Snap Consumer AR Report 2021

The following report is a deep dive into how Snapchatters are using AR in India based on the Snap Consumer AR Global Report. For a more comprehensive market view, please read the Snap Consumer AR Global Report.
AR is a critical tool for brands to stand out and deliver customer value and confidence.

**Introduction**
AR is the next form of mobile engagement, elevating the consumer experience and setting new expectations for digital engagement.

**AR’s Impact on Brands**
AR is a critical tool for brands to stand out and deliver customer value and confidence.

**AR is Evolving Fast**
AR cannot be ignored as the new, rapidly-growing consumer experience that will soon be everywhere, all the time.

**AR is Here Today and Here to Stay**
AR is already here, widely recognized as both fun and useful and driving fast adoption and growth.

**Conclusion**
There is an imperative to meet consumer’s AR demand, and now is the time to act for brands, platforms, and developers.
Introduction
Key Takeaways

AR adoption is tracking with the mobile usage boom - by 2025, about **40% of the Gen Z and Millennial population in India will be frequent AR users.**

73% of people successfully identify AR when they see it, but when talking about it, they have a hard time defining or describing what it is.

64% of Snapchatters in India and across generations use AR to have fun; the majority are discovering AR through social / communications apps.

AR is generally seen as a “toy”, but **81% of people expect and desire to use it as a practical “tool” in their everyday lives.**

Interacting with products that have AR experiences leads to a **94% higher conversion rate.**

---

1. See additional methodology details in appendix
2. 2021 Global Deloitte Digital Study commissioned by Snap Inc.
3. Base = Aggregate average (n=766)
4. AR through apps for the first time
5. AR through social apps (n=329)
6. Base = Aggregate (n=843)
7. AR is not useful / AR is not useful (but not too much)
There is something really unique happening right now – an incredible number of hobbyists and professionals are using AR. Downloading tools across the Snap AR platform. They’re taking time to learn, they’re curious.”

Eitan Pilipski
SVP Camera Platform
Snap Inc.

AR is growing
By 2025, about 40% of the Gen Z and Millennial population* in India will be frequent AR users.¹

Frequent AR Consumers
Based on people ages 13-69 who use social / communication apps

1: See additional methodology details in appendix

*Global population of Gen Z and Millennials includes people ages 13-44 (based on UN World Population Prospects 2019) who have smartphones (based on Statista Digital Market Outlook)

Note: 2021 AR Consumers based on people who use AR weekly or daily from 2021 Global Deloitte Digital Study commissioned by Snap Inc.
2022 to 2025 forecasted to be soft. 2020/2021 growth rate of smartphone users since AR is in the 'Toy' phase of adoption (not based on data). When transition took place with mobile phones, one can argue that it was when games like 'Snake' started being available (e.g., 1997 Nokia 6110 device released, 1999 emojis were invented, 2000 Nokia 3310 launched, and the first commercially available camera phone launched in Japan).

Eitan Pilipski
SVP Camera Platform
Snap Inc.

1: See additional methodology details in appendix

*Global population of Gen Z and Millennials includes people ages 13-44 (based on UN World Population Prospects 2019) who have smartphones (based on Statista Digital Market Outlook)

Note: 2021 AR Consumers based on people who use AR weekly or daily from 2021 Global Deloitte Digital Study commissioned by Snap Inc.
2022 to 2025 forecasted to be soft. 2020/2021 growth rate of smartphone users since AR is in the 'Toy' phase of adoption (not based on data). When transition took place with mobile phones, one can argue that it was when games like 'Snake' started being available (e.g., 1997 Nokia 6110 device released, 1999 emojis were invented, 2000 Nokia 3310 launched, and the first commercially available camera phone launched in Japan).
Younger generations and Snapchatters are driving AR growth

Age Differences

Younger people are **32% more** likely to use AR,¹

and they are **15% more** likely to see AR everywhere.²

AR is not just for Gen Z; **Millennials and Gen X show the highest affinity for AR.³**

Snapchatters are **1.4x** as likely to use AR frequently compared to Non-Snapchatters.⁴

**80%** of Snapchatters believe AR is important to their lives.⁵

¹ 2021 Global Deloitte Study commissioned by Snap Inc.
   Base = Age 13-17 (n=126), Age 18+ (n=301)
   Q: How familiar are you with AR? | A: I use AR all the time

² 2021 Global Deloitte Study commissioned by Snap Inc.
   Base = Age 13-17 (n=190), Age 35-44 (n=56)
   Q: I see AR everywhere / I don’t see AR anywhere | A: Agree much more with A, Agree somewhat more with A

³ Publicis Groupe & Snap Inc. Study
   Base: Gen Z (n=1,261), Millennials (n=1,632), Gen X (n=1,107)
   QP7A: Thinking about your expected use of AR technology post-COVID, do you expect to start using AR? Please select one response

⁴ 2021 Global Deloitte Study commissioned by Snap Inc.
   Base = Snapchatters (n=414)
   Q: AR is important to me / AR is not important to me | A: Agree much more with A, Agree somewhat more with A

⁵ 2021 Global Deloitte Study commissioned by Snap Inc.
   Base = Snapchatters (n=247), Non-Snapchatters (n=180)
   Q: How familiar are you with AR? | A: I use AR all the time

Snap Inc.
“As AR evolves, it will revolutionize our lives and will become as significant of a technology shift as the web or mobile was to society, changing how we view and interact with the world around us.”

Allan Cook
Digital Reality Business Leader
Deloitte Digital
AR’s Impact on Brands
A lot of people are using AR to make purchase decisions... and plan to keep doing so.

There are 100 million consumers shopping with AR online and in-stores.¹

96% of Snapchatters agree they’ll use AR the same or more when shopping next year.²

---

¹ Gartner Press Release
² 2021 Global Deloitte Digital Study commissioned by Snap Inc.
AR captures consumer attention

AR delivers almost 2x the levels of visual attention compared to their non-AR equivalent, leading to improved memories and more powerful responses from consumers.¹

Snapchatters who frequently use AR with their family and friends are 30% more likely to pay attention to a brand.²

¹: Zappar Article, “How augmented reality affects the brain”
²: 2021 Global Deloitte Digital Study commissioned by Snap Inc.

Base = Snapchatters with over 60% of friends and family sharing AR (n=116), Snapchatters with less than 40% of friends and family sharing AR (n=93)

Q: How many of your friends and family do you think use AR today?
Q: Sometimes brands will create AR experiences through an app camera (e.g., a big movie company makes an AR experience where the heroes of a movie are fighting next to you, or a restaurant provides you a lens/filter/effect that turns you into a hamburger). What impact, if any, does interacting with that AR experience have on your perception of that brand?
Brands and people connect better with AR experiences

50%

more likely to be considered if they have a branded AR experience.¹

Snapchatters are 23% more likely than Non-Snapchatters to share a brand’s AR experience with friends and family.²
AR builds consumer confidence

75% of Snapchatter shoppers agree that AR gives them more confidence about product quality.¹

Over half of people want to use AR technology to assess products, allowing for a risk-free, “try-before you buy”, experience.²

Nearly 3 in 4 consumers say they're willing to pay more for a product that promises the total transparency that AR can provide.³

Returns are a $550 billion problem, which AR can help fix. AR-guided purchases led to a 25% decrease in returns.⁴

¹ 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=390)
² NielsenIQ Analysis, Augmented retail: The new consumer reality
³ 2016 Label Insight Transparency ROI Study via Inc.
⁴ ARInsider Article, “Does AR Really Reduce eCommerce Returns?”
The results are in 🥁
AR interactions drive conversion

"The conversion rate of our lens product was very high with 62% of those who used AR lens ending up buying a product."

Alice Bezirard-Fischer
Communications Lead
Wella

Interacting with products that have AR experiences leads to a 94% higher conversion rate, as individuals can better assess them and feel connected with brands.¹

Snapchatters are 34% more likely to purchase products through a brand’s website than Non-Snapchatters.²

¹ Harvard Business Review, "How AR is Redefining Retail in the Pandemic"
² 2021 Global Deloitte Digital Study commissioned by Snap Inc.

Base = Snapchatters (n=231), Non-Snapchatters (n=176)

Q: Sometimes brands will create AR experiences through an app camera (e.g., a big movie company makes an AR experience where the heroes of a movie are fighting next to you, or a restaurant provides you a lens/filter/effect that turns you into a hamburger). What impact, if any, does interacting with that AR experience have on your perception of the brand? ¹ A: I am more likely to purchase their products through the brand’s website.

VS.

Snap Inc.
AR connections drive revenue

Consumers who view AR as a social activity are **38% more likely** to purchase products from the brand.¹

- **47%** more likely to share the experience with family and friends¹
- **45%** more likely to purchase products from the brand²

• Snapchatters are **67% more likely** than Non-Snapchatters to use AR to connect with others.²

• Snapchatters share AR photos and videos with friends and/or family **83% more** than Non-Snapchatters.³

---

¹: 2021 Global Deloitte Digital Study commissioned by Snap Inc.
Base: Aggregate (n=489)
Q: Sometimes brands will create AR experiences through an app camera (e.g., a big movie company makes an AR experience where the heroes of a movie fight right in front of you, or a restaurant provides you a lens/filter/effect that turns you into a hamburger). What impact, if any, does interacting with that AR experience have on your perception of that brand?
A: I am more likely to share a brand's AR experience with friends and family

²: Base = Aggregate (n=474)
Q: Same as above
A: I am more likely to purchase their products through the brand's app where I saw the brand's AR experience

³: Base = Snapchatters (n=208), Non-Snapchatters (n=127)
Q: Why do you use AR?
A: Several times each day

Q: How often do you capture or share photos and videos with your friends and/or family?
A: Several times each day
AR is Evolving Fast
On Snapchat, there are 500 million minutes of AR playtime per day on average.²

AR Photos / Videos Per Day¹

Generational Breakout of Daily AR Photos / Videos Created

AR use will grow with an increase in awareness and access to AR experiences and content.

+40% 2021-2025 CAGR of AR Photos / Videos per Day.¹

1. See additional methodology details in appendix. CAGR: 4-year compounded annual growth rate that measures the annual increase in AR Photos / Videos per day from 2021 to 2025
2. Snap Inc. internal data Q1 2020
AR is Here
Today and
Here to Stay
Where do Snapchatters use AR most today?

54% of Snapchatters use AR primarily in their homes.¹

Snapchatters predominantly use AR at home and do so for a wide range of uses.

What are Snapchatters using AR for at home?²

93% Communication

85% Media & Entertainment

84% Gaming

79% Shopping

Today’s use cases most align with activities you would do at home, and 67% of Snapchatters say they will use AR at home more than last year.³

¹ 2021 Global Deloitte Digital Study commissioned by Snap Inc.
² Base = Snapchatters (n=345)
³ Base = Snapchatters at home – Communication (n=248), M&E (n=227), Gaming (n=223), Shopping (n=212)

Note: Across all 15 markets, the 2021 Global Deloitte Digital Study commissioned by Snap Inc was fielded from February 23, 2021 to April 5, 2021.

Since the survey was conducted during the COVID-19 pandemic, primary usage of AR in consumers’ homes may be higher than normal.
How are Snapchatters learning about AR?

Snapchatters who use AR frequently are more likely to have **over 50%** of their friends and family using AR.¹

Snapchatters are almost **43% more likely** to discover AR through an advertisement than Non-Snapchatters.³

---

¹: 2021 Global Deloitte Digital Study commissioned by Snap Inc.
Base = Snapchatters (n=456)
Q: Where did you first discover AR content?
A: I saw people I know using it on social media, communication, and camera apps. I saw it in an advertisement on social media, communication, or camera app. I stumbled across it while exploring viral content on social media, communication, or camera app. I saw celebrities / influencers use it on social media, communication, and camera apps. I read about it on a blog / forum. I heard about it from friends / family, in-person.

²: Base = Snapchatters who use AR all the time (n=116), Snapchatters who have used AR before (n=73)
Q: How familiar are you with AR? A: I use AR all the time, I have used AR before
Q: How many of your friends and family do you think use AR today? A: 60-80%, Over 80%

³: Base = Snapchatters (n=109), Non-Snapchatters (n=77)
Q: Where did you first discover AR content?
Snapchatters are almost **43% more likely** to discover AR through an advertisement than Non-Snapchatters.
Why do they use AR?

TECH: OSMOSIS  “I didn’t even realize I was using it”

TOY: JOY  “I want to have fun and connect with friends”

TOOL: UTILITY  “I need to and it’s useful”

TOTALITY: UBIQUITY  “It’s everywhere and commonplace”
What are Snapchatters using AR for, today?

**Communication**
88% frequently use

49% to be more creative

80% frequently use

53% to make what they are watching more enjoyable

76% frequently use

48% to make gameplay more interactive

67% frequently use

37% to try products out

Snapchatters frequently use AR for communication (+18%) and gaming (+17%) more than Non-Snapchatters.

---

1. Base = Snapchatters (n=453)
2. Q: Frequency of Use by Reason: Communication | A: Several times each day, Once a day, Several times a week, Once a week
3. Base = Snapchatters (n=415)
4. Q: Frequency of Use by Reason: Media | A: Several times each day, Once a day, Several times a week, Once a week
5. Base = Snapchatters (n=391)
6. Q: Frequency of Use by Reason: Gaming | A: Several times each day, Once a day, Several times a week, Once a week
7. Base = Snapchatters (n=126)
8. Q: How does AR impact your communication experience?
9. Base = Snapchatters – Communication (n=199), Non-Snapchatters – Communication (n=171), Snapchatters – Gaming (n=213), Non-Snapchatters – Gaming
10. Q: How often do you use AR when connecting with friends and family?
11. 2021 Global Deloitte Study commissioned by Snap Inc.

---

**Base = Snapchatters (n=344)**

Q: Frequency of Use by Reason: Shopping | A: Several times each day, Once a day, Several times a week, Once a week

Q: How often do you use AR when connecting with friends and family?

Q: How often do you use each type of AR when gaming? – Social media, communication, and camera apps that have AR games (A: Always/Almost Always)

---

**Base = Snapchatters (n=137)**

Q: How does AR impact your entertainment experience?

Q: How often do you use each type of AR when gaming? – Social media, communication, and camera apps that have AR games (A: Always/Almost Always)

---

**Base = Snapchatters (n=124)**

Q: How does AR impact your gaming experience?

Q: How often do you use each type of AR when gaming? – Social media, communication, and camera apps that have AR games (A: Always/Almost Always)

---

**Base = Snapchatters (n=96)**

Q: How does AR Impact your browsing and/or shopping experience?

Q: How often do you use AR when connecting with friends and family?

---

**Base = Snapchatters – Communication (n=199), Non-Snapchatters – Communication (n=171), Snapchatters – Gaming (n=213), Non-Snapchatters – Gaming**

Q: How often do you use AR when connecting with friends and family?

Q: How often do you use each type of AR when gaming? – Social media, communication, and camera apps that have AR games (A: Always/Almost Always)
<table>
<thead>
<tr>
<th>Category</th>
<th>AR Usage Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>92%</td>
</tr>
<tr>
<td>Home Décor</td>
<td>82%</td>
</tr>
<tr>
<td>Entertainment</td>
<td>88%</td>
</tr>
<tr>
<td>Household goods</td>
<td>82%</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>86%</td>
</tr>
<tr>
<td>Travel</td>
<td>76%</td>
</tr>
<tr>
<td>Beauty &amp; Wellness</td>
<td>85%</td>
</tr>
<tr>
<td>Restaurant &amp; Food Delivery</td>
<td>72%</td>
</tr>
<tr>
<td>Restaurant &amp; Food Delivery</td>
<td>83%</td>
</tr>
</tbody>
</table>

1. 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base: Retail (n=240), Beauty and wellness (n=221), Household goods (n=212), Telecommunications (n=215), Restaurants / food delivery (n=216), Entertainment (n=228), Home décor (n=214), Automotive (n=186), Travel (n=197)
What are Snapchatter shoppers using AR for, today?¹

AR is a natural extension of the shopping experience, aiding in decision making

- 43% discovered it as part of browsing or shopping¹
- 45% help shoppers decide what to buy³
- 88% of shoppers are likely to use AR when they come across it²

¹ 2021 Global Deloitte Digital Study commissioned by Snap Inc.
   Base = Snapchatters (n=111)
   Q: How have you found AR while browsing and/or shopping?

² 11% of Snapchatters (n=229)
   Q: If you come across AR while browsing and/or shopping, how likely are you to try it? (1: Somewhat/2: Very likely)

³ 11% of Snapchatters (n=117)
   Q: How does AR impact your browsing and/or shopping experience?
91% of Snapchatters believe that AR will be even more important in their lives in the next 5 years.¹

Next year, Snapchatters plan on using AR more in 4 key growth areas.

- **Media**²
  - 74% want to create their own interactive media plots by guiding characters through a script.

- **Gaming**³
  - 69% want to project their AR avatar into their favorite games, media & entertainment.

- **Shopping**⁴
  - 67% want to readily view information about an item or product as soon as it’s scanned with the phone camera.

- **Communications**⁵
  - 56% want to customize environments to their own imagination and share with others.

---

¹ 2021 Global Deloitte Study commissioned by Snap Inc.
² Base = Snapchatters (n=468)
³ Q: How useful and/or important do you think AR will be in 4 years?
⁴ Q: Will you use AR while browsing and/or shopping more or less than last year?
⁵ Q: Base = Readily view information about item or product (n=287), Project through AR avatar (n=264), Customize environments (n=250), Create TV/Movie/Video plot narratives (n=231)

---

91% of Snapchatters believe that AR will be even more important in their lives in the next 5 years.¹

Next year, Snapchatters plan on using AR more in 4 key growth areas.

- **Media**²
  - 74% want to create their own interactive media plots by guiding characters through a script.

- **Gaming**³
  - 69% want to project their AR avatar into their favorite games, media & entertainment.

- **Shopping**⁴
  - 67% want to readily view information about an item or product as soon as it’s scanned with the phone camera.

- **Communications**⁵
  - 56% want to customize environments to their own imagination and share with others.

---

¹ 2021 Global Deloitte Study commissioned by Snap Inc.
² Base = Snapchatters (n=468)
³ Q: How useful and/or important do you think AR will be in 4 years?
⁴ Q: Will you use AR while browsing and/or shopping more or less than last year?
⁵ Q: Base = Readily view information about item or product (n=287), Project through AR avatar (n=264), Customize environments (n=250), Create TV/Movie/Video plot narratives (n=231)

---

91% of Snapchatters believe that AR will be even more important in their lives in the next 5 years.¹

Next year, Snapchatters plan on using AR more in 4 key growth areas.

- **Media**²
  - 74% want to create their own interactive media plots by guiding characters through a script.

- **Gaming**³
  - 69% want to project their AR avatar into their favorite games, media & entertainment.

- **Shopping**⁴
  - 67% want to readily view information about an item or product as soon as it’s scanned with the phone camera.

- **Communications**⁵
  - 56% want to customize environments to their own imagination and share with others.

---

¹ 2021 Global Deloitte Study commissioned by Snap Inc.
² Base = Snapchatters (n=468)
³ Q: How useful and/or important do you think AR will be in 4 years?
⁴ Q: Will you use AR while browsing and/or shopping more or less than last year?
⁵ Q: Base = Readily view information about item or product (n=287), Project through AR avatar (n=264), Customize environments (n=250), Create TV/Movie/Video plot narratives (n=231)

---

91% of Snapchatters believe that AR will be even more important in their lives in the next 5 years.¹

Next year, Snapchatters plan on using AR more in 4 key growth areas.

- **Media**²
  - 74% want to create their own interactive media plots by guiding characters through a script.

- **Gaming**³
  - 69% want to project their AR avatar into their favorite games, media & entertainment.

- **Shopping**⁴
  - 67% want to readily view information about an item or product as soon as it’s scanned with the phone camera.

- **Communications**⁵
  - 56% want to customize environments to their own imagination and share with others.

---

¹ 2021 Global Deloitte Study commissioned by Snap Inc.
² Base = Snapchatters (n=468)
³ Q: How useful and/or important do you think AR will be in 4 years?
⁴ Q: Will you use AR while browsing and/or shopping more or less than last year?
⁵ Q: Base = Readily view information about item or product (n=287), Project through AR avatar (n=264), Customize environments (n=250), Create TV/Movie/Video plot narratives (n=231)
Utility is a primary driver for Snapchatters’ future AR usage\(^1\)

1: 2021 Global Deloitte Digital Study commissioned by Snap Inc.

Q: Why use AR

- Wellness (n=125)
- Improve Productivity (n=211)
- Instructions (n=204)
- Learn something new (n=281)
- TV & Sports (n=191)
- Navigation (n=205)
- Communicate (n=214)
- Improve Shopping (n=229)

Q: Desire for more AR use

- Wellness (n=192)
- Improve Productivity (n=261)
- Instructions (n=249)
- Learn something new (n=317)
- TV & Sports (n=233)
- Navigation (n=232)
- Communicate (n=264)
- Improve Shopping (n=292)

\(^1\) 300+ respondents; 98%female; 18-34 years old; 66% at least some college; 43% smartphone users

- Improve Shopping: 28% increase
- Improve Productivity: 53% increase
- Communicate: 23% increase
- TV & Sports: 21% increase
- Instructions: 22% increase
- Learn Something New: 13% increase
- Navigation: 13% increase
Consumers are becoming creators

Everyday consumers have more access to technology tools that enable them to be creators of digital content.

AR is a creative vehicle

76% believe AR allows them to be more creative.¹

77% believe they are AR creators in their everyday lives.²

Snapchatters are 1.2x as likely to be AR creators.³

Snapchatters

85%

Non-Snapchatters

70%

have used tools to create AR.

¹ 2021 Global Deloitte Digital Study commissioned by Snap Inc.
² Data provided by Deloitte
³ 2022 Deloitte Digital Study commissioned by Snap Inc.
“Consumers are now seeing [AR] as a bilateral conversation and as a production tool to create new content; now consumers can edit their environment and transport themselves where they want to be.”

Snehaal Dhruv
Founder & Lens Creator
SuperFan
Conclusion

Consumers continuously expect more personalized and engaging experiences that enable them to interact with the world. **AR is delivering that to consumers, today, but there remains untapped potential for so much more.**

Brands know the consumer appetite for AR is already here – consumers are far more likely to pay attention to brands using AR. **There is a content imperative for brands to meet consumers AR demand, and now is the time to meet this demand. Brands that meet the demand for AR experiences may be more likely to gain market share in the future.**

The convergence of use cases and the networking effects is expediting AR adoption. But to unlock AR’s potential, **brands, developers, and platforms need to work together to accelerate content development and grow the AR ecosystem.**
Thank you
Appendix
Consumers are redefining the digital experience by using AR.

Augmented Reality (AR) is the next form of mobile engagement that is exciting consumers, driving an enhanced engagement with brands, elevating consumer experiences and increasing brand revenues.

Augmented Reality refers to experiences in which the real-world environment seen through your phone, computer, app camera, or an AR headset is altered or enhanced with the addition of images, objects, text, or other digitally-added information. Augmented Reality could be applied to both visuals of the front facing (selfie) and outward facing (world) cameras.1
Research Overview
India Report, Quantitative Online Survey

- 20-minute online survey among 15,000 international respondents
- Survey in field from February 23, 2021 – April 5, 2021

Alignment with Interdisciplinary Experts

- Experts within the AR industry participated in in-depth interviews to provide context for survey findings and contribute guidance on the future of AR in society.

Respondent Qualification

- n=1000 per market
  - Ages 13-50
  - 500 Snapchatters who use Snapchat at least once daily, split evenly amongst age groups 13-17, 18-24, and 25-50
  - To ensure a representative read on Snapchatters, cell weighting based on nested gender and age were applied to each country to correct for demographic imbalances due to set sampling size.
  - 500 Non-Snapchatters, who do not have Snapchat downloaded/have never heard of Snapchat, minimum of N=100 in all three age groups
- Markets: Australia, Canada, France, Germany, India, Japan, Malaysia, Mexico, The Netherlands, Norway, Saudi Arabia, Sweden, United Arab Emirates, United States, United Kingdom

Local Market Additions and Exceptions

- US: Ethnicity quota (maximum 65% white respondents, maintained only for Snapchatters; Non-Snapchatters sample should be roughly nationally representative)
- KSA and UAE: Representative expat / citizen quotas (88% expat in UAE; 30% expat in KSA for both Snapchatters and Non-Snapchatters).
- Norway: Sample recruited for n=1000 to be representative of social media and communication app users in that market, with a skew on ages reflective of other markets (evenly distributed across 13-17, 18-24, and 25-50)
- Japan: Sample recruited for n=1000 to be representative of smartphone users in that market, with a skew on ages reflective of other markets (evenly distributed across 13-17, 18-24, and 25-50)
Frequent AR Users Methodology

2021 Baseline

Frequent AR Users

People who use AR weekly or daily based on responses to 2021 Global Deloitte Digital Study commissioned by Snap Inc.¹ and extrapolated to population

Population Base

2021 Global Population Base: People ages 13-69 = 5.61B worldwide in 2020²
2021 Social and Communications App Population Base: Global Population x Social Media Penetration Rate (48% in 2021)³ = 2.71B

Note: Assumes no increase or decrease in population. Base from 2021 stays same across five years

AR Adoption Rate

AR Adoption Rate of Total Population
AR Adoption Rate of Social and Comms App Population

Note: Adoption Rate capped at 100% in out years

2022-2025 Forecast

2000 Growth Rate of Smartphone Users

Note: 2021 AR Users is at 1999 smartphone user’s adoption level since AR is in the Toy-phase of adoption; if we look at where this transition took place with mobile phones, one can argue that this was when games like ‘snake’ started being available (e.g., 1997: Nokia 6110 device released, 1999: emojis were invented, 2000: Nokia 3310 launched, and the first commercially available camera phone launched in Japan)

¹: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = 18-44yrs (n=1,045)
³: Statista Global Social Network Penetration 2017-2025
AR Photos / Videos per Day Methodology

Overall: Calculations were done by age groups in the 2021 Global Deloitte Digital Study commissioned by Snap Inc. and netted up into a generational view. The following methodology was used for each age group (Ages: 13-17, Ages 18-24, Ages: 25-34, Ages: 35-44, Ages: 45-50)

**2021 and 2022 Baselines**

<table>
<thead>
<tr>
<th>Number of People</th>
<th>Number of Photos/Videos Taken Daily</th>
<th>% of Photos/Videos that are AR</th>
<th>Daily AR Photos and/or Videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Determine Global Population for ages 10-69 (5.99B)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note: Survey only included Ages 13-50. Ages 10-12 were assumed to have similar behavior to Ages 13-17. Ages 51-69 were assumed to have similar behavior to Ages 45-50. |
| Step 2: Determine percent of people within crosstab of survey questions for Frequency of photos/and or videos taken daily AND % of photos/and or videos that are AR |
| Step 3: Apply percent of population from Step 2 to population to get number of people within each crosstab |

**2023-2025 Forecast**

<table>
<thead>
<tr>
<th>2022 Baseline</th>
<th>2007 Growth Rate of Smartphone Device Sales</th>
<th>2023-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Device growth is used as a proxy for photos/videos growth. Growth rate assumes 2007 smartphone device growth. As of 2021, there are ~1.05B AR Compatible Devices: ARCore (Android) + ARKit (iOS). If this grows at global smartphone growth equivalent, there could be ~4.1B by 2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Name</td>
<td>Last Name</td>
<td>Country</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Glen</td>
<td>Gainor</td>
<td>United States</td>
</tr>
<tr>
<td>Raimon</td>
<td>Homs</td>
<td>Spain</td>
</tr>
<tr>
<td>Bryan</td>
<td>Rokoszak</td>
<td>United States</td>
</tr>
<tr>
<td>Alan</td>
<td>Smithson</td>
<td>Canada</td>
</tr>
<tr>
<td>Ed</td>
<td>Grieg</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Adrian</td>
<td>Mills</td>
<td>Australia</td>
</tr>
<tr>
<td>Bill</td>
<td>Briggs</td>
<td>United States</td>
</tr>
<tr>
<td>Yagna</td>
<td>Akuluri</td>
<td>India</td>
</tr>
<tr>
<td>Joanna</td>
<td>Popper</td>
<td>United States</td>
</tr>
<tr>
<td>Jason</td>
<td>Williamson</td>
<td>United States</td>
</tr>
<tr>
<td>Donald</td>
<td>Brady</td>
<td>United States</td>
</tr>
<tr>
<td>Shashi</td>
<td>Deethi</td>
<td>India</td>
</tr>
<tr>
<td>Ram</td>
<td>Chandel</td>
<td>United States</td>
</tr>
<tr>
<td>Lokesh</td>
<td>Ohri</td>
<td>United States</td>
</tr>
<tr>
<td>Steven</td>
<td>Bailey</td>
<td>United States</td>
</tr>
<tr>
<td>Jean-Emmanuel</td>
<td>Biondi</td>
<td>United States</td>
</tr>
<tr>
<td>Dea</td>
<td>Lawrence</td>
<td>United States</td>
</tr>
<tr>
<td>Shrenik</td>
<td>Sadalgi</td>
<td>United States</td>
</tr>
<tr>
<td>Mike</td>
<td>Boland</td>
<td>United States</td>
</tr>
<tr>
<td>Jason</td>
<td>Yim</td>
<td>United States</td>
</tr>
<tr>
<td>Paul</td>
<td>McDonagh-Smith</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Kaitlyn</td>
<td>Kuczer</td>
<td>United States</td>
</tr>
<tr>
<td>Max</td>
<td>Dawes</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Alex</td>
<td>Sanger</td>
<td>United States</td>
</tr>
<tr>
<td>Walter</td>
<td>Delph</td>
<td>United States</td>
</tr>
<tr>
<td>Snehaal</td>
<td>Dhruv</td>
<td>India</td>
</tr>
<tr>
<td>First Name</td>
<td>Last Name</td>
<td>Country</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Tony</td>
<td>Parisi</td>
<td>United States</td>
</tr>
<tr>
<td>Anwar</td>
<td>Noriega</td>
<td>Mexico</td>
</tr>
<tr>
<td>Ines</td>
<td>Alpha</td>
<td>France</td>
</tr>
<tr>
<td>Alice</td>
<td>Bezirard-Fischer</td>
<td>France</td>
</tr>
<tr>
<td>Kirsten</td>
<td>Soumas</td>
<td>United States</td>
</tr>
<tr>
<td>Shane</td>
<td>Horneij</td>
<td>United States</td>
</tr>
<tr>
<td>Qi</td>
<td>Pan</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Kimberlee</td>
<td>Archer</td>
<td>United States</td>
</tr>
<tr>
<td>Carolina</td>
<td>Arguelles</td>
<td>United States</td>
</tr>
<tr>
<td>Robert</td>
<td>Triefus</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Clara</td>
<td>Bacou</td>
<td>United States</td>
</tr>
<tr>
<td>Timoni</td>
<td>West</td>
<td>United States</td>
</tr>
<tr>
<td>Lara</td>
<td>Bean</td>
<td>United States</td>
</tr>
<tr>
<td>Peggy</td>
<td>Johnson</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Jon</td>
<td>Cheney</td>
<td>United States</td>
</tr>
<tr>
<td>James</td>
<td>Clarke</td>
<td>United States</td>
</tr>
<tr>
<td>Andrew</td>
<td>McPhee</td>
<td>United States</td>
</tr>
<tr>
<td>Eitan</td>
<td>Pilipski</td>
<td>United States</td>
</tr>
<tr>
<td>Allan</td>
<td>Cook</td>
<td>United States</td>
</tr>
</tbody>
</table>
About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the “Deloitte” name in the United States and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.