

The following report is a deep dive into how Snapchatters are using AR in Canada based on the Snap Consumer AR Global Report. For a more comprehensive market view, please read the <u>Snap Consumer AR Global Report</u>.



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

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AR is a critical tool for brands to stand out and deliver customer value and confidence.

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

### 04 **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.

### 05 **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

See additional methodology details in appendix
2021 Global Deloitte Digital Study commissioned by Snap Inc.
Base = Aggregate average (n=764)
Q: AR Recognition for 9 examples
Base = Snapchatters (n=350)
Q: Why do you use AR?
Base = Aggregate (n=793)
Q: Augmented Reality is useful / Augmented Reality is not useful | A: Agree much more with A, Agree somewhat more with A
Harvard Business Review Article, "How AR is Redefining Retail in the Pandemic"



AR adoption is tracking with the mobile usage boom - by 2025, ~75% of Canada's population and almost all people who use social / communication apps will be frequent AR users.<sup>1</sup>



**72% of people successfully identify AR when they see it<sup>2</sup>,** but when talking about it, they have a hard time defining or describing what it is.



**69% of Snapchatters in Canada and across generations use AR to have fun;** the majority are discovering AR through social / communications apps.<sup>3</sup>



AR is generally seen as a "toy", but **75% of people expect and** desire to use it as a practical "tool" in their everyday lives.<sup>4</sup>



Interacting with products that have AR experiences leads to a **94% higher conversion rate.**<sup>5</sup>



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.



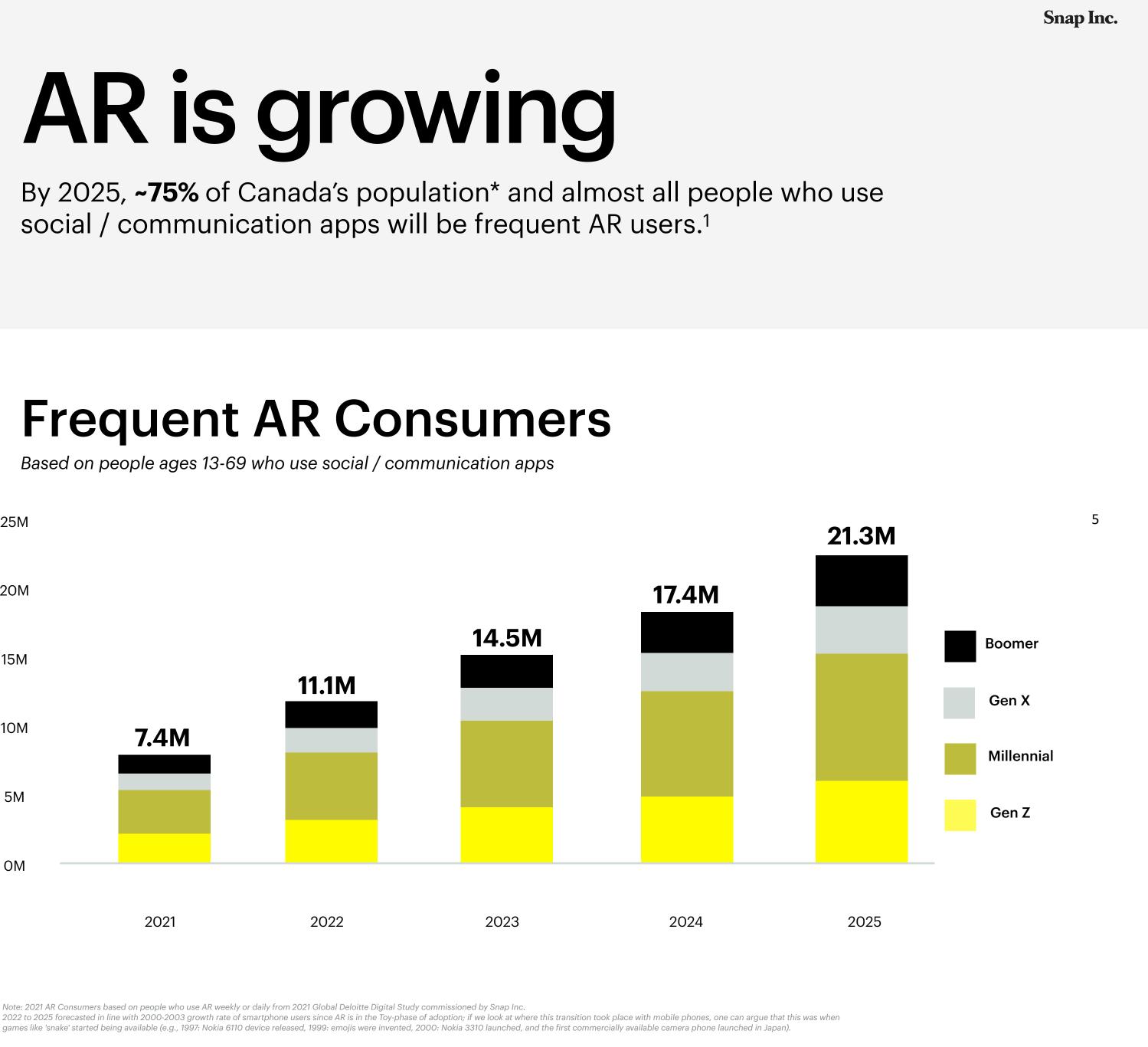
By 2025, ~75% of Canada's population\* and almost all people who use social / communication apps will be frequent AR users.<sup>1</sup>

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



## **AR is growing**

## **Frequent AR Consumers**



Note: 2021 AR Consumers based on people who use AR weekly or daily from 2021 Global Deloitte Digital Study commissioned by Snap Inc.

## Younger generations and Snapchatters are driving **AR growth**

1: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Age 13-17 (n=95), Age 18+ (n=195) Q: How familiar are you with AR? | A: I use AR all the time 2: Base = Age 13-17 (n=162), Age 35-44 (n=125) Q: AR is important to me / AR is not important to me | 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 Digital Study commissioned by Snap Inc. Base = Snapchatters (n=165), Non-Snapchatters (n=125) Q: How familiar are you with AR? | A: I use AR all the time 5: Base = Snapchatters (n=283)

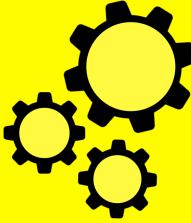
and they are **24% more** likely to believe AR is important in their lives.<sup>2</sup>

Q: AR is important to me / AR is not important to me | A: Agree much more with A, Agree somewhat more with A

## **Age Differences**

## **Snapchatters**

Younger people are ~70% more likely to use AR,<sup>1</sup>

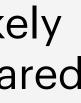


But, AR is not just for Gen Z; **Millennials and Gen X show** the highest affinity for AR.<sup>3</sup>



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

**56%** of Snapchatters believe AR is important to their lives.<sup>5</sup>



**Snap Inc.** 

# As AR evolves, it will revolutionize our lives and will become as with the world around us."



Allan Cook Digital Reality Business Leader Deloitte Digital

significant of a technology shift as the web or mobile was to society, changing how we view and interact



## AR's Impact on Brands



## A lot of people are using AR to make purchase decisions... and plan to keep doing so

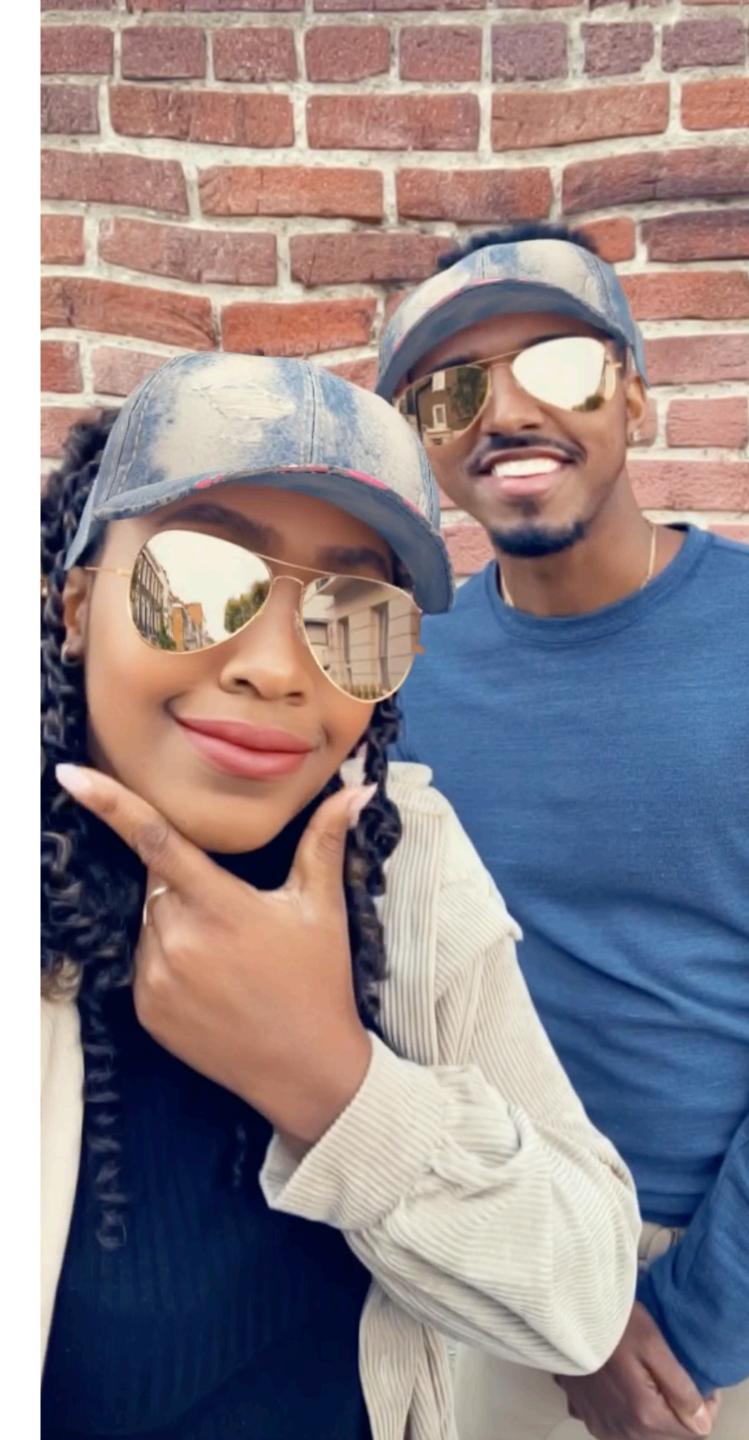
There are

1000 million consumers

shopping with AR online and in-stores.<sup>1</sup>

of Snapchatters agree they'll use AR the same or more when shopping next year.<sup>2</sup>





## 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.<sup>1</sup>

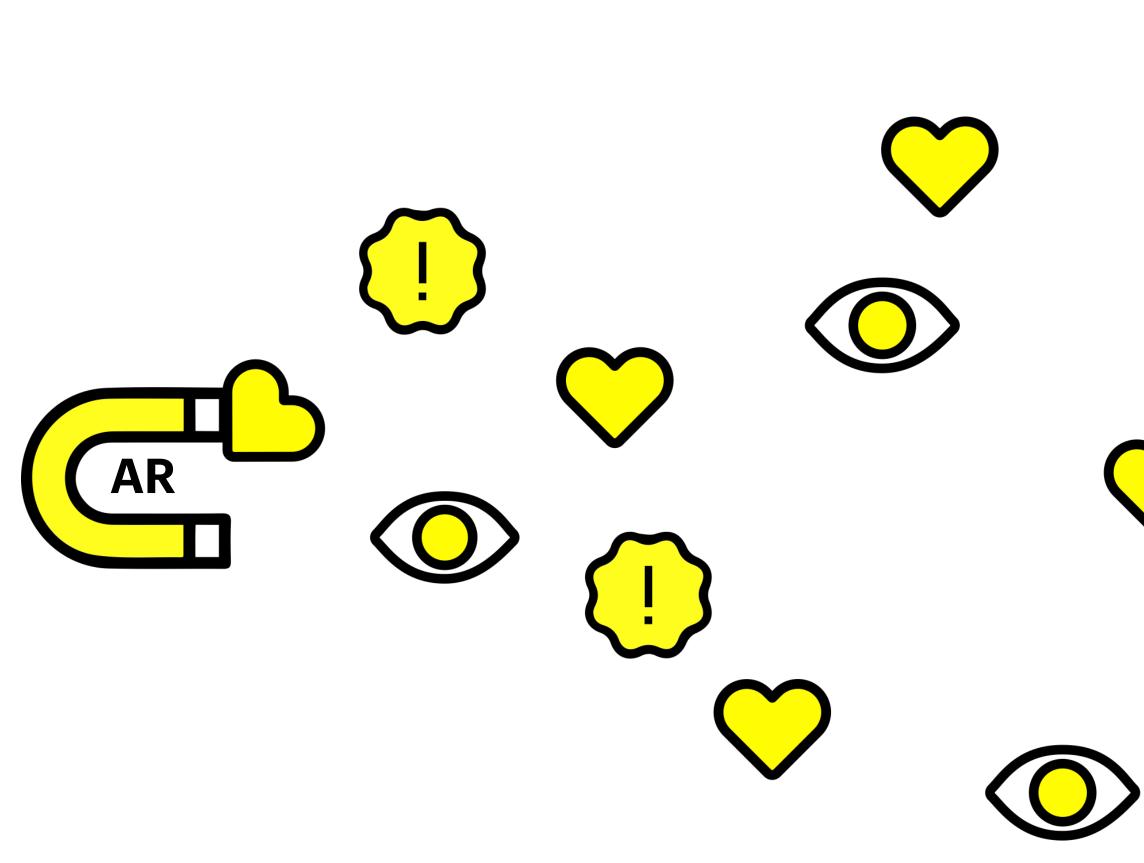


Snapchatters who have interacted with a brand's AR experience are **39% more likely to pay attention to the brand.**<sup>2</sup>

1: Zappar <u>Article</u>, "How augmented reality affects the brain"

2: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=198)

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

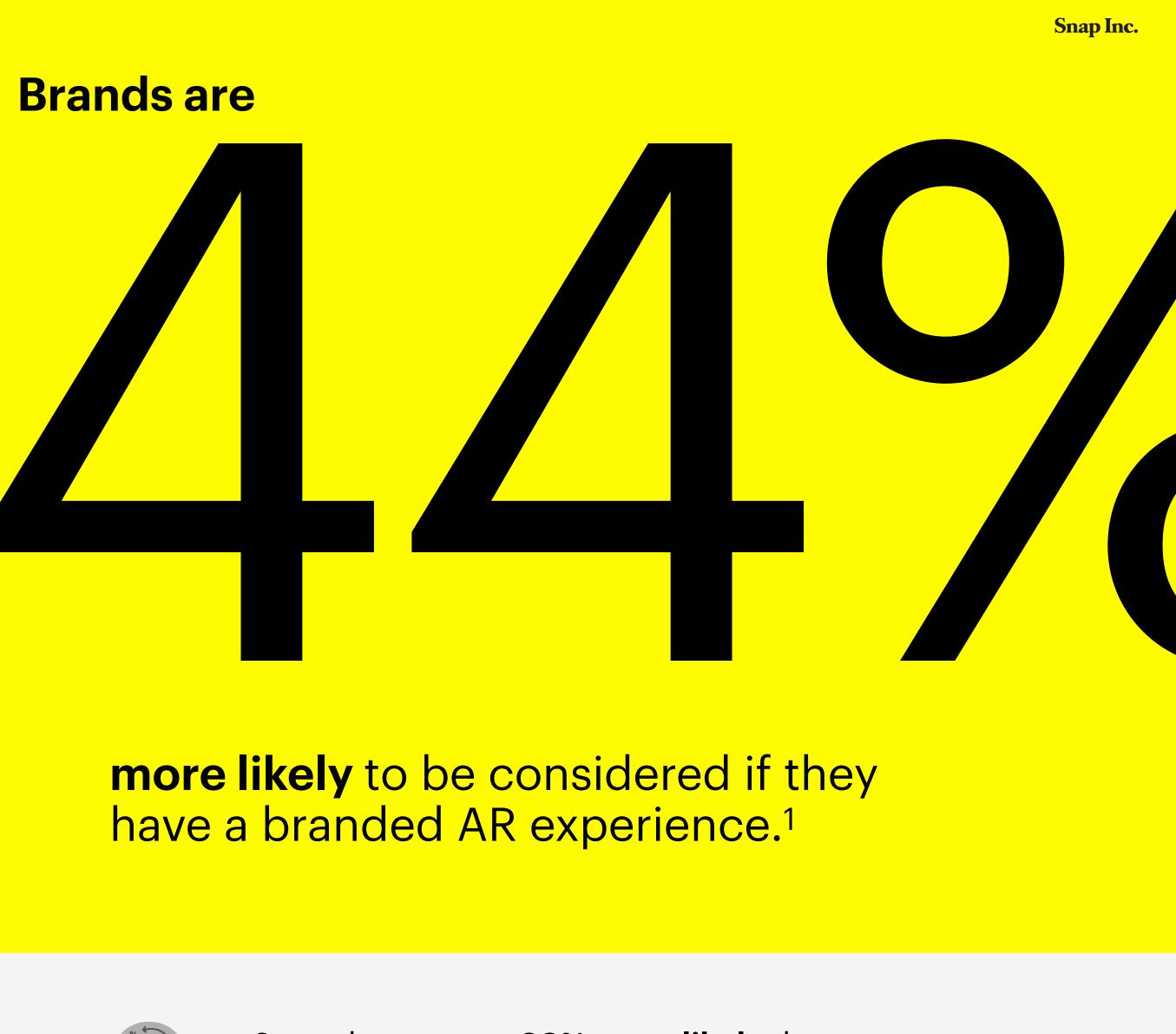
1: 2021 Global Deloitte Digital Study commissioned by Snap Inc.

Base = People who use AR all the time (n=128)

Q: How familiar are you with AR? | A: I use AR all the time | 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? | A: I am more likely to pay more attention to the brand, I am more likely to share a brand's AR experience with friends and family, I am more likely to consider their products

2: Base = Snapchatters (n=159), Non-Snapchatters (n=126)

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? | A: I am more likely to share a brand's AR experience with friends and family





Snapchatters are **38% more likely** than Non-Snapchatters to share a brand's AR experience with friends and family.<sup>2</sup>

## **AR builds** consumer confidence



of Snapchatter shoppers agree that AR gives them more confidence about product quality.<sup>1</sup>



1: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=283) Q: How does AR impact your browsing and/or shopping experience?

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?"

## 56%

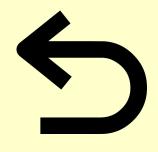
## **Over half**

of people want to use AR technology to assess products, allowing for a risk free, "try-before you buy", experience.<sup>2</sup>

## **Nearly 3 in 4 consumers**

say they're willing to pay more for a product that promises the total transparency that AR can provide.<sup>3</sup>

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







# The results are in the second secon





## **AR interactions** drive conversion

The conversion rates that we've seen have surprised us, as a result we're doubling-down on AR experiences to drive eCommerce."



Robert Triefus EVP of Brand & Customer Engagement Gucc

1: Harvard Business Review <u>Article</u>, "How AR is Redefining Retail in the Pandemic"

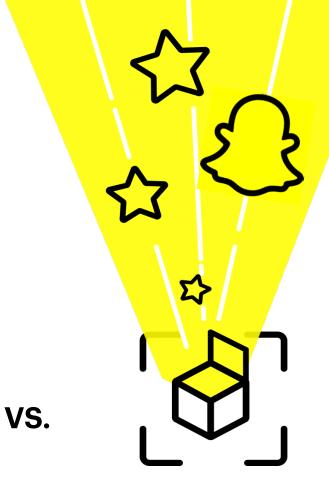
2: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=134), Non-Snapchatters (n=108)

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? | A: I am more likely to purchase their products through the brand's website

#### Interacting with products that have AR experiences leads to a



higher conversion rate, as individuals can better assess them and feel connected with brands.<sup>1</sup>



#### Snapchatters are 35% more likely

to purchase products through the app where they saw the brand's AR experience than Non-Snapchatters.<sup>2</sup>





## AR connections drive revenue

Consumers who view AR as a social activity are **~20% more likely** to purchase products from the brand.<sup>1</sup>

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

Base = AR is a group activity – Agree much more / somewhat more with (n=149), Aggregate (n=242)

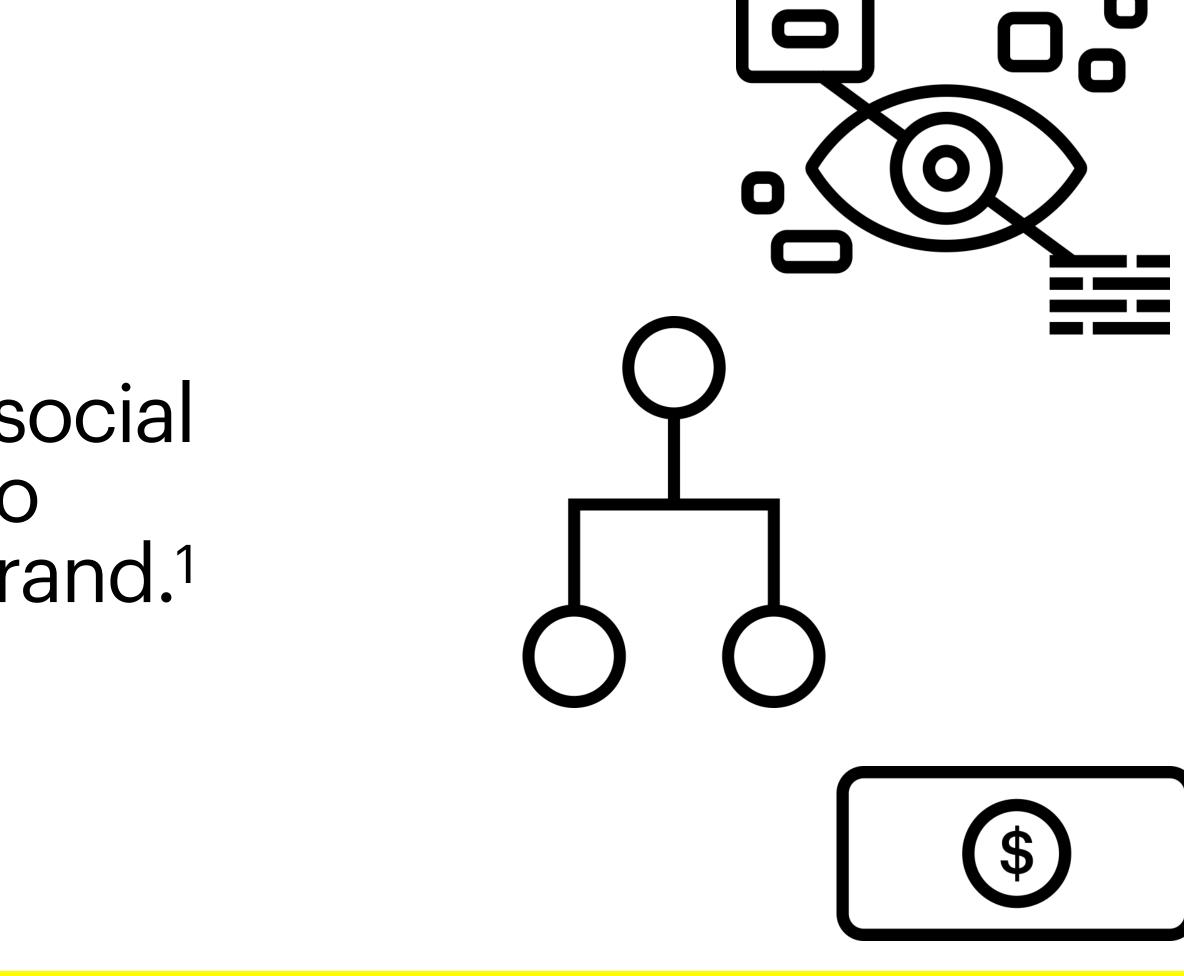
Q: AR is a group activity / AR is a solo activity | A: Agree much more / somewhat more with A | Q: Sometimes brands will create AR experiences through an app camera (e.g., a big movie company makes an AR experience where the heroes of a movie are fighting next to you, or a restaurant provides you a lens/filter/effect that turns you into a hamburger). What impact, if any, does interacting with that AR experience have on your perception of that brand? | A: I am more likely to purchase their products through the brand's app where I saw the brand's AR experience 2: Base = Snapchatters (n=188), Non-Snapchatters (n=114)

Q: Why do you use AR?

3: Base = Snapchatters (n=175), Non-Snapchatters (n=67)

Q: How often do you capture or share photos and videos with your friends and/or family? | A: Several times each day





- Snapchatters are 80% more likely than Non-Snapchatters to use AR to connect with others.<sup>2</sup>
- Snapchatters share AR photos and videos with friends and/or family 185% more than Non-Snapchatters.<sup>3</sup>







## AR is Evolving Fast





## **Over 20** Million AR photos and / or videos are taken daily by consumers AR use will grow with an

increase in awareness and access to AR experiences and content.

80M

70M

60M

50M

40M

30M

20M

10M

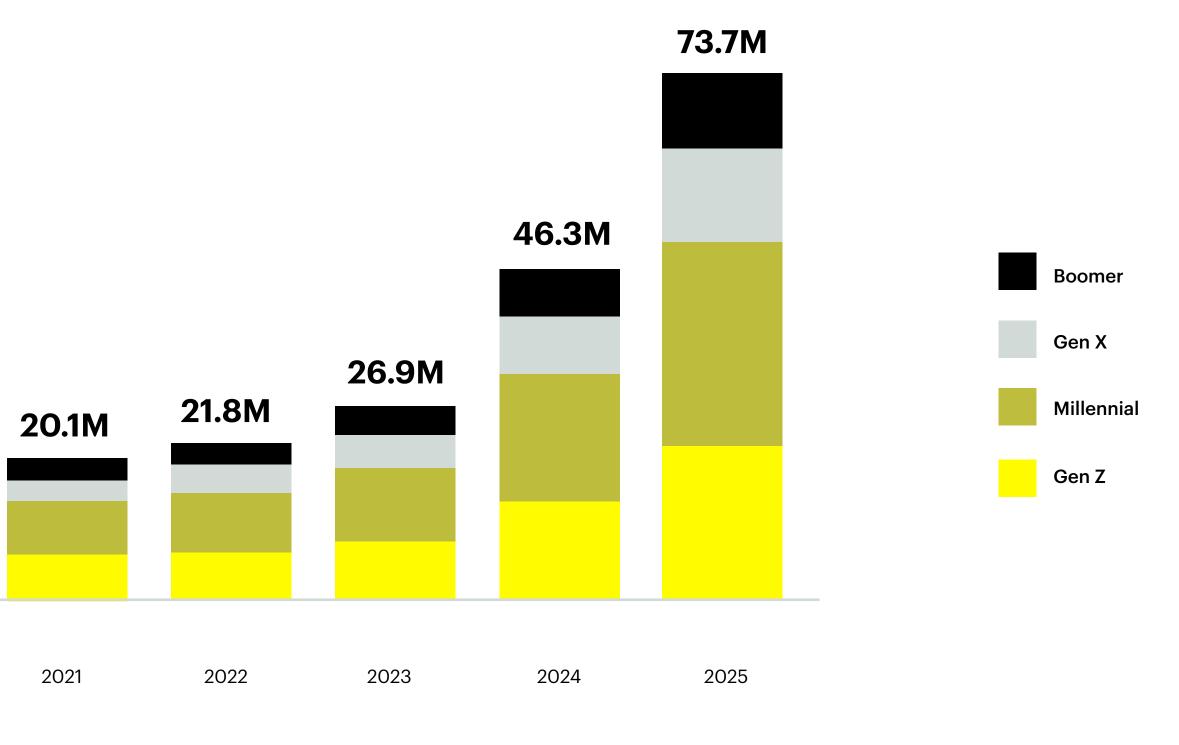
ΟM



On Snapchat, there are **500** million minutes of AR playtime per day on average.<sup>2</sup>

## **AR Photos / Videos Per Day<sup>1</sup>**

Generational Breakout of Daily AR Photos / Videos Created



#### 2021-2025 CAGR of AR Photos / Videos per Day.<sup>1</sup>

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







## AR is Here Today and Here to Stay



## Where do Snapchatters use AR most today?



What are Snapchatters using AR for at home?<sup>2</sup>

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

Base = Snapchatters (n=345)

Q: Where do you typically use AR? Please rank the locations from where you use AR the most to the least. | A: At Home Rank 1st 2: Base = Snapchatters at home - Communication (n=310), M&E (n= 195), Gaming (n=208), Shopping (n=141) Q: Where do you typically use AR? Please rank the locations from where you use AR the most to the least. | A: At Home Rank 1st |

Q: How often do you use AR for any of the following reasons? | A: Several times each day, Once a day, Several times a week, Once a week. A few times a month. Once a month 3: Base = Snapchatters (n=250)

Q: How will your total AR usage compare to last year? - At home | A: I will use AR more than last year

## **71%** of Snapchatters use AR primarily in their homes.<sup>1</sup>

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

90% Communication

57% **Media & Entertainment** 

60%



Today's use cases most align with activities you would do at home, and 50% of Snapchatters say they will use AR at home more than last year.<sup>3</sup>





## How are Snapchatters learning about AR?

learn about AR from social / communication channels and networking.<sup>1</sup>

Snapchatters who use AR frequently are more likely to have **over 50%** of their friends and family using AR.<sup>2</sup>

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

Base = Snapchatters (n=430)

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 a 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=59), Snapchatters who have used AR before (n=74)

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=62), Non-Snapchatters (n=51)

Q: Where did you first discover AR content?





Snapchatters are **34% more likely** to discover AR through an advertisement than Non-Snapchatters.<sup>3</sup>

# Why dothey use AR?

**TECH:** 

TOY:

TOOL:

## **OSMOSIS**

"I didn't even realize I was using it"



#### "I want to have fun and connect with friends"

UTILITY

"I need to and it's useful"

## TOTALITY: UBIQUITY

"It's everywhere and commonplace"



## What are Snapchatters using AR for, today?

#### Communication

79% frequently use<sup>1</sup>



57% to be more creative<sup>5</sup>

Media 50% frequently use<sup>2</sup>



~50% to make what they are watching more enjoyable<sup>6</sup>

2: Base = Snapchatters (n=253)

Q: Frequency of Use by Reason: Gaming | A: Several times each day, Once a day, Several times a week, Once a week 4: 2021 Global Deloitte Digital Study commissioned by Snap Inc.

Base = Snapchatters (n=181) Q: Frequency of Use by Reason: Shopping | A: Several times each day, Once a day, Several times a week, Once a week 5: Base = Snapchatters (n=148)

Q: How does AR impact your communication experience?

6: Base = Snapchatters (n=115) Q: How does AR impact your entertainment experience?

Q: How does AR impact your gaming experience?

Snapchatters frequently use AR for communication (+92%) and gaming (+60%) more than Non-Snapchatters.<sup>9</sup>

### Gaming 50% frequently use<sup>3</sup>



50% to make gameplay more interactive<sup>7</sup>

Shopping 36% frequently use<sup>4</sup>



**38% to try** products out<sup>8</sup>

Q: How often do you use AR when connecting with friends and/or family? A: Somewhat/Very Frequently | Q: How often do you use each type of AR when



<sup>1:</sup> Base = Snapchatters (n=400)

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

Q: Frequency of Use by Reason: Media | A: Several times each day, Once a day, Several times a week, Once a week 3: Base = Snapchatters (n=254)

<sup>7:</sup> Base = Snapchatters (n=126)

<sup>8:</sup> Base = Snapchatters (n=90)

Q: How does AR Impact your browsing and/or shopping experience? (n=89)

gaming? - Social media, communication, and camera apps that have AR games | A: Somewhat/Very Frequently

What are Snapchatter shoppers using AR for, today?<sup>1</sup>

> 1: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters – Retail (n=135), Beauty and wellness (n=124), Household goods (n=106), Telecommunications (n=140), Restaurants / food delivery (n=103), Entertainment (n=129), Home décor (n=130), Automotive (n=121), Travel (n=103) Q: AR Shopping Categories | A: Total Used AR



 $\int \nabla r$ 

72% Entertainment

**71%** Beauty and Wellness



64% **Automotive** 

63% **Restaurant & Food Delivery** 

> 63% Travel

**69%** Home Décor

**Telecommunications** 

60% Household goods



## What are Snapchatter shoppers using AR for, today?<sup>1</sup>

1: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=67) Q: How have you found AR while browsing and/or shopping? 2: Base = Snapchatters (n=148) Q: If you come across AR while browsing and/or shopping, how likely are you to try it? | A: Somewhat/Very Likely 3: Base = Snapchatters (n=93) Q: How does AR Impact your browsing and/or shopping experience? AR is a natural extension of the shopping experience, aiding in decision making

> **38%** help shoppers decide what to buy<sup>3</sup>

**76%** of shoppers

when they come

across it<sup>2</sup>

are likely to use AR

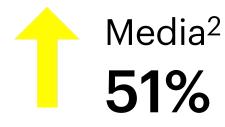
**41%** discovered it as part of browsing or - shopping<sup>1</sup>





## 3 in 4 Snapchatters believe that AR will be even more important in their lives in the next 5 years.<sup>1</sup>

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





**34%** want to create their own interactive media plots by guiding characters through a script.<sup>6</sup>

**51%** want to readily view information about an item or product as soon as it's scanned with the phone camera.<sup>6</sup>

4: Base = Snapchatters (n=106) Q: Will you use AR in gaming more or less than last year?

5: Base = Snapchatters (n=74)





42% want to project their AR avatar into their favorite games, media & entertainment.<sup>6</sup>

**42%** want to customize environments to their own imagination and share with others.<sup>6</sup>



<sup>1: 2021</sup> Global Deloitte Digital Study commissioned by Snap Inc. Base = Snapchatters (n=397)

Q: How useful and/or important do you think AR will be in 5 years? A: Very useful / important, Somewhat useful / important

<sup>2:</sup> Base = Snapchatters (n=120)

Q: How would you like to use AR in the next year to enhance

the way you view sports, concerts, movies, and TV?

<sup>3:</sup> Base = Snapchatters (n=112)

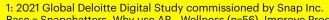
Q: Will you use AR while browsing and/or shopping more or less than last year?

Q: How do you feel about AR on social media, communication, and camera apps? | A: I want more ways to interact with friends and family using AR 6: Base = Readily view information about item or product (n=201), Project through AR avatar (n=166), Customize environments (n=167), Create TV/Movie/Video plot narratives (n=136)

Q: Below is a list of ways you could use AR in the future. Please select all the ways that you would be interested in using AR.

Utility is a primary driver for Snapchatters' future AR usage<sup>1</sup>

Learn Something New **147%** 



Base = Snapchatters, Why use AR - Wellness (n=56), Improve Productivity (n=81), Instructions (n=106), Learn something new (n=131), TV & Sports (n=84), Navigation (n=128), Communicate (n=168), Improve Shopping (n=137) | Snapchatters, Desire for more AR use - Wellness (n=131), Improve Productivity (n=144), Instructions (n=162), Learn something new (n=193), TV & Sports (n=152), Navigation (n=162), Communicate (n=172), Improve Shopping (n=187) Q: Why use AR Q: Desire for more AR use



## Wellness 136%

## Improve Productivity **†77%**

TV & Sports **82%** 

Navigation 27%

Improve Shopping 36% Instructions 52%





## 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



believe AR allows them to be more creative.<sup>1</sup> 54%

believe they are AR creators in their everyday lives.<sup>2</sup>

1: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Aggregate (n=715) Q: How much do you agree or disagree with each of the statements below? AR allows me to be more creative | A: Agree/strongly agree

2 and 3: Base = Aggregate (n=567), Snapchatters (n=320), Non-Snapchatters (n=247)

Q: Have you ever used tools (e.g. Snapchat Lens Studio, Facebook for Developers/Spark AR, Instagram for Developers, TikTok for Developers) to create your own AR filters/lenses/effects? | A: Yes

Snapchatters are **1.4x** as likely to be AR creators.<sup>3</sup>

### **Snapchatters**

## vs. 4506

**Non-Snapchatters** 

have used tools to create AR.



## Conclusion

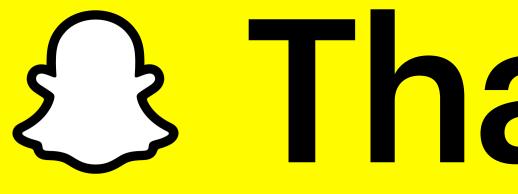
Consumers continuously expect more personalized and engaging experiences that enable them to interact with the world. AR is delivering that to consumers, today, but there remains untapped potential for so much more.

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.







## **S** 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.<sup>1</sup>



## Report Methodology

### **Research Overview** Canada 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 ٠ interviews to provide context for survey findings and contribute guidance on the future of AR in society.

n=1000 per market

## **Local Market Additions and Exceptions**

- ٠

## **Respondent Qualification**

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

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)



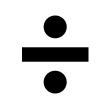


## Frequent AR Users Methodology

### 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.<sup>1</sup> and extrapolated to population



#### **Population Base**

2021 Global Population Base: People ages 13-69 = 5.61B worldwide in 2020<sup>2</sup> 2021 Social and Communications App Population Base: Global Population x Social Media Penetration Rate (48% in 2021)<sup>3</sup> = 2.71B

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

#### **2022-2025 Forecast**



2021 Baseline

See above



#### 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 = Aggregate (n=1,055)

Q: How often do you use AR for any of the following reasons? Communication

Note: Boomers assumed similar behavior to Gen X since Boomers were not part of survey group 2: United Nations Population Division Department of Economic and Social Affairs, World Population Prospects 2019, World Population 2020

3: Statista Global Social Network Penetration 2017-2025

#### **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





## **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

#### Number of People

Step 1: Determine Global Population for ages 10-69 (5.99B)<sup>1</sup>

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<sup>2</sup>. 2021 based on responses to behaviors today. 2022 based on responses to behaviors next year.

Step 3: Apply percent of population from Step 2 to population to get number of people within each crosstab



#### Number of Photos/Videos Taken Daily

Step 1: Identify scenarios for number of photos and or videos taken daily

Note: Since the survey had ranges (few than 5, 5-10, 10 more), to determine the number of photos, we develope low, mid, high case.

Low: assumes lowest quantity in each range (1,5,10) Mid: assumes average of low and high case (2.5, 7, 12) High: assumes highest quantity in each range (5, 10, 14 14 was used as a cap for high case to keep daily photos reasonable amount for an average user

Step 2: Select case to apply to analysis

Note: High case was chosen based on input from Snap

#### 2023-2025 Forecast

2023-2025

2022 Baseline X 2007 Growth Rate of Smartphone Device Sales

1: United Nations Population Division Department of Economic and Social Affairs, World Population Prospects 2019, World Population 2020 2: 2021 Global Deloitte Digital Study commissioned by Snap Inc. Base = Aggregate (n=1,055)

3: AR Insider Article, "ARCore Reaches 400 Million Devices"



#### % of Photos/Videos that are AR

Step 1: Identify scenarios for percent of photos and or videos taken that are AR

or oed a	Note: Since the survey had ranges (less than 20%, 20-40%, 40-60%, 60-80%, Over 80%), to determine number of photos taken daily that were AR, we developed a low, mid, high case. Low: assumes lowest quantity in each range (0%, 20%, 20%, 60%, 80%)			
!) s at a	Mid: assumes average of low and high case (10%, 30%, 50%, 70%, 90%) High: assumes highest quantity in each range (20%, 40%, 60%, 80%, 100%)			
Inc.	Step 2: Select case to apply to analysis Note: High case was chosen based on input from Snap Inc.			
	Step 3: Apply adjustment factor to correct for people who are using AR but may not realize it			
	Note: Based on 2021 Global Deloitte Digital Study commissioned by Snap Inc., it was discovered that ~13% of respondents who use			

AR could not successfully identify AR >50% of the time.<sup>2</sup>

#### Daily AR Photos and/or Videos

Step 1: Take annual AR photos and or videos and divide by 365 to get daily AR photos and or videos by age group

Step 2: Add all age groups to get total daily AR photos and or videos

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)<sup>3</sup> + ARKit (iOS)<sup>4</sup>. If this grows at global smartphone growth equivalent, there could be ~4.1B by 2025







## Expert Interviews

#### **First Name**

Glen

Raimon

Bryan

Alan

Adrian

Yagna

Joanna

Jason

Donald

Shashi

Lokesh

Steven

Shrenik

Dea

Mike

Jason

Kaitlyn

Paul

Max

Alex

Walter

Snehaal

Ram

Ed

Bill

Last Name

Gainor Homs Rokoszak Smithson Grieg Mills Briggs Akuluri Popper Williamson Brady Deethi Chandel Ohri Bailey Jean-Emmanuel Biondi Lawrence Sadalgi Boland Yim McDonagh-Smith Kuczer Dawes Sanger Delph Dhruv

#### Country

**United States** Spain **United States** Canada United Kingdom Australia United States India United States United States **United States** India United States United States **United States** United States **United States United States United States United States** United Kingdom United States United Kingdom **United States** United States India

#### Company

Deloitte

MetaVRse

Deloitte

Deloitte

Deloitte

Deloitte

Deloitte

Deloitte

Deloitte

Deloitte

Deloitte

Variety

Wayfair

ARtillery

MIT

Zappar

**Trigger Global** 

**Deloitte Digital** 

Magic Leap

SuperFan

**Universal Pictures** 

ΗP

Amazon Studios

**Deloitte Digital** 

Deloitte Digital

**Deloitte Digital** 

Date

2/13/2021 2/16/2021 2/16/2021 2/16/2021 2/17/2021 2/17/2021 2/18/2021 2/22/2021 2/22/2021 2/22/2021 2/23/2021 2/23/2021 2/23/2021 2/23/2021 2/23/2021 2/23/2021 2/23/2021 2/24/2021 2/24/2021 2/25/2021 2/26/2021 2/26/2021 2/26/2021 2/26/2021 3/1/2021 3/1/2021





## Expert Interviews

First Name	Last Name	Country	Company	Date
Tony	Parisi	United States	Unity	3/3/2021
Anwar	Noriega	Mexico	CEO / Cofounder at Wabisabi Design	3/4/2021
Ines	Alpha	France	3D Makeup Artist	3/5/2021
Alice	Bezirard-Fischer	United Arab Emirates	Wella Company	Write-in
Kirsten	Soumas	United States	Verizon	3/8/2021
Shane	Horneij	United Kingdom	Performance Marketing King	3/9/2021
Qi	Pan	United Kingdom	Snap	3/9/2021
Kimberlee	Archer	United States	Snap	3/9/2021
Carolina	Arguelles	United States	Snap	3/9/2021
Robert	Triefus	Switzerland	Gucci	3/12/2021
Clara	Bacou	United Kingdom	Lens Creator	3/11/2021
Timoni	West	United States	Unity	3/16/2021
Lara	Bean	United Kingdom	adidas	3/16/2021
Peggy	Johnson	United States	Magic Leap	3/19/2021
Jon	Cheney	United States	Seek XR	3/17/2021
James	Clarke	United States	Frito-Lay North America	Write-in
Andrew	McPhee	United States	Snap	3/17/2021
Eitan	Pilipski	United States	Snap	3/17/2021
Allan	Cook	United States	Deloitte Digital	3/18/2021





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