

Social Network and Search Engine business models

Comparative Study

Google, Facebook, Twitter, Snapchat, Pinterest

Strategy - Business Model - Financials - Economics

Facebook

Twitter

Snapchat

Pinterest

Google

EXCERPT ONLY: 30 pages of the 133 page comparative case study

Revenue: How do Search and Social platforms make money?

Google and Facebook are highly profitable companies with good balance sheets, little long-term debt and staggering income statements (statement of operations) for over a decade. Twitter has started becoming profitable as of recent. Snapchat and Pinterest have to still get there but are making good revenues.

Social and Search platforms

Search and Social¹, as I will call it in this study, are the biggest players in the digital ad industry. Compare the charts on the next page. The first chart shows that US digital advertising has exceeded TV ads a few years ago and remains on a growth trajectory while the latter is forecasted to decline slowly (or stay put).

You can also see how small the three smaller players (Twitter, Snap Inc, Pinterest) are by comparison. But you can interpret it also as great opportunities ahead due to the market size.

The macro view shows how Google's and Facebook's revenues compare to the GDP generated by [entire industries](#) in the US. This typically is the revenue of all players in that industry (with some [exceptions](#), notably retail). I have chosen industries in a similar ballpark to Google+Facebook. There are some bigger ones which are not shown.

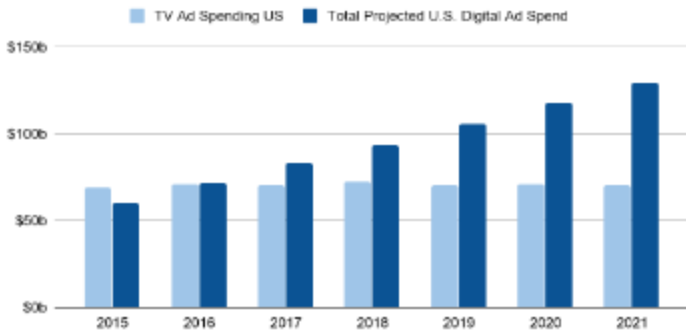
The thick line shows Google+Facebook's *global* revenue. Their *global* revenue is now on par with the US air transportation industry and at 62% of gas and oil exploration (a pretty big industry, right?). The dashed line shows the "software industry" which they are part of. You can see how they are a major contributor to its growth rates. This is not meant to be a perfect comparison.

The aim is to give us a feeling of what we are talking about. We will get into more revenue details later. But I wanted you to be aware of the macro view.

¹ Note that Pinterest, Twitter and Snapchat CEOs don't call their platforms a social media platform. The reason is that Facebook dominates this category. But I will use this terminology (Social and Search) throughout this study.

US TV Ad Spending and Total Projected US Digital Ad Spend

Source: eMarketer

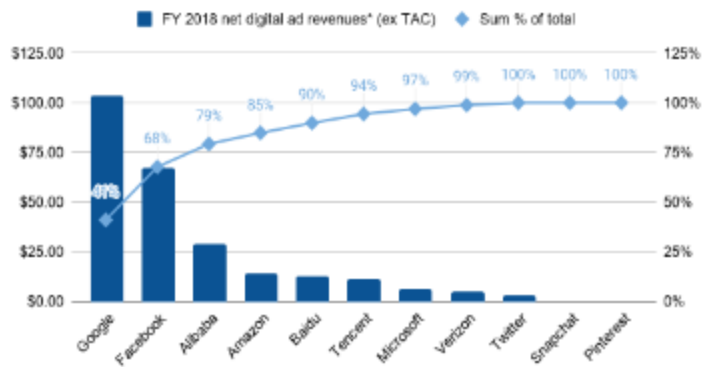


Digital advertising in the US has exceeded TV and is still on a growth trajectory while broadcast TV is not. Digital TV may increasingly incorporate digital ads tapping into existing digital ad infrastructure (which we will cover later).

Google is the largest player followed by Facebook. Alibaba and Amazon are big in the ecommerce ad vertical. Snapchat, Pinterest and Twitter are trying to gain market share. Below you see how large Google and Facebook are in comparison to entire industries.

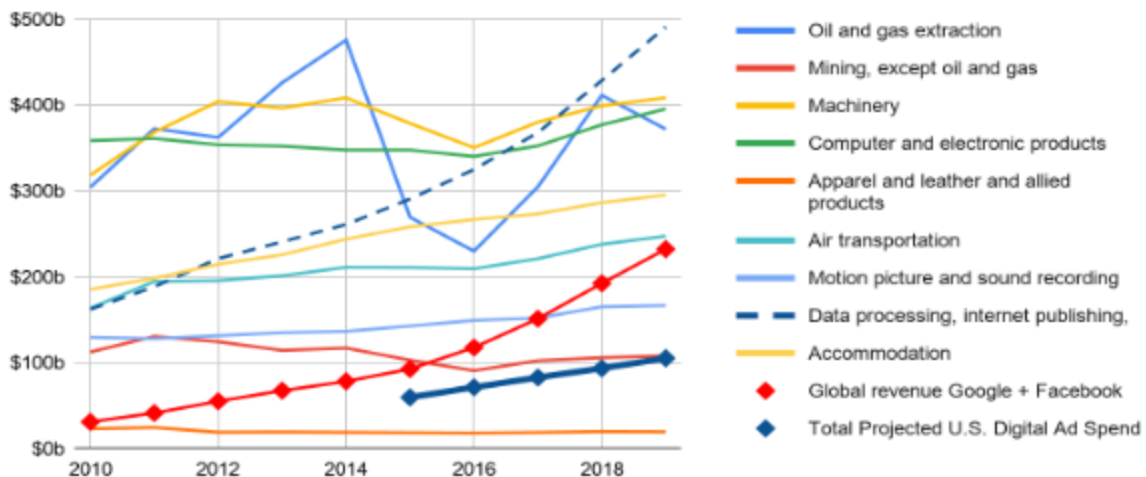
Major global digital ad sellers, 2018

Source: eMarketer



US GDP by Industry vs Google/Facebook global revenues

Source: Bureau of Economic Analysis, 10-Ks



Value proposition for Businesses

When Search and Social platforms talk about “businesses” it can mean a lot. It includes all of the following and then some more:

- Brands
- Businesses
- Influencers
- VIPs
- Media & News outlets
- Website owners
- Blogs
- Creators
- and more

Why are businesses important in the first place? For starters, they are potential advertisers. Secondly, they create content that is valuable for Search and Social platforms without being paid for it. The infotables on the next two pages demonstrate these two points.

Search platforms would not exist without the above participants. No internet as we know it. Twitter would also be quite a different place.

Some may say that Facebook would be a better place but don't forget that the above includes also VIPs, influencers, media/news that are beloved (and create frequently shared) content on Facebook.

Put simply, businesses create content that Search and Social users value (at least to some extent).

Platforms make sure that they give businesses enough value propositions to make them contribute content organically (i.e. for free) to the platform but not as much that they never become paying advertisers.

Businesses get organic traffic ...

Businesses on Social and Search platforms are:	Facebook	Google
<ul style="list-style-type: none"> - Brands - Businesses - Influencers - VIPs - Media/News - Website owners - Blogs - Creators - And more 	<p>160m+ businesses²</p> <p><i>“small businesses now use our products -- the vast majority of them for free -- and of those we surveyed, half tell us that they've been able to grow their businesses” CEO Mark Zuckerberg (pdf)</i></p> <p>⇒ 7m advertisers (2020)³</p>	<p>400m active websites⁴</p> <p><i>“more than 1.3 million businesses, using Google’s advertising solutions [in the US in 2018]” Economic Impact Report (US), pdf</i></p> <p>⇒ 4m advertisers (2015)⁵</p>

Only a small percent of businesses become advertisers (above). But businesses spend considerable costs/efforts on maintaining an organic (=unpaid) presence and they do benefit from it by getting a large share of traffic (below).

Organic efforts	Benefits from it	And share of clicks
Businesses spend considerable efforts/cost (estimated \$80b) into search engine optimisation (SEO) with the aim of connecting to more potential customers / followers mostly organically	Google sees a 5x benefit from organic traffic to Businesses for every \$1 spent on Google for paid ads ⁶ . This would bring the overall benefits of organic traffic to >\$0.5t, exceeding the GDP of most countries	Similarly, only 15% of all search traffic is going to paid ads (i.e. 85% of search results page viewers click on organic search results)

² About Facebook pages, [2020](#)

³ Company data [2020](#)

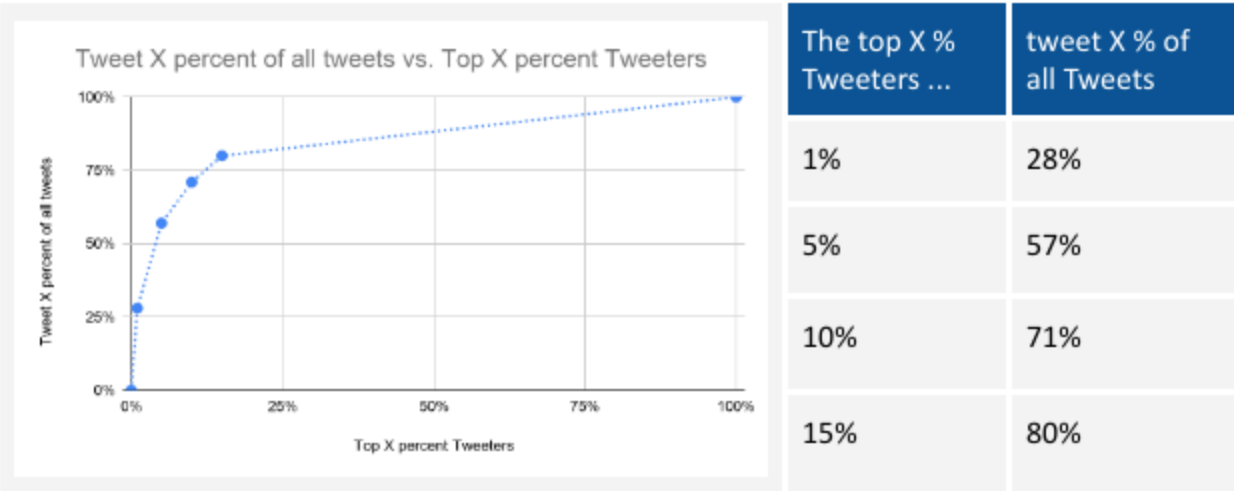
⁴ 400m active [websites](#) (and 1.6b+ pages) of which we can assume Google crawls and indexes most.

⁵ [2015 estimate](#)

⁶ This ratio is based on a study from 2009 which researched a different search engine. Whether this ratio is transferable to Google needs to be taken with some caution. But we should assume that they have spent some thoughts on making sure this is not too far off.

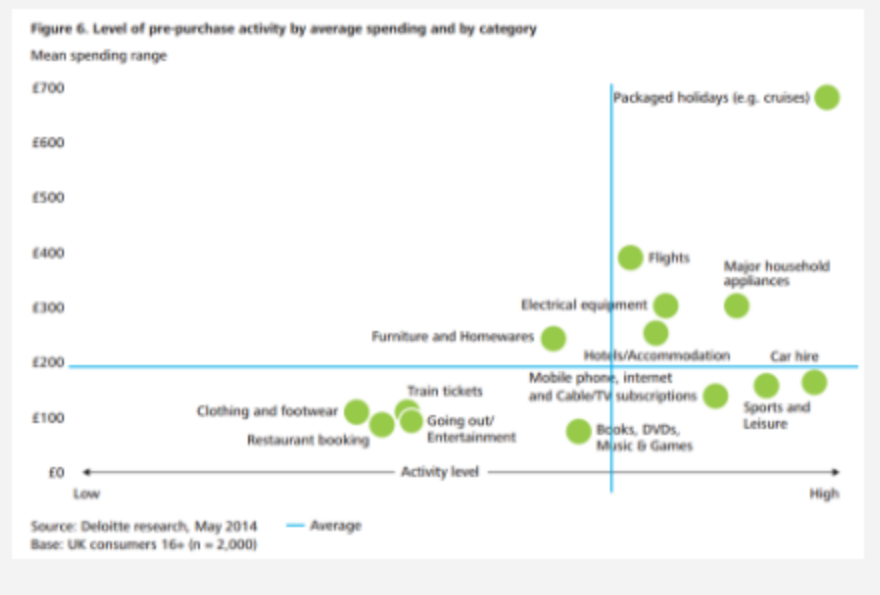
... and create organic content in return

The so-called “[Internet rule](#)” says that most content gets created by *few*. It gets commented on and shared by *more* users and consumed by *many* (also called “[participation inequality](#)” or “[1% rule](#)”). For Twitter, where we have an estimate, we see that the top 1% Tweeters tweet 28% of the content and the [top 15% create 80%](#). This ratio likely differs a lot by platform.



Well, we all know that businesses (under the wide term above) create content and use Search and Social platforms to get their content found, accessed and consumed by the right audience (users, consumers, etc). Two key motivators are of commercial nature and/or to gain influence (incl brand building).

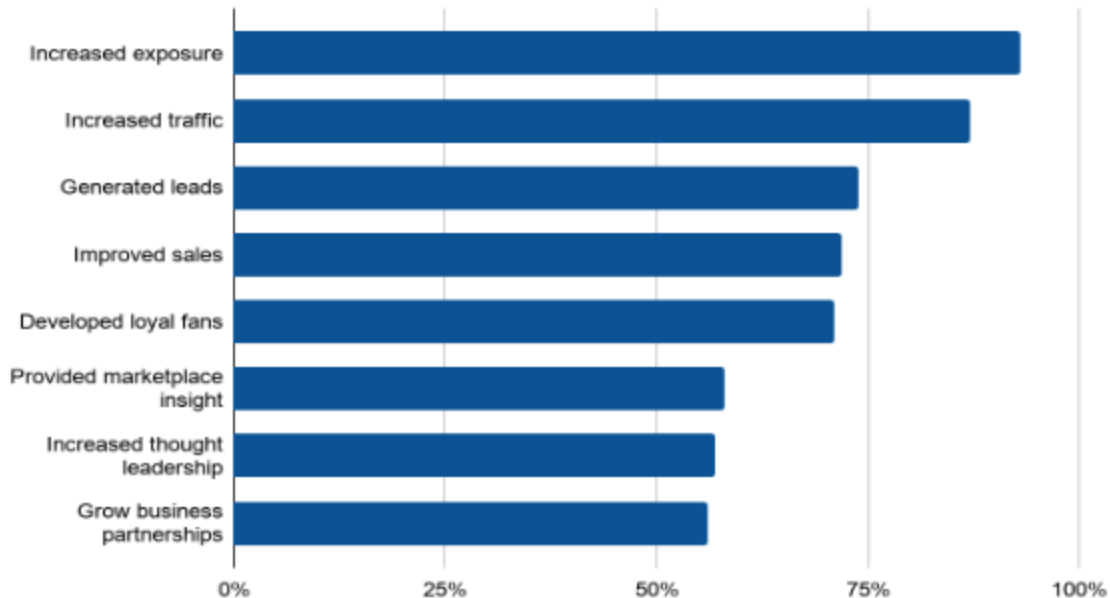
This [Deloitte study](#) shows what we all know. The more expensive a purchase is, the longer the internet research leading up to the purchase. Businesses who are not there miss out! And the fear of missing out (i.e. losing market share) plays an important role. Typically, businesses aim to *gain* market share.



Value propositions for Businesses

Leading benefits of using social media for marketing purposes worldwide as of January 2019

Source: Statista



A [survey](#) that indicates what businesses perceive as the value proposition of Social platforms

Checking on the platforms' business pages, you will see that they emphasise **connecting** businesses with (the right) audiences. Growing one's business is also always found on these pages. Below the headline statement:

Facebook	<i>Make connections that matter.</i>
Twitter	<i>Connect with what's happening</i>
Snapchat	<i>Connect with your audience</i>
Pinterest	<i>Your inspiring ideas belong here</i>
Google My Business	<i>Engage with customers on Google for free</i>

Other value propositions that can be added to the above survey:

- **Fear of falling behind:** competitive forces (and sometimes [stoked fears](#)) can quite quickly lead to a dynamic within an industry whereby even a few early adopters can trigger a cascade of followers. Google My Business lists as the first benefit to its app the ability to [respond to customer reviews](#) (also a subtle way to stoke fears)⁷
- **Supporting/influencing the customer's research:** Search and Social reduce search cost/efforts for the consumer. Well-presented businesses can get more customer attention than they otherwise would and inform their decision
- **Monetisation of content:** e.g., on YouTube and on webpages (AdSense) through ads on webpages delivered by Google. For Australia (a \$A1.4t economy), this figure is stated at \$A1.6b (i.e. 0.1% of its GDP)⁸
- **Productivity increases:** using Google tools improves business productivity. Google states this to be \$A1.34b for Google Maps and \$A1.57b for Google Search for Australia⁹ (i.e. ~0.2% of its GDP)
- **Other** benefits (value proposition) which largely align with what we have already covered here for [Social](#) and here for organic [Search](#)

Opportunity for small and medium-size businesses

Platforms keep on emphasising their importance for small businesses (see a.m. Zuckerberg quote). Google's Economic Impact report for the [US \(pdf\)](#) and Australia ([pdf here](#) with more details on methodology) keeps on repeating this point. It is important and we will come back to this in the next section. For Australia, **64% of the benefits are said to be going to small and medium-size firms.**

⁷ But whether this leads to a nil-sum game among the participants in the long run is a different question. Aggregate demand / spending will have increased but not been distributed to all players equally. It likely differs for different industries and participants therein.

⁸ More details in the Google Economic Impacts (Australia) report ([pdf here](#))

⁹ More details in the Google Economic Impacts (Australia) report ([pdf here](#))

Value proposition for businesses (summary)

With that, let's summarise the benefits for businesses as follows:

1. **Access to audience:** access the vast audiences that have joined the platforms
2. **Well-matched traffic:** platforms will aim to match businesses with the best suited traffic (even and esp organically)
3. **Brand marketing:** e.g. increased exposure and other marketing goals can be pursued (e.g. staying top of mind, influencing consumer's decisions, etc)
4. **Increase leads, sales:** Organic traffic can capture more leads and more sales, app installs, etc
5. **Build followers / gain influence:** for some types of businesses (e.g. individuals) building influence for ongoing/long-term gains
6. **Word-of-mouth:** Ability to get recommended among users, good reviews/ratings or even go viral
7. **Customer channels:** businesses communicate to the customer via Social channels, offer support, etc
8. **Feedback, metrics:** ability to get direct feedback or monitor metrics
9. **Monetising content:** Creators and owners can monetise their content, apps, games, videos as a 3rd party ad partner
10. **Fear of falling behind / missing out:** in competitive industries, it is not possible to have no online presence if others do
11. **Productivity gains** through search/transaction costs reduction
12. **Low cost entry, hybrid use & scalable:** ability to join organically at low cost and then and scale up via paid advertising

Multi-sided Search and Social platforms

Now that we are on the same page on the value propositions for each of the major participant types, let's take a look at how the sides come together. If each side remained among themselves, the platform would be a very different place. You may have come across platforms that have not been able to get the different sides interacting. They are not likely to grow as much.

Professor Andrei Hagiu [describes](#) multi-sided platforms (=platform businesses) as:

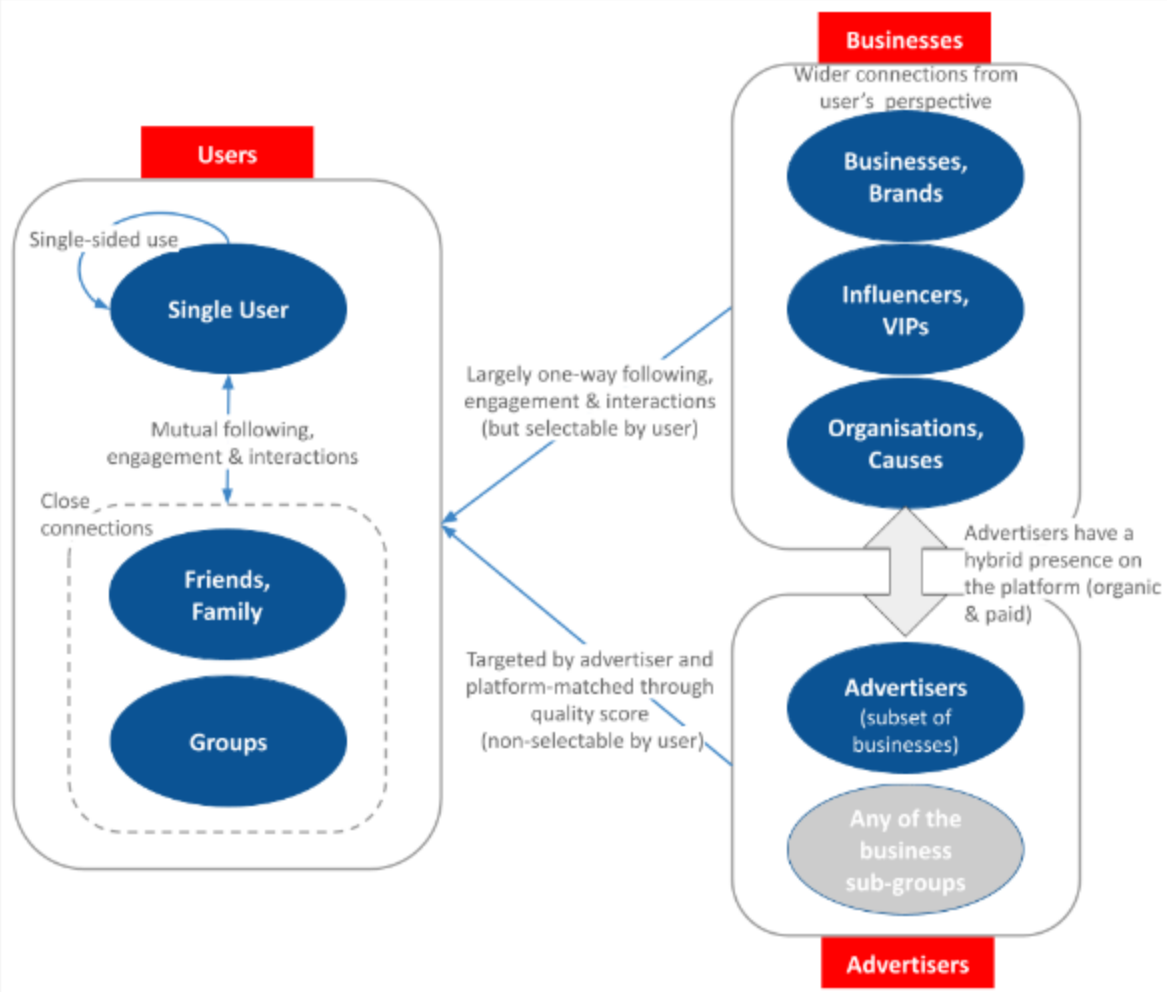
“Multi-sided platforms (MSPs) are technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups.”

Note that there can be different and legitimate ways of defining the sides of a platform depending on the problem one wants to solve or analyse¹⁴. We have the three major sides (participant types): Users, businesses and advertisers.

1. **Users:** the majority of participants are “ordinary” users (non-businesses)
 - **Close connections:** users interact with other users, such as friends, family, groups, etc. through two-way communication. I am calling this out separately because we will use the term where it makes sense to look at things from a single-user perspective. Secondly, this sub-side does not exist on Search platforms that are more single-user centric
2. **Businesses:** (e.g. Influencer, VIPs, brands, businesses, organisations, web site owners, etc). From a single-user perspective, we also call them **wider connections / network**. These are typically characterised by a one-way followership (or Search) relationship and communication
3. **Advertisers:** Are the subset of businesses that pay for ads and who are essential for the monetisation of the platform

¹⁴ For other purposes, it can make sense to subdivide these sides further or even differently. I have done so in the case studies myself because it made sense to do so in the context of analysing a single platform. As mentioned a few times now, for the comparative study, it makes sense to harmonise the terminology.

Sides (=participant types) of multi sided Social/Search platforms



Here we see our three sides again (Users, Businesses, Advertisers) with more detail. See it as a Venn diagram that combines several sub-sides to these three larger entities. Note that "close connections" don't exist on Search platforms. On Social, *the sides interact with each other through defined actions*. See below some examples that are from the survey that I have shown in the User VP section (where the respective platforms scores >40%).

Facebook	Twitter	Snapchat	Pinterest
<ul style="list-style-type: none"> - Viewing photos - Sharing content with everyone - Watching videos - Sharing content one-to-one 	<ul style="list-style-type: none"> - News - Watching videos - Sharing content with everyone 	<ul style="list-style-type: none"> - Viewing photos - Watching videos - Sharing content with everyone - Sharing content one-to-one 	<ul style="list-style-type: none"> - Viewing photos - Finding/shopping for products

What are network effects (NWE)?

Network effects (NWE) are the effects that incremental participants and participation have on the value of the network to other participants.

In the context of multi-sided platforms (=platform businesses), we distinguish between two different types of network effects:

1. **Direct network effects, also called same-side network effects**, are the effects of participants on one side of the network on other participants on the same side of the network. An example on Social is the creation of **relatable content** among **users** (esp. **close connections**)
2. **Indirect network effects** are effects of one side of the MSP on the other side of the MSP and are also called **cross-side network effects**. Content created by businesses is an example for cross-side network effect on Social and crucial on Search

Matching: network effects take place after a **matching process**. This can be platform-determined or user-determined. In the latter case, it can require mutual consent (e.g. “friend request”) or not (e.g. “followership” of a VIP). The matching type often concurs with the directionality of the communication.

Positive and negative network effects: Network effects can be positive or negative. Network effects on Social among close connections tend to be mostly positive. But they can also turn negative (bullying, harassment, etc).

Enhancing positive network effects and reducing negative ones is the most important activity of a platform business

Then there are wider negative network effects (and externalities) where e.g. the platform is misused to spread disinformation (more later). Negative network effects need to be managed by the platform. Facebook had 30,000 staff ([2018, pdf](#)) to manage the multitude of negative network effects of which they say:

“This work will never be finished, but I now believe we've built some of the most advanced systems in the world for dealing with these issues.”

Platform sides & network effects - 2 examples

Network effects User-Groups

Network effects User-Employer

1. **Users-Groups:** Facebook is recommending me to join groups that some of my connections have joined. Thereby - more than likely -, I would find more people to connect to, increasing network effects further. There are 10m groups on Facebook with 1.4b people using groups
2. **Users-Firms/Employers:** In the jobs section, employers (i.e. firms) can post jobs. This is of value for Facebook for several reasons: (1) firms are potential advertisers, (2) more data about (a) firms and (b) jobseeker-users, (3) more value for users, (4) user engagement = reason to come back more often to check for jobs (i.e. more screen time, more ads to be displayed in news feed, etc)

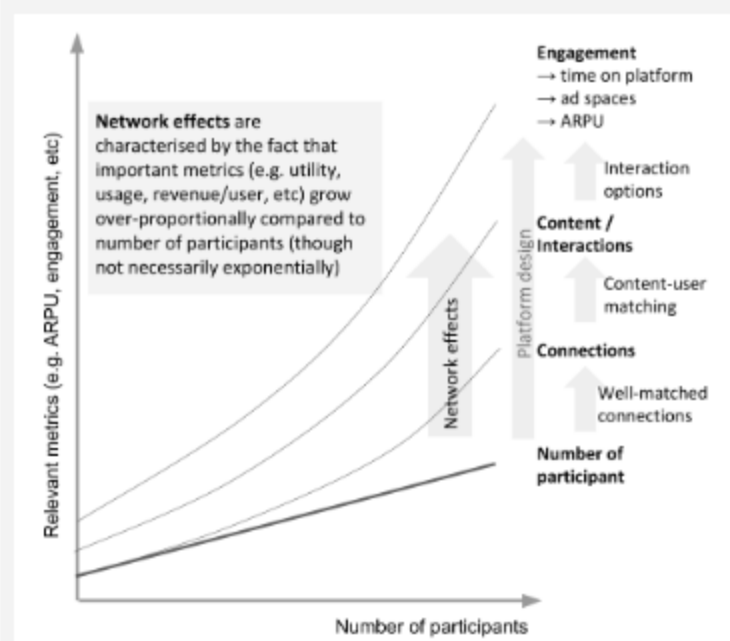
Types of Network Effects (NWE) on Search / Social

Network effects are often referred to as the most important competitive advantages of platforms.

The chart indicates that, as the number of participants grows, the different types of network effects can grow at faster rates.

We will be looking here *qualitatively*. It is a method that you can apply to your own idea or analysis.

Note: this section goes hand-in-hand with the [platform design factors](#) section.



If you are developing your own platform, the below factors should give you good ideas on metrics you can measure and ultimately understand how those NWE play out on your platforms. As you will see shortly, network effects will be strongly driven by the multitude of platform design decisions.

“+” Indicates positive network effects with a growing platform

“-” Indicates negative network effects with a growing platform

+

Well-matched connections

Connections underpin NWE. But they are not NWE as such. It is often pointed out that network effects are based on [Metcalfe's law](#) (which says that the number of connections increases at the square with the number of connections, i.e. N^2 with N =number of participants).

I would not say that this is wrong but like to call out that you should not use it as a formula but rather as a guide. It is a correlation that was used in another context and needs to be overlaid with many other factors, firstly, with who is actually connected to whom.

Platforms, by no means, try to bluntly maximise the number of connections. That in itself will lead to confusion and overload, burying relevant content among irrelevant content. Platforms try to do quite the opposite, by aiming to (algorithmically) provide **well-matched connections** (which is why you see me use this phrase so often).

Take it, not all connections are equal.

		<p>Closer connections drive more engagement. Snap Inc CEO Evan Spiegel says: <i>"Your top friend in a given week contributes 25% of Snap send volume. By the time you get to 18 friends, each incremental friend contributes less than 1%"</i>¹⁵</p> <p>Now, consider that half of Facebook users have more than 200 connections (average of 338).</p> <p>Amending close connections with well-matching (user-selected), wider connections seems to be what platforms are striving for.</p> <p>With all these caveats, we can say that an increasing number of participants leads to a larger pool of well-matchable connections. The number of (well-matched) connections has the potential to drive the next important factor: engagement.</p>
+	Engagement	<p>Engagement is very important. It can be measured in various ways. Important engagement metrics are the time spent on the platform per session, number of sessions per day, DAU/MAU, etc.</p> <p>Duration-based engagement metrics correlate with the supply of ad spaces and therefore with revenue. The more a user scrolls down¹⁶ the News Feed, the more ad spaces get created, the more ads shown, the higher the revenue. Engagement will correlate with ARPU.</p> <p>Engagement is not a network effect as such. It is the result of well-designed network effects. And through its various ways of measurement, it can be a good proxy for how well a platform creates network effects (thus, it is an indicator of NWE rather than a NWE itself).</p> <p>Good ways to create engagement through network effects are:</p> <ul style="list-style-type: none"> - Engagement through content + interaction + platform design (Social) - Engagement through content + platform design (Search) <p>These are the next two items that we are looking at.</p>
+	Content &	Content creates engagement on Social and Search.

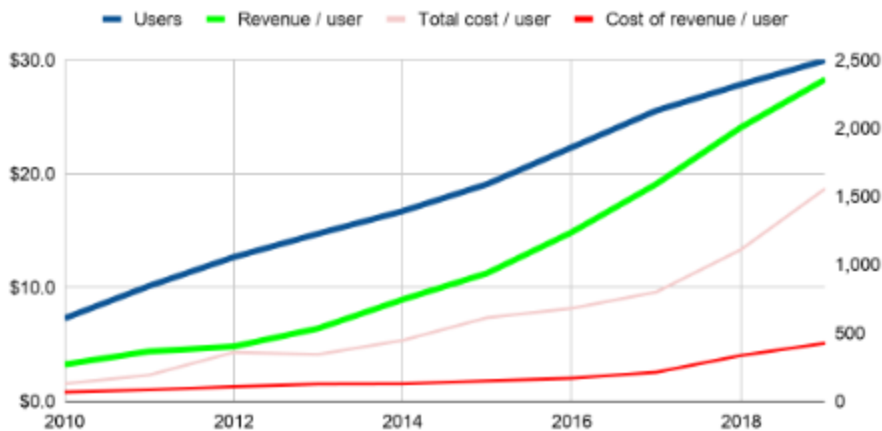
¹⁵CEO Evan Spiegel in an [internal memo](#): "Your top friend in a given week contributes 25% of Snap send volume. By the time you get to 18 friends, each incremental friend contributes less than 1% of total Snap send volume each. This means that in order to grow our business we need to make sure that we help all Snapchatters communicates with their best friends. Finding best friends is a different problem than finding more friends, so we need to think about new ways to help people find the friends they care most about. We can't establish **network effects** if our users can't use Snap to communicate - so we need to work hard to make sure that all Snapchatters have best friends they can communicate with."

¹⁶ Different story, if people do so because they can't find any good content but this is not what I'm talking about.

Facebook Network effect metrics

Facebook User vs revenue and cost

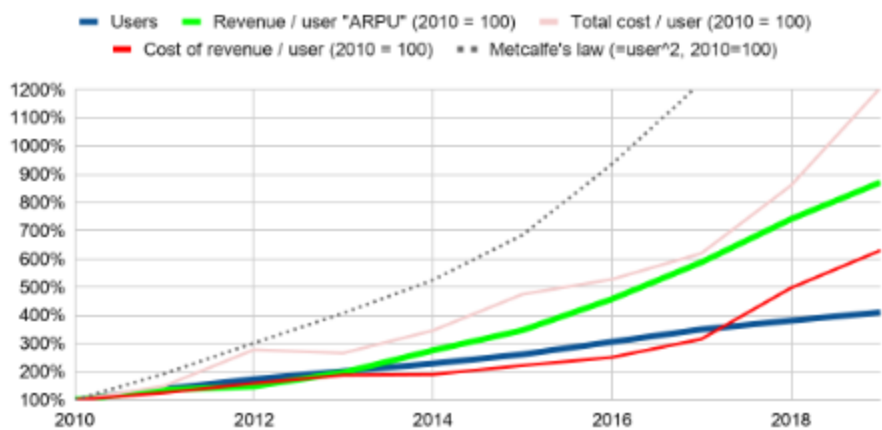
Source: Annual reports



A number of methods (here a brief [overview](#)) have been suggested to calculate network effects incl revenue / user as a proxy. We are using this measure and also using the cost side (not a suggested measure). Note that we are only going back until 2010.

Facebook User vs revenue and cost (2010 = 100)

Source: Annual reports



This graph shows the metrics normed to 100 in 2010 so we can see which ones have grown the fastest.

Revenue has grown much faster than user numbers which, at least in part, may be explained by NWE and with user engagement.

Total cost has grown the fastest but it includes discretionary expenses, such as R&D investments. You can see in the absolutes that there is still a healthy profit margin.

On the cost side, cost of revenue / user is more interesting. In their 2018 annual report, they show the key contributors to the increase as *“data center capacity and technical infrastructure to support user growth, increased user engagement, and the delivery of new products and services[...]*” More interesting is the fact that it has grown slower than revenues.

The second chart also shows Metcalfe’s law. As expected, it grows faster than real ARPU.

The most important point of these charts are the relation of the thick blue and thick green curves in the second chart which indicates network effects.

Side-by-side comparison tool w/ example		
	Facebook	Google
Network effects		
Engagement	2-way, direct communication	1-way, website content
Interaction	Close conn: 2-way, frequent: Wider conn: 1-way, infrequent	Wider connections, on user demand
Content creation	Fast paced: 100b message & 1b stories / day	Long-lasting (except news): 400m sites, ~1.6b+ pages
Signalling	Liking, emoji, sharing, commenting, etc	User → owner: Analytics Owner → owner: Linking
Data	Geo-demo, interest, behaviour	Interest, behaviour, geo
Specialisation / diversification	Sentiment, metrics-driven	Analytics/metrics-driven, SEO
Platform health	>30,000 employees	Unknown; 10,000 for Youtube
Value Proposition for users		
Find/access information & solutions to problems	Through enhanced access to close and wide connections	Through access to websites and expertise behind (EAT)
Low search costs/efforts	Platform search, user groups	Highly optimised in many ways
Different search modes	Social search (“asking”)	Targeted, explorative search
Convenient communication	Text, image, video, etc	Google had/has its own set of social platforms and tools. But these did not reach the scale that Google expects (e.g. Google+). Tools still exist but not core priority.
Relatable/engaging content	Created by connections	
Expression/sharing views	Posts, comments, liking, etc	
Messaging/chat	Messenger, WhatsApp, etc	
Single-sided uses	Games, videos and lots more	Many single-sided tools
Value Proposition for advertisers		
Access audience	~5% of followers reached organically	High penetration in many countries
Well-matched traffic	Interest based & followership	Onpage SEO and other signals
Increase leads, sales	Organically and paid ads	Sales, lead-generation pages
Brand marketing	Very well suited to build brand	Website design
Build followerships / influence	Through engaging posts, etc	Subscription or social accounts
Word-of-mouth	Sharing, linking, virality	Mostly through social sharing

Platform design considerations (Social / Search)

There are many design factors for Search/Social platforms. These will determine the value proposition and affect network effects, search/transaction costs and other factors of the platform. It is these factors that will instrumentally determine the trajectory of the platform in the long term.

Connections types	<p>One-way following does typically not require consent from the one being followed. There are different rules on who can be followed.</p> <p>On Twitter, everyone can be followed by default. On Facebook, this depends on privacy settings.</p> <p>Two-way following requires mutual consent. This is called “friends” on Facebook, on Snapchat everybody is a friend.</p> <p>On Snapchat, one-way and two-way connections are shown in different digital properties and Facebook is also slowly separating things.</p> <p>Further, different platforms follow different strategies in suggesting further connections. This is most prominently featured on Twitter.</p> <p>On Google, any indexed page can be accessed (website owners can tell Google not to crawl & index their pages).</p>
Communication direction	<p>Typically, the communication direction aligns with how the connection was entered. Friends and close connections typically communicate two-way, whereas one-way following (wider connections) typically leads to one-way communication. Followers can comment, use emojis etc, but it’s less likely to be displayed to the originator unless they drill into the details.</p>
Interaction options	<p>Interactions are crucial for Social. The typical interactions are through posts (including various media types) and responses.</p> <p>Response types are just as crucial, if not more:</p> <ul style="list-style-type: none">- Typically, there is the option for a text response to each originating post directly below the post (search cost/effort reduction)- Non-text responses (1-click): sharing, liking, emojis, etc <p>On Search, interactions as such are not typical unless comment boxes, like buttons, etc are used which is why many website owners also have a social presence.</p>
Media types	<p>Text is still key content but inclusion of media has increased engagement. On Social, inclusion of photos/video originating posts is increasing (it may not hold true for all countries) but certainly going that way.</p> <p>Snapchat without photos/videos is unthinkable. Then there are tools to further enhance media types, such as filters, lenses (and other ways, e.g. TikTok’s lipsynch, etc).</p>

Collect data for value in return - deep dive: Location targeting

I strongly encourage you to capture data for the predominant purpose of providing a great value proposition.

As an example, let's use real-time location data capturing.

Let's compare three great platforms: Google Maps, Google Waze and Snapchat's SnapMap. Starting with a summary, note the bolded differences.

	Google Maps	Google Waze	SnapMap
Sides of the platform*	User (single-side) User - other local users User - local business	User - other local users	User - friends
Value proposition	Navigation Exploration Decision making	Shorten travel time	Fun, engagement
Network effects among	User - other users (at different times) User - local business	User - other users in real-time	User - friends in real-time
Data sharing	User location, Business reviews	User location, Traffic alerts	User location, User status
Advertising	Native ads of local businesses in the map	Native ads of local businesses in map / navigation display	Location-targeting, geo-filters (no ads in map yet)

Google Maps

Google was one of the first to develop an online digital map. They have put in huge efforts to get it to the sophistication that we know. Among these platforms, Google Maps is the only one that has a standalone, single-sided value proposition.

It is how it started: as a map to help people find their way around and to organise information geographically. You can get an impression of how Google built the Maps in these five short articles ([#1](#), [#2](#), [#3](#), [#4](#), [#5](#)). Google Maps is also used as an engine for many other tools.

They then have brought other sides to the platform, importantly **local businesses**. In conjunction with another tool, **Google My Business**, it helps business owners to represent their business in Maps (and in Google more broadly). It also can be used in conjunction with Google Ads for advertising.

Google Waze

Waze is a very different product that also uses digital maps. But it lives from **real-time data** entered by users, typically drivers/riders. What's interesting is how different it is to Google Maps. It has strong network effects among users that don't know each other but are in local proximity within a short period of time (e.g. one person alerts others of roadworks). It is easy to imagine a lot more sides being added to this platform around the real-time microcosm that our urban street systems and adjacent buildings are. This could make it a vibrant real-time app.

SnapMap

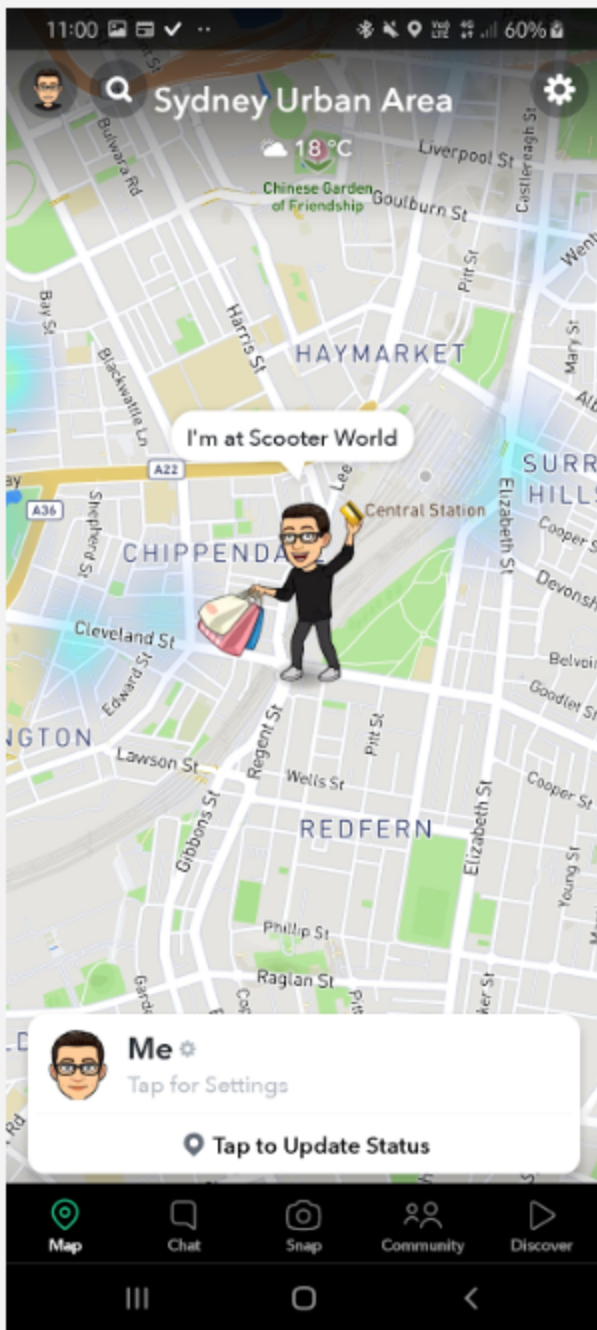
And then take a look at **SnapMap**²⁰. Again, a map-based product that, like Waze, lives from **real-time user updates** but this time with a **very different value proposition** (of fun and engagement). The key value proposition is limited to users who know each other well (very different to Maps and Waze). This said, users can also share videos on the map with anyone. But it will remain to be seen if this catches on. Snap Inc's longer term strategy is to focus "computing overlaid on the world" which could play well with SnapMap and create unique and more scalable network effects.

You can already sense that these apps have a much better reason to ask for your real-time location (not just the IP-based rough location) than a torch app or most other apps / platforms for that reason.

Now, let's look in more detail.

²⁰ It was great to see that, since I covered Snapchat a few months ago, two of my recommendations have been implemented (better navigation and SnapMap being more prominently featured). I'm sure it had nothing to do with me recommending this. But at least I provided good guidance to my readers.

SnapMap



Why would any user let you track their location? In this day and age, not many will do this without a good reason.

SnapMap gives Snap a valid reason to **track your location** and it “bribes” you to allow them to track your location by offering you cool features. You can (reciprocally) see where your friends are and what they are doing using Bitmojis (a personalised emoji) - highly engaging. The status (here, mine is “shopping”) stays for a few hours or until I change it.

If I had friends nearby at that moment, you would see them with their Bitmoji as well.

But SnapMap needs a critical mass of friends, stories, photos to be shared in the vicinity to keep users engaged. The light blue spots are videos shared by others (people I don't know) for anyone to view (a bit like Periscope).

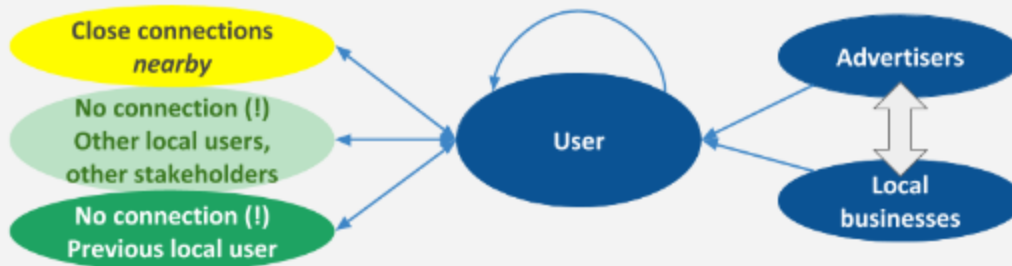
Snapchat uses user locations in some of their ad types (e.g. geofilters ads, location-based ad targeting).

The location-based ad type allows targeting people near location types, e.g. unis, malls, etc within a definable radius which could be very valuable for advertisers.

But there are no native ads on the map as such (yet). It has added local businesses (here, I am saying I was at “Scooter World”) which brings them as another side to the platform. Adding them to Bitmoji could entice them more to advertise (is my view).

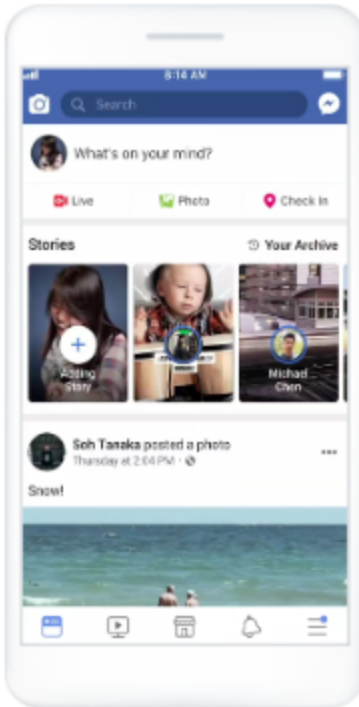
Summary: Comparison platforms sides of Map apps

The three platforms we looked at appear very similar in that they use the same underlying asset (digital local maps). Note that the platform sides this time are **local** participant types. Ordinary users as well as local businesses may be using all 3 platforms in different situations.

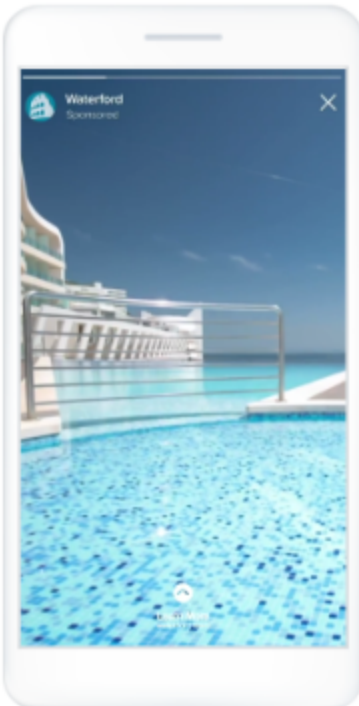


Platform	Sides (local!)	Value proposition, network effects, data capture
Google Maps	User	<p>One-sided local exploration is a strong incentive to share one's location data. But this is based on the NWE created by other sides:</p> <p>User-user: Sharing reviews, etc about local businesses</p> <p>Business owner - user: inform about their offerings (products, menu, opening times, etc)</p> <p>Business owners can be advertisers and get native ad elements on the map which can inform of offers</p>
	Other local users	
	Local business owners	
	Advertisers	
Google Waze	User	<p>The value proposition is largely based on real-time same/cross-side NWE and displayed in the map</p> <p>User-user: alert one another of traffic conditions</p> <p>But it also allows others (broadcasters, authorities, etc) to alert drivers. Also allows (cost-shared) carpooling</p> <p>Advertisers (local businesses) have native ads elements</p>
	Other local users	
	Other stakeholders	
	Advertisers	
SnapMap	User	<p>The key VP and NWE is about sharing fun with close connections nearby. The risk is that this may struggle to get to critical mass in some/many locations.</p> <p>The other VP is sharing content (videos) with anyone nearby. This could scale but may not be a strong enough VP for people to share personal content with strangers (a significant difference to Google Maps and Waze). It's still early days and will get complementary value propositions added</p>
	Close connections nearby	
	Local business owners	
	Advertisers	

Digital property: Stories



Among the stories from friends above, is also an ad story. Upon clicking it, it opens full-screen like the one below



Stories is a great example of a digital property that comes with organic engagement and allows embedding of native display/video ads in full-page mode.

Yes, it must have been [saddening](#) for Snapchat how blatantly Facebook have [copied](#) this property and integrated it into Facebook, Instagram, Messenger and WhatsApp with great success. I am showing FB's version because they provide more [data](#) around it.

In Facebook's [words](#), Stories are:

*They're **immersive**: 73% of people in the US agree that stories enable them to experience new things outside their everyday lives.*

*They're **authentic**: 65% of people in the US say that stories help them feel closer and more up to date with friends. They're **inclusive**: 57% of people in the US say that stories make them feel part of a larger community.*

*They're **hard to get enough of**: 62% of people in the US say that they plan to use stories even more in the future than they do today.*

Stories also match how people are already interacting with their phones. People hold their phones vertically about 90% of the time and Stories are optimised for a vertical, full-screen view that feels natural and allows people to enjoy videos and photos quickly

500M+ Each of our Stories experiences – Facebook and Messenger, Instagram and WhatsApp – have more than half a billion people using them every day.

4M There are four million advertisers using Stories ads every month.

1B There are one billion stories shared every day across the Facebook family of apps.

Digital properties (DP): Google Search

Top bar showing the types of search results →

My search term: "Tesla"
DP 1: Top results with deep links (in this case the company website), no ads!

DP 2: Map results personalised to my location (personalisation can be switched off in settings)

DP 3: News results with preview

DP 4: Twitter results from the Twitter accounts related to the search query

DP 5: Frequent questions box with clickable previews

DP 6: Video results

The screenshot shows a Google search for 'Tesla'. At the top, there are navigation tabs for All, Images, News, Shopping, Videos, More, Settings, and Tools. Below the search bar, it indicates 'About 375,000,000 results (0.74 seconds)'. The main results include:

- www.tesla.com - en_au**: Electric Cars, Solar Panels & Clean Energy Storage | Tesla. Description: Tesla is accelerating the world's transition to sustainable energy with electric cars, solar panels and integrated renewable energy solutions for homes and ...
- Tesla Model 3**: Model 3 is designed for electric-powered performance, with ...
- Cybertruck**: Cybertruck is built with an exterior shell made for ultimate ...
- Model S**: Model S is built for speed and endurance, with fullness ...
- Inventory**: New inventory. View. Filter. Sort By. Price: low to high, Price: high ...
- Tesla Energy | Tesla**: A home battery designed to store your clean energy, so you can ...
- Tesla © 2019**: Learn about Tesla's commitment to making clean energy accessible ...

Below the text results is a map showing locations in Sydney, Australia. Under the map are three location cards:

- A Tesla Destination Charger**: 333 King St, (02) 9320 8888, Tesla - 22.0 km, 1662.2
- B Tesla**: 20 Martin Pl, Closed - Opens 12PM - (02) 4328 0288
- C Tesla Service Centre**: 1112 Eborac Rd - in Alexandria Homeowner Centre, Closed - Opens 8:30 Mon - (02) 9534 7863

Below the map are 'Top stories' with three news items:

- Tesla Model Y Walkthrough Video From New Owner!** - CleanTechnica, 3 hours ago
- 33 Things To NOT Do in Your Tesla Model 3** - CleanTechnica, 32 hours ago
- Tesla Model Y vs. Model 3: What are the key differences?** - Techradar.com, 1 year ago

Below the top stories are 'Twitter' results from Tesla (@Tesla):

- Track Mode V2 for Model 3**: Performance introduces more advanced handling calibration and lap data recording. - 4 days ago
- Art of the Road** - 5 days ago
- Model 3 recently earned the 2020 iHS Top Safety Pick+ Award**: Winning cars are selected on their ability to protect people inside and outside the car. - 1 day ago

Below the Twitter results is a 'People also ask' section with four questions:

- How much do Teslas cost?
- What is Tesla's cheapest car?
- How much is the 7 seater Tesla?
- What is special about Tesla?

Below the 'People also ask' section are 'Videos' results:

- Tesla Model 3 Performance real-world review: Is this the game...** - Henry's garage, YouTube - 3 days ago
- How Volkswagen Plans To Outsell Tesla** - Business Insider, YouTube - 2 days ago
- 7 Amazing New TESLAs on Roads in 2020!** - Future Lab, YouTube - Feb 20, 2020

The knowledge panel for Tesla, Inc. includes the following information:

- Tesla, Inc.**: Vehicle manufacturer
- Logo**: Tesla logo
- Description**: Tesla, Inc. is an American electric vehicle and clean energy company based in Palo Alto, California. The company specializes in electric vehicle manufacturing, battery energy storage from home to grid scale and, through its acquisition of SolarCity, solar panel and solar roof tile manufacturing. [Wikipedia](#)
- Stock price**: TSLA (NASDAQ): USD 545.82 -13.93 (-2.49%)
- Owner**: Elon Musk (21.7%)
- Founded**: 1 July 2003, San Carlos, California, United States
- Production output**: 367,300 vehicles (2019)
- Founders**: Elon Musk, JB Straubel, Martin Eberhard, Marc Tarpenning, Ian Wright
- Subsidiaries**: SolarCity, Maxwell Technologies, DeepScale, MORE
- Latest models**: Tesla Model 2, Tesla Model S, Tesla Model X
- Profiles**: Twitter, LinkedIn, Instagram, YouTube, Pinterest
- People also search for**: Apple, Mercedes, Lamborghini, Porsche, Rivian

↑ The knowledge panel is populated with content from the [knowledge graph](#)

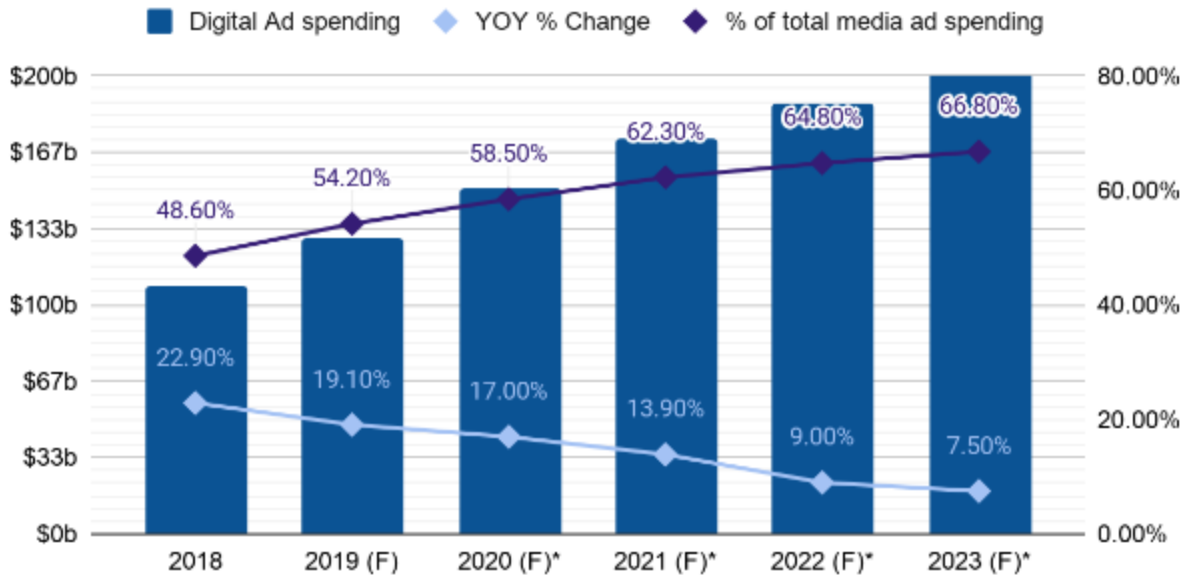
The Search results page (here the desktop version) has several digital properties that are displayed depending on what Google understands as the search intent.

The result, including the composition of the digital properties, can differ when searching for the same term at a later stage.

Google continues to make Search results increasingly more engaging

US Online Advertising Spending

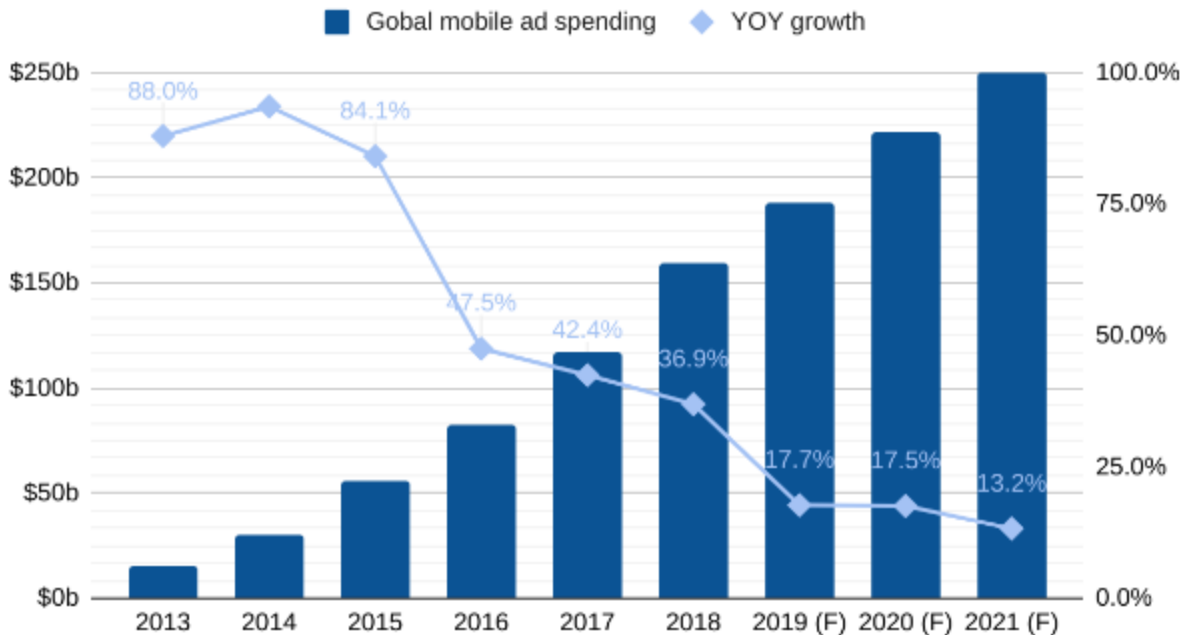
Source: eMarketer, Feb 2019, Forecasts (F) are pre-Coronavirus



You can see the shift is towards online/digital ad spending which in the US now accounts for more than 50% of all ad spending. Globally, the trend is similar. You can see the same chart as above for global online advertising in my previous resources (e.g. the Google case study).

The growth rates are still much higher than overall economic (GDP) growth. But one can see on the horizon a plateauing which is the key reason why you see Social and Search platforms embark on other revenue sources. Have a look at the revenue section in our Google where you see over \$26b (~17%) of non-ad revenues, e.g. Cloud, Play Store commissions, YouTube subscriptions (non-ad revenues), etc.

Global Mobile Advertising Spending



The distinction between online and “offline” advertising is relatively easy (well, nothing is really easy if you look into the details). But within the online ad world, you can then distinguish into various sub-markets and categories.

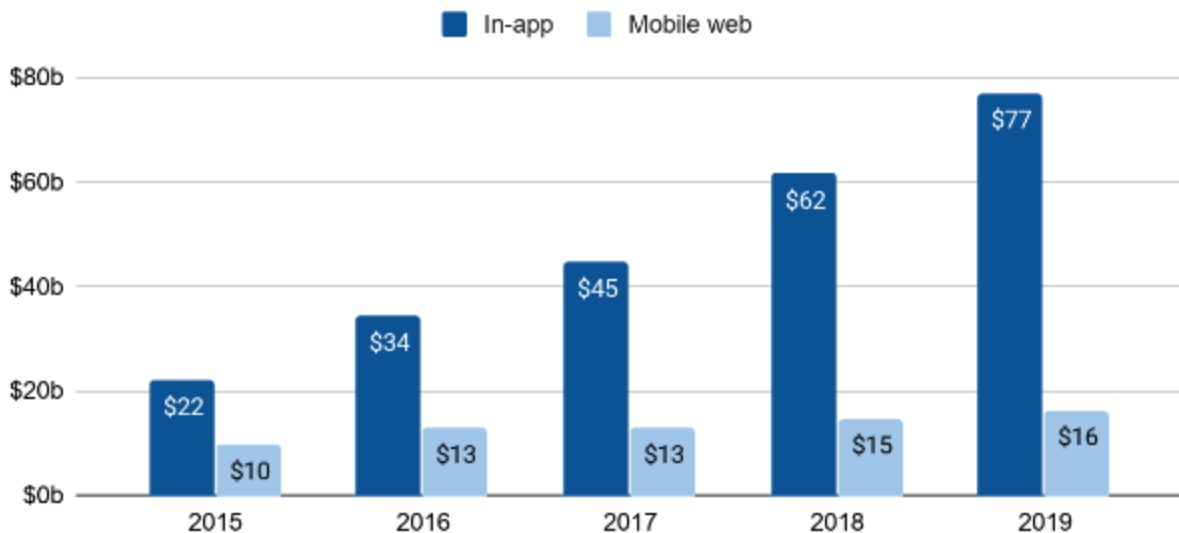
An important distinction is by device type. You see how mobile ad spending is growing much faster than online ads. This means of course that there is a market share increase for mobile ad spending.

Most Social and Search platforms participate in mobile and desktop. The exception is Snap Inc. who are focussing on mobile only. Therein, they are focussing on horizontal only but are offering tools to convert ad creatives from vertical to horizontal format.

It is an important decision for start-ups whether or not they will invest in a desktop platform. Many will not do so to avoid complexity. Those who still want to participate in the ad space may choose a path similar to Snapchat.

US Mobile Ad spending

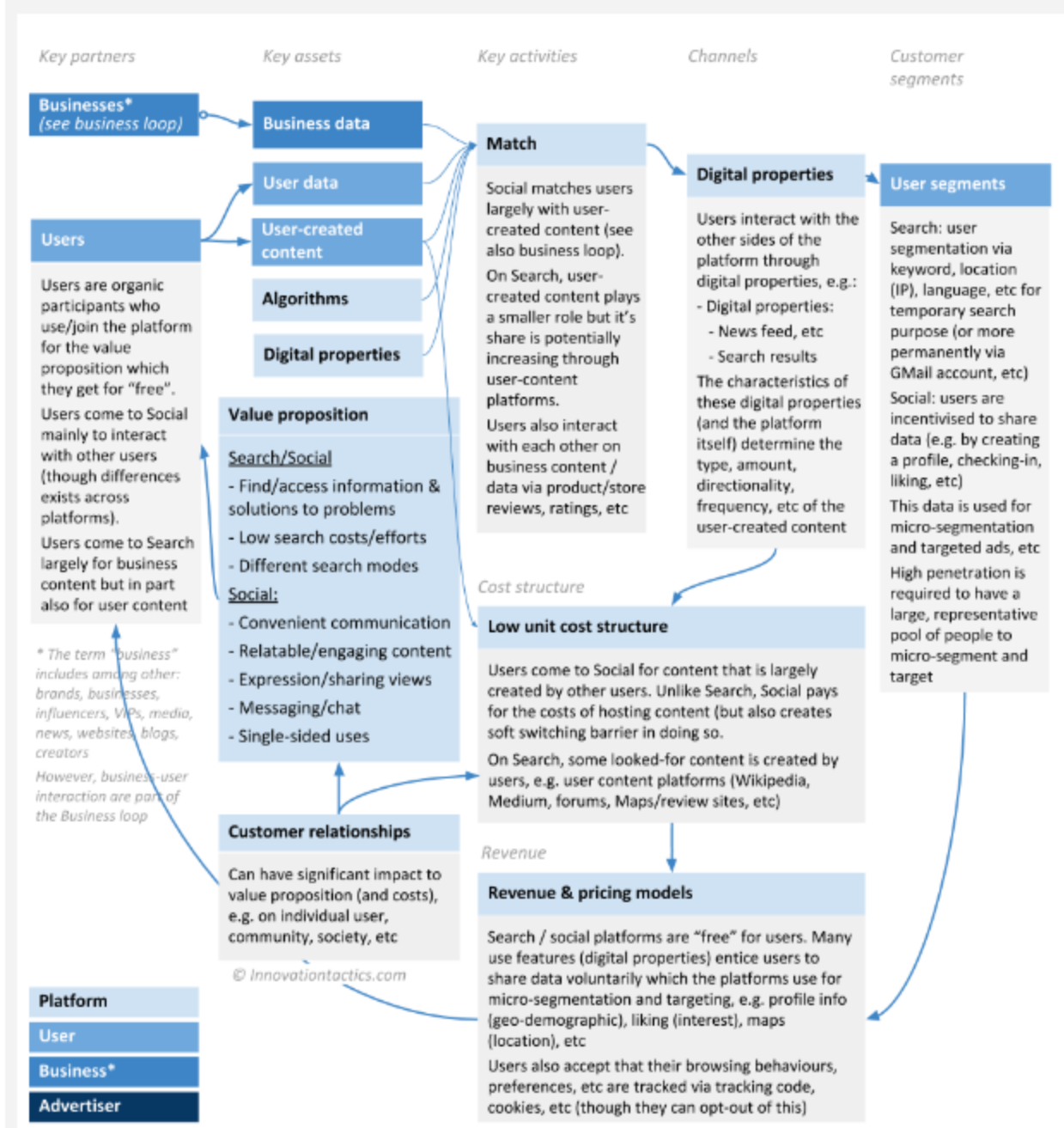
eMarketer, Oct 2018



In the US, [mobile ads stood](#) at ~\$77b (around 69% of all online ad spending) in 2019.

The majority of ad spending and most of the growth is in the app segment, meaning ads displayed on apps, including social media apps but also 3rd party apps. The latter can include display ads in news apps, video ads in games, banner ads in free versions of apps to give a few examples.

User flywheel



Within the user loop, we are looking mainly at user-user interactions and focus less on business-created content. It still plays a role where users interact with each other when user content is mapped against business data (e.g. reviews, ratings, checking-in). User-generated content is the key resource for the user loop.

Business Model Canvas

Key partners	
The sides of the platform are its most essential partners. We have covered them in great length, hence not covered here.	
Customer service partners	All platforms have extensive partner networks that can help firms get more out of their presence on the platform. They help with ads, creatives, campaigns, measurement, etc.
Tracking partners	A special form of customer service partners are those that help with offline measurement, such as increased foot traffic into stores. There are various techniques and companies specialising on this (incl comScore, Nielsen).
Data partners	Sourcing of additional user data (e.g. income), Acxiom (now LiveRamp), Datalogix, Experian and Epsilon) which may be used for segmentation and targeting, however not a lot of details are shared on this front due to the sensitivity of the topic.
API users / Integrators / Developers	<p>There are many ways for developers to be cooperating with the platforms and some of it can be seen as a separate side of the platform itself. Some of the common ways are integration of core platform functionality, such as maps or login. And there are more complex ways of integration and adaptation.</p> <p>There are also plugin creators, game developers, etc (mainly on the large platforms though Snap Inc is also making its way into gaming).</p>
Developers / Researchers	<p>Developers / researchers work on concrete short(er) term R&D projects with a commercial roadmap and a rough timeline for integration into the platform.</p> <p>These can be specific problem solutions from leading edge technology research, such as specific problem solutions within AI, AR, machine learning, etc.</p>
Researchers	There is long term research on fundamental / basic research fields without a concrete integration timeline. Google seems to have the widest corporations, with about 2 dozen areas of research.
Developer communities	Then there are various ways of interacting with developer communities. These can be open source contributions or developer and student communities (esp Google).

Incubator, accelerators	The larger platforms have incubator, accelerators programs.
Fact checkers	Platforms are increasingly expected to ensure that the content that is published on their platforms (or linked within search results) is factually correct. Social/Search platforms collaborate (in different forms) with fact checking partners.
Quality raters	Google has globally distributed, trained third-party Search Quality Raters who help to evaluate the results of improvements to search algorithm upgrades using an extensive quality assessment guide (pdf here).
Distribution partners	There are also distribution partners for the platforms with hardware products. These are also listed under channels.
Underlying platforms	<p>Owners of underlying platforms and technologies are partners and sometimes competitors alike. These platforms can include:</p> <ul style="list-style-type: none"> - Organic traffic sources: large platforms may collaborate in verticals / special features but over time, decide to expand their platform in the same direction (e.g. vertical search) - Browsers: standards, default settings can impact platforms' value proposition (e.g. more stringent privacy default settings in Safari, Chrome can reduce targeting accuracy) - Mobile operating systems (OS): can affect platforms in various ways, e.g. compatibility, default settings (e.g. privacy), default/pre-installed apps (e.g. default browser, search engine) - App development platforms: can impact digital properties of platforms (e.g. functions used by a platform's app that become unavailable in new versions of an app development platform) - Hardware: Device manufacturers can affect platforms in various ways which is why Google bought Android OS and licensed it for free with favourable T&Cs for themselves <p>See Google's platform architecture for the intricate details how these interactions can unfold (sometimes ending in "platform wars"). Check out our <i>Google case study >> Strategy</i> for more detail.</p>
Mobile carriers	Some of the larger platforms have deals with mobile carriers so that they don't charge their customers for data usage on their platform.
Investors	Investors' assessment of the company plays a considerable role. It can affect their ability to inject new capital in the form of further dilution of shares or issuance of bonds and alter their weighted average cost of capital (WACC). Funding prior to an IPO is particularly important.