

ARTILLERY DATA BRIEF

AR APP DISTRIBUTION: CHALLENGES & STRATEGIES 02/11/19





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Introduction

This data brief examines the biggest challenges faced by AR app developers, such as distribution, discoverability and product design. It applies to creators brands and publishers building AR apps.

Analysis

1. Foundational data.

Before going into some of the analysis below, it's useful to first level set on the number of AR apps. The latest available data comes from Sensor Tower. As of April, there were 13 million cumulative ARkit app downloads. These figures measure AR-only apps so don't include apps like Pokemon Go that utilize AR as a feature. Games are the largest category with 42 percent of downloads.

https://techcrunch.com/2018/03/28/arkit-only-apps-top-13-million-installs-nearly-half-are-games/

Separately, Apple revealed early in 2018 that there were 2000 ARkit apps at that time, which is .1 percent of the 2 million apps in the app store.







Based on estimated downloads and revenue for September 19 through March 19, 2018

SensorTower Data That Drives App Growth

sensortower.com





2. Apps vs. Web

There are many signals that apps are a sub-optimal delivery vessel for AR. Beyond existing adoption friction that faces any nascent technology like AR, app downloads have their own set of friction points. For example, most users have a monthly net app downloads of zero according to Comscore





This doesn't leave lots of available "real estate" for new apps. So anything that is downloaded has to pass a high bar in terms of critical status to a given user. And AR just hasn't achieved that level of user dependence or critical use cases to overcome this challenging app download environment.

Many AR thought leaders agree with this notion and are doubting if the app-heavy paradigm that ruled the smartphone era is best for AR. The thought is that AR's existing adoption challenges are exacerbated by the friction and latency of finding and downloading disparate apps.

"You effectively have all the same problems that a mobile app has," Presence Capital partner Amitt Mahajan told ARtillery Intelligence last year. "You have to convince someone to download it, and convince them to come back every day. All of the friction to get to that experience is still pretty high."

This tweet from 6D.ai's Matt Miesnieks (a well-respected AR thought leader) has a similar sentiment:





Going a bit deeper, apps could also be incongruent with AR's (proposed) dynamic ways of delivering data to devices. And apps are disadvantaged by their lack of interoperability compared to the link-structured web, which is the point Miesnieks is getting at above.

This could be important as it relates to the matter of networked AR experiences. These will be a key tenet of collaborative/social and multi-player AR, which could drive killer apps. The dynamic nature of those interactions will be incongruent with all participants having to stop and download apps.

In other words, in dynamic "pick-up" multi-player sessions for AR gaming could be saddled by the need for all parties to stop and download the right app. This is one key area where Web AR will have an edge.

These dynamics should be watched closely by anyone deciding where to apply development resources, and which distribution channels are optimal. Though web AR is currently inferior to apps in functionality, it could gain ground as the AR cloud's longer-term vessel of choice.

More analysis and commentary on web AR can be seen in the following executive interviews we've done.

8th Wall: https://arinsider.co/2018/10/03/powering-web-ar-a-conversation-with-8th-wall/ Ubiquity 6: https://arinsider.co/2018/12/06/building-blocks-for-ar-a-conversation-with-ubiquity6/



3. AR as a Feature

Beyond whether or not AR should be delivered by app or web, there is the growing realization that it should be delivered as part of well-travelled *existing* experiences, as opposed to standalone apps. That can help deliver AR to people in a sort of "training wheels" approach to acclimate them.

The strength of this method can be seen simply by looking at a few examples of AR as a Feature. The apps listed below are examples of AR as a feature. As you can see, these are some of the most successful and engaged AR experiences to date (see links for additional success metrics).

-- Pokemon Go

Just surpassed \$2 billion in revenue: https://artillry.co/wp-content/uploads/2018/11/Pokemon-Go-Pulls-in-2-Billion.pdf

-- Snapchat Lenses

70 million daily users: https://www.adweek.com/digital/dominos-is-bringing-its-pizzas-into-augmented-reality-with-a-national-snapchat-campaign/

-- Google Lens

See our review: https://arinsider.co/2018/12/19/test-driving-google-lens-the-strategic-take/ -- Amazon AR View

Placed within Amazon's flagship app

-- Houzz AR Visualization

In addition to these success metrics, AR can even prove to boost performance of the existing (non-AR) apps. One example can be seen from Houzz, where the addition of AR visualization has increased the amount of time consumers spend in the app by almost 3x.

https://artillry.co/wp-content/uploads/2018/07/AR-ENGAGEMENT-DATA-COMMERCE-ADS.pdf





4. What to call it.

The other element that's common to some of the above listed apps (Snapchat, Pokémon Go and Google Lens), is that they have large numbers of active AR users, without mentioning "AR." For example, Google Lens uses the phrase "search what you see," for more plain language appeal.

Google also uses "immersive computing" while magic leap and others use "spatial computing." But these should be for internal or industry use. Consumer-facing features or apps should use plain language and not necessarily invoke technical language or acronyms like AR.

This should be taken to heart when building AR apps. For example, in retail, AR could add value to brand apps (think: in-store navigation, product details, etc.). But in that context or in other business verticals/categories, think strategically about where AR features go and what they're called.



Top challenges for creators/brands/publishers with their AR apps

Here are the biggest challenges that we see:

1. Creative assets and 3D content.

Creative asset development will be a scarce resource in the near term, and therefore it's cost will be high. We believe that this will be a very opportune area for creative designers to start building 3D assets for use in AR ads and experiences.

Similarly, a very large opportunity will be tools that "democratize" AR graphics creation. That includes tools that help retailers or product manufacturers to bring all of their products into AR through 3D scans and mockups, so that they can be demonstrated to consumers within AR experiences.

A few steps in this direction have already been taken such as the integration of USDZ into Adobe Creative Suite, and Shopify's integration of QuickLook into its toolset for small business marketers. https://artillry.co/wp-content/uploads/2018/11/600K-Stores-Have-Access-to-AR-Quick-Look.pdf

Most AR visualization tools have included self-produced 3D asset libraries such as IKEA, Houzz, BMW and other early leaders. But a third-party scalable solution will likely come to the market soon to create more standardization and automation, and it will be a big advancement for the industry and bring ad creative costs down.

"The larger players like Wayfair and IKEA have their own means and methods that they've created inhouse, because there's nothing out there that's scalable and affordable and easy," said Super Ventures' Tom Emrich. "These are the types of startup opportunities that, as an investor, I'm looking at."

2. Ad economics and reach

Currently, consumer AR engagement is growing quickly, but it's still relatively small compared to other ad media such as television and online banner ads. This reach deficiency is amplified by the fact that many AR experiences are short in duration, thus lowering ad inventory further.

So any AR publishers that hope to monetize their experiences through AR ads may find there is still low demand from advertisers to use AR. Given that advertisers are very reach-driven, this will be an issue in terms of building demand among advertisers in the near term.



The appeal for AR ads in the near term will have to therefore be "quality over quantity." In other words, its benefits are in the ability for highly-engaged user experiences that have high conversion rates. This can be seen in the Houzz data cited above.

This will appeal to many advertisers that represent an early-adopter minority but it will still be a challenge to get the broader advertising world to look past the deficiencies in reach. This will change over time as AR adoption grows, but will be a notable challenge in the near term.

Further recommended reading: ARtillery Data Brief (please log in before clicking). https://artillry.co/wp-content/uploads/2018/12/AR-Advertiser-Adoption.pdf

3. "Native" strategies and new metrics.

One challenge for AR developers is adapting their strategies and mindsets around AR, and understanding that it is inherently a new form factor and a new set of user behaviors.

Once they understand that, they'll be able to design experiences that are native to the medium. But until then -- just like we saw in early days of the smartphone -- there will be a lot of misfires and attempts to port existing experiences and designs. That inability to think natively will be AR's biggest content challenge of the next few years.

Similarly with performance metrics, it will be a challenge in terms of accurately measuring engagement. Just like in early days of smartphone ads when legacy metrics (e.g. desktop metrics) were brought into mobile apps, we're going to see a long period of learning curves in AR for developers to not only design experiences natively but also measure them natively.

For example, we'll likely see lots of AR engagement measured with things like click through rates. The eventual metrics will have to better capture things like buyer intent or actual transactions. Given AR's use case in retail, it should measure activities that happen closer to the transaction.

And because of the use of the front facing camera for things like AR lenses, computer vision could determine qualitative signals of brand affinity and engagement through biometric signals. For example, pupil dilation. Those figures won't be as easy to benchmark and get the brand world to adopt, but it will eventually (longer term) be vital to AR's accurate assignment of value and ROI.

4. Experience Design

We like to say "VR is a meal, AR is a snack." The usage realities of mobile AR compel experiences that happen in short bursts. This has a lot to do with the physical strain of holding one's phone up for extended periods of time. AR is also battery-intensive, so short sessions will have less impact on battery.

This boils down to designing app mechanics that involve holding the phone up for short segments. Snapchat and Pokémon Go are exemplars, with most of the AR value derived from media capture



that happens quickly. The remaining in-app time involves sharing that media with the phone held down.

"In Pokémon Go, the only time they really use it is to share their encounter with the Pokémon," said Niantic's Keslin. "To take that one picture is natural....Everybody takes a picture, and then they're done. It's not walking around the world with the phone in front of their face."

The main point is that the form factor should drive developers' design decisions for mobile AR apps. That will continue to be a moving target as we learn about user behavior, but we're seeing lessons already. And like with smartphone app tactics, the playbook will evolve rapidly.

5. Active/Repeat usage

One lesson from the last decade in mobile app development is to be wary of vanity metrics. The most notorious is 'app downloads': A more telling sign of traction is monthly active users (MAU). Like many historical lessons, this will apply to AR, especially app-based mobile AR.

According to our survey data 66 percent of mobile AR users are active at least monthly. Going one level deeper, 54 percent use mobile AR at least weekly. Only eight percent used AR just once, indicating that the active-use challenges endemic to mobile apps aren't as great in AR.





But going even deeper, what types of apps are driving repeat usage? We've separately looked at the types of apps that get the most traction, with games and social not surprisingly leading. But what happens when you array these categories against the above usage frequencies?

We went back to the raw survey data set for answers. For each respondent that reported the type of apps they use, how did they answer the above frequency question? The results are below, with each app type broken down by reported frequency of usage, and some notable findings.

Games and product visualization have the highest share of users that return several times per week. That's followed by education, and social. Product visualization makes sense as a high-frequency activity, as does education and social AR experiences. These are naturally recurring events.

One lesson is that certain categories of apps are inherently advantaged when it comes to tendency for recurring use. But that's only half the battle: Execution is critical within all categories to create compelling and sticky AR experiences that blend novelty, game mechanics and design.





Final Thoughts: Timing

What everyone's really waiting for is AR's killer app, which we could see emerge sometime late 2019 when AR developers truly gain their native footing. And we believe that will be social and/or gaming oriented and rely on network effect and developments in the AR cloud.

As a historical comparison, it took 2-3 years after the first iPhone before we saw killer apps, such as Waze and Uber around the 2010 timeframe. We could see killer apps in that same elapsed time from last year's ARkit launch, not to mention the same lesson in native thinking and UX.

"In 2007 when Apple launched the iPhone, most of the apps were flashlights," said Escher Reality CTO Diana Hu at TechCrunch Disrupt. "People didn't know what to do yet. And there's going to be this phase of learning. There's a genesis of any technology when people need to experiment."



About ARtillery Intelligence

ARtillery Intelligence chronicles the evolution of augmented reality (AR) and virtual reality (VR). Through writings and multimedia, it provides deep and analytical views into the industry's biggest players, opportunities and strategies. It's about insights, not cheerleading.

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 AR & VR, long-term cultural, technological and financial implications are primary.

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

Learn more at https://artillry.co/about





About the Author

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Contact

Questions and requests for deeper analysis can be submitted at: https://artillry.co/contact/



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