



MILLENNIAL PROJECT

SUMMARY FINDINGS WHITE PAPER

Research by



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Executive Summary

All generations leave their mark on the world. Millennials are no different, except they have grown up in a world without typewriters, fax machines, commercials, cathode ray tubes, cassette tapes, and VCRs.

Millennials are the future and their views on mobile communications, entertainment, security, transportation, and devices will shape the technology world for the next decade.

This white paper provides an overview of Millennial's views on five topics, collected through an online survey and personal interviews.

Future of the smartphone

iGR asked Millennials, "What do you imagine your smartphone will be like in five years? What do you think the smartphone will do? What will it look like?" To summarize their wide range of ideas, according to the Millennials the smartphone of 2021 will be:

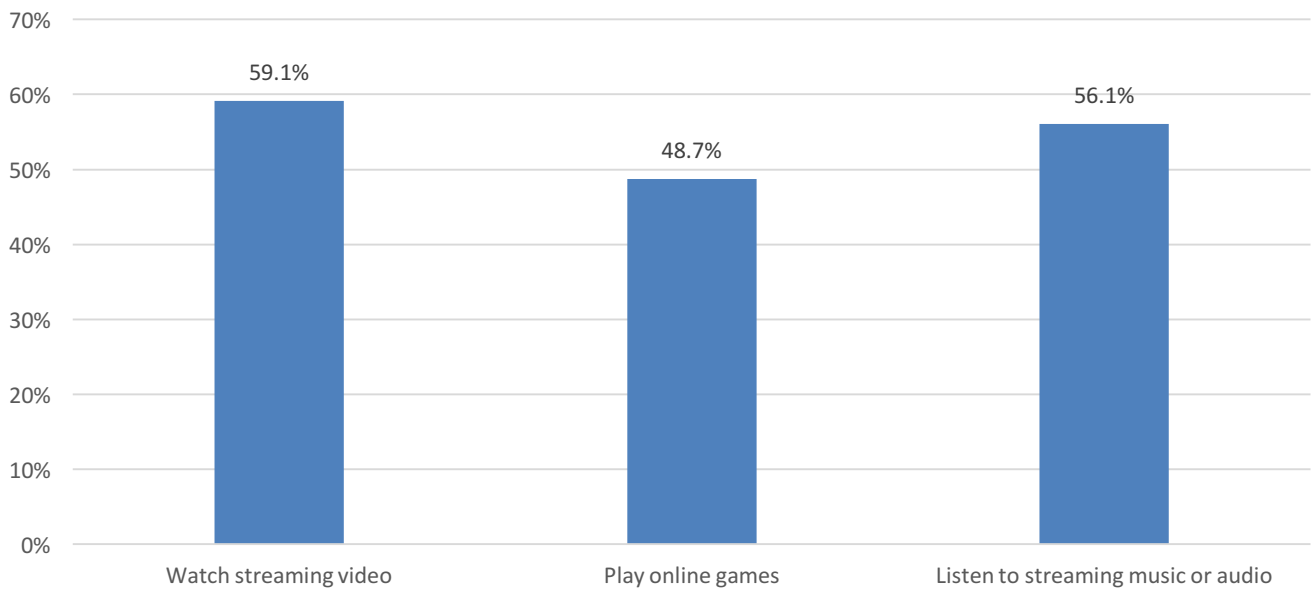
- Voice controlled
- Dynamically and predictively personalized
- Aware of the user's location, preferences and even health
- The owner's wallet, TV, word processor, computer, shopping list and music player.

Entertainment

Millennials have grown up in a world where movies are always on demand and TV can be watched at will. Entertainment choices span traditional sources, such as broadcast TV and movie theatres, as well as Over-The-Top (OTT) services such as Netflix, YouTube, Hulu and Amazon Prime. Furthermore, Millennials have a wide selection of devices in their home on which to be entertained, including laptops, Internet-connected TVs, connected TV devices, tablets and smartphones.

Survey respondents were asked to consider an average week and were then asked how frequently they engage in several entertainment activities while they are at home. As shown in Figure A, *iGR* found that 59 percent of respondents watch streaming video, 49 percent play games, and 56 percent listen to streaming music or audio continuously or multiple times per day.

Figure A: Percent of Millennials that Engage in Entertainment Activities Continuously or Multiple Times per Day



Source: *iGR*, 2016

Communications

Millennials have a wide range of communication options including more traditional options such as voice calls, email, and texting services provided by their mobile operator. They also regularly use OTT services, such as Snapchat, WhatsApp, and GroupMe, and video chat services from FaceTime and Skype.

Because Millennials have no fear of technology, they are willing to try and adopt the latest communications tools. However, they tend to choose different services for different uses or to communicate with different people. For example, they might use a different app with their parents than with their friends.

Security

Many aspects of Millennials' lives are online and are accessible with a laptop computer. However, Millennials are much more aware and cautious about their online privacy and security than might be expected.

Millennials have set their own privacy standards regarding their social media posts, such as not putting personal information online and not sharing location information. Also, they are very cautious when choosing which websites they use for purchases, and they have concerns regarding using their smartphone for purchases through applications such as Apple Pay.

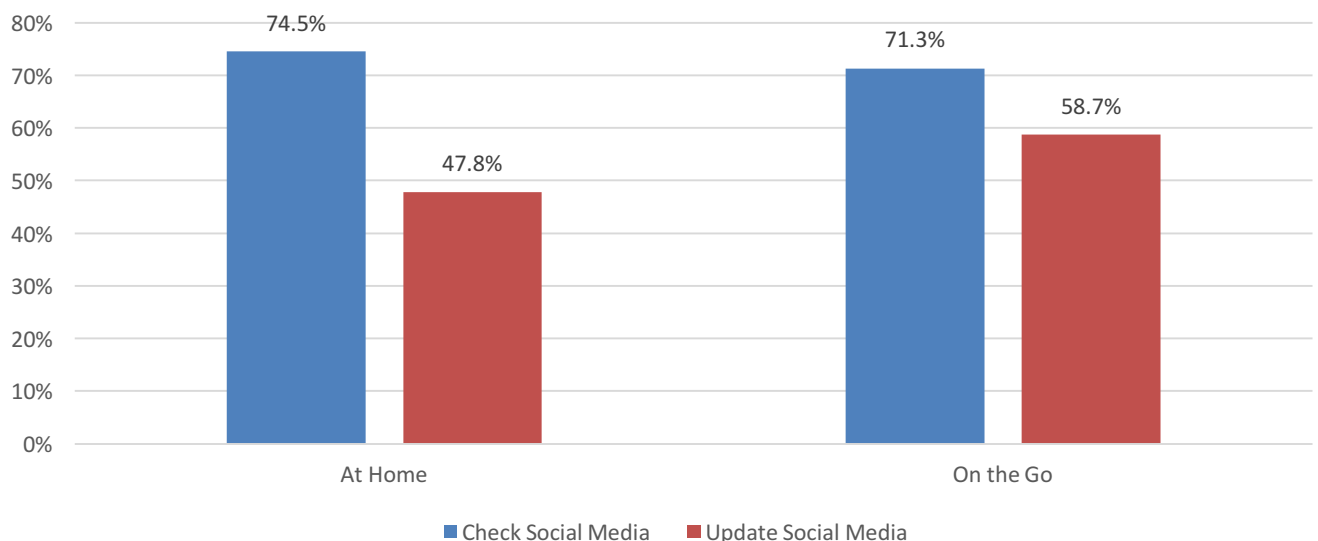
Millennials want to feel safe when they are online, and they are very clear about what information they want to share and with whom. In short, Millennials aren't oblivious regarding security, they're savvy.

Social Media

Millennials are the first generation to grow up in a world where their first impression of a person is formed online, not in person or on the phone. A Millennial's entire social life is enabled by and dependent on their mobile devices.

For example, as shown in Figure B, *iGR* found that while at home, almost 75 percent of Millennials check their social media, and 48 percent update their social media continuously or multiple times per day. When they are on the go, 71 percent check their social media and almost 60 percent update social media continuously or multiple times throughout the day.

Figure B: Percent of Millennials that Engage in Social Media Continuously or Multiple Times per Day



Source: *iGR*, 2016

Millennials' responses to *iGR*'s questions in interviews indicate that Facebook, though considered necessary, may be a little too 'mainstream' for Millennials. Other applications, such as Snapchat and Instagram, may be perceived as less conventional, while GroupMe is not as popular with the Millennials interviewed.

Millennials will use whatever helps them connect and socialize. When a new social media app is launched, it needs a critical mass of users to be successful. When a Millennial sees his or her friends using an application more, he or she will start using it, also.

Project Overview and Methodology

In order to gain insight into the mobile behaviors and opinions of Millennials, *iGR* fielded an online survey and performed personal interviews.

Survey

- *iGR* fielded an online survey of 1,021 U.S. consumers in May 2016. In order to participate in the survey, respondents were required to be between 18 and 64 years of age and own and use a mobile phone.
- *iGR* then filtered the results and only analyzed the responses of respondents that were between the age of 18 and 24.
- The survey results are presented in figures in this white paper.

Personal interviews

- *iGR* performed recorded phone interviews with 18 individuals between the age of 18 and 25.
- Respondents were diverse in age, gender and geographic location within the United States.
- Respondents were asked questions regarding five themes:
 - The future of the smartphone
 - Entertainment
 - Communications
 - Security
 - Social Media.
- Respondents' verbatim responses are referenced in this white paper.

Profiles of Millennials Interviewed

- Allison – 21-year-old single female student from Ohio.
- Hannah – 21-year-old single female student from California.
- Illan – 19-year-old single male student from Texas.
- Nicole – 19-year-old single female student from Colorado.
- Alexandra – 22-year-old single female from New York. Employed full time.
- Brandon – 20-year-old single male student from New York.

- Lauren – 21-year-old single female student from Texas.
- Katherine – 19-year-old single female student from Tennessee.
- Elizabeth – 25-year-old married female from Florida. Employed full time.
- Noelle – 24-year-old single female from Texas. Employed full time.
- Rebecca – 22-year-old single female from Missouri. Employed full time.
- Luke – 19-year-old single male student from California.
- Maya – 23-year-old single female student from New York.
- Kevin – 21-year-old single male student New York. Employed full time.
- Richard – 21-year-old single male student from New York.
- Lindsay – 21-year-old single female from New York. Employed full time.
- Jessica – 21-year-old single female student from Florida.
- Emily – 21-year-old single female student from Texas.

Disclaimer

The opinions expressed in this white paper are those of *iGR* and do not reflect the opinions of the companies or organizations referenced in this paper. All research was conducted exclusively and independently by *iGR*.

About *iGR*

iGR is a market strategy consultancy focused on the wireless and mobile communications industry. Founded by Iain Gillott, one of the wireless industry's leading analysts, we research and analyze the impact new wireless and mobile technologies will have on the industry, on vendors' competitive positioning, and on our clients' strategic business plans.

A more complete profile of the company can be found at <http://www.iGR-inc.com/>.

Future of the Smartphone

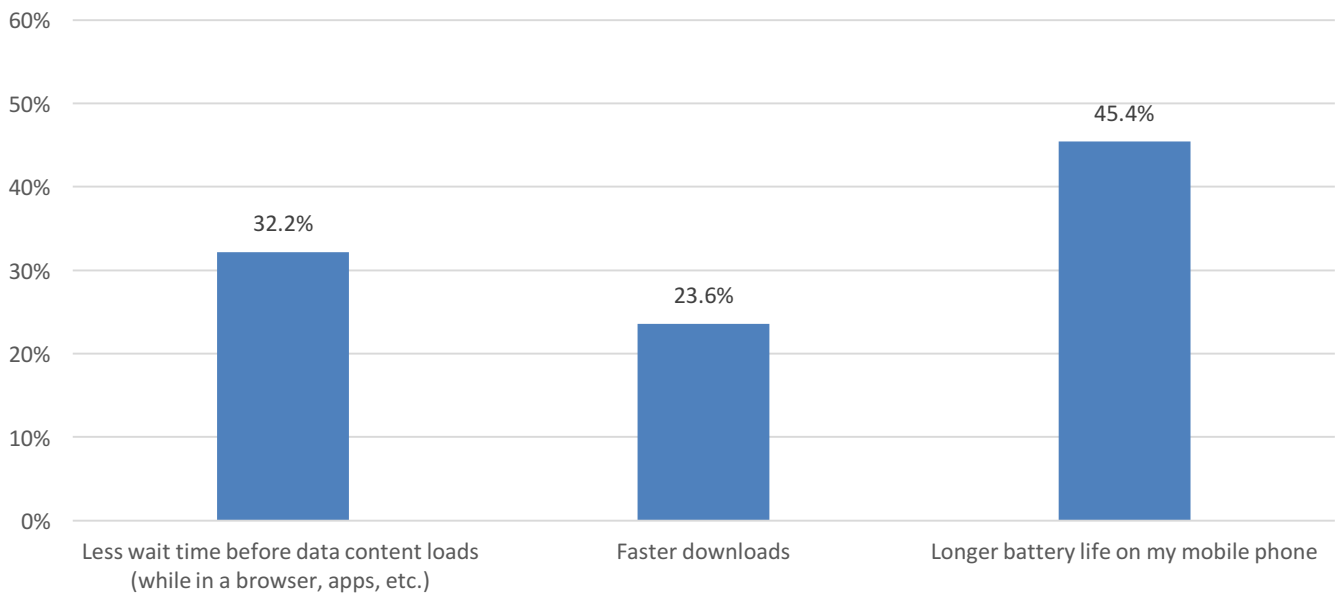
The smartphone is an indispensable device for Millennials. In fact, 99 percent of those who participated in the online survey have a smartphone, while the other one percent have a more basic mobile phone.

iGR wanted to know what improvements Millennials would like to see in their mobile device or service *now*, as well as what capabilities they expect will be included in a smartphone in five years.

Survey Results

In *iGR*'s survey, respondents were asked what improvements they would like to see in their current mobile service (note they were presented with a list options to rank). As shown in the following figure, 32 percent wanted less wait time for data content loads, 24 percent wanted faster downloads, and 45 percent wanted a longer battery life on their mobile phone.

Figure 1: Desired Improvements



Source: *iGR*, 2016

Interviews

What do Millennials imagine their smartphone will be like in five years? What do they think the smartphone will do? What will it look like? Those Millennials interviewed were asked this open-ended question, and their wide range of responses are summarized below.

Wallet

Many Millennials think that using the smartphone to make purchases will be much more commonplace.

- “I see it becoming our wallet... and being able to pay with something on your phone.”
- “You won’t have a wallet, and it will all be combined into one device.”

Voice Control

Several Millennials think that voice control will be a much more prominent feature of future smartphones.

- “There will be more voice into it, and Siri will probably play a bigger role.”
- “More automated services like Siri. Just more artificial intelligence.”

Size and Form

The Millennials interviewed had a wide range of ideas about the size and form of future smartphones.

- “It won’t be able to be any smaller, but I think it will be more incorporated with more things like the Apple Watch.”
- “Size will change depending on customers wants and needs, maybe it’ll just have more ranges instead of only two iPhones to pick from.”
- “I think that it will become smaller, skinnier. I think they are going to take out the headphone jack and make it all Bluetooth.”
- “I think there will be a screen projector so it could put stuff on the walls. Maybe have a keyboard that comes out so you could type. It could almost replace the computer at that point.”

Laptop Replacement

- “I think smartphones are going to make laptops nonexistent. I find myself, because I am on the go so much, using my phone to do things I would normally do on my laptop. Smartphones are going to develop more capabilities with Word documents, and we’ll be able to send and save things like that.”

Predictive

- “Hopefully, they will be learning a bit more about my habits. Like recently my phone started knowing when I want to open my music, which is awesome! And more stuff like that, like the auto correct getting smarter. Just being able to predict what I want a little bit better, so that I don’t have to do repetitive tasks.”

- “It could always tell you something about what you were doing.”
- “I’m hoping that in the future, smartphones will be much more aware of what we are doing and what’s around us. If I have my phone on me and I walk into the gym, then my phone knows and it starts putting my gym playlist on, or if I walk into the grocery store it pulls up my shopping list. It’s just more integrated with what we’re doing every day.”

Home Integration

- “Maybe start to see integrated technology in the home. Like with Amazon Echo, ... you might be able to access your phone. I’m sure there’ll be some more in-home devices, which I guess will take you away from your phone but also increase the use.”
- “It would probably be cool if we could use our phones like keys for getting into your home or your car. I also wouldn’t be surprised if they have even more ways of monitoring your environment like your home air conditioning or your personal health.”

Summary

According to the Millennials, the smartphone of 2021 will be:

- Voice controlled
- Dynamically and predictively personalized
- Aware of the user's location and preferences and even health
- The wallet, TV, word processor, computer, shopping list and music player of the owner.

Smartphones are the future. In five years, the Millennials will reach for their phone before they reach for anything else. If anything else is still around!

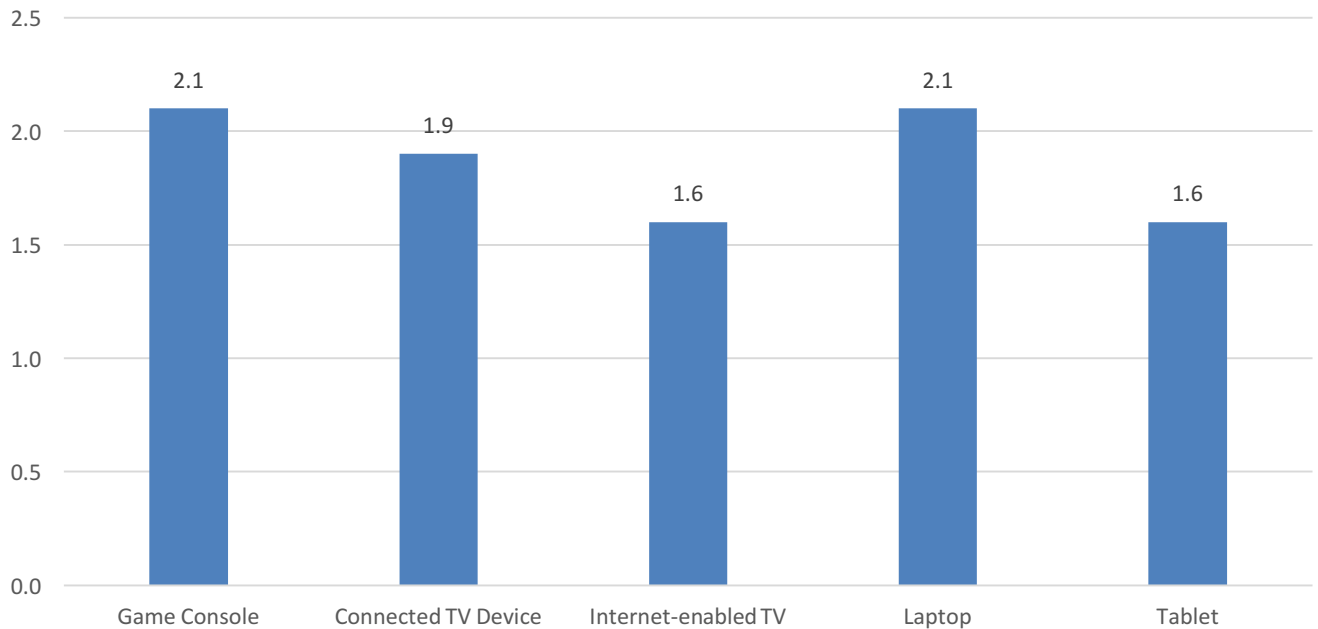
Entertainment

Millennials have grown up in a world where movies are always on demand and TV can be watched at will. Entertainment choices span traditional sources, such as broadcast TV and movie theatres, as well as OTT services such as Netflix.

Survey Results

Millennials have a wide selection of devices in their home on which to be entertained. Survey respondents were asked to identify all of the devices in their home and the number that they have of each. *iGR* found that on average, Millennials have in their home 2.1 gaming consoles, 2.1 laptops, 1.9 connected TV devices, 1.6 Internet-connected TVs and 1.6 tablets, as shown in the following figure.

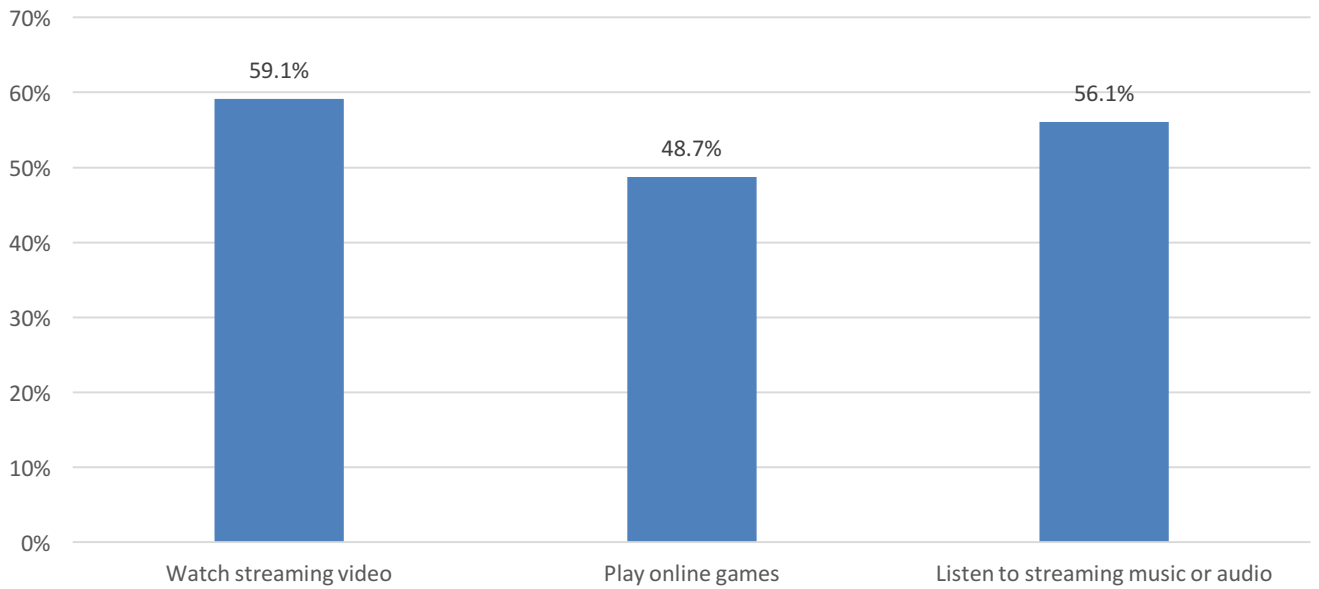
Figure 2: Average Number of Devices in Millennial Household



Source: *iGR*, 2016

Survey respondents were asked to consider an average week and were then asked how frequently they engage in several entertainment activities while they are at home. Their choices of frequency ranged from “less than once per month” to “once per week” to “multiple times per week” to “once per day” and finally to “continuously through the day or multiple times per day.” As shown in the following figure, *iGR* found that at this highest frequency (continuously or multiple times per day), 59 percent of respondents watch streaming video, 49 percent play games, and 56 percent listen to streaming music or audio.

Figure 3: Percent of Millennials that Engage in Entertainment Activities Continuously or Multiple Times per Day

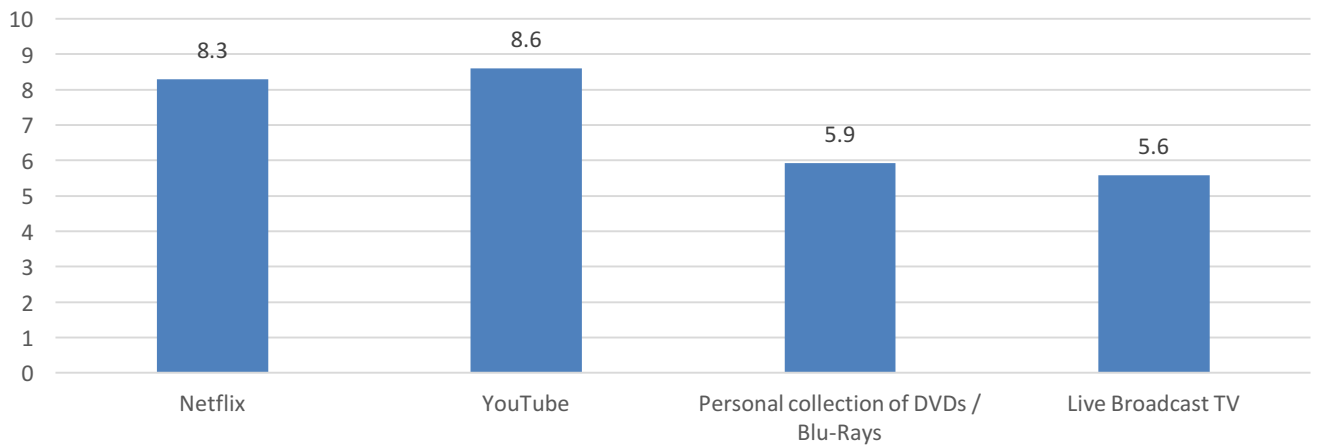


Source: *iGR*, 2016

Survey respondents were asked to rank the steps they would go through to find some video content to watch. Specifically, they were posed with the statement, "If I want to watch something, I would first check #1, then I'd check #2, and finally I'd check #3."

From their choices, *iGR* calculated a ranking score between one and ten. As shown below, YouTube had the highest ranking of 8.6, followed by Netflix with 8.3, personal DVD collections with 5.9, and live broadcast TV with a ranking of 5.6.

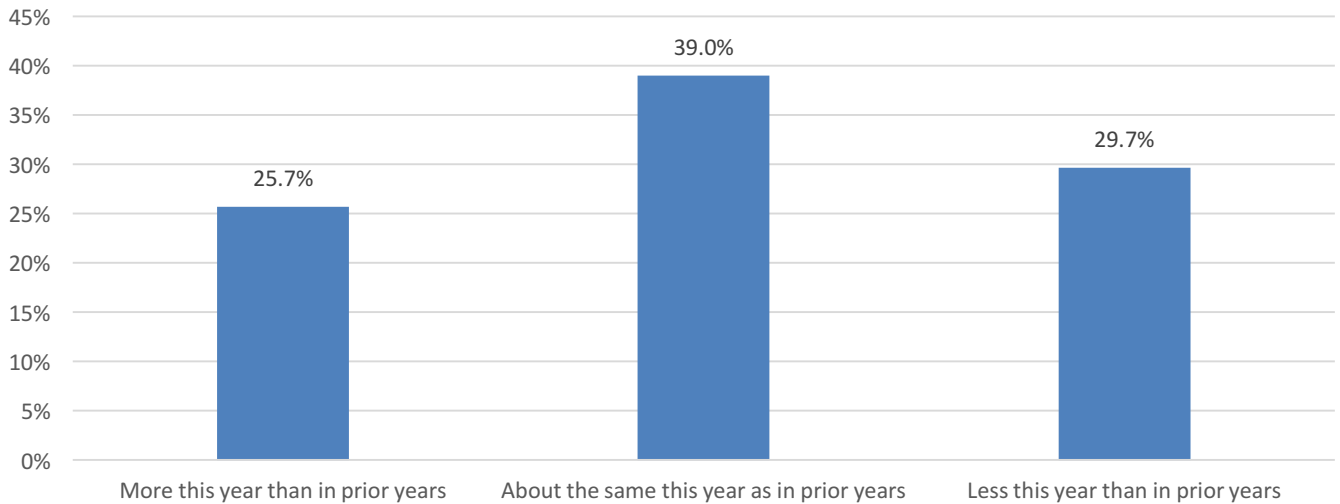
Figure 4: Ranking of Video Content Sources



Source: *iGR*, 2016

However, even with all of their choices, Millennials still use traditional forms of entertainment. The survey respondents were asked how many times they have been to the movie theatre this year, as compared to last year. Thirty-nine percent said about the same number of times, while 26 percent said that they have been to the movie theatre more this year and 29 percent have been to the movie theatre less frequently. These results are shown in the following figure.

Figure 5: Traditional Movie Theatre Usage



Source: *iGR*, 2016

Interviews

The Millennials interviewed were asked how they define TV and their responses were basically split into two groups: those who think that TV includes streaming and those who think that streaming services are separate and distinct from TV.

The following quotes are from several Millennials who believe that TV includes streaming.

- “I define TV as Netflix.”
- “I use an Apple TV.”
- “TV is anything that you can watch and stream.”
- “Any show that is broadcast live or that you can find streaming online.”
- “I define TV as things that would traditionally be shown on TV, but I might still watch on my computer.”

On the other hand, these Millennials distinguish between TV and other entertainment services.

- “I would consider Netflix a subscription-based streaming service.”
- “I guess I usually watch cable TV with other people and I usually watch Netflix alone.”
- “When I think of TV, I think of an actual television.”
- TV is... “videos that were made to be shown at a specific time.”

Videos are obviously a popular entertainment medium for Millennials, but *iGR* also asked the interviewees if they would they prefer to get information about a subject via audio, video or a written format. Following are a few samples of their responses, which were evenly split between the three choices.

- “Watching a video feels more casual. It doesn’t feel like you’re trying to keep up with the news.”
- “I’ve just started to enjoy reading more and I think people are more articulate when they’re writing.”
- “Probably audio. It’s usually a lot easier for me. I’m on the go a lot. I live in New York, so either I’m running or working or doing something.”

iGR asked the Millennials to give a one-word answer to describe their impression of several entertainment services. The following table summarizes their responses.

Table 1: Entertainment Services - One Word Answers

Netflix	YouTube	Hulu	Amazon Prime
“Binge”	“Funny”	“Outdated”	“Plan B”
“Binge-watching”	“Convenient”	“Easy”	“Expensive”
“TV shows”	“Music”	“Unnecessary”	“Movies”
“Television”	“Free”	“Expensive Netflix”	
“Variety”	“Easy”	“Ugh...obscure”	
“Fast”	“Universal”	“Everything”	
“Fantastic”	“Videos”	“Annoying”	
“Great”	“Accurate”	“No”	
	“Love it”		

Source: *iGR*, 2016

Millennials were asked about the importance of advertising. Specifically, they were asked if they would prefer “free with ads” or to pay for a service. Following are some of their thoughts:

- “I think advertising is just part of everything we do and if it is on your smartphone, I really don’t think it makes that much of a difference.”
- “Sometimes it’s frustrating, like if it pops up when you’re in the middle of something.”
- “It’s annoying, but as long as there is an “X” button where I can close it, I don’t have an issue with it.”

Summary

Millennials have definite views about their entertainment options and generally consume their entertainment continuously throughout their day. They will find entertainment both at home and “on the go”, on a variety of devices, and through an always increasing number of sources, such as Netflix, YouTube, their own DVD collections, and even traditional TV.

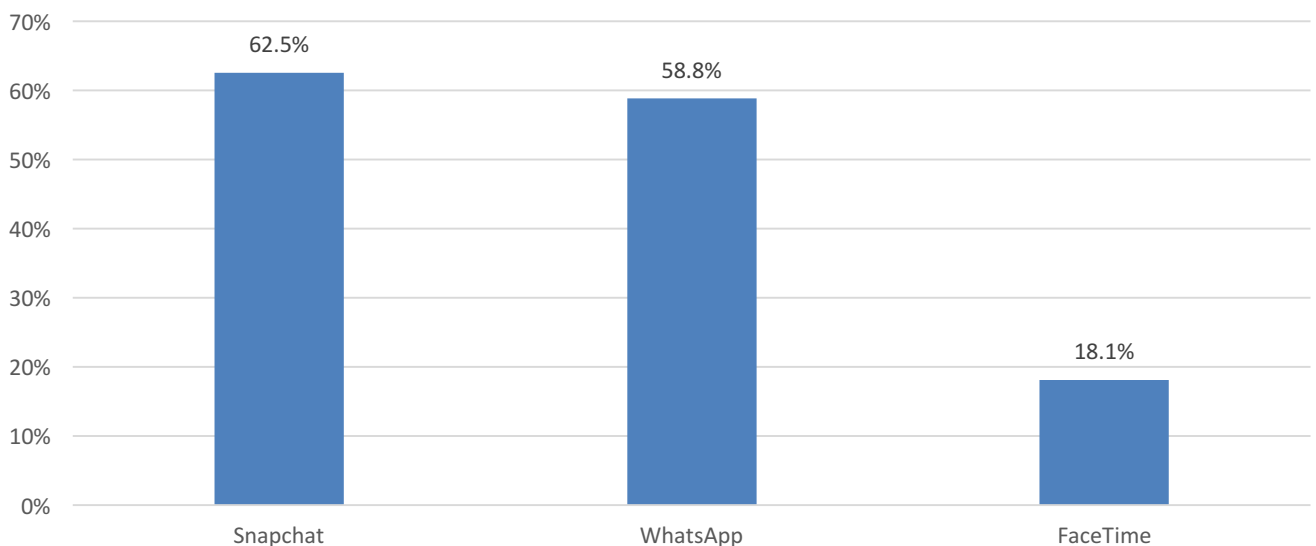
Communications

Millennials have a wide range of communication options including more traditional options such as voice calls, email, and texting services provided by their mobile operator. They also regularly use OTT services, such as Snapchat, WhatsApp, and GroupMe, and video chat services from FaceTime and Skype.

Survey Results

Survey respondents were asked to consider how frequently they engage in several communication services. Their choices of frequency ranged from “less than once per month” to “once per week” to “multiple times per week” to “once per day” and finally to “continuously through the day or multiple times per day.” As shown in the following figure, *iGR* found that at this highest frequency (continuously or multiple times per day), 63 percent of respondents use Snapchat, 59 percent use WhatsApp, and 18 percent use FaceTime.

Figure 6: Percent of Millennials that Engage in Communications Activities Continuously or Multiple Times per Day



Source: *iGR*, 2016

Interviews

A landline phone is a communication device that is almost unknown to Millennials, as many of their parents removed their home phone years before the Millennials became adults. According to one Millennials, who was asked to associate a word with the device, “telephone” equates to “old people.”

iGR asked the Millennials to give a one-word answer to describe their impression of several OTT communication services, and the following table summarizes their responses.

Table 2: Communication Services - One Word Answers

Texting	Snapchat	GroupMe	Gmail	FaceTime
"Easy"	"Inappropriate"	"Frat"	"Work"	"Girlfriend"
"Draining"	"Millennial"	"Annoying"	"Helpful"	"Natural"
"Filler"	"Handy"	"Noisy"	"Business"	"The future"
"Short Term"	"Funny"	"Group text"	"Mail"	"WiFi"
"Constant"	"Pointless"	"Unnecessary"	"Useful"	"Connecting"
"Communication"	"Pictures"	"Funny"	"Spam"	"Fun"
"Slow"	"Annoying"	"Informative"	"No"	"Commitment"
"New Era"	"Friends"	"Group"	"Linked"	"Funny"
"Necessary"	"Awesome"	"Community"	"Professional"	"Relevant"
"Straightforward"	"Fun"			"Fast"
"Simple"	"Variety"			"Awesome"
				"Creative"
				"Unnecessary"
				"Long Distance"
				"Communication"

Source: iGR, 2016

Although Millennials obviously use a wide range of services, they do tend to choose different services for different uses or to communicate with different people, as seen in the following quotes:

- "Facebook for family members. They're not really on Instagram."
- "With parents I definitely email."

- “I use WhatsApp or Facebook Messenger for people who are overseas.”
- “I’m definitely more likely to message someone on Facebook that I haven’t talked to in a while.”
- “I use GroupMe for school, and for my parents I’ll just text them with iMessage.”

Summary

Because Millennials have no fear of technology, they are willing to try and adopt the latest communications tools. These tools include an ever increasing choice of OTT services, such as WhatsApp, Snapchat, Instagram, FaceTime and GroupMe. It is clear that Millennials can and will drive the next big thing in communications.

Security

Many aspects of Millennials' lives are online and are accessible with a laptop computer – the things they buy, the things they do, how they feel, and where they live. However, Millennials are much more aware and cautious about their online privacy and security than might be expected.

Interviews

Millennials have each set their own privacy standards regarding their social media posts, which are demonstrated in the following quotes:

- “I think I filter myself before I put it on there.”
- “I just don't like people being able to see personal stuff. I would never put my number on social media.”
- “I don't like checking in. I don't want to tell people where I *am*, but if I post a picture I'll put the location of where I *was*.”
- “I'm always very careful about putting anything location-based on my Facebook.”

Further, Millennials are very cautious when choosing which websites they use for purchases.

- “When I buy online, I always make sure the website that I'm buying from has the 's' on the http.”
- “I always start with the places I know the best.”
- “It's not the most educated criteria, but usually the visual aspect of the site. Usually if it's a fleshed out interface... and the implementation of PayPal.”
- “Price and reputation.”

iGR believes that the wallet and the phone will merge into one in the coming years, as applications like Apple Pay continue to grow in popularity. Some Millennials have concerns, as shown in the following quotes:

- “I'm a clutz and I always drop my phone, so it would make me a little nervous with everything being on my phone.”
- “I'd like it, but I'd also want to have the paper version of something, as well.”
- “Even though my phone might be charged all the way, I'd still get paranoid that it would die and I couldn't get on my flight.”
- “I would have security concerns considering if I lost my phone or misplaced it.”

- “I won’t have a choice in a couple of years.”

Summary

Millennials want to feel safe when they are online, and they are very clear about what information they want to share and with whom. In short, Millennials aren’t oblivious regarding security, they’re savvy.

Social Media

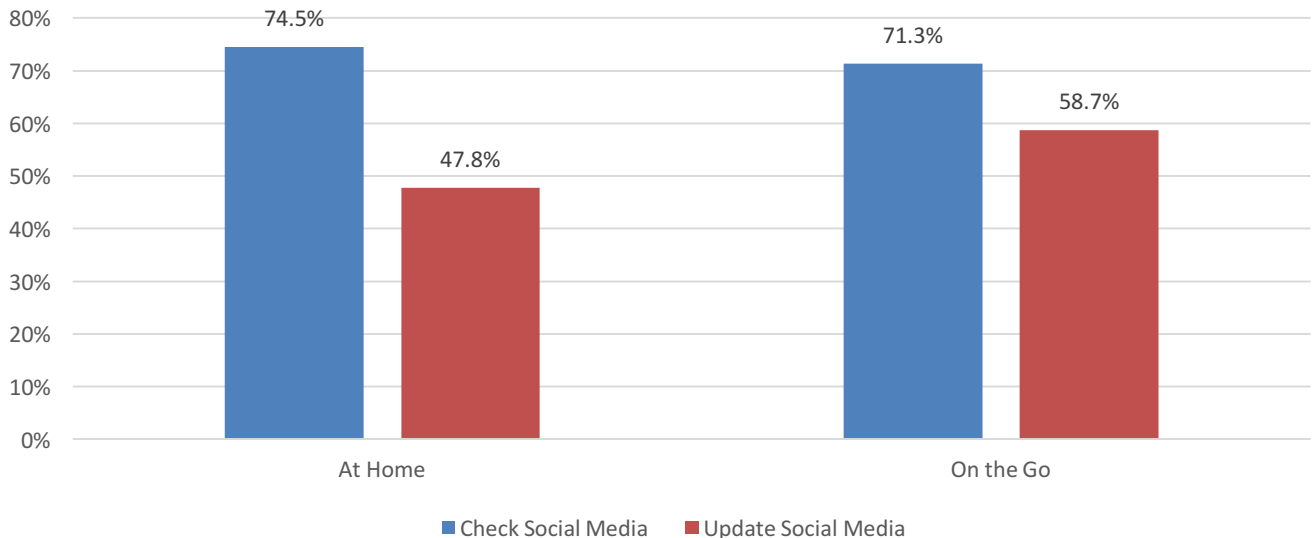
Millennials are the first generation to grow up in a world where their first impression of a person is formed online, not in person or on the phone. A Millennials' entire social life is enabled by and dependent on their mobile devices.

Survey Results

Survey respondents were asked to consider an average week and were then asked how frequently they check or update their social media while they are at home or "on the go", which *iGR* defines as not at home, work or school. Their choices of frequency ranged from "less than once per month" to "once per week" to "multiple times per week" to "once per day" and finally to "continuously through the day or multiple times per day."

As shown in the following figure, *iGR* found that at this highest frequency (continuously or multiple times per day), while at home almost 75 percent of Millennials *check* their social media apps, and 48 percent *update* their social media. When they are on the go, 71 percent check their social media and almost 60 percent update social media continuously or multiple times throughout the day.

Figure 7: Percent of Millennials that Engage in Social Media Continuously or Multiple Times per Day



Source: *iGR*, 2016

Millennials check and update their social media status more than any other age group, and none of the Millennials *iGR* interviewed or surveyed for this project checked their social media less than 2 -3 times per week. This age group is truly connected socially online.

Interviews

iGR asked the interviewed Millennials to give a one-word answer to describe their impression of several social media apps, and the following table summarizes their responses.

Table 3: Social Media - One Word Answers

Facebook	Snapchat	GroupMe
"Networking"	"Millennial"	"Unsure"
"Connecting"	"Funny"	"Don't use it"
"Friends"	"Friends"	"Unnecessary"
"Necessary"	"Entertainment"	"Annoying"
"Parents / Family"		
"Old"		
"Ads"		

Source: iGR, 2016

These responses indicate that Facebook, though considered necessary, may be a little too 'mainstream' for Millennials. Consider the following additional comment about Facebook:

- "I definitely don't use Facebook as much. I realize that no one cares, and I don't care."

Other applications, such as Snapchat and Instagram, may be perceived as less conventional, while GroupMe is not as popular with the Millennials interviewed.

Millennials will use whatever helps them connect and socialize. When a new social media app is launched, it needs a critical mass of users to be successful. When a Millennial sees his or her friends using an application more, he or she will start using it, also. But when something becomes mainstream, they lose interest.

This is the same phenomenon behind "oldies" (those not a Millennial!) flocking to Facebook because their kids were using it. However, now the kids are leaving for fresher shores. This is what kids and parents have always done and probably will always do. Some more, some less, but the trend is the same.

Summary

For Millennials, the virtual interaction can be just as real and just as fulfilling as an in-person interaction. The app and the device aren't *used* to connect; they *are* the connection.

If something comes around that makes that connection easier, more immediate and more visceral, then Millennials—and probably the generations behind them—will jump to it.