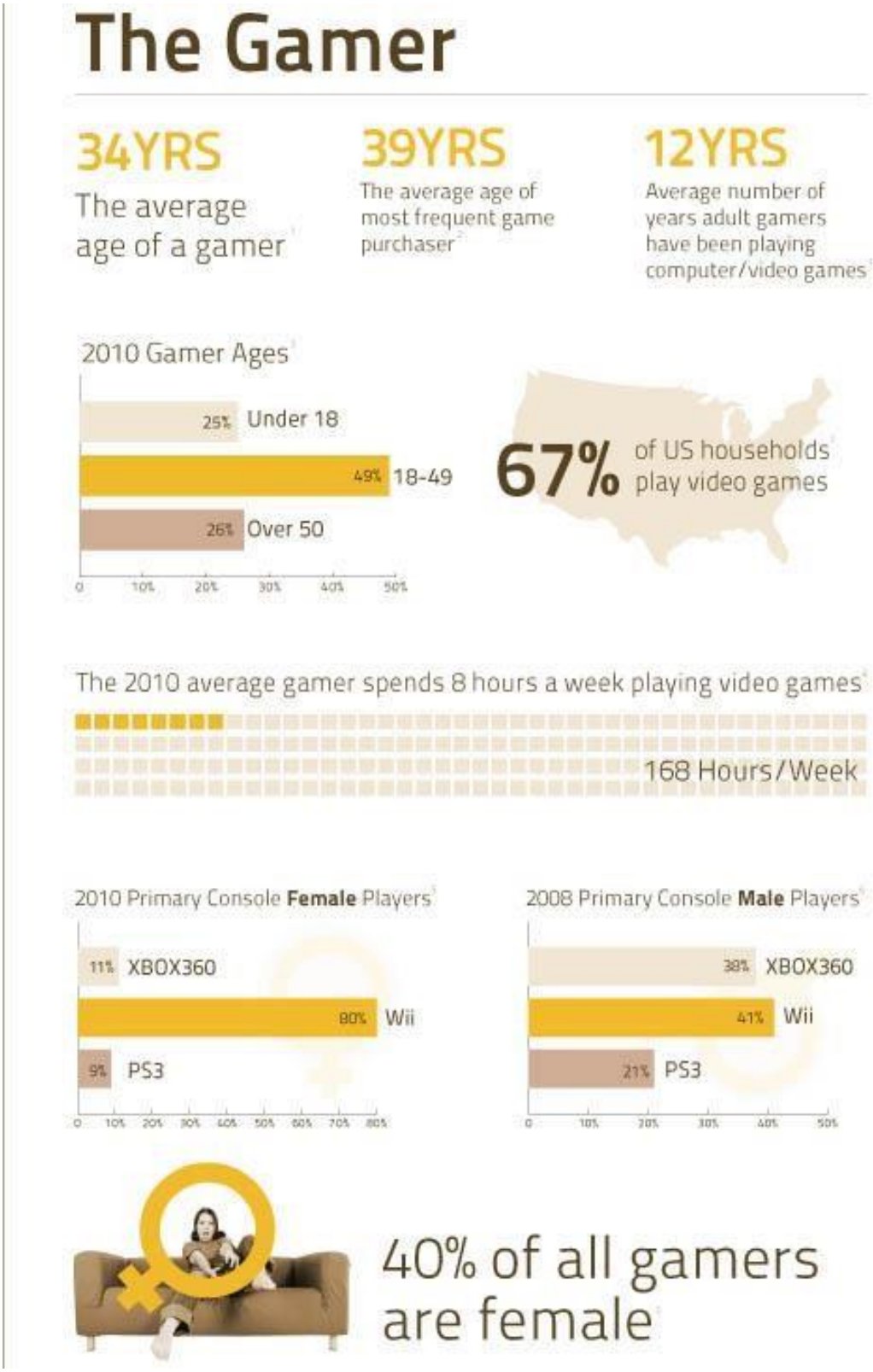


Figure 4. ESRB.org [Gamer Statistics]

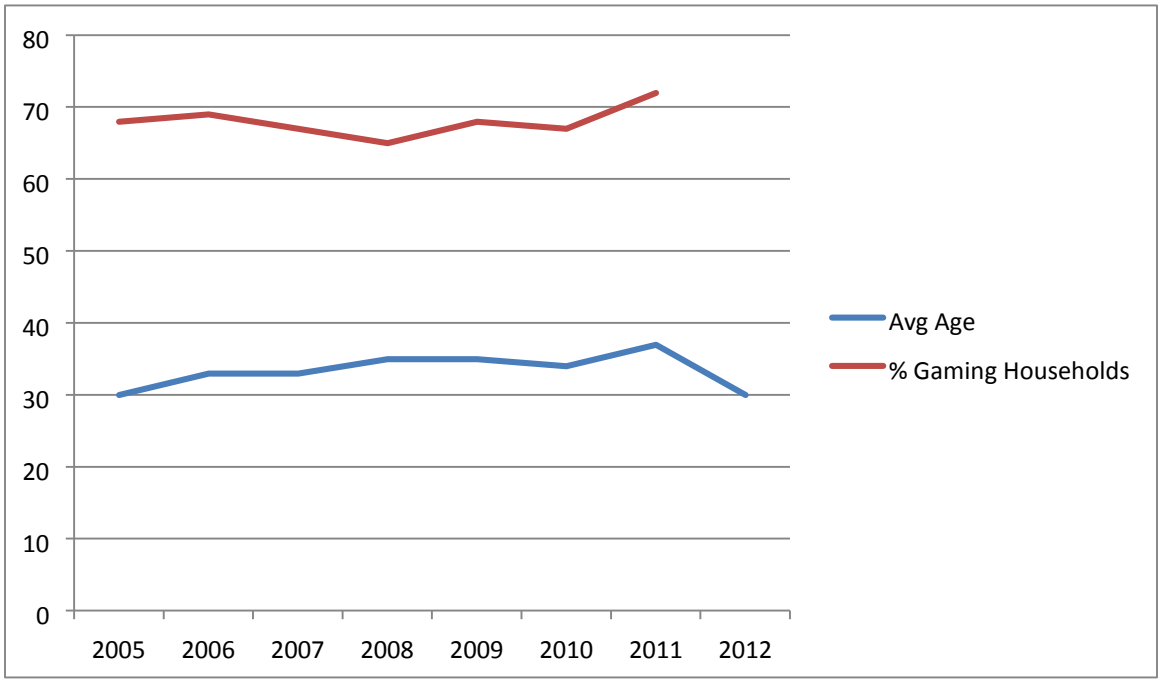


Figure 5. Average Age and % of Gaming Households

We have seen a steady increase in percentage of US gamers as well as the average age of the gamer over the past 8 years, as demonstrated in **Figure 5.** We saw a sudden drop in the average age of the gamer, which is accounted for by a new methodology of data collection which now accounts for mobile (Smartphone/tablet) and social media games. This new information brought in a large amount of young children, pulling the average down.

The increase in acceptance is certainly a trend anyone in the Gaming Industry would like to see continue. Whether or not that creates a bias prediction is yet to be seen; however, Kelly Zmak (as cited in Shea, 2010, p. 1) goes on record with his prediction saying "[Video games] will become the most important cultural media in the world. Young adults of today will be the politicians of tomorrow and gaming will be second nature. We will use it so symbiotically; we will take it for granted. We will use it where and when we want and the concept of "platform" will have long been forgotten." Yannis Mallat (as cited in Shea, 2010, p. 1) concurs, saying

"My take is that the industry will strengthen its place as one of the main pillars of the entertainment industry, becoming even more mass market, widening its reach and cementing its place as a cultural product."

It does indeed look as though we are headed towards a golden age of gaming. There will almost certainly come an age where anyone and everyone will be tapped into the many available worlds of escapism. The question then is who will be at the helm designing these worlds for the masses?

IV. Sony PlayStation

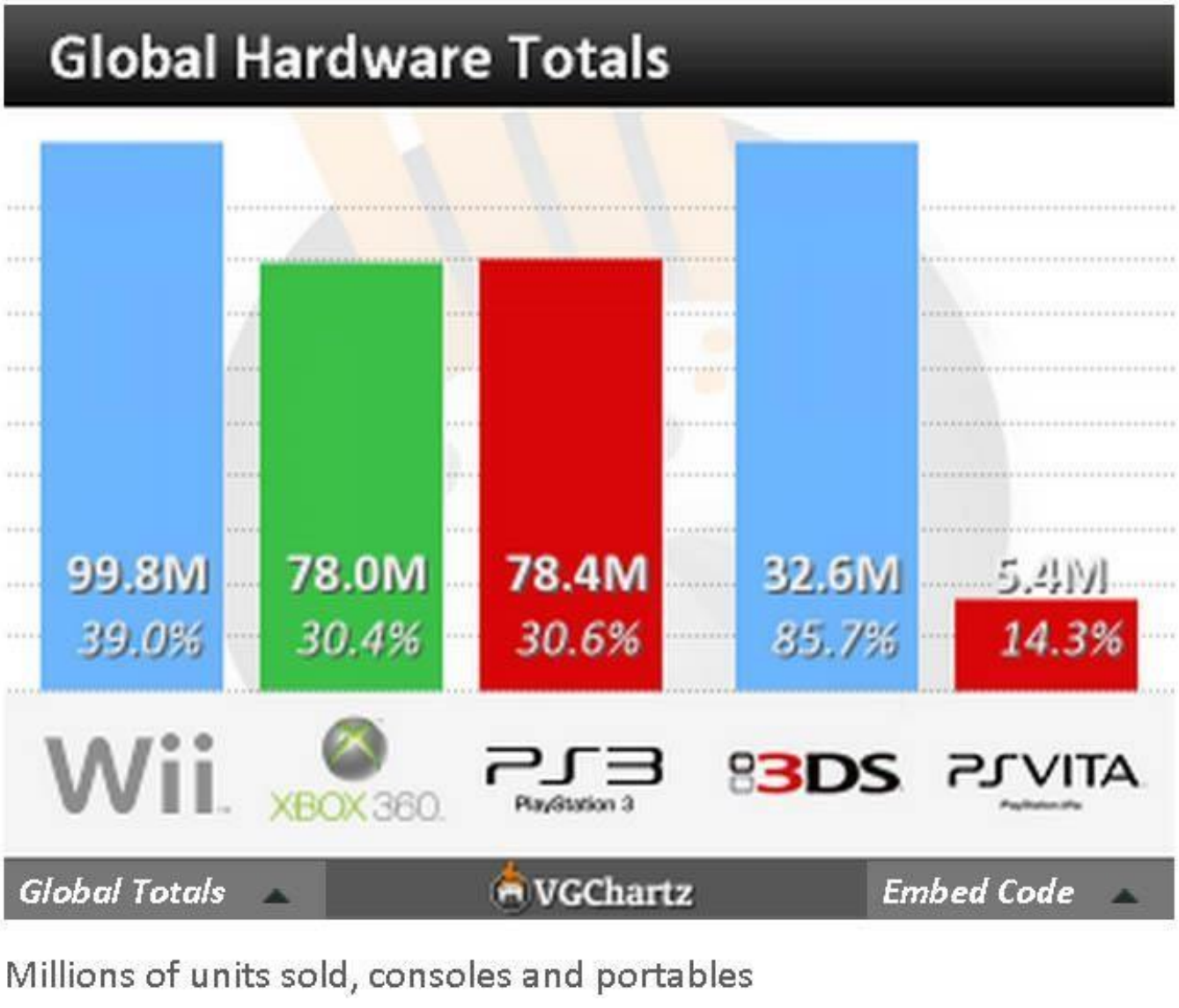


Figure 6. VGChartz.com [Global Hardware Sales]

Global Hardware by Platform

Platform	Yearly (change)	Total
3DS	5,048,362 (-65%)	32,705,325
PS3	4,643,920 (-64%)	78,474,202
X360	3,189,688 (-71%)	78,056,801
PSP	2,100,720 (-51%)	79,552,268
PSV	1,322,999 (-64%)	5,477,805
Wii	1,160,770 (-78%)	99,835,229
WiiU	1,084,705 (-52%)	3,331,921
DS	544,369 (-82%)	153,540,494
Total	**19,095,533** (-66%)	

Global Software by Platform

Platform	Yearly (change)	Total
PS3	49,611,866 (-61%)	683,423,258
X360	41,470,146 (-69%)	770,797,454
3DS	21,760,890 (-45%)	87,790,196
Wii	17,280,491 (-76%)	849,922,788
PC	12,748,978 (-62%)	N/A
DS	10,477,266 (-74%)	766,640,234
PSP	5,146,837 (-66%)	275,164,140
PSV	4,288,369 (-52%)	13,724,490
WiiU	3,779,944 (-18%)	8,364,467
Total	**166,564,787** (-65%)	

Figure 7. VGChartz.com [Global Hardware and Software Sales as of 8.6.2013]

SWOT ANALYSIS OF SONY PLAYSTATION

STRENGTHS

- Backing of Sony
- Large number of titles and licensees
- Strong multimedia support
- Best raw computing power
- Large Subscription Base
- Top in graphics and audio
- Sony is highly diversified
- Many downloadable titles on Marketplace

WEAKNESSES

- Inadequate Security Measures
- Costly and Expensive Titles
- Expensive hardware
- Falling Behind in Market Share
- Losing money on Console Sales
- Lack of exclusive titles
- Saturated industry
- Inferior online service compared to Xbox Live

OPPORTUNITIES

- To recover from losses and give proof of a secure environment
- Launch more innovative stuff like move
- Become the only “pure gaming console”
- A stronger console launch than Microsoft
- To use the follies of the Xbox One to their advantage
- Untapped potential in China
- Utilize micro transactions
- Social Gaming

Threats

- Gamers have lost trust in Sony PS3 network
- Xbox rising fast with innovations like Kinetic
- Xbox bringing customers interested in a media platform, not just a gaming console
- Nintendo offering a gaming alternative at a fraction of the cost
- Mobile gaming becoming predominant

Figure 8 – Sony PlayStation SWOT Analysis

a. Threats

1. Console Competition

As demonstrated in **Figure 6** and **Figure 7**, Sony PlayStation has a firm hold on its status as a forerunner; however, the competition is stiff. The Wii and the DS (both Nintendo products) individually have the lead in console sales, let alone the other current generation Nintendo consoles 3DS and WiiU. Clearly Microsoft isn't Sony's only competition.

In software sales Nintendo Wii has a strong lead, with nearly 200,000 more sales than the PS3, and the Nintendo DS is ahead again by a smaller margin. Perhaps Nintendo is not considered an actual threat because they are typically considered a "toy company"; however, if Nintendo was able to provide comparative services to PlayStation or Xbox with its next console, this could pose a real danger to the other forerunners of the industry.

2. Mobile Competition

As mentioned earlier in this report, mobile gaming is becoming a real threat to console games. The technology behind mobile computers, tablets, and smartphones are constantly improving. With better GPUs (Graphics Processing Unit), more memory, and larger more interactive interfaces, many gamers are choosing these over anything else. In a report by Robert Levine, Levine (2012) says "cheap mobile games such as Angry Birds has led some analysts to wonder if $200 to $300 consoles like the Wii, Xbox, and PlayStation are destined for the Island of Misfit Toys. According to the market-research firm NPD Group, packaged game software sales in 2011 were 22 percent lower than in 2008, when revenue peaked at $11.7 billion. Game sales are off 30% through the first 10 months of 2012 from the same period the year before."

b. Finding a solution

1. Multihoming

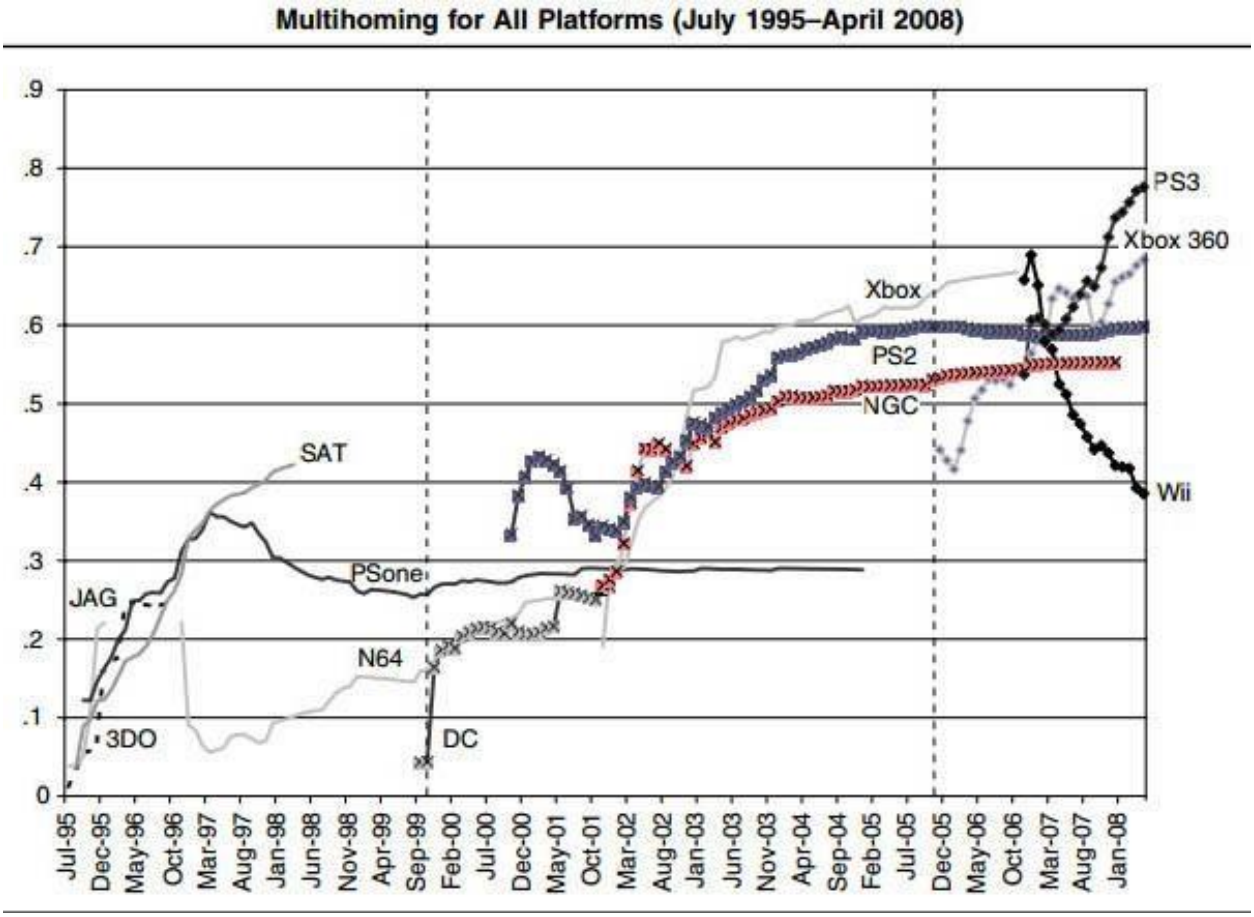


Figure 9. Landsman, V., & Stremersch, S. [Multihoming for All Platforms]

Multihoming was a concept adopted early on by the Wii, which then tapered off; however, multihoming is now becoming more common among the PlayStation and Xbox consoles. There is good reason for these inverse strategies. In Landsman and Stremersch's (Lansman & Stremersch, 2011) article "Multihoming in Two-Sided Markets: An Empirical Inquiry in the Video Game Console Industry" the authors explain "We find that the (negative) effect of platform-level multihoming on platform sales is larger than the (positive) effect of the number of applications on platform sales. We also find that this negative effect of multihoming is prominent for nascent platforms and for platforms with a small market share but it fades as platforms mature and gain market share." This is to say newer consoles that have not already established a market, or consoles with a lesser market share than the competition, such as the

case with the Wii when it was first released, will suffer loss in console sales greater than the gain in software sales if they allow their software to be available on multiple platforms. However, the inverse could be said about PlayStation for multiple reasons. PlayStation has already a firm audience and loyal patrons. PlayStation has an above average market share.

Finally, according to an article written by Brendand Sinclair, Senior Editor at Gamespot.com, Sinclair (2009) states "the hardware and manufacturing costs for the 120GB PS3 Slim add up to just over $336, making for a loss of more than $36 for each unit sold." In other words, PlayStation could stand to increase software sales, even at the expense of a few thousand consoles, as essentially both results would increase profit.

Aside from potential loss in console sales, the other downside to multihoming is increase in software development. Landsman and Stremersch (Landsman & Stremersch, 2011) give an example of a benefit and disadvantage of multihoming software saying "On the one hand, a seller that single-homes on a given platform forgo potential revenues from the buyers of competing platforms. On the other hand, single-homing sellers may have lower costs (e.g., they avoid the cost of adapting their applications to multiple platforms)." This also implies the opposite, supporting multihoming eliminates the cost of offering software development companies incentives to singlehome their software.

Multihoming is certainly something to be considered with the coming generation; however individual costs for software and an updated cost per console should be addressed before proceeding with a plan including increased multihoming.

2. Untapped Potential in China

In 2010 IGN asked Paul Denning his thoughts on industry growth over the coming decade. Denning (as cited in Shea, 2010, p. 1) put his money on China, saying "There's a huge untapped potential in places like China that if used correctly could help the industry grow.

Already there's been some companies that have started development there. There's been issues with workforce skill levels but that will change as more companies start up there and help the education system churn out qualified graduates. Ubisoft have already started this process with their Endwar team for instance." Three years later the subject was revisited by the PC Gaming Alliance in an article released March 27, 2013. This article, titled
"PC Gaming Alliance Releases Two Member-Exclusive Reports Covering All Aspects of the Still-Dominant PC Gaming Industry" confirmed Denning's prediction saying
"The PC Gaming industry showed strong overall growth of 8% in 2012, partly as a result of the Chinese market gaining traction in the $20 billion global market with record revenues of $6.8 billion,"…" China continues to be the largest and fastest growing market for PC games with record 2012 revenue of US$6.8 billion, a growth of 9%. Additionally, mature game markets in Korea, Japan, U.S., U.K. and Germany all showed growth in 2012. Together these markets also increased revenue by 9% in 2012, to $8.4 billion."(PC Gaming, A., 2013) It seems this market is still growing and would be best to take advantage of this opportunity before the market becomes too saturated.

3. The Mobile Market

While mobile gaming is currently a threat to traditional console gaming, it can also be seen as an opportunity. It is clear today's gamer wishes to access their games wherever they may be and PlayStation has an opportunity to capitalize on that fact. While Sony's PSP and PSV have less successful than their Nintendo counterparts, PlayStation still holds the reputation for the more powerful device. It would be a wise move to develop a portable device that can be used for more than just exclusive games, such as seen in the past. What gamers want is to access their full home console content on the go, not miniaturized content. The technology is already nearly there, as we've seen phones that can connect to a home computer and utilize that

computers hardware, along with a high speed network, to deliver content that would otherwise be unplayable using the handheld device's software alone. A portable device that could connect to a home console and utilize its hardware in order to surpass current portable technology capabilities would likely be very popular. As this device would primarily utilize hardware of another device, it could likely be sold at a low price, which would attract a larger market. The advantages this would have over current mobile devices are:

- The device would be designed for this purpose. The interface and controller technology would complement this. While tablets and smartphones are able to play games, the interface is not always ideal.
- Being designed primarily for streaming, a large focus would be the network technology. Utilizing a combination of WIFI and 4G technologies, PlayStation could present a device that seamlessly connects you to your favorite games wherever you are.
- Other mobile devices are designed to utilize their primary hardware, causing a direct relationship between power/potential and price. Where this device utilizes hardware of another device, the price could be scaled back significantly without losing capability.
- For a subscription fee, the device could connect to server computers, offering choices of games that run on a separate server's hardware. Wilson (as cited in Shea, 2010, p. 2) pitched a similar idea for home use saying "streaming technology like OnLive will mean you can stream any game from a massive data center to a set-top box and pay a monthly subscription" this concept could be used at home or on the go.

4. Innovation

The most important aspect of success in any technology industry, but especially the Video Game Industry is innovation. Video gamers are extremely demanding and constantly want new technology and lower prices. With innovation of superior technology at lower prices

than the competition, an established company is sure to pull ahead. Micro transactions and digital distribution increase profits and decrease shipping costs. Yoshinori Ono (as cited in Shea, 2010, p. 1) explains "all developers and creators will have to minimize cost and utilize time wisely in order to survive the industry's static growth era. If distribution mechanisms change more over the next decade then the way retail works will change. At first microtransactions were not so widely accepted, especially by the core gamers, but now it is in almost every game released. This has also created a new marketplace (literally) and this trend will continue."…"Developer survival is dependent on whether they can create a fitting title for [the Digital Distribution] market or not"

Not all innovation is good innovation though. Mass amounts of money can be lost in research and development of a failed idea. While many believe interface will be the next big area of innovation, many attempts have already failed, or at least not caught on as much as companies had hoped. Randy Pitchford (as cited in Shea, 2010, p. 2)touches on this subject saying "While many various interfaces will be attempted and some of them will be novel, interesting and amusing, the simple, general and open approaches will ultimately win out to be the most dominant."

V. Plan Summary

- The most important division of PlayStation in the coming decade will be the R&D.
- PlayStation needs to Lower cost of production while leveraging its core competencies as the most powerful gaming console and exploiting its synergies with other Sony products. This sort of research is obviously not free however. Where PlayStation is already a household name, it would be logical to cut funding from the advertising budget of the console and reallocate that to R&D.

- PlayStation needs to have more interactivity between other devices, as Xbox can already interact with windows and Smartphones.
- PlayStation needs to improve their reputation in the mobile market by producing hardware that is more widely used.
- PlayStation needs to consider multihoming as a method of increasing software sales.
- PlayStation needs to improve their reputation as a secure company by improving upon its security protocols. Another down period due to hackers could take PlayStation out of the running as a lead gaming network provider.
- PlayStation needs to investigate untapped and unsaturated markets and invest heavily in these locations.

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