ARtillery Intelligence

ARtillery Intelligence Briefing

Lessons From AR Revenue Leaders, Part I

January 2020

ARtillery Intelligence

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▐▌ Key Takeaways

IAR During consumer AR's early stages, success stories are scarce but critical for extractable lessons.
- **IAR** This includes product models (UX design) and business models (when/how/whom to charge).

IAR Advertising has emerged as AR's revenue leader, given brands' affinity for immersive ad formats.
- **IAR** AR transcends constraints that limit creative capacity in mobile advertising (e.g. banner ads).
- **IAR** AR as an ad medium has "upper-funnel" reach and "lower funnel" direct-response capability.
- **IAR** The combination of the two, seen in places like Facebook's News Feed, is rare in advertising.
- **IAR** These factors drove an estimated $1.6 billion in AR ad spend in 2019, and $8.8 billion by 2023.

IAR Snapchat has grown to become AR's engagement and ad revenue leader.
- **IAR** It has 210 million lens users on a daily-active basis, which engage AR 30x per-day on average.
- **IAR** Cumulatively, there have been 500,000 community lenses created and 15 billion views.
- **IAR** Popular lenses have reached greater than 300 million views, demonstrating capacity for scale.
- **IAR** Snap accounts for $1.114 billion of the $1.6 billion cited above according to ARtillery estimates.

IAR This exceeds Facebook's AR engagement and revenues, despite its greater global reach.
- **IAR** Instagram looms as an AR sleeping giant that could help Facebook catch up to Snapchat.
- **IAR** Its camera-forward users align with AR, as do its product-discovery and transactional use cases.

IAR Meanwhile, Snapchat is in the lead and has several transferrable lessons for anyone in AR.
- **IAR** It has dedicated focus on AR lenses, congruent with its "camera company" ethos.
- **IAR** Snapchat AR lenses succeed by building on the existing/popular activity of sharing multimedia.
- **IAR** It has chosen communications – via social lenses – as an AR vessel, given its high frequency.

IAR Other tactical moves include reducing friction for users to discover and activate AR.
- **IAR** Its core design principle to *open to the camera* makes AR more accessible than a feed-based UX.
- **IAR** It keeps terms like "AR" for internal use and never uses technical language in user-facing ways.
- **IAR** All of the above tactics align with our "training wheels" construct for AR product success.

IAR Seeing financial results – in ad revenue and Wall Street rebound – Snap is doubling down on AR.
- **IAR** It's expanding beyond selfie lenses with rear-facing camera AR such as Landmarkers.
- **IAR** It's applying computer vision for AR utilities like solving math problems and identifying style items.

IAR These moves have developer-facing equivalents to cultivate the lens creator community.
- **IAR** Snapchat has prioritized and incentivized developers, pursuant to boosting content libraries.
- **IAR** Recent creator tools include easier lens creation features and creator profiles to distribute work.
- **IAR** Resulting content attracts more users who in turn incentivize more lens creation – a virtuous cycle.
- **IAR** These moves collectively resulted in a 40 percent boost in Lens Studio creators in Q3 2019.

IAR Snap's AR scale has allowed it to form best practices around targeting paid/sponsored lenses.
- **IAR** It's cultivating this intelligence into vertical-specific targeting strategies to attract advertisers.
- **IAR** This, along with evolving capabilities in mobile advertising, will sustain Snap's AR revenue lead.

IAR We will return in Part II of this series to examine success factors for other AR leaders.
- **IAR** This will include Pokémon Go, Houzz and emerging AR players like Instagram and Tilt Five.

📊 Executive Summary

The consumer AR sector still lingers in early stages. Among other things, this means the playbook is being written mid-flight. There's a great deal of experimentation underway as companies test and iterate rapidly to discover winning formulas and business models.

This goes for consumer AR product strategies. Though a common sentiment in 2016's hype cycle was that AR applies to everything, it's become clear that it's not a silver bullet. It will have native and natural applicability to some aspects of our lives and work… but not all.

Beyond macro categories and use cases where AR should or shouldn't be developed, there are more granular strategies around user experience (UX). What types of AR interactions resonate with consumers? And what best practices are being standardized for experience design and interface?

Equally important is the question of AR monetization and revenue models. Just as user experience is being refined, questions over what consumers will and won't pay for are likewise being discovered. The same goes for brand spending behavior in cases of sponsored AR experiences or ads.

These lingering questions compel acute attention to quantifiable AR market successes and best practices. Not only does the sector's early stages mean that these questions are prevalent… but also that their answers are scarce. That includes evidence of successful execution and transferrable lessons.

With that backdrop, ARtillery Intelligence ventures to find, aggregate and draw meaning from finite AR successes in today's environment. And by "success," we mean large-scale consumer traction and revenue. When examining consumer AR engagement and revenue leaders, what product attributes and tactics are driving their performance?

This includes Snapchat. Its social lenses have the greatest consumer AR active usage, and it holds the leading share of AR ad revenue. Among other things, this is propelled by product-market fit, ease of use, distribution and fulfilling key goals for brand advertisers.

Also on the list is Pokémon Go. Though the tech press has moved on to other shiny things, 2019 marks its best revenue performance to date. This is attributed to innovation cycles that breed ongoing novelty and replayability, as well as its sparing use of AR as a game element.

Other consumer AR exemplars include Houzz and Instagram. Emerging AR players also show early signs of traction that's worth examining, such as Tilt Five. Altogether, how do we triangulate best practices and extract tactics and takeaways for AR players today?

We'll do just that in the coming pages, starting with Snapchat. This draws from the rigor of market watching and analyst work – including daily editorial coverage of our sister publication, *AR Insider*. We'll synthesize all of these things, pursuant to the core mission of empowering you with a knowledge position.

Introduction: Revenue Leaders

A lot can be learned from consumer AR's early leaders. What are they doing right? How are they engaging users? And how are they making money? These are key questions in AR's early stages, as there's no standardized playbook quite yet. This also makes successes and transferrable lessons scarce.

Given the rigor applied to market watching – through typical analyst work and daily editorial coverage at our sister publication, *AR Insider* – We collect these lessons. They're not easy to find, often fragmented in insider discussions, product reviews and conference presentations. So it's all about synthesizing them.

But before unpacking those variables and diving into the tactical lessons we're tracking among AR leaders, who are they? First, to define the segment we're including in this report, its narrowed down to consumer-based AR. Industrial AR is an important, but separate, topic we'll continue to track.[i]

Second, it's important to define at the onset what we mean by "AR success." We're talking about user traction and revenue. Importantly, this traces AR product tactics back to real monetary results. It also means that revenue models, pricing and other such strategies are included along with product and UX strategies.

For example, Snapchat has achieved the greatest active AR usage, and the most revenue from sponsored AR lenses from brand advertisers. This is attributed to several factors we'll examine, including its ability to reach an AR-forward audience in targeted ways.

Sticking with AR lenses as an ad format, Facebook is also worth watching. Though

Snapchat has greater focus on AR – congruent with its "camera company" designation – Facebook has greater global scale. This raises questions if it can eclipse Snapchat over time as the AR advertising revenue leader.

Related to that is the rise of Instagram as an AR player. Though it only integrated AR lenses recently in Q3 2019, it has a potentially strong product-market fit, given its camera-forward audience. It's also cultivated a common use case around shopping and product discovery, where AR could find natural integrations.

Pokémon Go is also on this list, though its revenue isn't as directly attributable to AR. While the tech press has moved on to other shiny objects, the game is doing better than ever, including active use and revenue generation. This is a notable feat, given the common arc of mobile games which don't sustain repeat play for such long intervals.

How is it doing that? And how are all of the above players driving usage and revenue with AR? We'll examine them in the coming pages. We'll start with Snapchat, followed in Part II of this series by the rest of the competitive field. Altogether, there will be key lessons to extract.


Image Source: Niantic

AR Ads: The Foundation

AR's biggest revenue category so far is advertising. This is happening as brands are attracted to the technology's ability to demonstrate products in immersive ways. That appeals to their creative sensibilities, erstwhile stuck in 2D media and confining formats like mobile banner ads.

But as discussed in a recent XRDC presentation from ARtillery Intelligence Chief Analyst Mike Boland (author of this report), AR's appeal in advertising also stems from another attribute: the rare ability to span the consumer purchase funnel. It's conducive to both upper-funnel and lower-funnel formats.

"Upper-funnel" media include things like Superbowl ads and billboards: it's all about reach. "Lower-funnel" media includes direct-response targeted ad formats like search. AR can span that range with things like Facebook News Feed-delivered AR lenses, which then drive transactions.

For example, the News Feed can achieve sizable reach given Facebook's operational scale. It can also achieve high-performance through social targeting to prompt AR lenses for product try-ons. The immersive UX can then drive product purchases which brings users another step down the funnel.
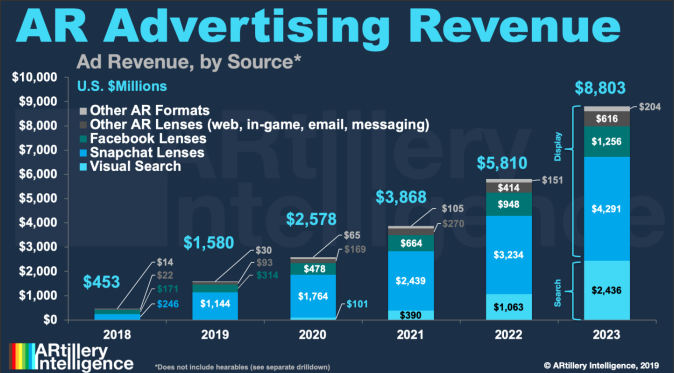
That last step in the funnel — the actual transaction — is obviously the most important. AR's inherent visualization can boost these conversion rates, but it's also accelerated by transactional functionality that's increasingly incorporated into lens-forward channels like Facebook, Instagram and Snapchat.

Here, Instagram could be AR's sleeping giant (examined in Part II of this series). Not only did it flip the switch on AR in 2019 by opening it up to Facebook's Spark AR lens developer platform, but it's increasingly infusing shopping and transactional functionality. This could be a powerful combo.

This all contributes to Artillery Intelligence's market projections that peg AR advertising at $1.6 billion in revenue last year, growing to $8.8 billion by 2023. Today that's mostly AR lenses in social channels, for all the reasons mentioned above, but it will start to expand into other areas like visual search.
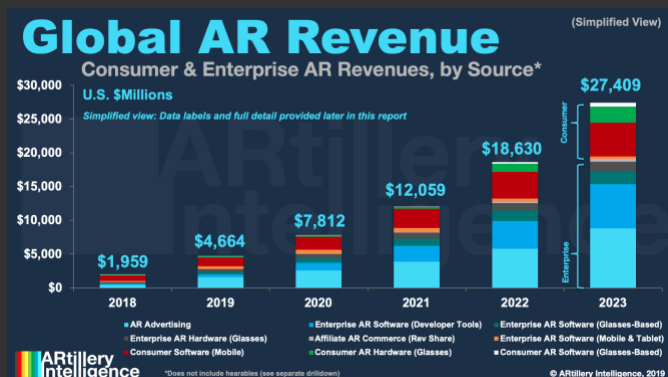
Video Companion: What's Working in AR Advertising?

Click video to view
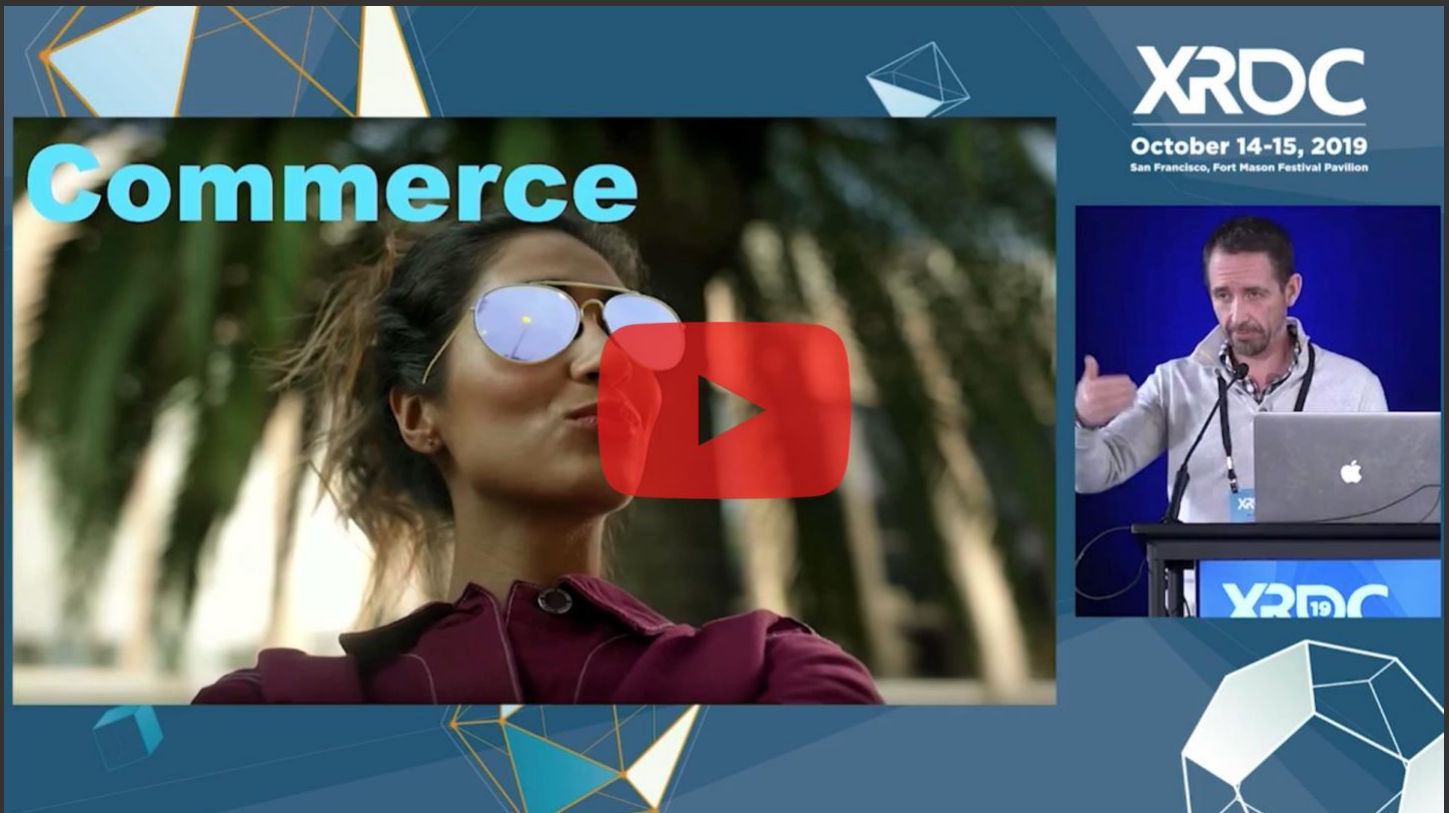
Snapchat: King of The Hill

Within AR advertising business models –
again, the revenue leader today – the most
performant company is Snapchat. Though
Facebook is embracing AR lenses as an ad
format, Snapchat still leads with an estimated
$1.114 billion of the $1.6 billion ad revenues
cited earlier.

This is also notable given Facebook's reach
advantage. Its two billion active users dwarf
Snapchat's 240 million. But Snap has its own
competitive advantages, including more AR
focus, congruent with its camera-forward
approach. It also has greater engagement
among camera-forward generations.

Specifically, Gen Z uses Snapchat more than
any other generation. Among teens, more use
Snapchat (69 percent) than Facebook (51
percent) according to a Pew Research Center
survey.ii In terms of frequency, a leading 35
percent of teens use Snapchat more often than
other social apps.

All these advantages are starting to show.
Snapchat is the engagement leader among
consumer AR players, to the tune of 210
million lens users on a daily-active basis. It has
also reported that active AR lens users engage
"nearly 30 times per day," with 15 billion
cumulative views to date.iiii

These frequency and active-use metrics are
important, as they deviate from the "vanity
metrics" we more often hear in-app marketing,
such as downloads. Active-use indicators are a
lot more telling of AR's impact, and include
metrics we've examined elsewhere such as
session lengths.iv

We'll also address the Pokémon in the room.
Pokémon Go is often cited as AR's
engagement and revenue leader. This is valid,
given $3 billion in cumulative revenue. That's
arguably attributable to AR, which is a matter
of definitions. In any case, we'll tackle
Pokémon Go in Part II of this report series.

Virtuous Cycle: Developers

Snapchat's AR engagement also attracts developers. 600,000 AR lenses have been created to date and lens creators grew 20 percent in Q3. This follows Snap's move to open the Lens Studio platform and make it increasingly accessible. Some creators can make as much as $40,000 per month.v

This engenders a sort of virtuous cycle for AR lens engagement, creation, and ultimately revenue. In other words, a greater volume of lenses attracts users and boosts engagement rates. That growing audience attracts more lens developers which further expands the library and, in turn, attracts more users.

That's a notable flip from Snapchat's early AR lens experiences that were limited in volume and gated by a highly curated approach. Like Facebook, it has since leaned into the idea of scaling up lens development by rolling out a steady procession of tools for lens creation, distribution and monetization.

That includes creator profiles that give developers a presence to promote their work and make it discoverable. There are also new templates for popular formats such as lenses that augment hands, bodies and pets. This handles the heavy computational lifting and simplifies lens creation.

Image Source: Snap, Inc.

Image Source: Snap, Inc.

In the same spirit, Landmarkers templatize AR lens creation for high-traffic places like the Eiffel Tower or Flatiron Building. Developers can use those templates to infuse their own creativity. Templates also mean a focused set of subjects for which Snapchat has done advance work for mapping and tracking.

Landmarkers are also smart in that Snapchat has concentrated its efforts in a smaller subset of locations, thus sidestepping the AR cloudvi challenge of recognizing every building and street in the world. It instead focuses on high-traffic areas that get the most bang for the spatial-mapping buck.

Other developer tools include 3D paint, launched alongside the new AR Bar. This lets Snapchat users annotate live scenes with stylistic overlays, essentially making anyone a lens developer. This aligns with the pattern of crowdsourcing creation, while feeding and fueling hunger for socially-oriented AR.

Virtuous Cycle: Users

Refined experiences like Landmarkers, and others listed above, translate to more robust AR for users – the counterpart in the virtuous cycle. Snapchat is also expanding capabilities beyond selfie lenses to utilize the rear-facing camera and augment the outside world, thus a greater range of use cases.

So far, these non-selfie AR activations include World Lenses, Snapcodes (AR activations from branded QR codes) and song identification from Shazam. Through a partnership with Amazon, it's also moved into visual search to identify physical-world products and style items with your mobile camera.

More recently, Snapchat has moved into a broader range of AI-fueled lenses with its Scan feature. This applies object recognition then adds context-aware AR animations to a given scene. So gifs from Giphy can serendipitously animate related scenes, or math problems are scanned and solved on the fly.

The latter is perhaps the most compelling feature and combines a sort of novelty wow factor with actual utility. Snap also notably beat Google to the punch in what is a very "Googley" feature. Google has since launched a Google Lens feature that totals and tallies restaurant checks in a similar way.vii

Image Source: Snap, Inc.

Image Source: Snap, Inc.

"Now you can scan anything, and we'll show you the most relevant lenses. Just press and hold the screen and we'll show contextually relevant gifs," said Snap co-founder Bobby Murphy at a developer event. "If you're trying to solve a math equation, we'll help you do that with our partner Photomath."

These moves extend Snapchat's AR persona from selfie masks to more utilitarian functions. That's evident in solving math problems – a lighthouse feature that will lead to other creations. As we've examined,viii mundane utilities like search and navigation are where AR killer apps could germinate.

And just like Google Lens,ix the magic isn't on the front end but in the computer vision and AI to recognize objects. Snapchat is doing that through partners like Photomath, as mentioned, but could scale up its own AR cloud and image recognition as the machine learning improves through high-scale use.

The Endgame: Advertisers

The above features aren't monetized directly but they indirectly accomplish an important end. That is, they create a more attractive experience which grows user volumes and engagement levels. That in turn attracts brand advertisers to Snapchat's AR revenue driver: sponsored lenses.

In addition to greater audience reach, many of the user-facing features outlined above unlock new capabilities for brand advertisers to engage Snapchat users. It essentially provides them a bigger toolbox for product animations – involving faces (cosmetics, etc.), and the larger canvas of the physical world.

"The Snapchat camera allows people to use computing in their natural environment, the real world," said Evan Spiegel at Snap's partner summit. "We believe that by opening the camera, we can create a computing experience that combines the superpowers of technology with the best of humanity."

As mentioned previously, this appeals to a lot of creative professionals in the marketing departments of brand advertisers, or at ad agencies. Erstwhile stuck within the confines of 2D media, immersive product try-ons through AR lenses let them flex their creative muscles and see real results.
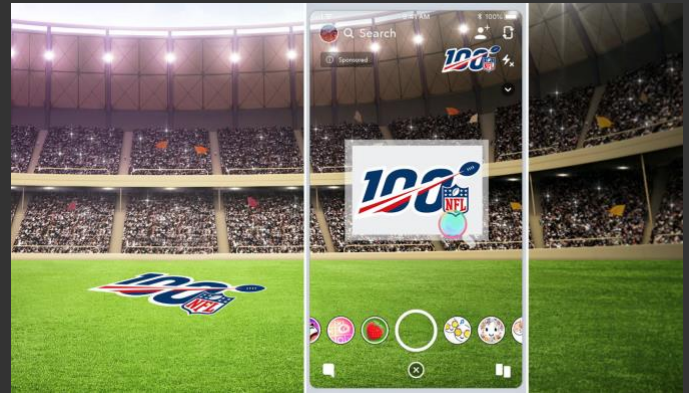

Image Source: Snap, Inc.

Image Source: Snap, Inc.

One example is the NFL's lenses for last year's Superbowl LIII, featuring selfie lens animations for each team's fans to show their support. It was viewed 303 million times, which is 3x the television viewership of the game itself. This embodies AR's potential upper-funnel reach, examined earlier and in a case study later.

Collectively, Snapchat derived an estimated $1.114 million from AR advertising as mentioned. It also explicitly attributes AR to its revenue growth and 2019 stock market rebound. Beyond that, it broadly sees AR as a core part of its business as a camera company. So it continues to double down on it.

By doing so, Snapchat is "following the money." This aligns with our ongoing construct about triangulating tech giants' AR directions by examining their financial motivations.x For Snapchat, AR will be a key revenue diversification play to satisfy Wall Street and its own "camera company" vision.
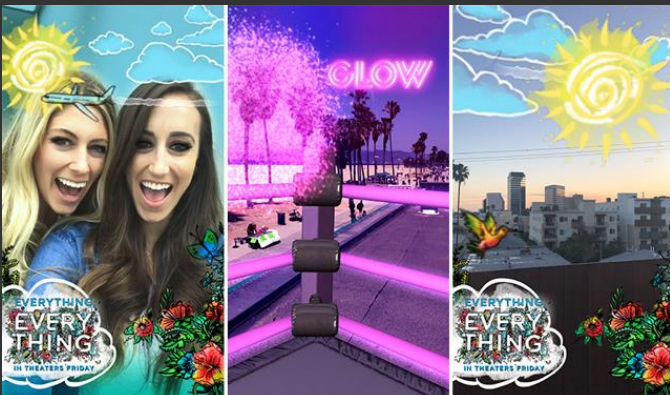
Snapchat's Three Pillars

Given Snapchat's leading position in AR engagement and revenue examined in the previous sections, its tactics are ripe for examination to draw out transferable lessons. In one sense, it's doing the AR industry a favor by large-scale experimentation to uncover demand signals and formats that work.

As mentioned, much of its AR success traces back to its focus on the camera. This foundational principle makes Snapchat natively primed for AR. Beyond that, it's executed well and leaned into AR as a core use case. This makes AR more of an internal priority and central focus than it is for competitors.

"It's really the lens of a camera that gives you the window into human experience," said Snap's Carolina Arguelles at AWE Europe. "It can connect the physical world with the power of the Internet... So our strategy and focus with the camera is all about how we bring [it] into this new era."

To get there, Arguelles delineates three pillars of Snapchat's AR strategy: *Access*, *Adoption* and *Content*. Starting with access, it's all about mobile. Though Snap is planting seeds for a wearables future, as demonstrated by its Spectacles camera glasses, the near-term play is all about smartphone ubiquity.

"If you look at the change from 2008's 220 million smartphone owners to today's 2.8 billion, [that's] a huge increase," she said. "The reason that's important is because accessibility completely changed. AR ten years ago didn't come to life because being able to render AR from an everyday consumer standpoint was extremely difficult. But now everyone has a camera in the palm of their hand."

Image Source: Snap, Inc.

Pillar 1: Access

Beyond smartphone ubiquity, the internal camera's innovation cycles have further amplified AR's accessibility. It's now the main feature of today's smartphones in terms of iPhone and Android device marketing and differentiation. This hardware prioritization lays a strong foundation for AR.

"When we think about consumer adoption of AR — and we know that the camera is the first step into getting into an AR experience — we need to prioritize how quickly someone can jump into that experience," said Arguelles. "We say we're a camera company, and what we mean is we believe the camera is more than taking photos… When you open up Snapchat, it opens straight to the camera."

This is a key component of Snapchat's AR success. Camera access reduces friction in getting to AR, compared to other social media where it's discovered in a feed. The result is the leading engagement metrics cited earlier, as well as 3.5 billion snaps per day and 250 million minutes of daily interaction.

"It's completely at odds with what you expect when you open up an app which is a feed — which we've been trained as people in the digital era," Arguelles said. "This UX of opening up straight into the camera just feels weird but it's intentional… because we wanted the mindset within this app to be *camera-first*, to be *create-first*, to be *look-around first*… not *lean-back*, and not just *consume*."

Image Source: Apple

AR: Where to Put it? What to Call It?

The lesson in Snapchat's camera-forward approach is transferrable to others. It's all about making AR accessible and in users' path (more on this principle in Part II of the series). AR is too early and unproven for users to go out of their way to find it. This is the "training wheels" concept we often cite.xi

"The easier you can make it for someone to jump right into AR is going to be important because it's so new," said Arguelles. "The strategy other people should focus on if they want to drive more growth with AR is reducing the friction in access to the camera first, and then to AR. The more steps you have and the more buried it is… the less people you are going to have enter that experience."

Another key success factor is marketing. This comes after choosing *what to build* and *where to put it*, and moves into *what to call it*. This seems trite but can largely impact adoption. Snapchat is AR's engagement leader… without ever saying the term "AR" in a user-facing way.

"Before you adopt something, you have to understand it, said Arguelles "*Augmented Reality* is a tough term to understand if you're an everyday consumer… We're in an industry that for the everyday consumer, the technical terms we use and how we describe things just don't work. We need to think about how to talk to the everyday consumer."

Sticking with semantics, it's also about the "language" of millennials and Gen Z in terms of how they conceive and use the camera. Photos have replaced text, which replaced phone calls as a way to communicate daily. AR feeds into that ethos, but successful integrations should know the language.

"When you think about the camera and you think about camera usage and you think about this younger generation and how you want to connect with them. Whether you're a business, advertiser [or] creator, it's really important that you start to understand the language that this generation uses."

Image Source: Snap, Inc.

Pillar 2: Adoption

Moving on to the second pillar, adoption, Snapchat built AR around communication. That compares with AR use cases like gaming and product visualization. This is important because communication is inherently a high-frequency use case – a key AR success factor we've examined in areas like visual search.xii

"I love IKEA… but I don't shop at IKEA every day," said Arguelles of the retailer's popular AR tools. "So when we think about this future that people talk about that AR is everywhere… in order to make that a reality, we have to focus on everyday needs… Communication is the key everyday need that we have decided to build around. [This] is what's really led to the mass scale that we're seeing today."

Drilling down on communication, another factor in Snapchat's AR success is leaning into visual messaging. This builds on the progression of

phone calls to texting to rich media. Millennials and Gen Z communicate through images and emoji, rather than words, as mentioned.

"We like to call them the 'camera-native generation' because they were raised with the camera… They're as comfortable with a camera as you are with a keyboard," said Arguelles. "That comfort level is so important to the future of AR really taking off… If you require people to be involved with the camera in order to unlock [AR], you want them comfortable."

Supporting her assertion is data we've collected from JWT Intelligence. It reports that 56 percent of Generation Z (born 1996-2010) use social apps to express themselves creatively. More notably for the sake of this report, 40 percent use AR lenses to enhance the pictures and videos they share.

Over half (56%) of gen Z use social apps to express themselves creatively

56%
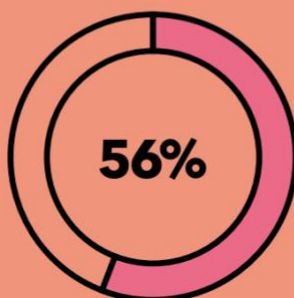
Further, 40% of gen Z state that they've used AR filters/lenses to enhance a photo/video of themselves or with friends; 43% have enhanced with emojis, 44% with a color filter, and 51% with text or a caption

| 40% | 43% | 44% | 51% |
| AR filters/lenses | Emojis | Color filters | Text or a caption |

Source: 2019 JWT Intelligence study in partnership with Snap Inc.

What to Build?

Another key factor to drive adoption is the baseline factor of what to build. AR isn't the silver bullet it was once trumpeted to be, so it's all about pinpointing use cases where AR is additive. This strategy must take into account the use case as well as the target audience, as Snapchat has done around Gen Z.

"It feels like we've been saying that AR is the future, that AR is going to revolutionize so many industries," said Arguelles. "It's going to change the way that you consume so much of your daily life. But the reality is that hasn't really happened yet. We're not seeing it so much in everyday life So the question is, why hasn't it come to fruition yet? And what can we do to accelerate that?"

Consumer demand and comfort levels will evolve so the list of applicable use cases will

grow. But for now, Snap made a winning bet that social sharing — an existing behavior — benefits from AR. This should be a lesson in applying AR to build on existing behaviors (again, "training wheels") in early stages.

Another way Snapchat found success with AR was to position it in a way that leaned into the culturally evolving perception of the smartphone camera. It's no longer a tool to just take pictures, but rather a lens through which to experience the world live, a la Pokémon Go.

This thinking has propelled Snapchat's recent AR integrations. Moving beyond just selfie lenses, it's developing things like visual search, as outlined earlier. By utilizing the rear-facing camera to scan the broader canvas of the physical world, it can do things like identify style items or solve math problems on the fly.
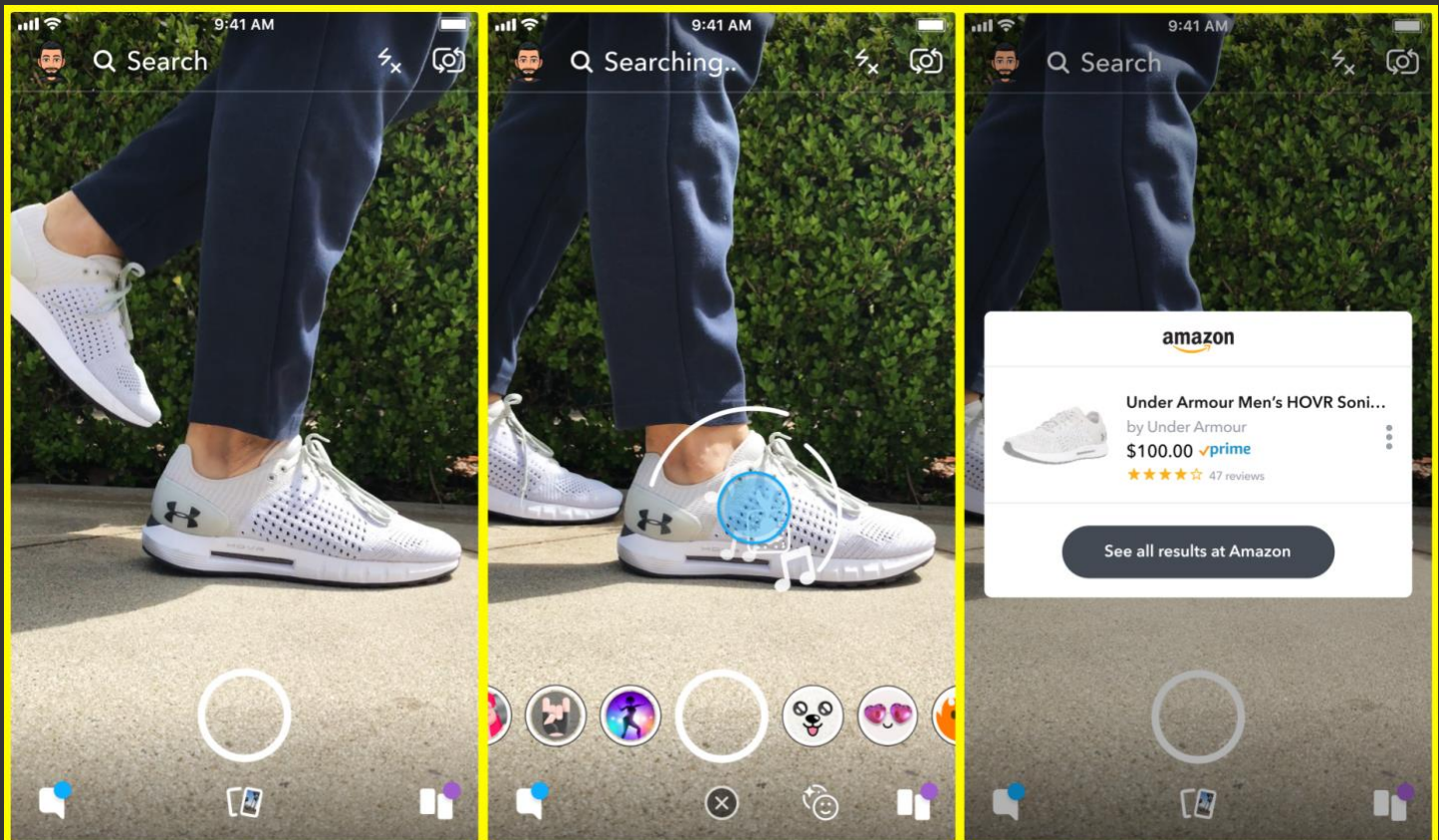

Image Source: Snap, Inc.

The Language of UX

Earlier we examined language in the context of marketing. There's also the language of user experience (UX). We're conditioned for common languages on the web — everything from drop-down menus to scroll bars. The same goes for mobile gestures like touch interfaces. This needs to develop in AR.

Meanwhile, the lesson is to build AR experiences that utilize the limited set of interactions that have already been established. Don't stray too far from these UX standards established by AR platforms like ARkit, ARCore and Snapchat's Lens Studio; and keep interactions consistent.

"How do we teach people around the fundamentals of how to interact with AR?" posed Arguelles. "If we look at websites as the parallel… over time, what happened was at the very top of almost every website… you find a menu bar that's going to allow you to sift through the right pages… knowing how to navigate the web was fundamental for people

to get comfortable… But for AR, we don't yet have this one consistent place that someone knows where to go and what to do. We need to develop that UX, because that's the only way that people have some kind of consistency."

In all of the above, one benefit Snapchat offers is being an environment in which developers and brands can test AR interactions at low cost and meaningful distribution to see what resonates. This trial and error approach is fitting for early stages of AR when the playbook is still being written.

"We've trained an entire generation on using the camera a lot, and using AR a lot," said Arguelles. "And what it provides with Lens Studio is rapid-fire experimentation. You want to test how an AR asset, experience or utility is going to land, and get immediate feedback. Push it out to our community because they're there, they're trained on how to use AR, and they're actively looking for experiences."

Image Source: Facebook

Pillar 3: Content

Beyond making AR accessible and creating use cases that drive adoption, the actual content that populates those experiences is likewise critical. This is Snapchat's third pillar for AR, including the actual AR animations and lenses that are the centerpiece of the UX.

Though we all know the idiom that content is king, it's a lot easier said than done to actually succeed with content. The keys to do doing it right involve both quality and quantity. Snapchat has achieved the former through human-relevance and the latter by opening up the Lens Studio platform.

We'll tackle those one at a time, starting with relevance. Snapchat has learned through large-scale AR distribution that people are vain. It doesn't get more relevant than peoples' own faces. That drives front-facing camera

activations, while rear-facing activations include the places that people associate with.

The latter brings in Snapchat's Landmarkers. As examined earlier, Snapchat zeroed in on a few high-traffic destinations for AR animations, rather than mapping the world. This gives it a focused and foundational toolset for high-quality tracking and AR effects that developers can build around.

"*Location-as-a-signal*, and your physical world, is obviously an area that a lot of people are investing a lot of energy into," said Arguelles. "Our first step in mapping the world – so that the world can actually have computing overlaid on it everywhere – is Landmarkers… It's just the beginning of how we can start to map the world."

Image Source: Snap, Inc.

Quality + Scale

Beyond quality and relevance, Snapchat engenders quantity and scale by opening up Lens Studio to developers and creators. This populates lens content libraries, which seed and fuel user demand. Resulting usage in turn incentivizes further lens creation — the virtuous cycle examined earlier.

"How do you build scale? We really believe that you need to have an open platform and an open ecosystem where different types of creators, developers, and technologists can contribute, said Arguelles. "How do you build an ecosystem where you have enough content to serve? How do you make things sticky, not just interesting the first time around? We do that through Lens Studio."

Another key aspect of content is its distribution. To keep Lens Studio creators incentivized, Snap gives them a few options for reaching large audiences. This includes organic distribution (a.k.a. "community lenses") and sponsored distribution (for brand advertisers).

The former gives smaller developers a platform, profile and live links to their creations to share with friends. There's also the chance of getting found in Snapchat search results. Or for popular lenses, there's the user-facing lens discovery tool, Lens Explorer, where they can be discovered organically.

With front-facing AR, it's hard to go wrong because peoples' faces are inherently relevant as mentioned. But with rear-facing AR, targeting strategies (paid) can help lenses get to the right audiences. They therefore gain relevance because the right content is matched with the right user.

"The number one thing that works is relevancy" said Arguelles. "What's important with this is that you're targeting your experiences to people that have those interests. How you think about delivery good content is all about what's in the content but also who you're talking to."
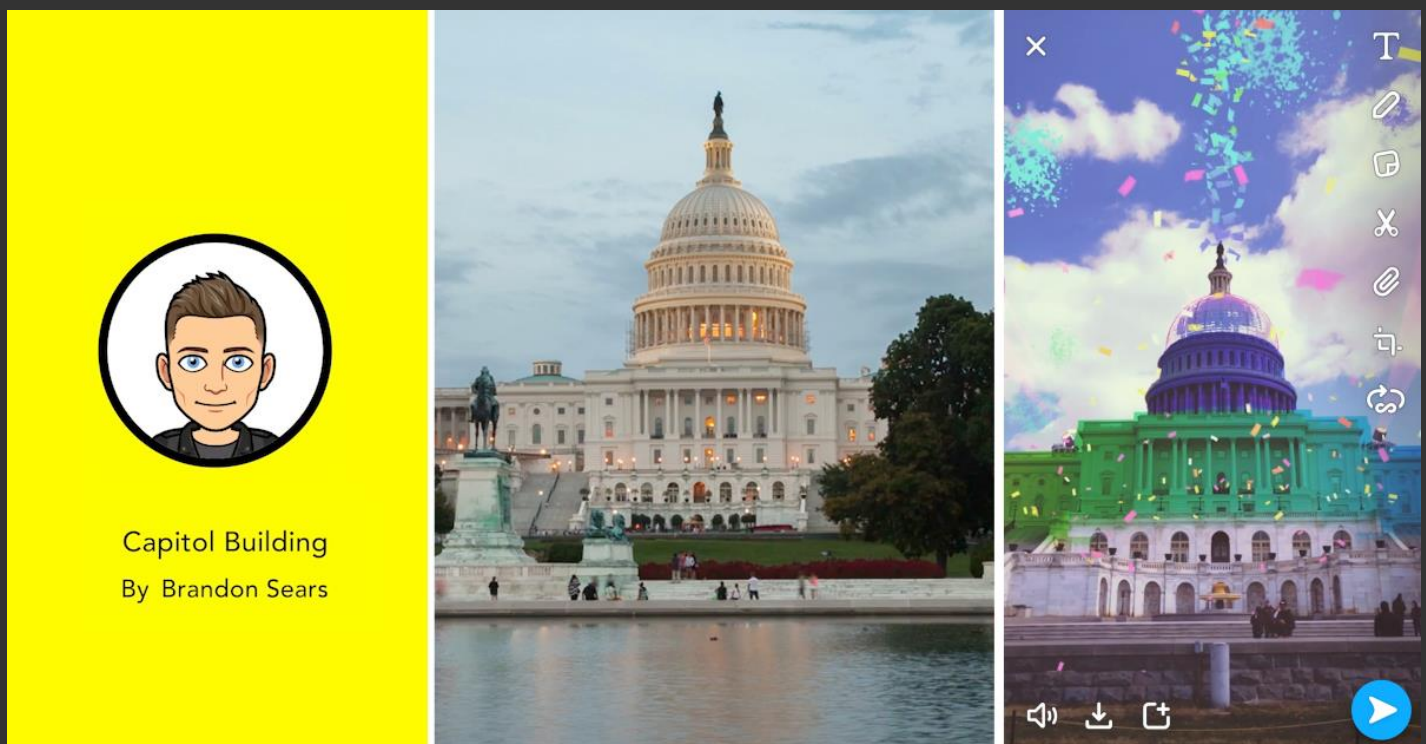

Image Source: Snap, Inc.

Camera Marketing

Zeroing in on Snapchat's paid distribution options, this is where the most reach can be achieved. Though Snapchat is a walled garden, it's a sizeable one. It also has intimate knowledge of its user base and audience profiles, developed from its tenure as a brand advertising powerhouse.

Paid/sponsored lenses are afforded greater reach than community lenses… but for a price. This is Snapchat's AR offering to brand advertisers, and currently the leading form of AR advertising revenue, as quantified earlier. This is what Snap has begun to call *camera marketing.*

"While the last ten years have been about social media marketing the next ten years are going to be about this new thing called *camera marketing*," said Arguelles. "It's fragmented out there [and] hard to capture peoples' attention in a lean-back environment. But when you're

distributing ads through the camera, you're guaranteeing engagement. You're guaranteeing someone being leaned in."

Snap has also put emphasis on making ad buying and measurement frictionless — something it's learned through its tenure in digital advertising. This takes its user-facing strategy explored earlier for making AR easy and accessible (i.e. "training wheels") and applies it to advertisers.

"Creators can make [lenses] on behalf of brands that upload it right into their ad stack," said Arguelles. "Right from their same ad-buying tools where they're paying to promote their video ads, they can pay to promote their lens and have it appear directly in our carousel…We're able to do that and guarantee camera distribution for AR because the camera is used so much on the platform.

Image Source: Snap, Inc.

Reach Driven

The volume of camera use Arguelles cites gives Snapchat an edge in AR advertising. This allows it to segment audiences subsets which are still of meaningful scale to reach-driven brand advertisers. It also cultivates AR's aforementioned capacity for "upper-funnel" reach, and "lower-funnel" response.

"We should really remove any preconceived notions of AR for brands as one where [consumers] are trialing the exact beauty shade and then buying it. Or the furniture, and then buying it," said Arguelles. It's great for that, but it can also be great for upper-funnel. AR can be throughout the funnel. It all depends on how you're targeting your ad, what the creative looks like and ultimately what the brand wants."

Speaking of scale, all of the above lessons are validated by a large sample. Due to the audience sizes Snapchat is able to reach from its engaged AR users, these lessons can be relevant and applicable to anyone developing AR products, or any brands devising ways to engage customers through AR.

"We've actually aired tens of thousands of AR campaigns," said Arguelles." We're not experimenting or [asking] 'Does AR marketing work?' We're iterating on how it's most effective for consumer packaged goods vs. retail versus automotive [and] how it works for awareness upper-funnel [advertising] or for conversion lifts. That's the volume of what we've been able to do on the platform."

Image Source: Thought Catalog

Long-Term Vision

Lastly, all of the above represents today's market that Snap is building for. But it also has its eye on AR's face-worn future. That's where Spectacles come in. Though they aren't AR glasses, they're acclimating the world to wearable tech and, more importantly, collecting demand signals.

"We believe that in order to envision this future of computing overlaid on the world, you really need to take the screen away that's cutting you off from the actual physical world, which the mobile phone does." Said Arguelles. "Our investment in Spectacles is because we want to test, iterate and understand what it means to interact with cameras when they're on your face. We want to know what good content is… How people interact with it… What they like… What should the UX be? … What should the creative experiences be? … And ultimately how can we start to build out a content repository? … AR is just starting to be introduced into this product and is eventually something that you'll see more and more of."
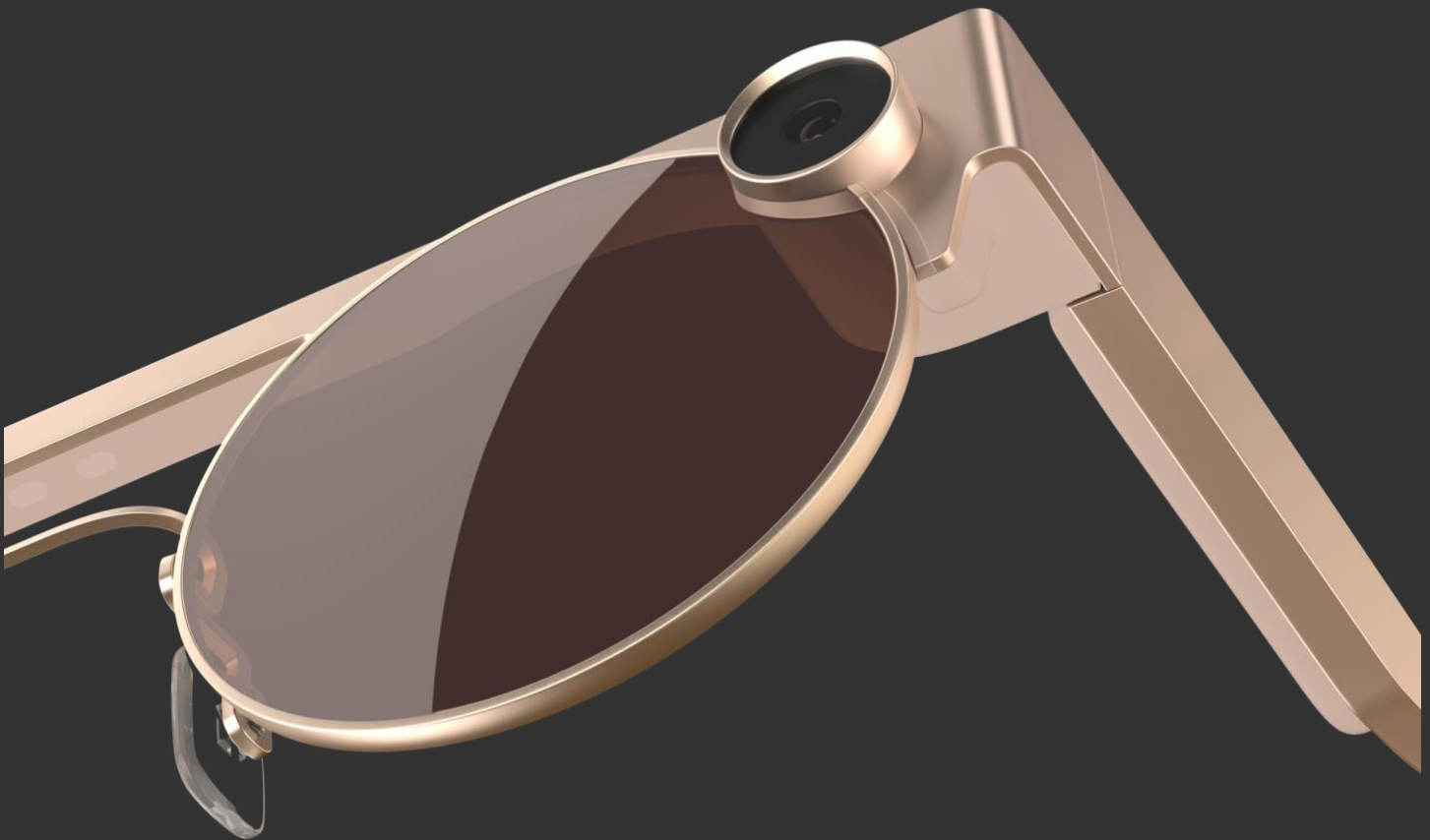
Image Source: Snap, Inc.

Case Study: Snap the Ball

Proof points continue to roll out for AR's effectiveness as an ad medium. Early-adopter brands are learning that AR lets them demonstrate products in immersive ways. That includes brand awareness (upper-funnel) or try-before-you-buy (lower-funnel) visualization, as explored throughout this report.

More evidence from the "upper-funnel" side of the AR commerce spectrum comes from the NFL's Snapchat lens for last year's Superbowl LIII. It involved selfie lenses for each team, which fans could capture and share socially. In typical AR lens fashion, it resulted in high engagement rates with branded animations.

But more interesting about this lens campaign was its reach. It was viewed more than 303 million times. To put that into perspective, the

Superbowl itself — often heralded as a benchmark for media reach and brand advertising — reached 98.2 million TV viewers.

This counters frequent doubt from brand advertisers about AR's reach.xiii Though it can be a low reach play at times, it's telling that this campaign literally exceeded the proverbial "Superbowl-sized audience." Though an outlier, it could be a leading indicator for AR's performance as it grows.

Meanwhile the advertiser disconnect signals the need for education and continued validation from early-adopter brands like the NFL. This will cycle in slowly – just as it did for mobile advertising – and is a key step in getting to the $8.8 billion we project for AR advertising by 2023.
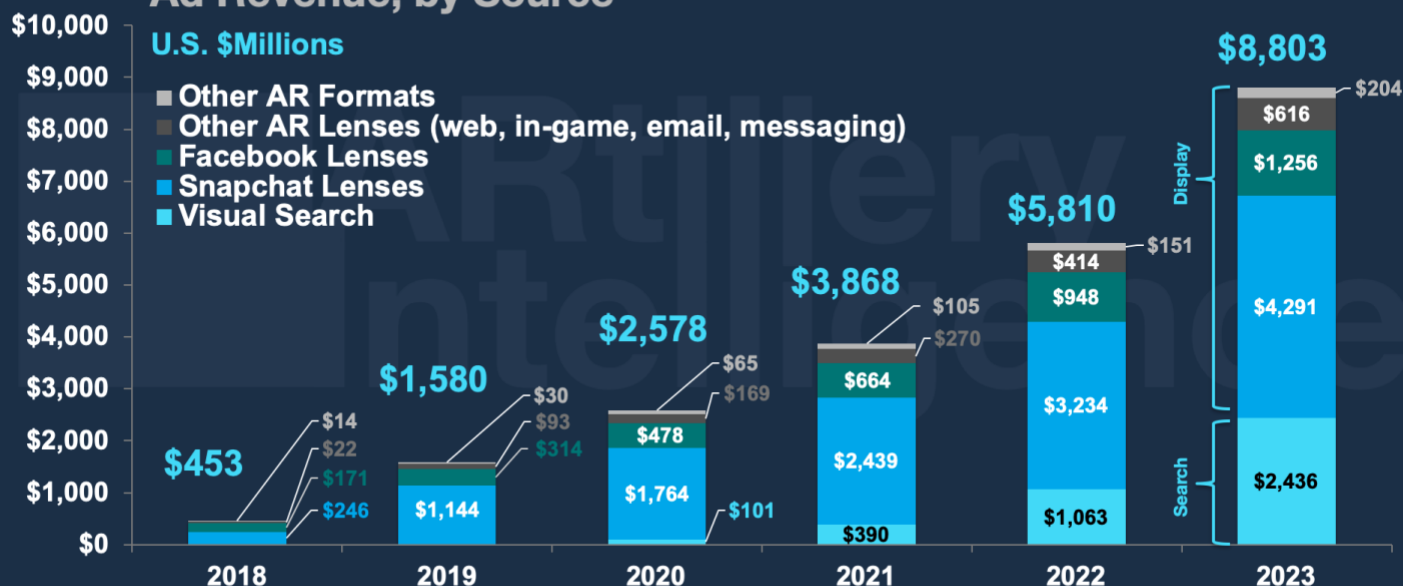
With this quantity also comes quality. AR's immersion can create quality impressions in terms of metrics like brand recall. There's also more depth of engagement than other ad media, including metrics like session lengths and frequency (30x per day on Snapchat).

Specifically, Snapchat reports that its sponsored lenses average 10 to 15 seconds of playtime, 19 percentage-point lifts in ad awareness, 6-point lifts in brand awareness and 3.4-point lifts in action intent on average. They also achieve an average 9-point lift in post-engagement product sales.

"There is a depth of engagement [on Snapchat]," NFL Digital Media VP Blake Stuchin told Engaget. In fact, the NFL put its money where its mouth is, and has doubled

down on Snapchat paid lens campaigns. It ran a similar campaign in advance of the following (current) NFL season.

That subsequent campaign included lenses to commemorate the 100th NFL season. Using Snapcodes (or the NFL logo), users activated lenses that superimposed classic NFL footage in their field of view. It also targeted geographically-relevant audiences with regional team lenses.

It's also worth noting that these campaigns represent front-facing and rear-facing camera lenses, respectively. Most AR traction is for front-facing AR (sunglasses, cosmetics), but the broader canvas of the physical world is a larger opportunity, that could expand in many of the ways cited in this report.
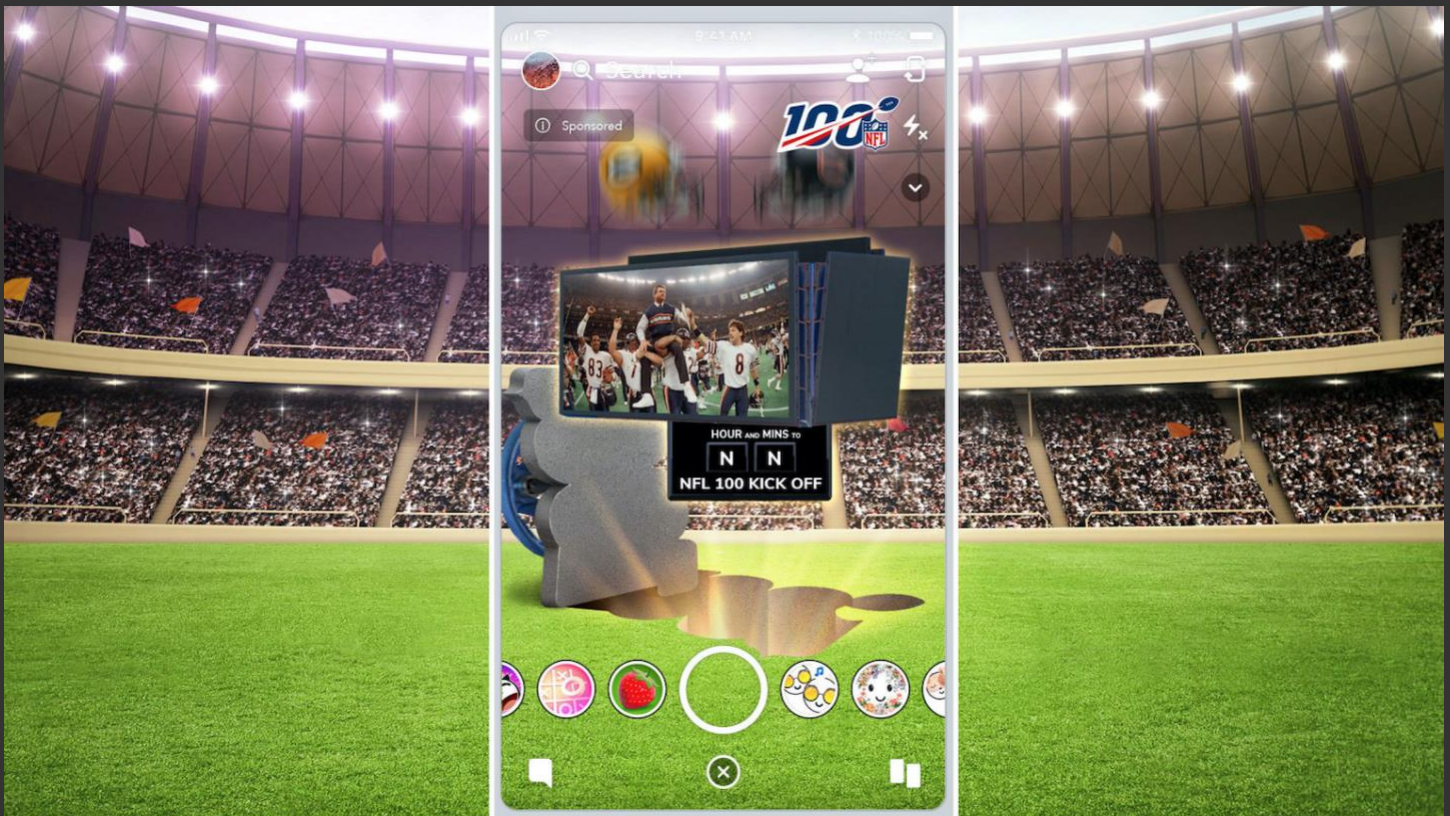

Image Source: Snap, Inc.

Part II Preview

Though Snapchat leads the way in many aspects of AR engagement and monetization, it's not the only player with extractable lessons. As mentioned in the introduction to this report, there are best practices likewise being demonstrated by a handful of players such as Pokémon Go and Houzz.

We'll be back next month in the second installment of this report series to dive deep on the moves and takeaways from these players. That will include proven successes like

Pokémon Go, as well as emerging players that so far carry the marks of potential success, such as Instagram and Tilt Five.

Stay tuned for that report next month… and ongoing narrative insights about what's working (and not working) in these early and impressionable stages of consumer AR's life cycle. There's still much evolution to happen, and many lessons to learn. We'll continue tracking and reporting what we see.

Image Source: Tilt Five

📊 Key Takeaways

During consumer AR's early stages, success stories are scarce but critical for extractable lessons.
- This includes product models (UX design) and business models (when/how/whom to charge).

Advertising has emerged as AR's revenue leader, given brands' affinity for immersive ad formats.
- AR transcends constraints that limit creative capacity in mobile advertising (e.g. banner ads).
- AR as an ad medium has "upper-funnel" reach and "lower funnel" direct-response capability.
- The combination of the two, seen in places like Facebook's News Feed, is rare in advertising.
- These factors drove an estimated $1.6 billion in AR ad spend in 2019, and $8.8 billion by 2023.

Snapchat has grown to become AR's engagement and ad revenue leader.
- It has 210 million lens users on a daily-active basis, which engage AR 30x per-day on average.
- Cumulatively, there have been 500,000 community lenses created and 15 billion views.
- Popular lenses have reached greater than 300 million views, demonstrating capacity for scale.
- Snap accounts for $1.114 billion of the $1.6 billion cited above according to ARtillery estimates.

This exceeds Facebook's AR engagement and revenues, despite its greater global reach.
- Instagram looms as an AR sleeping giant that could help Facebook catch up to Snapchat.
- Its camera-forward users align with AR, as do its product-discovery and transactional use cases.

Meanwhile, Snapchat is in the lead and has several transferrable lessons for anyone in AR.
- It has dedicated focus on AR lenses, congruent with its "camera company" ethos.
- Snapchat AR lenses succeed by building on the existing/popular activity of sharing multimedia.
- It has chosen communications – via social lenses – as an AR vessel, given its high frequency.

Other tactical moves include reducing friction for users to discover and activate AR.
- Its core design principle to *open to the camera* makes AR more accessible than a feed-based UX.
- It keeps terms like "AR" for internal use and never uses technical language in user-facing ways.
- All of the above tactics align with our "training wheels" construct for AR product success.

Seeing financial results – in ad revenue and Wall Street rebound – Snap is doubling down on AR.
- It's expanding beyond selfie lenses with rear-facing camera AR such as Landmarkers.
- It's applying computer vision for AR utilities like solving math problems and identifying style items.

These moves have developer-facing equivalents to cultivate the lens creator community.
- Snapchat has prioritized and incentivized developers, pursuant to boosting content libraries.
- Recent creator tools include easier lens creation features and creator profiles to distribute work.
- Resulting content attracts more users who in turn incentivize more lens creation – a virtuous cycle.
- These moves collectively resulted in a 40 percent boost in Lens Studio creators in Q3 2019.

Snap's AR scale has allowed it to form best practices around targeting paid/sponsored lenses.
- It's cultivating this intelligence into vertical-specific targeting strategies to attract advertisers.
- This, along with evolving capabilities in mobile advertising, will sustain Snap's AR revenue lead.

We will return in Part II of this series to examine success factors for other AR leaders.
- This will include Pokémon Go, Houzz and emerging AR players like Instagram and Tilt Five.

About ARtillery Intelligence

ARtillery Intelligence chronicles the evolution of spatial computing. Through writings and multimedia, it provides deep and analytical views into the industry's biggest players, opportunities and strategies.

Run by analysts and former journalists, coverage is grounded in a disciplined and journalistic approach. It also maintains a business angle: Though there are lots of fun and games in spatial computing, cultural, technological and financial implications are the primary focus.

Products include the AR Insider publication and the ARtillery PRO research subscription, which together engender a circular flow of knowledge. Research includes monthly narrative reports, market-sizing forecasts consumer survey data and multi-media, all housed in a robust intelligence vault.

Learn more here.

About Intelligence Briefings

ARtillery Intelligence Briefings are monthly installments of spatial computing analysis. They synthesize original and third-party data to reveal opportunities and dynamics of VR and AR sectors. A layer of insights is applied to translate market events and raw figures into prescriptive advice.

More information, past reports and editorial calendar can be seen **here.**

About the Author

Mike Boland was one of Silicon Valley's first tech reporters of the Internet age, as a staff reporter for *Forbes* (print) starting in 2000. He has been an industry analyst covering mobile and social media since 2005, and is now Chief Analyst of *ARtillery Intelligence* and Editor-in-Chief of *AR Insider.*

Mike is a frequent speaker at industry conferences such as AWE, VRLA and XRDC. He has authored more than 120 reports and market-sizing forecasts on the tech & media landscape. He contributes regularly to news sources such as *TechCrunch*, *Business Insider* and the *Huffington Post*.

A trusted source for tech journalists, his comments have appeared in A-list publications, including *The New Yorker*, *The Wall Street Journal* and *The New York Times*.

Further background, history and credentials can be read **here.**

Methodology

This report highlights *ARtillery Intelligence* viewpoints, gathered from its daily in-depth coverage of spatial computing. To support narratives, data are cited throughout the report. These include *ARtillery Intelligence* original data, as well as that of third parties. Data sources are attributed in each case.

For market sizing and forecasting, *ARtillery Intelligence* follows disciplined best practices, developed and reinforced through its principles' 15 years in tech-sector research and intelligence. This includes the past 4 years covering AR & VR exclusively, as seen in research reports and daily reporting.

Furthermore, devising these figures involves the "bottom-up" market-sizing methodology, which involves granular revenue dynamics such as unit penetration, pricing and growth patterns. More on ARtillery Intelligence market-sizing research and methodologies can be read **here.**

Disclosure and Ethics Policy

ARtillery Intelligence has no financial stake in the companies mentioned in this report, nor was it commissioned to produce it. With respect to market sizing, *ARtillery Intelligence* remains independent of players and practitioners in the sectors it covers, thus mitigating bias in industry revenue calculations and projections.

ARtillery Intelligence's disclosure and ethics policy can be seen in full **here.**

Contact

Questions and requests for deeper analysis can be submitted **here.**

References

i See ARtillery Intelligence Report: Industrial AR Benefits and Barriers (sign-in required)
ii See Article: The Language of Gen Z
iii See AR Insider Article: Snapchat Lens Users Engage 30x Per Day
iv See AR Insider Article: AR Lens Session Last 75 Seconds on Average
v See AR Insider Article: How Much Do Snapchat Lens Creators Make
vi See ARtillery Intelligence Report: AR Cloud and the Internet of Places (sign-in required)
vii See AR Insider Article: Google Double's Down on AR
viii See AR Insider Article: Examining AR Confidence Signals
ix See AR Insider Article: Test Driving Google Lens: The Strategic Take
x See ARtillery Intelligence Report: AR: The Top of the Food Chain, Part I & Part II (sign-in required)
xi See ARtillery Intelligence Report: 2019 Lessons, 2020 Outlook (sign-in required)
xii See ARtillery Intelligence Report: AR Global Revenue Forecast, 2018-2013 (sign-in required)
xiii See ARtillery Intelligence Data Brief: Advertisers Hot and Cold on AR (sign-in required)