# Team Long Snap

Company Overview

"Our moat is a function of delivering our core value: Snapchat is the fastest way to communicate"

- Snap is a camera company with its main business being a mobile app: Snapchat

- Users can send photos or videos to each other directly to friends or post important moments publicly on a story where it appears for 24 hours.

- Users can add filters or special effects to each photo or video.

- Discover is a portion of the app where users can see the posts of celebrities or professional content such as from Buzzfeed or NBC.

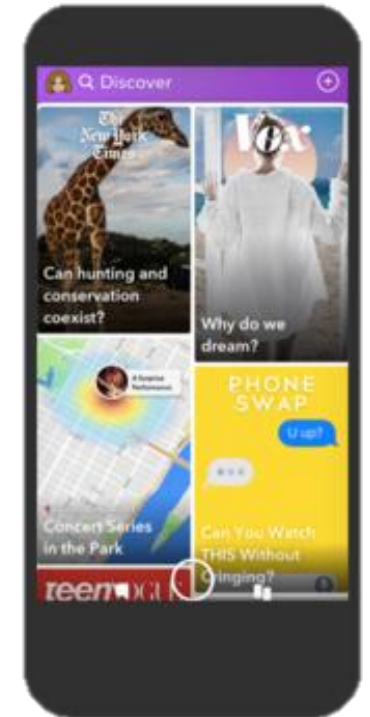- There are short ads between photos that users can interact with.

Friends Page
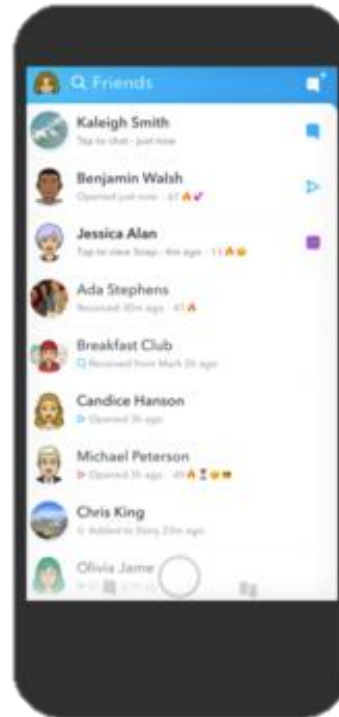
Camera Page
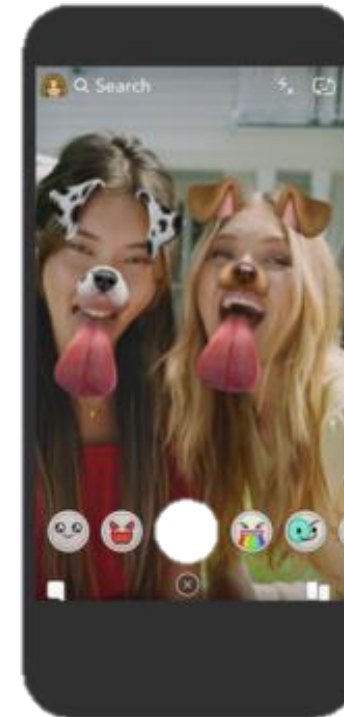
Discover Page

Why We Like The Business

Strong Value Proposition

- Snapchat has moved on from the app used to just send selfies.
- It has turned into the app for communication, it lets users message each other directly and quickly.
- A point we will touch on later is that Snapchat focuses more on this person to person messaging rather social media.
- It has a strong grip on the younger generation.
- New and innovate technology to engage users in the app.
- With this strong grip they have many promising ways of monetizing the app.
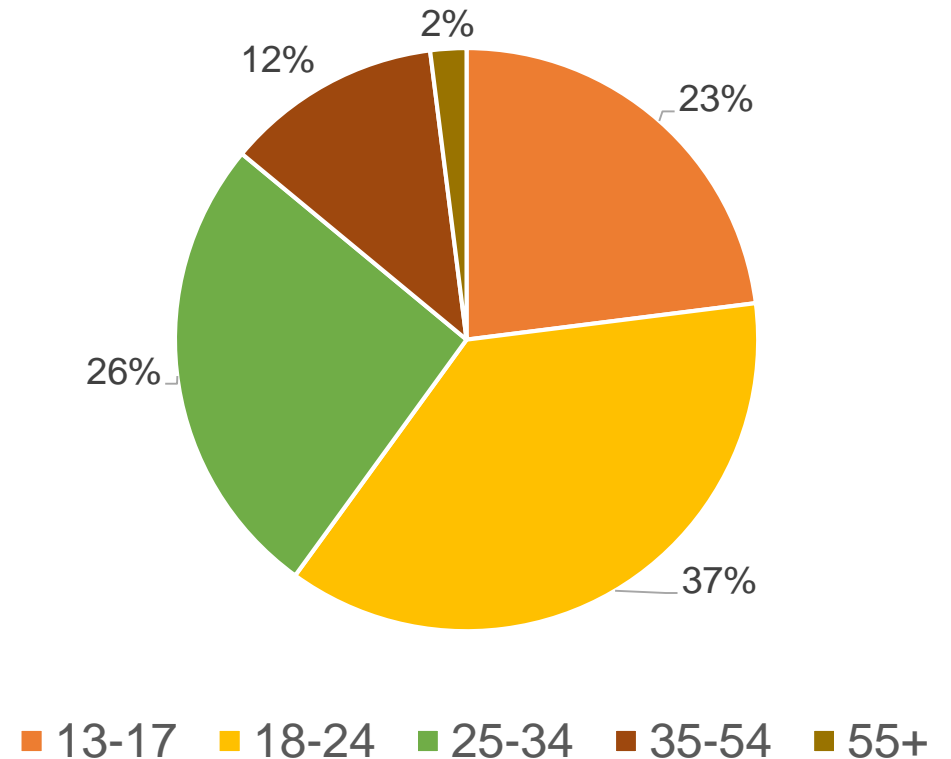- One critical way has been the delivery the content.
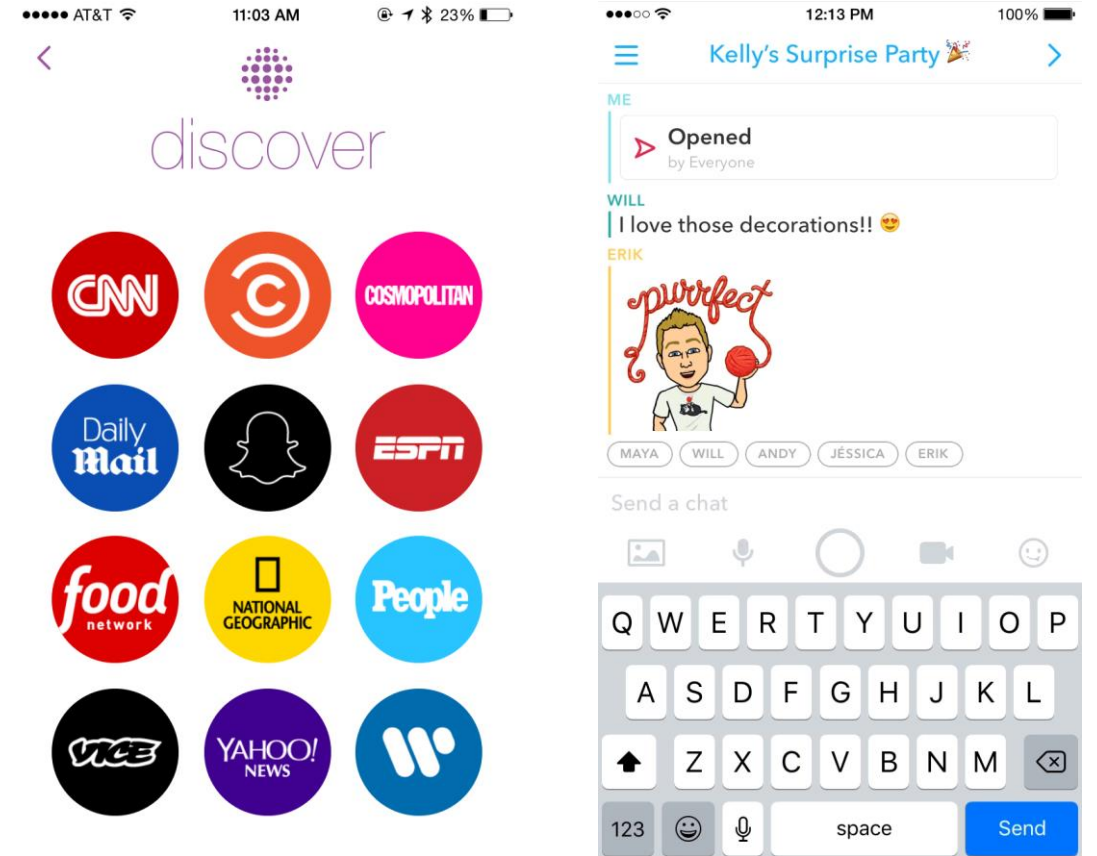
Why We Like The Business

Strong Demographic Profile

Snapchat User Demographics

- The app currently has 191 million users.
- 60% of Snapchat's customer base is between the age of 13-24.
- It is estimated they have almost 90% of that demographic within the United States.
- That demographic is key because it is the most in demand from advertisers.
- Increased monetization in this area will help the company increase its ARPU.
- Most of their customers are in North America, leaving room for international expansion.
- Average user goes onto the app more than 20 times a day and spends more than 30 minutes.
- 60% of users generate content on the platform.

User Age Breakdown

Pie chart showing User Age Breakdown: 23% (13-17), 37% (18-24), 26% (25-34), 12% (35-54), 2% (55+)

Legend: ■ 13-17 ■ 18-24 ■ 25-34 ■ 35-54 ■ 55+

Why We Like The Business

Current Model of Advertising

Snapchat Methods of Advertising	Sample Filter Ads

- Snapchat has different types of ads throughout its platform, and these ads tend to be more interactive.
- Through the camera, Snapchat sells filters to companies to promote special events as in example with a movie release or the super bowl.
- These filters can cost up to a million dollars per day.
- When clicking through stories, users encounter short video ads they can interact with.
- For the Discover page, companies pay Snapchat to be on it and split the ad revenue with Snapchat when users click on an advertisement.
- The company has recently introduced analytics for ads which has helped monetization.

Why We Like The Business

Instagram vs. Snapchat

Snapchat Advantages in Model	Snapchat Feed vs. Instagram Feed

- Snapchat is a closed system as users share content with each other privately.
- Differentiated from Instagram as Snapchat is not a traditional social media platform, it's a peer to peer communication platform.
- For Facebook as well as Instagram, the companies have faced trouble in user engagement as people are tired of the polished posts and the infusion of politics.
- Snapchat is a contrast as users give a day to day look into their lives and news content is separated from posts from friends.
- Almost half of Snapchat's users don't use Instagram.
- 63% of 12-24 year olds prefer Snapchat over Instagram.

Investment Thesis

Investment Thesis

Upside driven by increase Monetization and call options on technological innovation

I. Monetization Rates Increase

II. Alternative Platform Engagement

III. Core Demographic Loyalty Expansion

IV. Content Creation and Increased Engagement

V. Monetization of A/R Platform

Monetization Rates Increase

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Thesis 1: Top-Line Growth Driven by Monetization

Snapchat is unable to monetize at the rate that Facebook and Twitter at a similar point
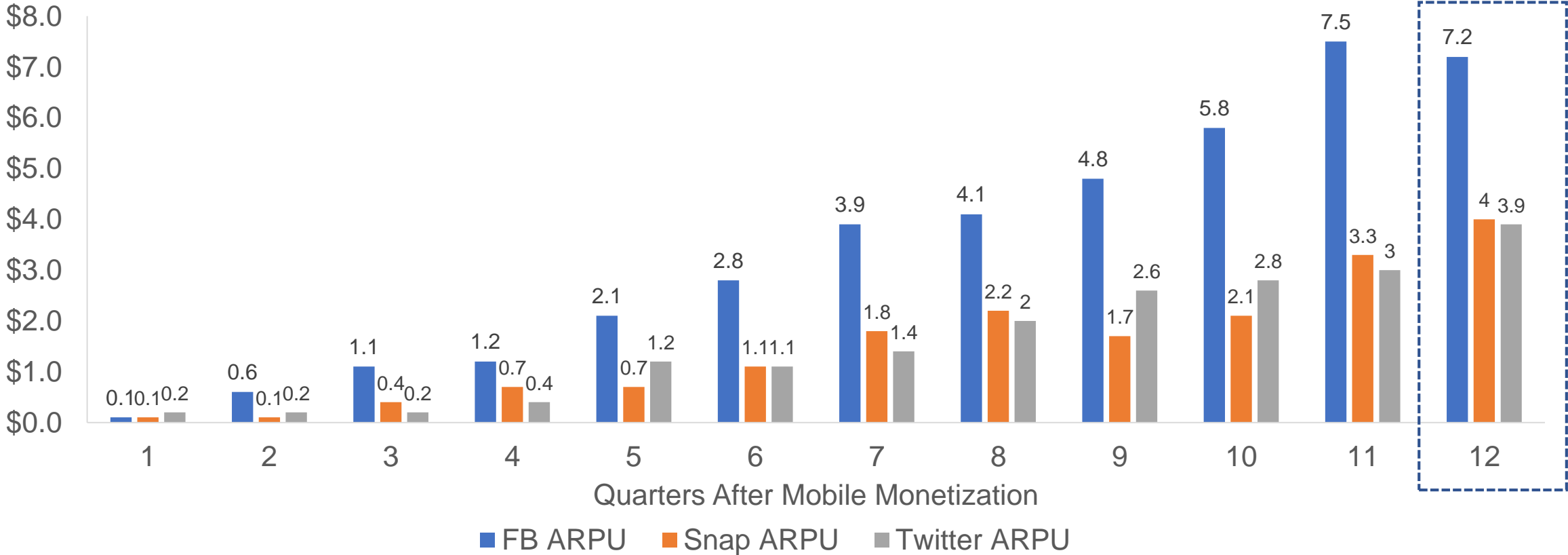
Quarters After Mobile Monetization

■ FB ARPU ■ Snap ARPU ■ Twitter ARPU

Thesis 1: Top-Line Growth Driven by Monetization

Snapchat targets a demographic that competitors have been unable to capture

Users Added – Users Lost

Snapchat % Change as per Userbase
Twitter % Change as per Userbase
Facebook % Change as per Userbase
Instagram % Change as per Userbase

STERN IAG
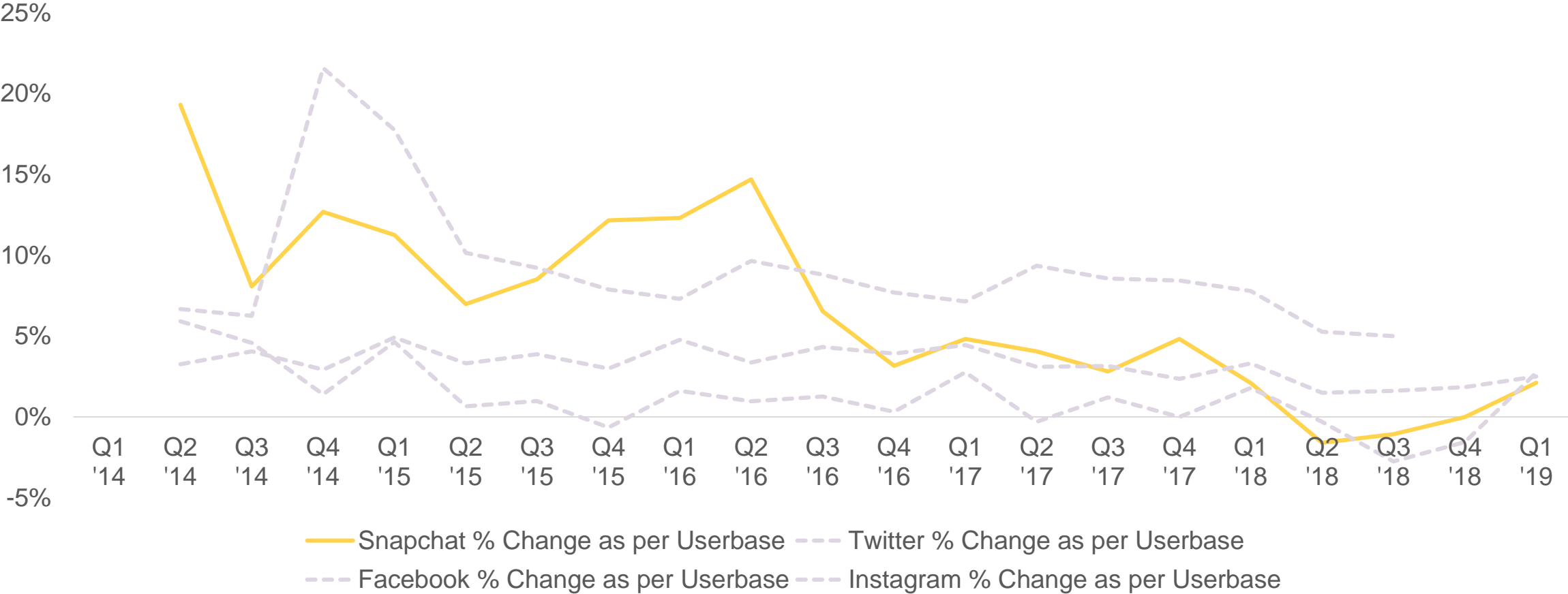
Thesis 1: Top-Line Growth Driven by Monetization

Shift to a goal-based delivery should help Snapchat increase their monetization rates

Figure 8: Snap Inc.—Prior Method of Delivery
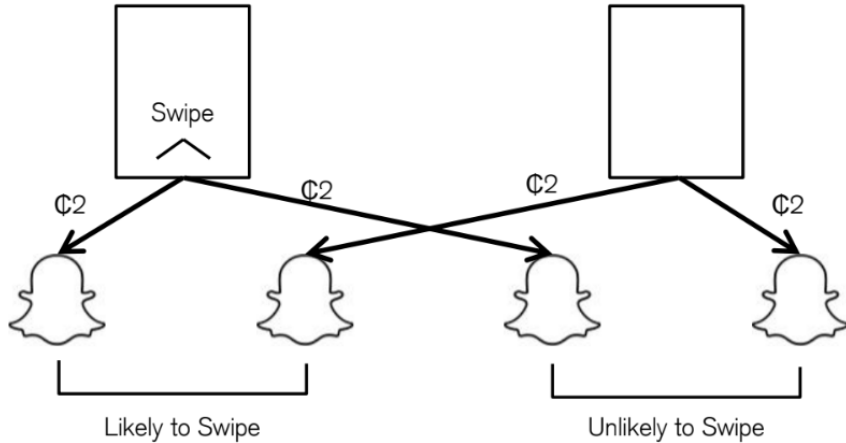
Figure 9: Snap Inc.—Goal-Based Delivery
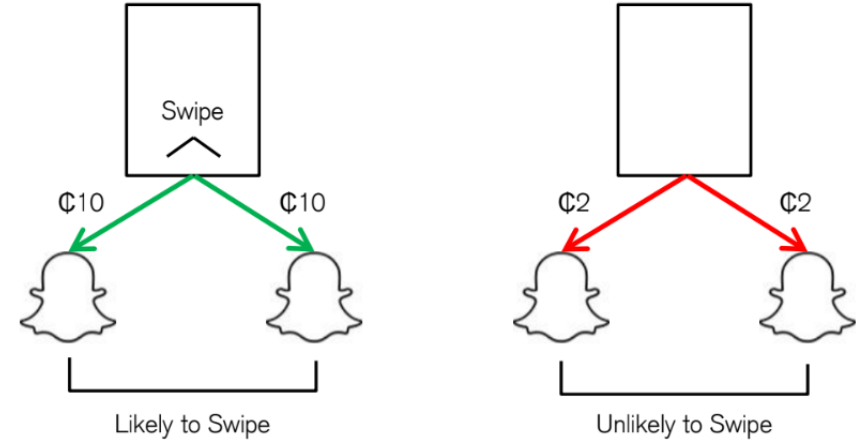
Shift to a Goal-Based delivery model helps Snapchat monetize higher on a per impression base, with advertisers paying more for better leads

Thesis 1: Top-Line Growth Driven by Monetization

Snap Monetization User Analytics

Monetizing Snap User Analytics

- Snapchat collects user information by saving snaps for up to 30 days, collecting information on the user's friends, and filter choices
- Snapchat offers a wide range of filters when choosing target audience for advertisements, including…

Lifestyle	Viewers	Location/Other

- Snapchat offers over **150+ categories**
- *i.e. Motor Sports Fans, Horror Genre Fans, Energy Drink Consumers, etc.*

- Over **80+ categories** with users who engage with other content
- *i.e. TV Viewers (Talk Shows, TV (Home Shopping), ABC Viewers, etc.*

- Snapchat offers targeted ads based on Age, Location, Gender, and estimated income

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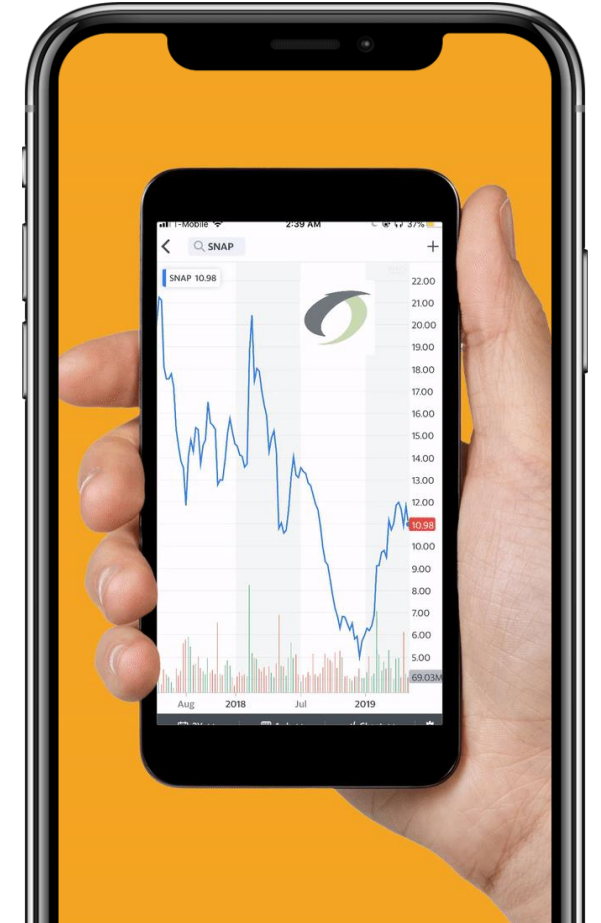
Case Study: Facebook's shift on Messenger

Snapchat should follow Facebook's blueprint with Messenger to properly monetize their userbase
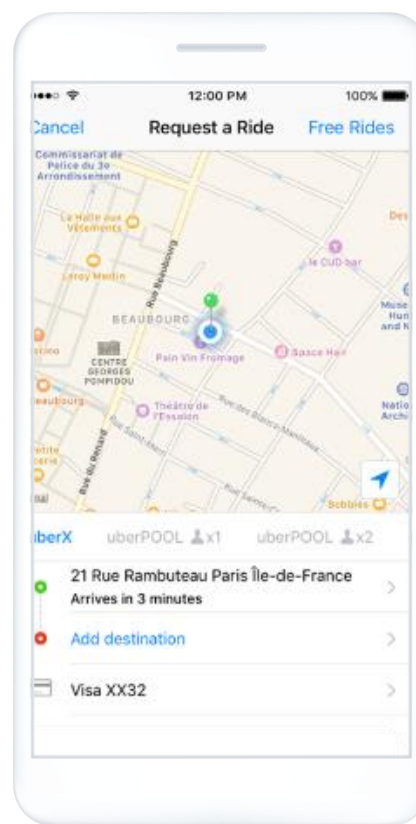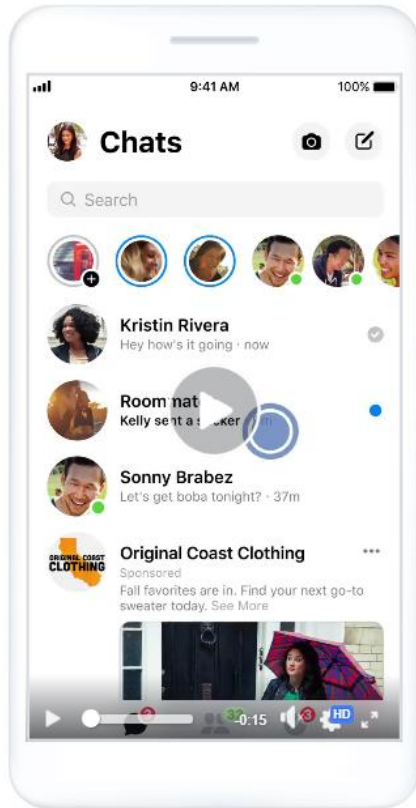
Messenger Ads
- Destination ads (offer customers an opportunity to message your brand rather than clicking through landing page)
- Sponsored messages (passive ads)
- Home section ads (presented as soon as you open app)
- 1.2 billion monthly users, 0.9% click through rates, $2.7 a click charged

Handling Fees from Other Apps
- 3.1% of transaction on average

Alternative Platform Offering

Thesis 1: Top-Line Growth Driven by Monetization

Emergence as a secondary platform to advertisers

"Advertising spend is <u>not a winner-take-all scenario </u>in which SNAP must offer an ROI that is better than Facebook or Google to gain meaningful budget allocations"

Thesis 1: Top-Line Growth Driven by Monetization

Snapchat is needed, providing advertisers with some sort of bargaining power…..

CPM (Cost per thousand)
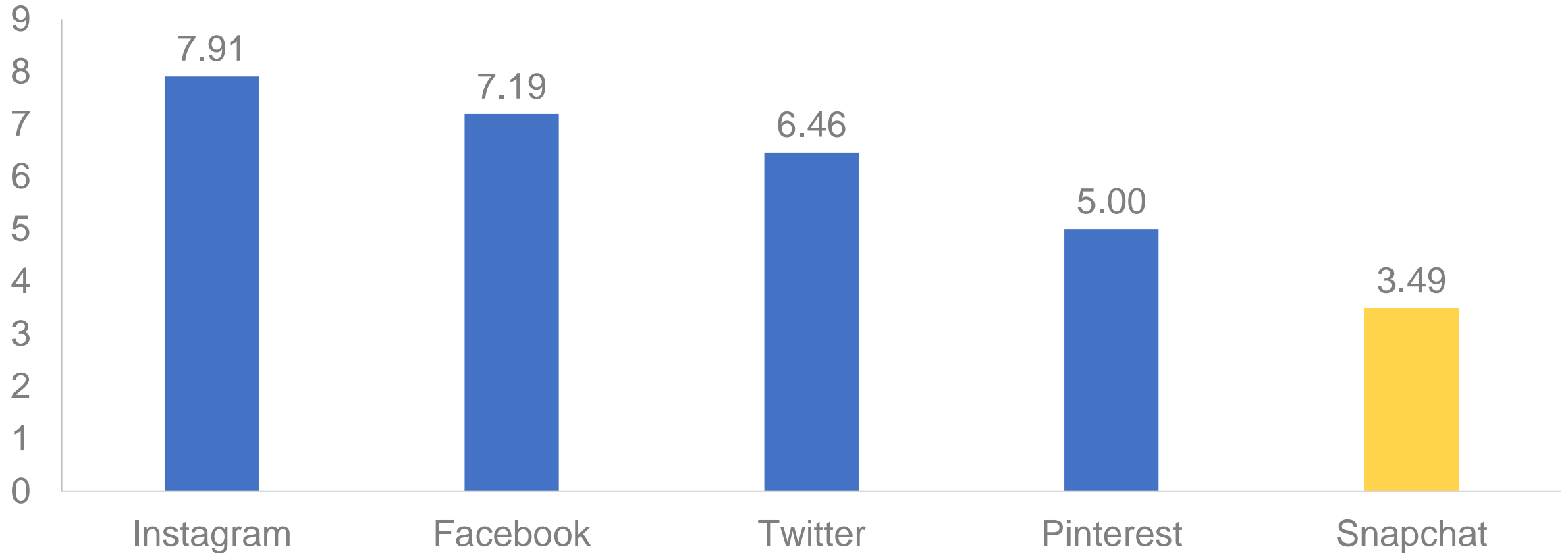
Instagram	Facebook	Twitter	Pinterest	Snapchat
7.91	7.19	6.46	5.00	3.49

Thesis 1: Top-Line Growth Driven by Monetization

Advertisers need alternative platforms to continue advertising on as they face headwinds with others

BUSINESS

Facebook and Google Face Emboldened Antagonists: Big Advertisers

Latest uproar over voter profiling data follows company demands for more control, more transparency from tech giants

Thesis 1: Top-Line Growth Driven by Monetization

Advertisers need alternative platforms to continue advertising on as they face headwinds with others

"HP Inc., which pulled ads from YouTube over inappropriate videos in November, is waiting to return until all the safety improvements are in place, said HP's chief marketing officer, Antonio Lucio"

"We realized we can't count on them. We have to take this into our own hands," said P&G Chief Brand Officer Marc Pritchard

"Subway plans to cut back on Facebook spending this year because of concerns about whether its ads are being viewed sufficiently, according to a person familiar with the matter"

Thesis 1: Top-Line Growth Driven by Monetization

Advertisers need alternative platforms to continue advertising on as they face headwinds with others

DHH ✓
@dhh

We've decided to become a Facebook-Free Business at @basecamp starting today. No Facebook, Instagram, no WhatsApp. No ads. No profiles. No pages. No usage. No more. Run your own business? Consider joining up.

m.signalvnoise.com/become-a-faceb...

♡ 3,627   6:09 PM - Dec 19, 2018

Cooper Hefner ✓
@cooperhefner

Follow

We are stepping away from Facebook

Mozilla Presses Pause on Facebook Advertising

March 21, 2018

Mozilla is pressing pause on our Facebook advertising. Facebook knows a great deal about their two billion users — perhaps more intimate information than any other company does. They know
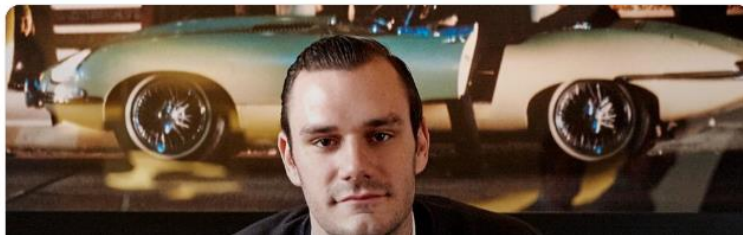
@serdarsprofile · Mar 23, 2018
Replying to @elonmusk @brianacton
Delete SpaceX page on Facebook if you're the man?

Elon Musk ✓
@elonmusk

I didn't realize there was one. Will do.

♡ 17.9K   11:54 AM - Mar 23, 2018

💬 3,418 people are talking about this

Thesis 1: Top-Line Growth Driven by Monetization

Snapchat users actually enjoy the ads?

30% watch ads till the end

69% like snap ads because they can swipe them

56% like discovering new brands through Snap

55% prefer an image to look at the product

71% can be influenced to buy a product after seeing an ad

69% users remember seeing an ad

Great Core Demographic

Thesis 1: Top-Line Growth Driven by Monetization

Emergence as a secondary platform to advertisers

"Can brands afford to NOT advertise and raise affinity
with this demographic?"

Thesis 1: Top-Line Growth Driven by Monetization

Advertisers need to build loyalty with the 18-34 year demographic now given its importance

Millennials are more likely than other generations to remain loyal to a brand because of its loyalty rewards **(22%)** and its company reputation or philosophy **(15%)**

Millennials are more likely than any other generation to say their loyalty to a brand has influenced their most recent purchase **(70%)**

(81%) of millennials are likely to be influenced by advertising compared to 57% of baby boomers

Case Study: Gilmore Girls

"According to an analysis by the former NBC News president Lawrence K. Grossman, advertisers pay an average of **$23.54 to reach 1,000 viewers in that age bracket, versus $9.57 per 1,000 over the age of 35….. it is, as it has been for 40 years**, the principle by which a great deal of our popular culture -- not just TV, but music, movies, radio -- comes into existence" – New York Times 2002

So who's willing to pay the WB extra to reach today's young adults? The ads featured on "Gilmore Girls" themselves paint a portrait of the coveted youth audience. With one glaring exception: new cars. Ford and Honda advertised throughout the Tuesday-night lineup. **"These younger folks may not be big-ticket purchasers now," says a Ford spokesperson, "but they may one day be**.

Thesis 1: Top-Line Growth Driven by Monetization

Snapchat targets a demographic that competitors have been unable to capture

Favorite Social Media App (Under 30)
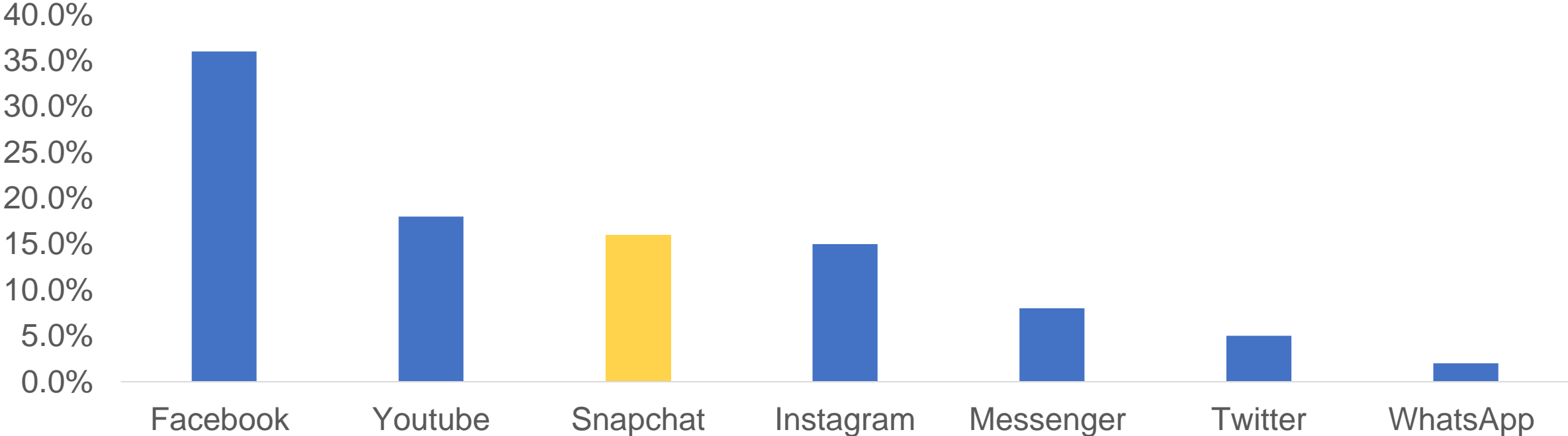
90% of Snapchat users are between 13-24 and **75%** are under 34 years old

Thesis 1: Top-Line Growth Driven by Monetization

Snapchat targets a demographic that competitors have been unable to capture

Percentage of Time Spent on Social Apps (Under 30)

Snapchat users on average have 20-30 inner friends, which is why people are highly active

30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%

YouTube Facebook Instagram Snapchat Messenger Twitter WhatsApp
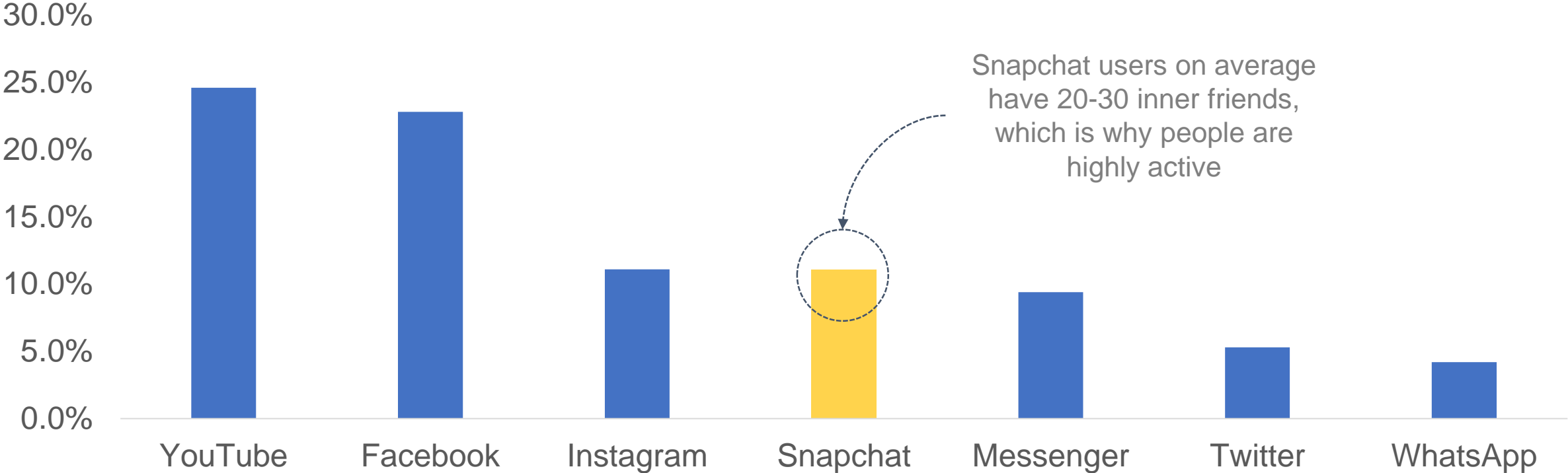
Snapchat users spend **+20 minutes** viewing stories compared to Instagram's

Shift to Content Creation & Engagement

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Thesis 2: Innovation will help keep Snap's moat

Content creation has shown positive signs on platform

Snapchat Discover

- Under the discover section, users can find, and watch video content created by its community, 3rd party producers, or by Snapchat and its partners
- Over 10 billion video views a month across all content on Snapchat Discover
- Snapchat has targeted ads between channels, at $40,000-$100,000 per day
- These ads are targeted to users based on collected user information

Snapchat Videos

Snapchat Videos Are Drawing in Large Audience
Viewership on Snap Shows and Stories, US & Global
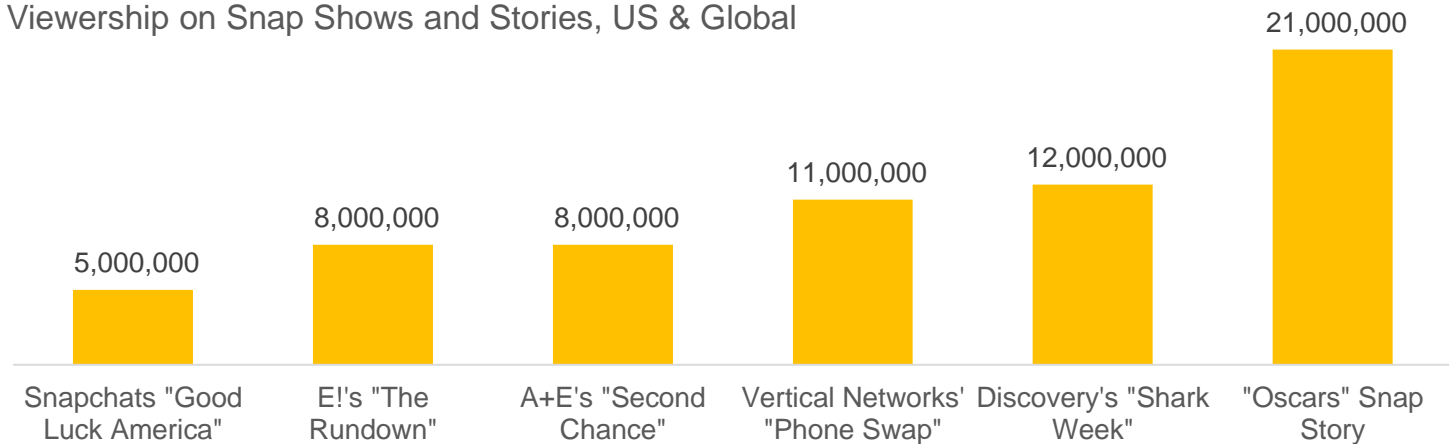
Snapchats "Good Luck America"	5,000,000
E!'s "The Rundown"	8,000,000
A+E's "Second Chance"	8,000,000
Vertical Networks' "Phone Swap"	11,000,000
Discovery's "Shark Week"	12,000,000
"Oscars" Snap Story	21,000,000

Thesis 2: Innovation will help keep Snap's moat

Content creation has shown positive signs on platform

Snap Originals

- Snap Originals are created by the Snapchat and its partner companies, and are similar to Netflix Originals in purpose
- The goal of these originals to differentiate itself from Instagram, as well as retain users
- These snap originals have been created alongside…

NBC NEWS

- Show *Stay Tuned* has doubled its viewership in under year to **5 Million** unique viewers per day
- This is compared to NBC's nightly cable news pulling **~8 Million** a season

ESPN

- Show *SportsCenter* is run by ESPN, and has over **17 million** unique monthly viewers
- ESPN traditionally has **~86 Million viewers** on its cable network
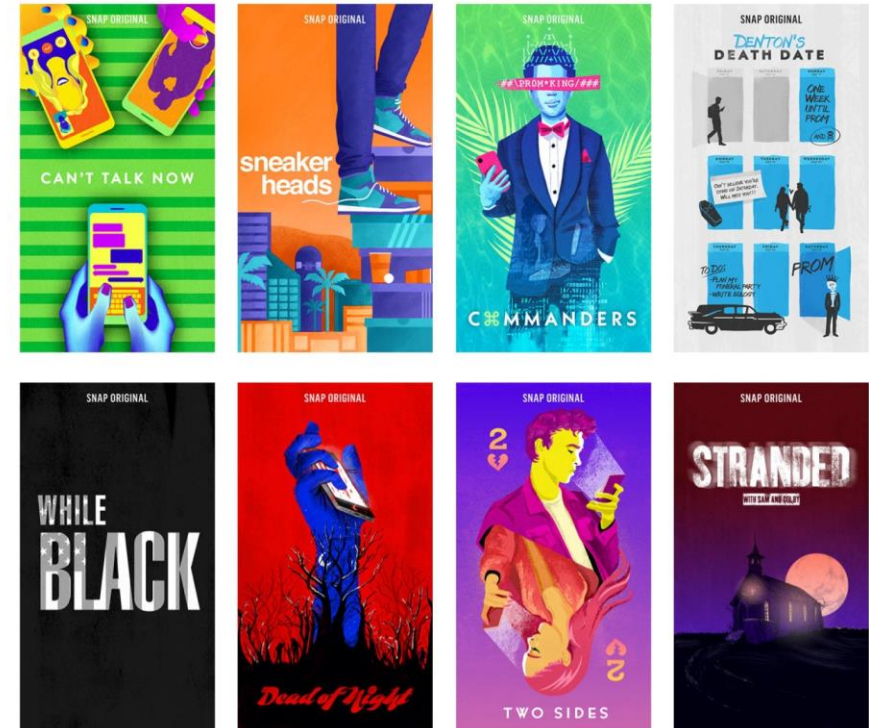
10 Million
Unique Viewers
Monthly

12+
New Snap Originals
for 2019-2022

Thesis 2: Innovation will help keep Snap's moat

Case Study Netflix Originals Customer Stickiness

Netflix Originals

- Netflix has the lowest user churn in the industry, despite being in a very competitive commoditized industry
- This is widely recognized to be a result of the company's efforts to create a portfolio of high-demand original content
- The development costs for these shows are high, however retaining users has been a key point of success for Netflix
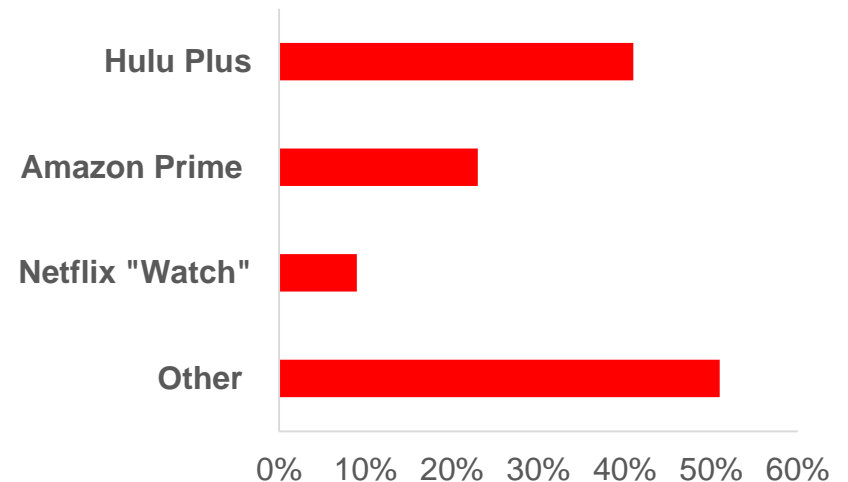
A/R Technology Integration

Thesis 2: Innovation will help keep Snap's moat

A/R technology shows promise and is industry leading

How It Works

- Augmented Reality is a separate technology to Virtual Reality
- A/R is a technology which superimposes a computer-generated image on a user's real view
- Snap A/R Technology uses a Viola-Jones object detection framework to create a 3D mask
- This technology is useful for more than face filters, allowing for the placement of 3D objects
- The future potential for A/R technology is large, with many voicing support and interest

"Augmented Reality is big and profound" ~Tim Cook
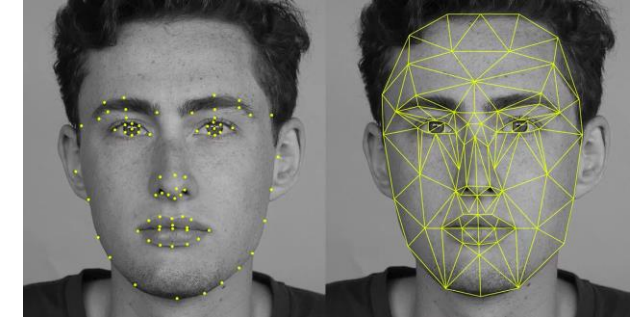
How Snap Uses This

- Snapchat uses its Augmented Reality technology to drive user engagement and develop different marketing products
- Examples include Snap Games, Unique Landmark Lenses, 3D Object Filters, and Amazon Object Searches

Creation of Augmented Reality

- The cost to develop these features is ~11% of COGS
- These costs are minimized by utilizing their 186 million users to generate Augmented Reality lenses

400,000+
AR Lenses Created

Lens Studio

15 Billion+
Total Plays

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Thesis 2: Innovation will help keep Snap's moat

A/R technology shows promise and is industry leading

Visual and Audio Recognition

- Snapchat's Augmented Reality technology works with Amazon to allow users to recognize and purchase items in app
- Snapchat's A/R feature "Scan" uses the same 3D mask that was originally used for faces to identify objects in the real world
- Snapchat A/R technology also allows for music recognition, and has unique features such as solving written math equations
- Bridging e-commerce and A/R; clients include Drake, Ariana Grande, Levi, New Balance, Nicki Manaj, and Blizzard
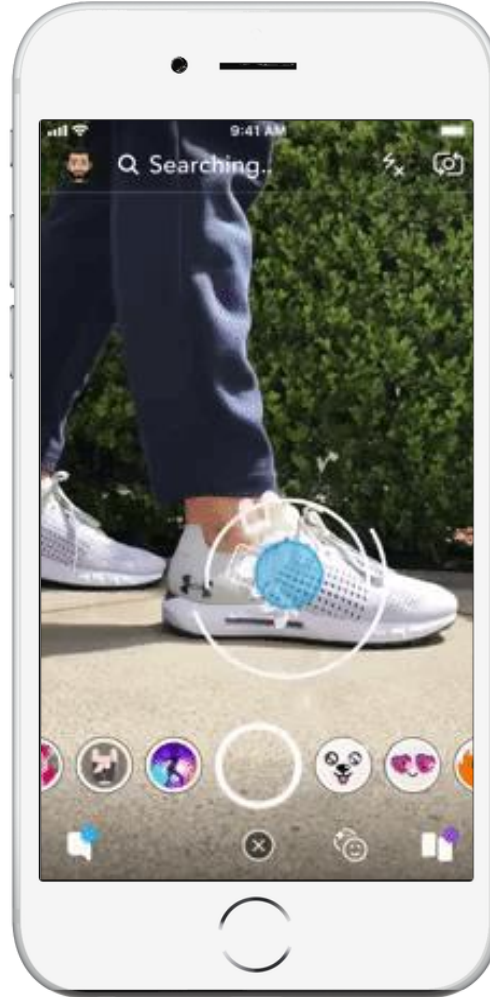
Enhance User Engagement

- Snapchat's Augmented Reality lenses are popular and drive user engagement
- Snap's CEO Spiegel says that "deepening user engagement, not growth, is Snapchats success metric going forward"
- 75% of Snap's over 190 million daily users play with the lenses, combining to over 18 billion plays to date
- Filters such as Snap Games encourages more streaks between users, thus encouraging more DAU
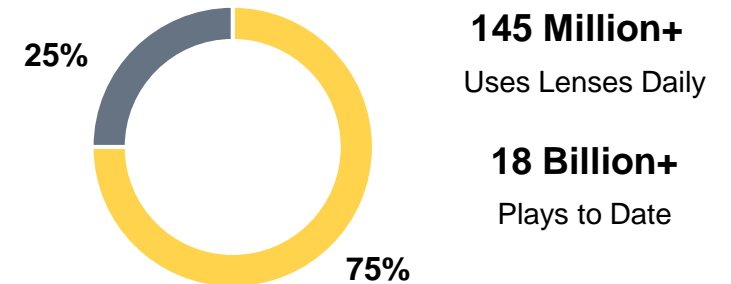
25%

75%

145 Million+
Uses Lenses Daily

18 Billion+
Plays to Date

Thesis 2: Innovation will help keep Snap's moat

A/R technology shows promise and is industry leading

National Lens Carousel

- Snapchat allows advertisers to create unique lenses, which are included in the App's National Lens Carousel
- These ads range between $500k and $1mm per day, targeting larger more established companies
- Gatorade purchased a A/R lens for Superbowl Weekend in 2018, being viewed over 169 million times
- Gatorade reported this sparked an 8% increase in purchase intent, translating to a $10mm+ increase in sales

169 Million
Views

~$10mm+
Increase in Sales

+8% Increase
Purchase Intent

In Ad Targeted A/R

- Included within Snapchat's advertisers' "packages" is the option to include an in-Ad targeted A/R
- These targeted lenses add an additional $40,000 per day on top of the existing tiered advertising cost
- BMW advertised the release of its new 2019 BMW X2 on Snapchat using an in-app 3D lens, allowing users to look at the car more closely
- The Ad was played with on average for 54 seconds, ¼ shared and saved the experience, 40 million impressions

54 sec
Average watch Time

45 Million
Snapchat Users
Shared the Lens

40,000,000
Impressions

Catalysts

Catalyst: Google Acquisition

Snapchat has potential M&A activity

- Google **ALREADY** offered to buy Snapchat for **$30 Billion** in 2016
- Google cannot imitate Snapchat's unique user-base and ecosystem. Such infrastructure provides a higher barrier to entry
- Google' cloud infrastructure and bandwidth **can enable low operating costs** for Snapchat
- Google has over 2 Billion Android users allowing it to package Snapchat with its phones
- If only 10% of Google's Android base became Daily Users, Snap's DAU would **nearly double**

~150 Million
2016 DAU's at Time of Offer

$30 Billion
2016 Acquisition Offer

Google Acquisition History

Google has a history of offering acquisitions of smaller companies with strong growth potential
Google historically does not offer acquisitions without serious interest in entering the industry
Example: Google offered to buy 'Yelp!', but when 'Yelp!' declined the offer Google created their own platform 'Google Reviews'

$500 Million
2009 Acquisition Offer

Catalyst: Amazon Acquisition

Snapchat has potential M&A activity

- Augmented Reality has powerful opportunities for user engagement when looking at e-commerce
- Users being able to digitally inspect the items using 3D A/R masks has been shown to be popular and effective at motivating sales
- **Snapchat and Amazon are currently partnered**, with users scanning items using A/R technology to purchase the items on Amazon within in the Snapchat app
- Amazon, like Google, could offer superior infrastructure costs to Snapchat, allowing to profitably expand its DAU's internationally
- **Amazon could effectively monetize a growing millennial customer base at Snapchat which have high brand loyalty and active purchasing behaviors**

Amazon Acquisition History

Amazon historically looks to enter into industry's where they can disrupt competition; *i.e. Whole Foods, Audible, Goodreads, etc.*

Amazon has experience with running content creation platforms, as they acquired *Twitch Interactive* in 2014 for ~$1 Billion

Valuation

Valuation: Revenue Projection

Revenue Build

Fiscal year	2016A	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2017A	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2018A	2019P	2020P	2021P	2022P	2023P	CAGR	CAGR	Target ARPU
Fiscal year end date	*12/31/16*										*12/31/18*	*12/31/19*	*12/31/20*	*12/31/21*	*12/31/22*	*12/31/23*	2016-2018	2019-2023	
						12/31/17													
U.S Daily Active User	68.00	71.00	75.00	77.00	80.00	80.00	81.00	80.00	79.00	79.00	79.00	80.58	81.39	82.20	83.02	83.85	5.13%	0.80%	
Growth		0.00%	22.95%	18.46%	17.65%	17.65%	14.08%	6.67%	2.60%	-1.25%	-1.25%	2.00%	1.00%	1.00%	1.00%	1.00%			
U.S AAPRU	2.15	1.81	1.97	2.17	2.75		2.10	2.21	2.62	3.38		12.57	14.46	16.19	17.81	19.23		8.88%	
Growth							16.02%	12.18%	20.74%	22.91%			15.00%	12.00%	10.00%	8.00%			Facebook $35
U.S Total Revenue		128.51	147.75	167.09	220.00	663.35	170.10	176.80	206.98	267.02	820.90	1,012.89	1,176.47	1,330.83	1,478.55	1,612.80		9.75%	
Growth							32.36%	19.66%	23.87%	21.37%	23.75%	23.39%	16.15%	13.12%	11.10%	9.08%			Twitter $20
Europe Daily Active User	52.00	55.00	57.00	57.00	60.00	60.00	62.00	61.00	59.00	60.00	60.00	60.90	61.81	62.43	63.06	63.69	4.89%	0.90%	
Growth		41.03%	23.91%	16.33%	15.38%	15.38%	12.73%	7.02%	3.51%	0.00%	0.00%	1.50%	1.50%	1.00%	1.00%	1.00%			
Europe AAPRU	0.28	0.24	0.39	0.48	0.66		0.53	0.66	0.85	1.04		4.22	5.70	7.58	9.47	11.37		21.91%	
Growth													35.00%	33.00%	25.00%	20.00%			
EU Total Revenue		13.20	22.23	27.36	39.60	102.39	32.86	40.26	50.15	62.40	185.67	257.00	352.15	473.05	597.22	723.83		23.01%	
Growth							148.94%	81.11%	83.30%	57.58%	81.34%	38.42%	37.03%	34.33%	26.25%	21.20%			
ROW Daily Active User	39.00	40.00	42.00	44.00	47.00	47.00	48.00	47.00	47.00	47.00	47.00	47.94	48.90	49.88	50.87	51.89	6.42%	1.60%	
Growth		37.93%	16.67%	12.82%	20.51%	20.51%	20.00%	11.90%	6.82%	0.00%	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%			
ROW AAPRU	0.15	0.19	0.29	0.30	0.56		0.58	0.96	0.84	1.24		5.86	8.20	11.08	13.84	16.61		23.17%	
Growth							205.26%	231.03%	180.00%	121.43%			40.00%	35.00%	25.00%	20.00%			
ROW Total Revenue		7.60	12.18	13.20	26.32	59.30	27.84	45.12	39.48	58.28	170.72	280.93	401.17	552.41	704.32	862.08		25.14%	
Growth							266.32%	270.44%	199.09%	121.43%	187.89%	64.56%	42.80%	37.70%	27.50%	22.40%			
Total Daily Active User	159.00	166.00	174.00	178.00	187.00	187.00	191.00	188.00	185.00	186.00	186.00	189.42	192.10	194.51	196.95	199.43	5.37%	1.04%	
Growth		36.07%	21.68%	16.34%	17.61%	17.61%	15.06%	8.05%	3.93%	-0.53%	-0.53%	1.84%	1.41%	1.25%	1.26%	1.26%			
Total AAPRU	1.05	0.90	1.05	1.17	1.53		1.21	1.40	1.60	2.09		8.19	10.05	12.11	14.12	16.04		14.40%	
Growth							34.44%	33.33%	36.75%	36.60%			22.70%	20.59%	16.52%	13.63%			
Total AD Revenue		149.31	182.16	207.65	285.92	825.04	230.80	262.18	296.61	387.70	1,177.29	1,550.82	1,929.79	2,356.28	2,780.08	3,198.71		15.58%	
Growth							54.58%	43.93%	42.84%	35.60%	42.69%	31.73%	24.44%	22.10%	17.99%	15.06%			
Spectacles Revenue							1.50	1.30	1.50	1.60	5.90	4.00	3.60	3.40	3.40	3.40		-3.20%	
Total Revenue		149.31	182.16	207.65	285.92	825.04	232.30	263.48	298.11	389.30	1,183.19	1,554.82	1,933.39	2,359.68	2,783.48	3,202.11		15.55%	

INCOME STATEMENT

Fiscal year	2016A	2017A	2018A	2019P	2020P	2021P	2022P	2023P
Fiscal year end date	*12/31/16*	*12/31/17*	*12/31/18*	*12/31/19*	*12/31/20*	*12/31/21*	*12/31/22*	*12/31/23*
Revenue	404.5	824.9	1,180.4	1,554.8	1,933.4	2,359.7	2,783.5	3,202.1
Cost of sales (enter as -)	(451.7)	(677.6)	(798.9)	(979.5)	(1,102.0)	(1,203.4)	(1,252.6)	(1,248.8)
Gross Profit	**(47.2)**	**147.3**	**381.5**	**575.3**	**831.4**	**1,156.2**	**1,530.9**	**1,953.3**
Selling, general & administrative (enter as -)	(289.5)	(2,058.2)	(846.7)	(746.3)	(812.0)	(896.7)	(946.4)	(896.6)
Research & development (enter as -)	(183.7)	(1,534.9)	(772.2)	(590.8)	(638.0)	(684.3)	(723.7)	(736.5)
Loss from operation (EBIT)	**(520.4)**	**(3,445.8)**	**(1,237.4)**	**(761.9)**	**(618.7)**	**(424.7)**	**(139.2)**	**320.2**
Interest income	4.7	21.1	27.2	25.0	25.6	30.6	41.1	58.9
Interest expense (enter as -)	(1.4)	(3.5)	(3.9)	-	-	-	-	-
Other expense (enter as -)	(4.6)	(35.4)	(39.3)	(45.4)	(73.7)	(73.7)	(93.7)	(105.2)
Pretax profit	**(521.7)**	**(3,463.6)**	**(1,253.4)**	**(782.2)**	**(666.7)**	**(467.9)**	**(191.7)**	**273.9**
Taxes	7.1	18.3	(2.5)	7.8	6.7	4.7	1.9	(2.7)
Net income	**(514.6)**	**(3,445.3)**	**(1,255.9)**	**(774.4)**	**(660.1)**	**(463.2)**	**(189.8)**	**271.2**
Basic shares outstanding	807.9	1,166.1	1,300.6	1,498.0	1,528.0	1,558.2	1,590.6	1,623.5
Impact of dilutive securities	-	-	-	-	-	-	-	-
Diluted shares outstanding	807.9	1,166.1	1,300.6	1,498.0	1,528.0	1,558.2	1,590.6	1,623.5
Basic EPS	($0.64)	($2.95)	($0.97)	($0.52)	($0.43)	($0.30)	($0.12)	$0.17
Diluted EPS	**($0.64)**	**($2.95)**	**($0.97)**	**($0.52)**	**($0.43)**	**($0.30)**	**($0.12)**	**$0.17**
Growth rates & margins								
Revenue growth		103.9%	43.1%	31.7%	24.3%	22.0%	18.0%	15.0%
Gross profit as % of sales	(11.7%)	17.9%	32.3%	37.0%	43.0%	49.0%	55.0%	61.0%
R&D margin	71.6%	249.5%	71.7%	48.0%	42.0%	38.0%	34.0%	28.0%
SG&A margin	45.4%	186.1%	65.4%	38.0%	33.0%	29.0%	26.0%	23.0%
Other expense margin	(1.1%)	(4.3%)	(3.3%)	(2.9%)	(3.8%)	(3.1%)	(3.4%)	(3.3%)
Tax rate	1.4%	0.5%	(0.2%)	1.0%	1.0%	1.0%	1.0%	1.0%
EBITDA reconciliation								
Depreciation & amortization	29.12	61.29	91.65	96.05	95.62	92.87	95.33	100.28
Stock based compensation	31.84	2,639.90	538.21	787.67	867.71	946.70	993.70	979.85
Tax Related to Stock Based Comp	0.19	24.47	21.93	-	-	-	-	-
One Time Adjustment	-	-	9.88	-	-	-	-	-
EBITDA	**(459.26)**	**(720.15)**	**(575.73)**	**121.86**	**344.64**	**614.83**	**949.86**	**1,400.34**

Cost of capital assumptions

Cost of debt	4.0%
Tax rate	21.0%
After tax cost of debt	3.2%
Risk free rate	2.5%
Beta	1.17
Market risk premium	5.0%
Cost of equity	8.3%

Capital weights

	Amount	% of total
Market value of equity	16,181	108%
Net debt	(1,262)	(8%)

Cost of capital (WACC)	**8.8%**

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Valuation: FCF & Share Price

Free cash flow buildup

Fiscal year	2016A	2017A	2018A	2019P	2020P	2021P	2022P	2023P
Fiscal year end date	*12/31/16*	*12/31/17*	*12/31/18*	*12/31/19*	*12/31/20*	*12/31/21*	*12/31/22*	*12/31/23*
EBITDA	(459)	(720)	(576)	122	345	615	950	1,400
EBIT	(520)	(3,446)	(1,237)	(762)	(619)	(425)	(139)	320
tax rate	*1.4%*	*0.5%*	*(0.2%)*	*1.0%*	*1.0%*	*1.0%*	*1.0%*	*1.0%*
EBIAT (NOPAT)	**(513)**	**(3,428)**	**(1,240)**	**(754)**	**(612)**	**(420)**	**(138)**	**317**
Depreciation and amortization				96	96	93	95	100
Stock based compensation				788	868	947	994	980
Accounts receivable				(111)	(114)	(128)	(127)	(126)
Inventory				(9)	(6)	(5)	(3)	0
Accounts payable				8	5	4	2	(0)
Accrued expenses & def revenues				83	84	95	94	93
Other current assets (inc. non-trade receivables)				0	0	0	0	0
Deferred tax assets (DTAs)				0	0	0	0	0
Other assets				0	0	0	0	0
Other non current liabilities				7	8	9	9	10
Unlevered CFO				**108**	**328**	**593**	**927**	**1,375**
Less: Capital expenditures				(140)	(155)	(165)	(195)	(224)
Less: Purchases of intangible assets				(6)	(6)	(6)	(6)	(6)
Unlevered FCF				**(38)**	**167**	**422**	**726**	**1,145**
% growth								
Discount factor				64%	164%	264%	364%	464%
Present value of Unlevered FCF				(36)	146	338	535	775

Perpetuity approach

Unlevered FCF in last forecast period (t)	1,145
FCF^{t+1}	1,196
Long term growth rate (g)	4.5%
Terminal value	28,040
Present value of terminal value	18,980
Present value of stage 1 cash flows	1,757
Enterprise value	**20,737**
Implied TV exit EBITDA multiple	*20.0x*

Exit EBITDA multiple approach

Terminal year EBITDA	1,400
Terminal value EBITDA multiple	21.0x
Terminal value	29,407
Present value of terminal value	19,905
Present value of stage 1 cash flows	1,757
Enterprise value	**21,663**
Implied TV perpetual growth rate	*4.7%*

Fair value per share

	Perpetuity	EBITDA
Enterprise value	20,737	21,663
Less: Net debt	(1,262)	(1,262)
Less: Trapped cash	0	0
Equity value	**19,475**	**20,400**
Diluted shares	1,544.000	1,544.000
Equity value per share	**$12.61**	**$13.21**
Market premium / (discount) to fair value	*(16.9%)*	*(20.7%)*

Valuation: Revenue Multiple

Revenue Multiple

	2018A	2019P	2020P	2021P	2022P	2023P
Fiscal year	**2018A**	**2019P**	**2020P**	**2021P**	**2022P**	**2023P**
Fiscal year end date	*12/31/18*	*12/31/19*	*12/31/20*	*12/31/21*	*12/31/22*	*12/31/23*
Revenue	1,180.40	1,554.82	1,933.39	2,359.68	2,783.48	3,202.11
Current EV/Revenue Multiple	0.00x	0.00x	0.00x	0.00x	0.00x	0.00x
Target Multiple	8.28x	8.28x	8.28x	8.28x	8.28x	8.28x
Enterprise Value	9,767.81	12,866.11	15,998.80	19,526.32	23,033.33	26,497.48
Cash	1,279.10	1,221.05	1,340.72	1,720.19	2,394.39	3,493.11
Debt	-	-	-	-	-	-
Equity Value	11,046.91	14,087.16	17,339.52	21,246.51	25,427.72	29,990.59
Share Count	1,482.50	1,515.03	1,543.95	1,575.51	1,608.63	1,641.29
Implied Stock Values	7.45	9.30	11.23	13.49	15.81	18.27
					Price Target	**13.51**
EV Per User	52.52	67.92	83.28	100.39	116.95	132.87
Facebook EV/Sale Multiple	8.20	8.20	8.20	8.20	8.20	8.20
Twitter EV/Sale Multiple	8.50	8.50	8.50	8.50	8.50	8.50
Match Group EV/Sale	11.40	11.40	11.40	11.40	11.40	11.40
Google Multiple	5.00	5.00	5.00	5.00	5.00	5.00
Average	8.28	8.28	8.28	8.28	8.28	8.28

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Valuation: EV/Users Approach

Revenue Multiple

Fiscal year	**2018A**	**2019P**	**2020P**	**2021P**	**2022P**	**2023P**
Fiscal year end date	*12/31/18*	*12/31/19*	*12/31/20*	*12/31/21*	*12/31/22*	*12/31/23*
Facebook EV/User	210	200	190	180	180	180
User	186.00	189.42	192.10	194.51	196.95	199.43
Implied EV	39,060.00	37,884.00	36,498.64	35,011.45	35,451.35	35,897.43
Cash	1,279.10	1,221.05	1,340.72	1,720.19	2,394.39	3,493.11
Debt	-	-	-	-	-	-
Equity Value	40,339.10	39,105.05	37,839.36	36,731.64	37,845.74	39,390.54
Share Count	1,482.50	1,515.03	1,543.95	1,575.51	1,608.63	1,641.29
Implied Stock Values	27.21	25.81	24.51	23.31	23.53	24.00
					Price Target	**23.78**