The evolution of video gaming and content consumption

Background/Series Overview

Series overview

Through PwC’s ongoing consumer research program, we gain directional insights on consumer attitudes and behaviors in the rapidly changing media landscape. This report summarizes key findings from an online survey and follow-up focus groups exploring:

- The habits, involvement and attitudes among gamers across several gaming devices, including consoles, personal computers, smartphones and tablets, and
- Consumer interest in consuming traditional video content over video game consoles and other gaming distribution methods.

In 2012, we conducted a two-phase program to capture this data. In Phase 1, we surveyed a geographically dispersed sample of 570 adult men and women between the ages of 18-59, then surveyed an additional sample of 50 teens aged 13-17. In Phase 2, we conducted focus groups to gain a deeper understanding of some of the underlying reasons for behavior reported in the survey.

I. Executive Summary

Today’s consumers enjoy having an exciting world of interactive entertainment at their fingertips. From playing games online, to first-person shooter games on their video game console, to becoming heavy users of social games on their tablets and smartphones, gamers now spend more time playing games than streaming movies or television shows to their computer, phone, and game consoles.

Still, they’re hungry for more, and showed interest for freemium and subscription based models—both in physical and digital (i.e., content in the cloud) formats. But, in the mobile space, companies may also have difficulty persuading mobile gamers to spend more than they already do because mobile games are perceived as less valuable compared to other gaming modes.

Consumers show keen interest in accessing gaming libraries, in seeing nostalgic games, like classic arcade games, reconfigured to work on new platforms. And with so many devices to choose from, gamers are eager to see more consistency as they move across platforms with the ability to access and save games on multiple devices.

Connecting with consumers for video content requires promoting the benefits of each individual device. For example, many consumers use game consoles to stream video content through subscription and other pay services. Companies continue to have the opportunity to persuade consumers to invest in consoles by marketing the diversity of uses for the particular device.
I. Key Findings

1. General Gaming Behavior:

- Survey respondents spend more time playing video games – regardless of the device – than streaming movies or TV shows to their computer, phone or game consoles.
- Survey respondents spend more time playing on their game consoles (on average of about 4 hours per week) than other devices. There is also considerable engagement with gaming activity on their PC’s (about 3 hours per week) and smartphones (slightly less than 3 hours per week).

Average number of hours spent per week by activity

- For some questions, respondents were divided into three groups: Heavy gamers: plays games across all devices more than 10 hours per week; medium gamers: plays games 7-10 hours per week across devices; Light gamers: plays games 1-6 hours per week.

\[\text{Table and chart data here}\]
Respondents in the focus groups said they primarily engage in gaming to de-compress from their day, treating it as a "mental time out." For some, gaming is also a way to stay connected with their friends.

Consumers (aged 18-34) say:
- "It’s a convenient way to break up time...when I have pockets of time to kill"
- "A low-stakes way to spend time...no consequences....I’m in control"
- "A low-maintenance way to keep in touch...still maintain a connection..."
- "It’s a way to decompress from the stresses of the day; it’s a way to check out mentally.”
- "It’s not really tied to yourself. It’s more like being absorbed into the game by characters."

Focus group respondents said their interest in new games is primarily sparked by word of mouth or recommendations from friends. Other, less significant sources, included gaming blogs and professional reviews.

Engagement by game often relies on the level of involvement, depth of graphics, sophistication of the interface and curiosity in what the next level will be like. Some focus group respondents (especially casual gamers) were resistant to continue to pay for successive levels when they realized the game wouldn’t get THAT much more interesting.

Gamers, like the general consumer population, multi-task. Across the console player-dominant survey respondents, most people reported spending time on mobile phones as the activity that most frequently occupies their time while gaming.

Gaming by Device

Survey respondents spend a relatively even percentage of their gaming time on their computers, smartphones and consoles.

- 45% of heavy gamers allocate their gaming time to consoles
- 47% of heavy gamers allocate their gaming time to computers
- Medium gamers spend a roughly even amount of time on all devices
- Light gamers spend most of their gaming time playing on smartphones.
Average Percentage of Time Spent Per Week

- **Overall relatively less gaming occurs on tablets** – a finding likely due to a relatively lower instance of tablet ownership compared to ownership of consoles, PC’s and smartphones.

  - **Heavy gamers** drive involvement across devices, playing games nearly 7 hours per week on consoles and 6 hours per week on PC’s.
  - **Medium gamers** play most often on consoles (2.7 hours per week) and smartphones (2.8 hours per week).
  - **Light gamers** play games most often on their smartphones

In focus group discussions, consumers provided a clear overview of the inherent benefits of playing games on specific devices. **Significantly, what they want in a gaming experience varies depending on the device:**

- **Consoles** are best for when they’re playing games at home or online with friends. Consumers treat this as more of a social event and described the experience as "more theatrical."
  
  - “It’s the social aspect of it. Like it’s physically there, social aspect, social network. Right, social interaction.” (Consumer, aged 18-34)
  - “When gathering with friends for entertainment. It’s entertaining. Everybody can see it. It’s sometimes like watching a show. The graphics are usually pretty good.” (Consumer, aged 35-59)
  - “It’s a party starter because when we have family functions, it kind of gets everybody going, especially the dancing (games) with the kids.” (Consumer, aged 35-59)

- **Computers** are best for playing games when consumers want a longer game session, are considered to offer more flexibility, better gaming options, and better graphics -- and for some, yield a better experience.
  
  - “Better graphics, being able to do whatever you want with the game; actually, as in
you’re not tied into like the PS3 network or Xbox Live. You can join through different servers, for the most part, so you can change the environment, sort of set up the game to your suitability. Like certain servers will have PVP, which is player versus player, so you can kill the characters. There are more options out there that Xbox and PS3 don’t do.” (Consumer, aged 18-34)

— “There are certain game types that are better on computers than consoles, like real-time strategy games. You’re just able to move things around quicker with a keyboard and mouse ... the way controllers are these days, they just haven’t caught up yet. And overall, if you have a really nice computer, the graphics are still better than pretty much any other format.” (Consumer, aged 35-59)

— “...the longer games, like Dead Space... I only play on the iPad. You need a bigger screen and it’s easier to play on a bigger device.” (Consumer, aged 35-59)

— “I use my iPad as more of a leisure device at home. I don’t really do much business, so it’s purely a leisure tool for me.” (Consumer, aged 18-34)

— “I get more satisfaction... easier to control... ease of viewing...” (Consumer, aged 35-59)

• **Smartphones** are a convenient way to game, especially when consumers are on the go and want to kill time. It’s for anytime, anywhere because they always have their phone with them. But gaming on phones is not seen as the best way to enhance “gamification”.

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— “Your phone, you always have with you, so it’s good to use basically anytime—especially when you’re traveling.” (Consumer, aged 18-34)

— “It’s good for me, personally, for killing time. (Consumer, aged 18-34)

— “I’m not as immersed in it... not as big a deal” (Consumer, aged 18-34)

• **Tablets** are also good for gaming on the go. They are also considered a better mobile gaming device than a cell phone – especially when playing longer games, due to better screen size and aesthetics.

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2. **Money/Time Spent on Gaming**

Survey respondents reported spending an average of $15 per month on gaming; however, the majority of (44%) said they only spent $5 or less per month in the past year on video games.

- Nearly one-quarter of gamers claim to have spent over $20 per month on gaming.
- There is a small but interesting percentage (14%) of total gamers overall who claim to have spent more than $40 per month on gaming in the past year.

— Not surprisingly, this is driven by heavy gamers, 22% of whom claim to have spent more than $40 per month on games in the past year.
Focus group respondents reported investing more in console games (relative to mobile games), which are more likely to be played in a group or purchased for a child, and therefore are considered more valuable and worth the higher cost. Mobile games seem to be seen as worth less, since consumers see the purpose of the game as simply something to “kill time.”

- “I paid a couple of bucks to download something on my phone and that’s the most I’ll pay for a game, so I’m not going to invest a couple of hundred dollars and then more every time a game comes out.” (Consumer, aged 18-34)
- “About $400 on the video games, mainly for my son. And yeah, on the phone, I’m always looking for the free games because it’s just something to kill time, but it’s not for me to pay $2 for.” (Consumer, aged 35-59)
- “Like with my nephews and stuff and I’m always like – my God, it’s so expensive. But for me, it’s like – well, we’ll all play it at like Christmas. It becomes social. Whereas, I wouldn’t pay $40 for a game for my phone that I’m going to sit on a bus and play. But I feel like it’s more justifiable to buy something for a video console because it involves more people.” (Consumer, aged 35-59)

Some are resistant to a regular monthly expenditure, as they are never sure if they are getting the best value for this compared to a straight-out purchase.

- “I believe in buying a game and paying a certain amount. To me, I like role playing games and World of Warcraft is interesting to me, but there’s reasons I won’t play every one because I don’t have the time to commit to make it seem worthwhile and the idea of paying for something every month, that’s the reason I got rid of cable, monthly bills. Like I pay monthly for a game. I’m not going to pay for paper credits to get to the next level. I want to buy the game and be done
with it. Maybe I’ll buy an expansion pack, sure, but that’s about the only thing I’ll do.”
(Consumer, aged 35-49)

- **And then there are the hard-core gamers – who make a considerably larger investment.**
  - “I have a PC rig that I’ve custom built. I spent like $1,200 on it just for game playing, so I don’t like paying extra cash. Obviously, I do some other stuff like video editing, I also use my Mac over that as well. For me, the big decision is just having that graphic and processing power for the games.” (Consumer, aged 18-34)

- **The majority of survey respondents said they spent about the same amount of time and money in the past year as in the previous year.**
  - 62% spent the same amount of money; 22% claim to have spent more money
  - 54% spent the same amount of time; 26% claim to have spent more time
  - However, 36% of medium gamers claim to be spending more time on gaming. This is higher relative to the other gaming segments and to total gamers (26%). It can be hypothesized that the increase in time is due to the growing number of devices available or owned since last year (for example, more people now own tablets).


3. Console Player-Dominant Respondents (204 net)

General Console (e.g., Playstation, Xbox/XBox 360, Nintendo Wii) Gaming Behavior:

- More than 70% of console-dominant survey respondents use their console for non-gaming activities between 1 and 7 or more hours per week.

- While the highest single percentage of console-dominant survey respondents (29%) use their console for gaming only (especially true among light gamers), 44% also spend between 2 and 5 hours per week watching TV shows or movies on their gaming console.

- And 30% of console player-dominant respondents use their consoles to watch TV/movies from 4 to 7 hours or more per week.
  - This is driven by heavy gamers, 38% of whom are spending 4 to 7 or more hours per week on non-gaming activities.

- Nearly 40% of medium gamers spend 2 to 3 hours per week watching TV shows or movies on their consoles.
Use of Console for Non-Gaming Activities

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Gaming Only</th>
<th>Light</th>
<th>Medium</th>
<th>Heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>13%</td>
<td>12%</td>
<td>7%</td>
<td>18%</td>
</tr>
<tr>
<td>4-5 hours per week</td>
<td>17%</td>
<td>17%</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>2-3 hours per week</td>
<td>27%</td>
<td>17%</td>
<td>38%</td>
<td>24%</td>
</tr>
<tr>
<td>1 hour per week</td>
<td>14%</td>
<td>22%</td>
<td>18%</td>
<td>9%</td>
</tr>
<tr>
<td>Use for gaming only</td>
<td>29%</td>
<td>32%</td>
<td>24%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Avg: 72%  Light: 68%  Medium: 75%  Heavy: 71%
• For most gamers— and this is especially true for those who have online subscription services and/or routinely stream content - it is a practical matter to use their console for non-gaming activities. Their console is already part of their entertainment system and many use it as a replacement for a cable subscription. Consumers also expressed a sentiment that consoles keep improving, so it makes sense to use consoles for more than just gaming.

  – “It just makes more sense if all the wires are already connected and just use the DVD player on the Xbox, because I have a DVD player too, but then unplugging everything and playing the DVD player where the Xbox is the same thing. Like going from playing games and then you’re going to watch a movie.” (Consumer, aged 18-34)
  – “You’re already logged on, playing a game, and you can just go into the -- whatever they call it, Netflix and all the media sources. So, yeah, it’s more of a convenience type of thing.” (Consumer, aged 18-34)
  – “I got rid of cable a few years ago and I signed up for... I had Netflix with just the disk and then I switched over to only streaming. Between that and Hulu, it’s like there’s more than enough TV that I want to watch on it and it’s $15 a month for both of those, compared to $70 or something for cable.” (Consumer, aged 35-59)
  – “I think it keeps getting better. Like with Xbox, they’ve recently redid their main dashboard system and they’re adding on new apps from different companies... Zoomie has a music player, but then you can also rent movies that are kind of shortly out of theaters or maybe some independent ones that you can actually watch before they go to theaters, and then they could also be fun, they could have a Netflix. Like the UFC just released an app so you can stream pay-per-view fights through your Xbox machine. And I think they’re just going to keep introducing more and more stuff like that.” (Consumer, aged 35-59)

• Gamers are busy while they’re gaming – they multi-task like everyone else. Across the console player-dominant survey respondents, most people reported spending time on mobile phones as the activity that most frequently occupies their time while gaming.

  – This is driven by medium gamers more often than heavy and light gamers
  – Light gamers spend the least amount of time engaging in any other activity while gaming. This is likely due to the fact they are mostly gaming on their cell phones while they are already engaged in other activities (such as waiting in lines, commuting, etc.).

• In focus group discussions, respondents told us they did virtually “everything” else while gaming – from surfing the net to watching movies and even cooking.

Time Spent Gaming/Types of Gaming

• Most console-dominant gamers spend between 60-90 minutes per session. This is driven by the heavy gamers, 42% of whom spend 60-90 minutes per session.

  – This is more than the PC-dominant gamers (cited below) which points to greater per-session engagement among console-dominant players
  – Medium and light gamers generally spend less time per gaming session - about 30-60 minutes
Consolidated gamers spend the majority of their gaming time (~60%) playing offline single player campaigns.

- This is driven equally across user segments
- Online co-ops are the least popular, with only 8% of console-dominant players engaging in this mode

Across the console player-dominant sample, nearly 90% are interested in a service that provides access to a gaming library streamed directly to their TV.

- They would pay on average of $17 per month.
- Heavy gamers are even more enthusiastic – willing to pay almost $21 per month for the service.
- Even the light gamers are willing to spend $10 a month.
4. PC Player-Dominant Respondents (168 net)

General PC Gaming Behavior:

- **PC player-dominant respondents claim to play video games on social sites most often.** This is true across segments, but driven more so by medium gamers.
  
  - Digital download sites also seem to capture consumers' time and interest, but to a lesser degree.

- **Respondents who are heavy gamers seem to subscribe to more than one game service.**
Other Activities Engaged in While Gaming

- As is the case with console-dominant gamers, PC-dominant gamers are also multi-tasking while playing video games.
  - Generally engaged in other PC-based activities such as email, web browsing, blogging, etc. (55%)
  - Also equally engaged in watching TV/movies or listening to music (52%)
    - There is no skew by segment (equally driven).
- “I’m usually not texting, but watching movies or like just surfing, like doing other stuff. Because you’re either waiting for somebody else to reply or you just like to have a dozen windows open, looking at a bunch of different stuff. (18-34)

Time Spent Gaming:

- Most PC-dominant gamers (42%) spend between 30-60 minutes per gaming session
  - This is less than the console-dominant players noted above, which is interesting, given the longer format afforded in PC-based games, and suggests relatively less per-session engagement.
  - Medium gamers are driving this playing time, with nearly 60% of medium gamers playing 30-60 minutes per session
  - Nearly 50% of light gamers are also driving this playing time
Average Time spent per week by Game Mode

Average Percentage of Time Spent Per Week

- Roughly 57% of PC player-dominant respondents play multi-player games online – This behavior is dominated by heavy gamers, 65% of whom play multi-player games online. – This is significantly more than light gamers, only 36% of whom play multi-player games online.

- Multi-player online gamers spend an average of 4 days per week gaming or 3 hours per day in this mode
  - This is driven by heavy gamers, who spend an average of 3.6 hours per day playing multi-player games online.

Multi-Player Online Games

- As is the case with console-dominant gamers, PC-dominant gamers also spend the majority of their time (61%) playing offline single player campaigns.
  - This is driven more by light gamers, who allocate 72% of their weekly PC gaming time to this mode
  - Offline co-op w/friend is the least popular, with only 6% of PC-dominant gamers engaging in this mode.
Technical Issues Experienced:

- There are equal percentages of players who experience “no problems” (34%) during multi-player games and those who experience “technical issues” (34%), which is characterized primarily as lag time (21%), but also to a lesser extent, by connectivity issues (9%).
  - Medium gamers express slightly more concern with technical issues than other segments.

- "Slow performance" was cited as the most common issue (5.8 times per month) during a multi-player session, followed by getting “disconnected” (4.1 times per month).
  - There seems to be relatively less concern about the inability to host a multi-player game.
  - Focus group respondents reiterated the same issues – slow connection, some latency/redundancy – but these issues did not seem too insurmountable or particularly annoying, and they said it would not propel them to change their behaviors or purchase a service or product to prevent or minimize those issues.
Most of the PC-dominant gamers (55%) do not own any hardware devices to improve gaming performance. This makes sense, given the small reported issue/concern with online gaming.

This was also expressed in focus group discussions, where all except the most hard-core dedicated gamers did not make the investment to improve performance.

Of the hardware devices listed, and other than not owning anything, the largest percentage of PC-dominant gamers in the survey (42%) own graphic cards as a way to control gaming performance.

5. Mobile Gaming (570)

The most popular mobile games are:

- **Arcade & Action** games (69% incidence)
- **Brain & Puzzle** games (59% incidence) games

  - This trend is driven by medium and light gamers (who are playing mostly on their cell phones)
  - These are quick, easy games that are conducive to the purpose of “killing time”
Focus group respondents reiterated the popularity of social games, citing them as the games they play most often on their mobile devices.
- Words with Friends was described as a way to stay in touch or connect with friends they don’t see often or don’t talk to often; many said the game makes them feel like they are still maintaining a relationship with their friend.
  - “It’s kind of like a really low maintenance, casual way to keep in touch with someone who lives elsewhere. I’ll play like Words with Friends with my friend. He lives in London… it’s still like we’re interacting day to day where we wouldn’t otherwise.” (Consumer, aged 18-34)
  - “Games that you’re playing, you’re competing with or playing cooperatively with other people. You’re interacting with those people.” (Consumer, aged 18-34)
  - “The social and media games that I play are only with my Facebook friends and I don’t ever see them. So it’s my way of keeping connected with them, even though I may never see them all year. I like that.” (Consumer, aged 35-59)

“With Angry Birds, I find myself starting the game at one time, and I look up and four hours have passed and I’m still playing because I’m trying to accomplish the three stars that you need to get to the next level to complete.” (Consumer, aged 35-59)

**Time Spent on Mobile Gaming:**
- Most mobile gamers (56%) spend between 5-15 minutes per gaming session on their mobile device. This is the least amount of time spent gaming on any device -- unsurprising, since this device is basically used when consumers are in transit or on the way to doing something else -- so they pick up quick intervals of play time.
  - Almost one-third of mobile gamers (31%) spend between 15-30 minutes per mobile gaming session
    - Nearly 40% of light gamers spend between 15-30 minutes per mobile gaming session. Light gamers might spend more time gaming on their mobile, because for many, this is likely the only device they are gaming on at all. So it consumes more minutes per session versus the overall gamer.
### Amount of Time Spent Playing Games on Mobile Devices

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Light Gamers</th>
<th>Medium Gamers</th>
<th>Heavy Gamers</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 minutes or more</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Between 31-45 minutes</td>
<td>31%</td>
<td>39%</td>
<td>32%</td>
<td>23%</td>
</tr>
<tr>
<td>Between 16-30 minutes</td>
<td>56%</td>
<td>54%</td>
<td>51%</td>
<td>62%</td>
</tr>
<tr>
<td>Between 5-15 minutes</td>
<td>4%</td>
<td>2%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Avg. Minutes**

- Light Gamers: 17.2
- Medium Gamers: 19.1
- Heavy Gamers: 17.5

- "For me, it's like pockets of time that I have to kill in between like talking to clients or waiting for correspondence from clients during the day. I think I like to just fill that gap with games. So, just probably like 15 to 20 minutes for me." (Consumer, aged 18-34)
Gaming Trends/Wish List (Focus Group Respondents Only)

• Gamers are looking for new experiences with old games. Among both younger and older age groups, there is an interest in experiencing a sense of the “old school” games on today’s devices.
  - “I like Street Fighter 2 a lot and it’s not necessarily the best experience, but I like having the old school games on the new school devices because it brings me back to my childhood when I liked video games the most.” (Consumer, aged 18-34)
  - “Like Pit Fall. Battle Zone. Those were like the good old days. But maybe bring them back with like the graphics of now. That would be awesome. It’s like what we grew up on. The games were fun. So you can share a memory with them. Appreciate what you grew up with.” (Consumer, aged 18-34)

• Multi-screen games that stay consistent relative to experience no matter which device is used. This is to keep the experience or what you’ve built consistent from device to device. Another benefit would be the ability to stop and start a game without consequences (for time-based / asynchronous-play games).
  - “I would like to see where I can play a game on my PC or console and that same experience stays consistent throughout whichever device I’m on. Now mobile isn’t going to have all the games out there that you can do, but there’s always these little side adjectives and things that you can do on your phone and that experience would convert over to your game console or on your PC... all that experience or content that you gathered would pour over.” (Consumer, 18-34)

• Virtual reality capability – to make the experience more sensory and experiential (such as motion sensors)
• More immersive tablet screen
• Multiple screen gaming

Streaming video games to TV: Most respondents were intrigued by the idea and were quick to identify inherent benefits, such as

• No clutter of CD’s - digital is where everything is going
• Good for a social game interaction
• Portability and flexibility; would allow gamers to play the coolest, best console-type games on any device
• The ability to “pick up where you left off”
• Seems to be a natural progression of technology
• “That’s cool... like I might be able to play PS3 games on my PSP when I’m traveling. I think some of the coolest games out there are console-based games. But if I’m traveling, I’m not going to lug... I used to do that -- I used to take my PS2 with me on trips. -I have one of those monitors you can plug in, attached to the LCD thing. It was heavy and a pain in the neck. I’m not taking the boat anchor that the PS3 is with me on a trip. The Wii, you have to carry the sensor bar. It’s not portable. So, consoles have become more complex and heavy and stuff.” (Consumer, aged 35-49)
• “I mean, everything else is streaming right now. I think like tangible products are becoming obsolete, the same way MP3’s replaced CD’s. The video game disk, there’s no longer cartridges. It seems like a natural progression towards receiving the content.” (Consumer, aged 18-34)

Some also had questions/concerns:

• Takes away the re-sale value if it’s available on all media
• Would probably play the same games they play now – “the ones you want to play once or twice”
• Wonder what the lag would be like
III. Implications to your business

1. It’s all about delivering a consistent experience across platforms for video and video games content. As gaming migrates rapidly from a ‘product’ to a ‘service’, offering a superior in-game and across device consumer experience is becoming the primary differentiator.

2. Because many consumers use their console for more than just gaming, marketing the diversity of console use may help offset the cost of investment. Consumers are interested in using their consoles to consume video content, and using the console as a media hub is an attractive proposition. Additionally, companies can leverage heavy console users to help monetize other forms of content (e.g., video). By extending gaming experiences across multiple platforms, consumers can become engaged in ways that better integrate into their daily lifestyles and workstyles. Doing so provides businesses with more opportunities to monetize their services and enhance brand intimacy.

3. Companies may be able to connect with consumers and drive sales by marketing the benefits of accessing and saving games across devices. Games need to be immersive and engaging to keep players’ attention. The more immersed they are, the more valuable the experience is -- and the more they are willing to pay to continue playing.

4. Consumers are interested in and willing to pay for access to a subscription service or gaming library. Marketing should focus on the benefits of extending the optimal console game experience to consumers’ televisions, as well as the convenience of not being attached to the console. This provides opportunities for game publishers with large catalogs as well other digital provisioning services that can effectively aggregate compelling game content.

5. Because mobile games are perceived to be less valuable compared to other gaming modes, it may be challenging for companies to persuade mobile gamers to spend more than they currently do unless the experience and involvement is elevated.

6. Appealing to nostalgia may persuade some consumers to play and spend more. Because many older games are still popular and enjoyed, businesses have an opportunity to drive sales by reformatting those games for today’s more technologically advanced devices.
### Appendix 1: Teen Survey Responses

#### Teen Survey Sample – Key Findings (net 50)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playing games on my smartphone</td>
<td>100%</td>
</tr>
<tr>
<td>Playing video games on my game console</td>
<td>86%</td>
</tr>
<tr>
<td>Playing online games on my computer</td>
<td>70%</td>
</tr>
<tr>
<td>Streaming movies or TV shows to my computer</td>
<td>70%</td>
</tr>
<tr>
<td>Streaming movies or TV shows to my game console</td>
<td>50%</td>
</tr>
<tr>
<td>Download / streaming movies to my smartphone</td>
<td>38%</td>
</tr>
<tr>
<td>Playing games on my tablet</td>
<td>30%</td>
</tr>
<tr>
<td>Streaming movies or TV shows to my tablet</td>
<td>26%</td>
</tr>
</tbody>
</table>

- Teens are engaging in many activities on a weekly basis
  - 100% of the sample are playing games on their smartphone ➔ about 7 times in an average week
  - 86% of the sample is playing games on their consoles ➔ about 6 times in an average week
  - 70% are streaming movies/TV shows to their computer ➔ about 3 times in an average week
  - 70% are playing games on their computers ➔ about 4 times per week
Appendix 1 (continued): Percentage of Time Spent Playing Video Games – By Device

- *Teens, as with adults, spend most of their game time on their game console* (44% spend between 7 and 11+ hours per week) and the least amount of time (57% spend 3 hours or less) playing games on their tablet (likely because most of them do not yet own tablets).

<table>
<thead>
<tr>
<th>Play video games on my game console</th>
<th>Play online games on my computer</th>
<th>Play games on my smartphone</th>
<th>Play games on my tablet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg.Hours</td>
<td>8.6</td>
<td>5.5</td>
<td>4.1</td>
</tr>
<tr>
<td>11 or more</td>
<td>25%</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>7-10</td>
<td>19%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>5-6</td>
<td>17%</td>
<td>13%</td>
<td>18%</td>
</tr>
<tr>
<td>3-4</td>
<td>19%</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Less than 3</td>
<td>20%</td>
<td>54%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Length of Time Spent Playing Video Games

- Nearly 40% of teens spend between 30-60 minutes per gaming session. Almost 35% spend between 60-90 minutes per session.
Appendix 1 (continued): Percentage of Time Spent Playing – By Mode

Average Percentage of Time Spent Per Week

- Offline single player campaign: 49%
- Online competitive multi-player: 26%
- Offline co-op with a friend: 15%
- Online co-op: 10%

As with their adult counterparts, teens spend most of their gaming time (49%) playing offline single player campaigns.

- Online co-ops are allocated the least amount of teen gaming time (10%).

Amount of Dollars Spent per Month on Gaming

- Less than $5 per month: 26%
- $6 - $10 per month: 38%
- $11 - $20 per month: 16%
- $21 - $40 per month: 12%
- Over $40 per month: 8%

Avg. Dollars $28.23

- Most teens (38%) claim to spend between $21-$40 per month on gaming – much more than their adult counterparts claim to spend!
  - 26% claim to be spending more than $40 per month in the past year
  - And while 52% claim this expenditure is about the same as they spent in the prior year, 26% claim it is more.

Percentage of Time Spent Playing – By Device

Amount of Money Spent on Games Compared to Last Year | Amount of Time Spent on Games Compared to Last Year

- Less: 22% | 30%
- About the Same: 52% | 40%
- More: 26% | 30%

- The amount of time spent on gaming versus the prior year is a bit of a mixed bag.
  - 40% claim to have spent the same amount of time
  - 30% claim to have spent more time
  - 30% claim to have spent less time
For more information on this research, the PwC Consumer Intelligence Series, or how digital transformation is shaping the entertainment and media industries, please contact one of our specialists:

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