



# Patent Sale Offering

## Targeted Mobile Advertising

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## Offering Information and Bidding Process/Timetable

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- Primary Point of Contact: Sabrina Chang (650) 591-6319

Details of the Offering and planned Bidding Process for purchasing the Targeted Mobile Advertising portfolio are outlined below:

- This Offering is for the Assignment of U.S. Patent No. 6,513,052
- The due diligence period begins upon receipt of this Offering and will continue until approximately September 14, 2015. Around this date, we will formally solicit bids for the patent and will negotiate with interested parties until mutually acceptable terms are reached. The owner reserves the right to sell at anytime if an acceptable offer is received.
- To assist you in your diligence, we have prepared the attached Offering Package, which includes our analysis with examples of use today and supporting detail on the market adoption of the underlying technology. A copy of the patent and file history are available on our website at the following web address: <http://www.epicenterip.com/brokerage/mobileads>
- We will keep all parties who have notified us of their interest in submitting a bid, or who have submitted a bid, reasonably informed throughout the process.
- All information on interested parties — including bidder names, bid amounts, terms, and the winning bidder — will remain confidential.
- The Seller will require a non-exclusive license back to the patent.
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General questions about this Patent Sale Offering should be directed to Ron Epstein. Technical questions should be directed to Sabrina Chang. Thank you for your interest in this Patent Sale Offering.

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# Targeted Mobile Advertising

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## Executive Summary

Patent No. 6,513,052 covers a function that is essential for the effective delivery of targeted ads over the Internet. This feature has been widely adopted by the most popular, most lucrative advertising networks.

The '052 Patent specifically covers the selection of particular ads for display on users' devices based upon the known technical characteristics of each device, such as the operating system or other software applications being used.

This invention has become particularly relevant in the last 10 years because of the proliferation of mobile devices. A great deal of information can be obtained about a user based upon the properties of their smartphone or tablet. For example, competing mobile operating systems differ in technical specification as well as the demographics and usage patterns of their average user. As such, it has become increasingly important for advertisers to obtain more detailed knowledge and understanding of the context in which consumers view ads in order to make the ads more relevant.

The patented invention provides a critical ingredient in the advertisers' calculation of how to best target their ads. Over the next 4 years, we anticipate that the '052 Patent will have a significant impact on all revenue generated from Internet advertising. In particular we believe that it will have direct impact on the \$242 Billion dollars of mobile advertising revenue earned in the United States.

## The Invention

Internet advertising technologies burgeoned from 1996-2000. The ability for advertisers and ad networks to track the viewing behaviors of consumers and ascertain demographic and location information, data about consumer preferences, as well as the success rate (or click-through) of certain ads were well known as of December, 1999 (the priority date of the '052 Patent). What was **not** contemplated at the time was the use of information about a user's device specifically to hone the selection of a more relevant advertisement.

The '052 Patent is distinguishable over existing Internet ad targeting schemes because it is focused on using "asset information" or an "asset profile," (i.e. data that describes the *technical* characteristics of a user's device such as operating system or software being used) to selectively display more relevant ads.

*In block 308 storage server 210 analyzes the generated asset profile and selects advertising information from advertising database 230 as a function of the asset profile.*

'052 Patent, 4:61-63

*The asset information, referred to hereafter as an asset profile, describes in detail the current state of user computer 205. The asset profile identifies the operating system 135 and software applications 136 that are currently loaded on user computer...*

'052 Patent, 4:24-28

The '052 Patent illustrates how the technical characteristics of a device could provide valuable insight to generate more relevant ads. For example, where products are more relevant to a PC or a Mac operating system, software developers could target consumers more appropriately. Or, with the knowledge of the software applications already downloaded by a consumer, developers could follow up with offers for the appropriate version update, or other relevant up or cross-selling opportunities.

*In another embodiment, storage server 210 selects advertisements based on the hardware configuration identified by the asset profile. For example, storage server 210 may select advertisements from advertisement database 230 based on whether user computer 205 is an IBM® compatible computer or a Macintosh® compatible computer.*

'052 Patent, 6:12-20

*In one embodiment, storage server 210 selects advertisements based on the types and versions of software applications 136 loaded on user computer 205. If storage server 210 determines that Microsoft® Word Version 6.0 is installed on computer 100 and that this version is several versions out of date, storage server 210 can select an advertisement from advertisement database 230 that offers an upgrade to Microsoft Word.*

'052 Patent, 5:61-6:4

While the examples presented the patented technology in the context of desktops, today the impact of this invention has expanded far beyond the desktop arena. The claims of the '052 Patent broadly cover the invention's application in mobile devices.

## **Widespread Commercial Adoption**

In this increasingly mobile and multi-platform world, knowing exactly how users access content is essential to providing more appropriately targeted ads, i.e., ones that are more likely to succeed. dotMobi's recent white paper titled "Ad Targeting in a Multi-screen World" briefly highlights the quantitative and qualitative value of knowing the technical specifications of a user's mobile device.

### **Device Model**

Device model data can be used in a wide variety of ways from the most simplistic ("Get ringtones for your model name phone") to more sophisticated campaigns based on specific device models and propensity to perform certain actions ("Upgrade your iPhone 4S to an iPhone 5S today").

Sometimes an advertising campaign can simply be targeted at a hit list of devices that are known to be popular in certain segments of the population. For example, targeting affluent users might focus on recent high-end devices only...

### **Device Properties**

Device properties make strong targeting data. Some of the more important ones are described here...

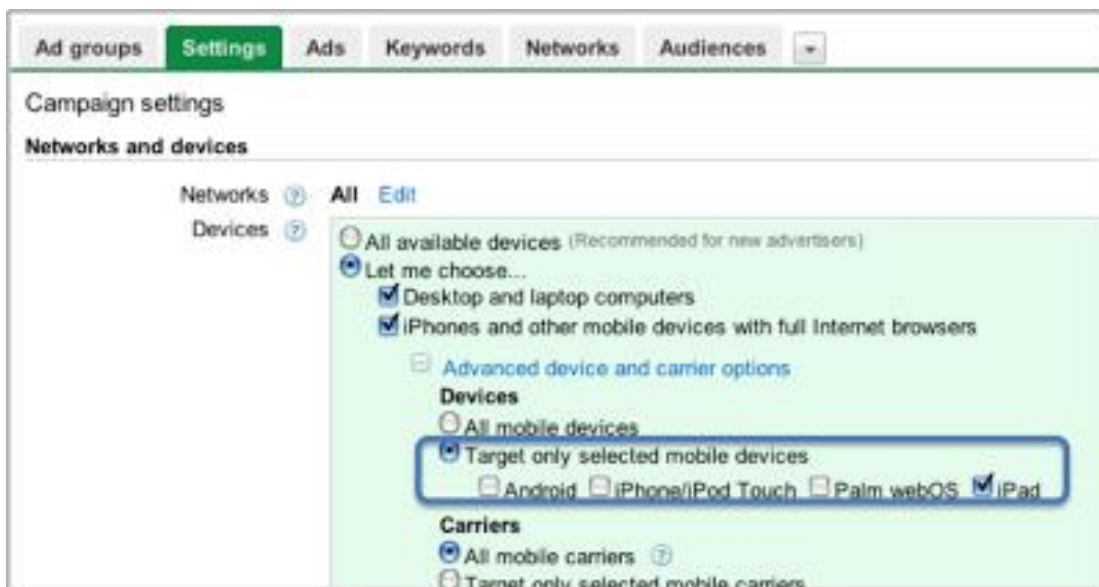
- Device operating system. At the very least, knowing the device OS allows advertisers to present deep links to the relevant app store. Perhaps more interestingly, the OS type can be used to infer information about the user of the device e.g. iOS users may be less price sensitive than Android users, Blackberry OS users are much more likely to be corporate users and so on.
- Year released. The year in which a device was released can be used to target older devices that may be upgrade candidates.

<http://discover.deviceatlas.com/ad-targeting-in-a-multi-screen-world/>

Indeed, many content providers recognize that device targeting is an essential component of ensuring that the right ads reach the right destination. The top revenue generating ad networks in the US<sup>1</sup> (e.g., Google, Twitter, Facebook) added device criteria targeting to their ad delivery campaigns in the last 5 years:

- Google AdWords (2010)

You can target Google mobile ads by location, but now Google is opening up two new targeting options for mobile ads running through AdWords. Ads shown on a mobile browser can now target by mobile device or by carrier.



<http://techcrunch.com/2010/01/20/google-mobile-adwords-target-device/>  
<http://adwords.blogspot.com/2010/04/go-mobile-series-ipad-device-targeting.html>

- Twitter (2012)

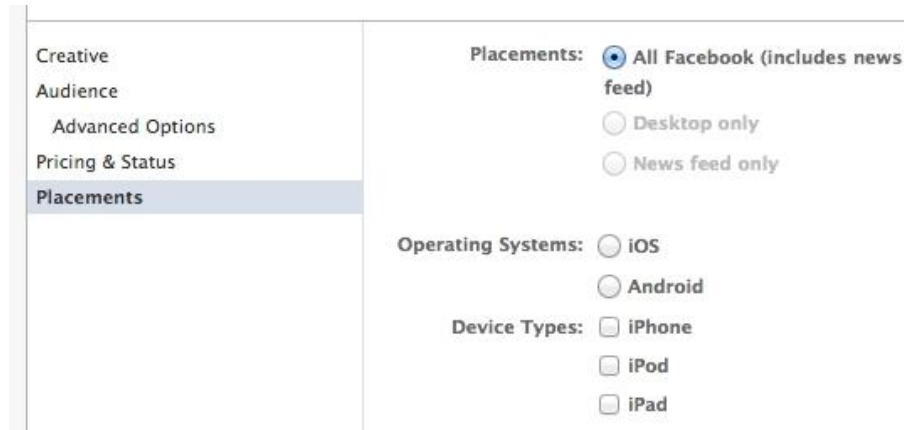
Tuesday, the microblogging network gave advertisers the ability to target tweets specifically to iOS and Android users. It has also added an option to let advertisers target mobile users by interest, so that Promoted Tweets can appear in the mobile timelines of users sharing similar interests with those already following the advertiser

<http://venturebeat.com/2012/03/20/twitter-promoted-tweets-2/>

<sup>1</sup> According to eMarketer, the top 5 receivers of ad revenue in the US are Google, Facebook, Twitter, Yahoo!, and Pandora (<http://www.emarketer.com/Article/Yahoo-Poised-Pass-Twitter-US-Mobile-Ad-Share-by-2015/1011663>)

- Facebook (2012)

[Advertisers using power editor can choose iOS or Android](#) and those who select the Apple mobile operating system can pick from iPhone, iPod, or iPad.



The screenshot shows the Facebook Power Editor interface. On the left is a sidebar with navigation links: Creative, Audience, Advanced Options, Pricing & Status, and Placements (which is highlighted). The main area on the right is titled 'Placements' and contains the following options:

- Placements:**
  - ☒ All Facebook (includes news feed)
  - ☐ Desktop only
  - ☐ News feed only
- Operating Systems:**
  - ☐ iOS
  - ☐ Android
- Device Types:**
  - ☐ iPhone
  - ☐ iPod
  - ☐ iPad

<http://www.adweek.com/socialtimes/power-editor-users-target-ads-mobile-operating-system-device/406762>

## **Economic Impact**

By 2019, mobile advertising will account for 72% of all US digital ad revenue.<sup>2</sup>

We believe that the value of this revenue will in large part be driven by the capability of advertisers to ensure that their investments are optimized and that their ads are reaching the best targets, i.e., devices with the right technical profile. The importance of capitalizing on known characteristics of those devices to increase delivered ad relevance will only grow.

As such, we believe that the patent has a strong tie to the substantial revenues expected from the US Mobile Ad market, which is anticipated to be approximately **\$242 Billion** over the remaining life of the patent.

### **US Mobile Ad Revenue (eMarketer)**

\$ Billions	2015	2016	2017	2018	2019	Total
US Revenue from Mobile Ads	\$28	\$40	\$50	\$58	\$66	<b>\$242</b>

<sup>2</sup> <http://www.emarketer.com/Article/Mobile-Will-Account-72-of-US-Digital-Ad-Spend-by-2019/1012258#sthash.VpUxrh82.dpuf>



## Portfolio Overview

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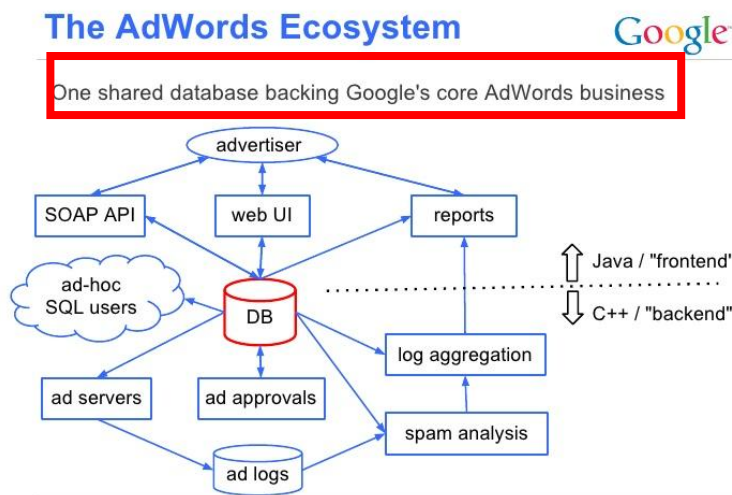
Patent No. Issued Date	Serial No. Filing Date	Status	Title
6,513,052	09/464346 12/15/1999	Issued	Targeted advertising over global computer networks

## Detailed Patent Analysis — Exemplary Claim Charts

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## U.S. Patent No. 6,513,052 – Google AdWords

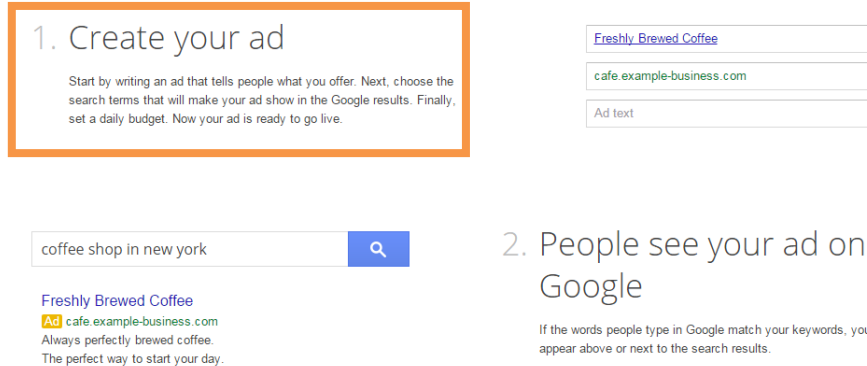
6,513,052	Google AdWords
<p>35. A <b>computer-readable medium</b> having stored thereon a data structure comprising:</p>	<p>Google provides AdWords, a platform that enables advertisers to deliver ads across the Google Display Network (Google websites like Gmail, YouTube, etc. and partner websites).</p> <p>Google runs AdWords from a central database (“computer-readable medium having stored thereon a data structure”).</p> <p><u>The Display Network is a collection of websites -- including specific Google websites like Google Finance, Gmail, Blogger, and YouTube -- that show AdWords ads.</u> This network also includes mobile sites and apps. If</p> <p><a href="https://support.google.com/adwords/answer/2404190">https://support.google.com/adwords/answer/2404190</a></p> <div>  <p>The diagram, titled "The AdWords Ecosystem" with the Google logo, illustrates a central database (DB) as the core. A red box highlights the text: "One shared database backing Google's core AdWords business". The DB is connected to several components: an advertiser (top), SOAP API (left), web UI (left), reports (right), ad-hoc SQL users (left, in a cloud), ad servers (bottom left), ad approvals (bottom center), ad logs (bottom), log aggregation (bottom right), and spam analysis (bottom right). A dashed line separates the frontend (Java) from the backend (C++).</p> </div> <p>Google F1- The fault-tolerant Distributed RDBMS Supporting Google's Ad Business SIGMOD (May 22, 2012)  <a href="http://research.google.com/pubs/pub38125.html">http://research.google.com/pubs/pub38125.html</a></p>

6,513,052

Google AdWords

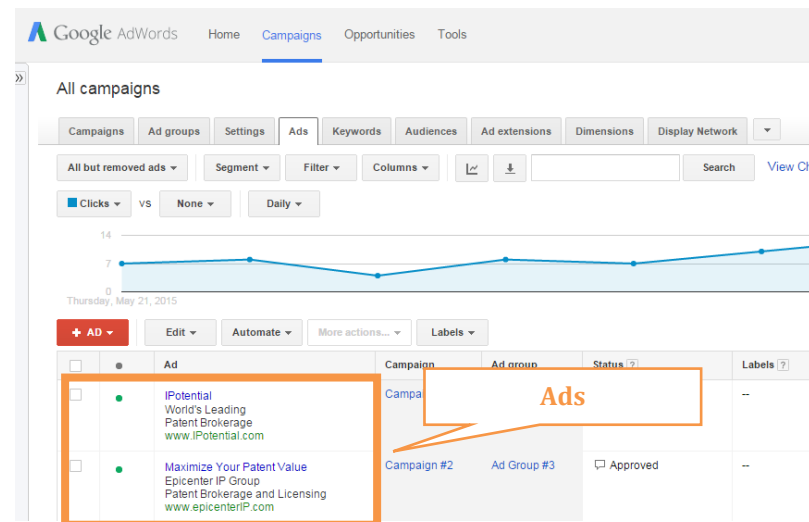
[35a] a first data field containing **advertising information**;

Advertisers create their ads which are stored in the AdWords database (“first data field containing advertising information”).



<http://www.google.com/adwords/how-it-works/?subid=us-en-ha-aw-skhpr0~59067443885>

Below is a screen shot of what an advertiser typically sees when managing their AdWords account. They upload their “advertising information” to the AdWords database.



6,513,052	Google AdWords
<p>[35b] and <b>a second data field containing asset information</b> describing data archived from a computer,</p> <p>wherein the asset information of the second data field is <b>used as an index for selecting advertising of the first data field.</b></p> <p><i><u>“The asset information, referred to hereafter as an asset profile, describes in detail the current state of user computer 205. The asset profile <b>identifies the operating system 135 and software applications 136 that are currently loaded on user compute.</b>”</u></i></p> <p>’052 Patent - Col 4:24-32</p>	<p>While creating their ads in AdWords (“first data field”), advertisers are presented with a number of targeting options.</p> <p>Targeting options dictate the placement of an ad, i.e. where it will appear. Advertisers select their targeting options, and these selections are stored in the AdWords database (“second data field”).</p> <p><u>Targeting methods are used to match your ad to places or audiences on the Display Network.</u> When you advertise on the Display Network, <b>you have many targeting options.</b> Before choosing an option, it’s important to understand the concept of a <i>placement</i>. Placements are locations on the Google Display Network where your ads can appear. A placement can be a website or a specific page on a site, a mobile app, video content, or even an individual ad unit.</p> <p><a href="https://support.google.com/adwords/answer/2404191?hl=en">https://support.google.com/adwords/answer/2404191?hl=en</a></p> <p>AdWords uses the selected targeting options to help dictate where to display specific ads. That is, AdWords uses the targeting options or “...information of the second data field [] as an index for selecting advertising of the first data field.”</p> <p>Among the targeting options offered to advertisers is the selection of devices with particular technical specifications. For example, advertisers can select to have their ad displayed to only devices running a particular operating system or mobile app (“asset information...as an index for selecting advertising”).</p> <p><u>You can target specific operating systems, device models, [] with your “Display Network only” campaigns...</u></p> <p><a href="https://support.google.com/adwords/answer/1722028?hl=en">https://support.google.com/adwords/answer/1722028?hl=en</a></p>

6,513,052

Google AdWords

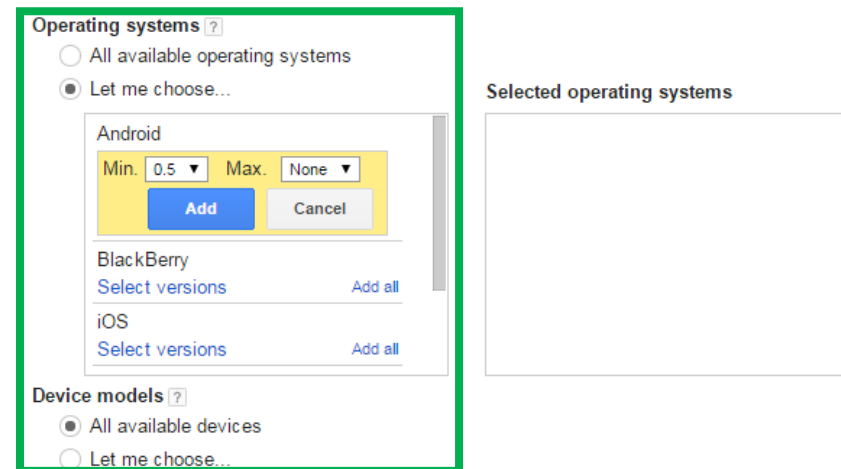
[35b] and a second data field containing asset information describing data archived from a computer,

wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.

Below is a snapshot of the AdWords user interface, i.e. what an advertiser would see in selecting specific targeting options.

☐ Device: target selected mobile devices and tablets

Devices ☐ Ads will show on all eligible devices by default.



The screenshot shows the 'Operating systems' section with a green border. It includes radio buttons for 'All available operating systems' and 'Let me choose...'. Below this is a list of operating systems: Android, BlackBerry, and iOS. For Android, there are 'Min.' and 'Max.' dropdown menus (set to '0.5' and 'None' respectively) and 'Add' and 'Cancel' buttons. For BlackBerry and iOS, there are 'Select versions' and 'Add all' links. To the right of the selection area is a box labeled 'Selected operating systems' which is currently empty. Below the operating systems section is the 'Device models' section with radio buttons for 'All available devices' and 'Let me choose...'.

In addition to being able to target particular devices, AdWords enables the targeting of particular software applications.

**[Place your ads in the apps where you'd like them to appear](#)**

In order for your ads to be able to appear in mobile apps, you have to choose at least one placement (a potential destination for your ad)...

**[If you'd like to choose specific apps](#)**, click Search all apps, and search for those apps in the search box. Then click » next to each app you want your ad to be able to appear in.

[https://support.google.com/adwords/answer/1722057?hl=en&ref\\_topic=3121772#reach](https://support.google.com/adwords/answer/1722057?hl=en&ref_topic=3121772#reach)

6,513,052	Google AdWords
<p>[35b] and a second data field containing <b>asset information describing data archived from a computer</b>,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p> <p><i><u>"The asset information, referred to hereafter as an asset profile, describes in detail the current state of user computer 205. The asset profile identifies the operating system 135 and software applications 136 that are currently loaded on user compute."</u></i></p> <p>'052 Patent - Col 4:24-32</p>	<p>In order for Google to provide its services, including AdWords' delivery of the appropriate ads to the right targets as described above, Google relies on its knowledge of its users' devices.</p> <p><u>We collect information to provide better services to all of our users – from figuring out basic stuff</u> like which language you speak, <u>to more complex things like which ads you'll find most useful</u>, the people who matter most to you online, or which YouTube videos you might like...</p> <p><a href="http://www.google.com/policies/privacy/">http://www.google.com/policies/privacy/</a></p> <p>Specifically, Google stores or "archives" technical data about its users' individual devices ("asset information describing data archived from a computer").</p> <p><b>Information we get from your use of our services.</b> We collect information about the services that you use and how you use them, like when you watch a video on YouTube, visit a website that uses our advertising services, or you view and interact with our ads and content. <u>This information includes:</u></p> <ul style="list-style-type: none"> <li>• <b>Device information</b></li> </ul> <p><u>We collect device-specific information (such as your hardware model, operating system version</u>, unique device identifiers, and mobile network information including phone number). Google may associate your device identifiers or phone number with your Google Account.</p> <p><a href="http://www.google.com/policies/privacy/">http://www.google.com/policies/privacy/</a></p>

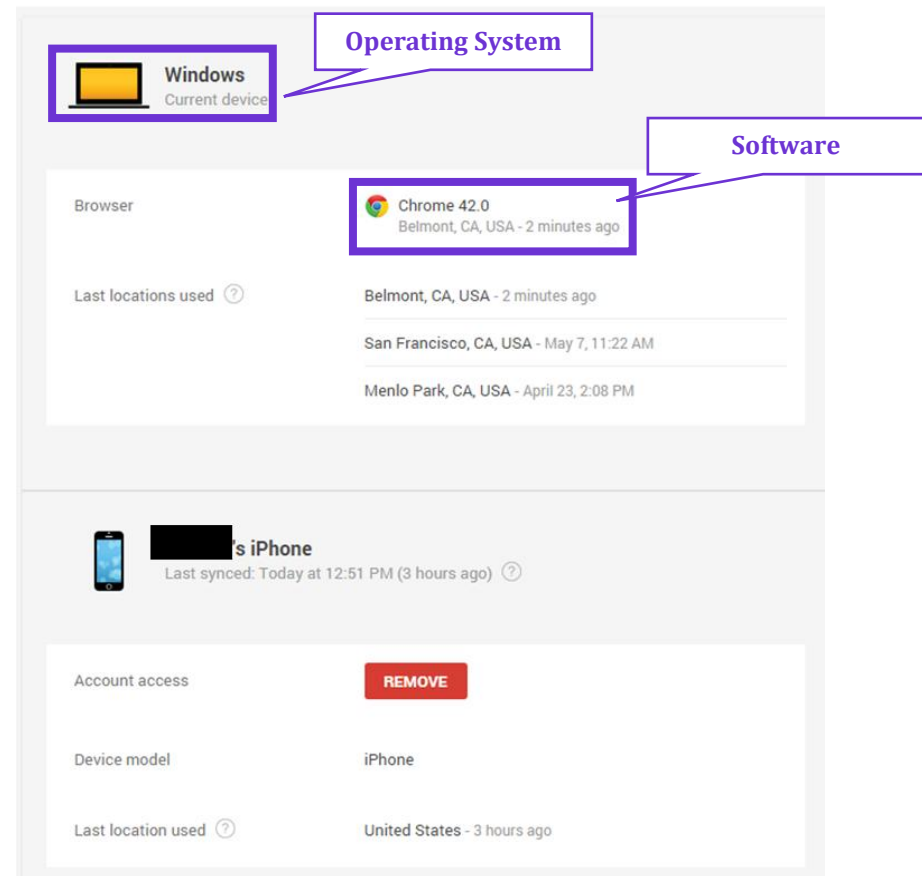
6,513,052

Google AdWords

[35b] and a second data field containing **asset information describing data archived from a computer,**

wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.

Google users can access the information archived from their own devices and view it online. Below we provide a screenshot of Google's user interface for viewing a user's activity.

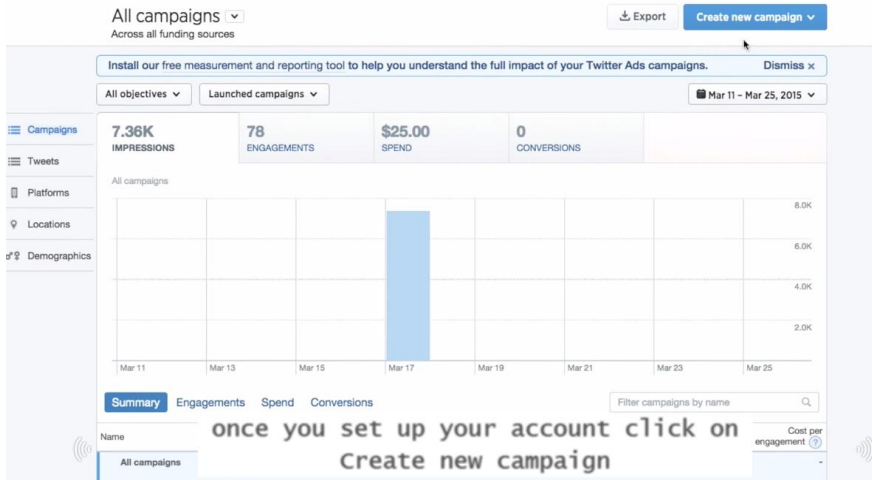


<https://security.google.com/settings/security/activity>



6,513,052	Google AdWords
<p>36. The computer-readable medium of claim 35, wherein the asset information of the <b>second data field identifies a software application.</b></p> <p>37. The computer-readable medium of claim 35, wherein the asset information of the <b>second data field identifies a hardware device.</b></p>	<p>As discussed in claim element 35b, the AdWords targeting options enable advertisers to selectively display ads to users who:</p> <ul style="list-style-type: none"> <li>- Have downloaded specific mobile apps as required by claim 36 (“second data field identifies software applications that are currently loaded on user computer”)</li> <li>- Use devices with specific technical characteristics as required by claim 37 (“second data field identifies a hardware device”) or</li> </ul> <p><u><b>Place your ads in the apps where you’d like them to appear</b></u></p> <p>In order for your ads to be able to appear in mobile apps, you have to choose at least one placement (a potential destination for your ad)...</p> <p><u><b>Choose the apps you want to show your ads on under</b></u> Mobile app placements...</p> <p><a href="https://support.google.com/adwords/answer/1722057?hl=en&amp;ref_topic=3121772#reach">https://support.google.com/adwords/answer/1722057?hl=en&amp;ref_topic=3121772#reach</a></p> <p><u><b>You can target specific</b></u> operating systems, <u><b>device models.</b></u> [] with your “Display Network only” campaigns...</p> <p><u><b>Smartphones: Target</b></u> operating systems, <u><b>device models.</b></u>...</p> <p><u><b>Device models: Choose to show your ads to people on all device brands and versions or target specific ones.</b></u></p> <p><a href="https://support.google.com/adwords/answer/1722028?hl=en">https://support.google.com/adwords/answer/1722028?hl=en</a></p>

# U.S. Patent No. 6,513,052 – Twitter

6,513,052	Twitter
<p>35. A <b>computer-readable medium</b> having stored thereon a data structure comprising:</p>	<p>Twitter enables advertisers to deliver ads to Twitter subscribers.</p> <p>Twitter has <b>databases</b> (“computer-readable medium”) that store advertisers’ ads for delivery (“stored thereon a data structure”).</p> <p>Twitter is a real-time information network where people can discover what’s happening in the world right now, share information instantly and connect with people and businesses around the globe...</p> <p>What’s more, 80% of users on Twitter are accessing it via a mobile device. There is a real opportunity for businesses to reach potential customers no matter where they are or what they’re doing.</p> <p><a href="https://business.twitter.com/basics/learn-twitter">https://business.twitter.com/basics/learn-twitter</a></p> <p>Below, we provide a screen shot of the client user interface, accessing Twitter’s database, for managing an ad campaign.</p>  <p><a href="https://www.youtube.com/watch?v=Jv0quwaLDmE&amp;feature=youtu.be">https://www.youtube.com/watch?v=Jv0quwaLDmE&amp;feature=youtu.be</a> (“Learn how to set up a followers campaign from Twitter Ads” – Twitter)</p>

6,513,052

Twitter

[35b] a first data field containing **advertising information**;

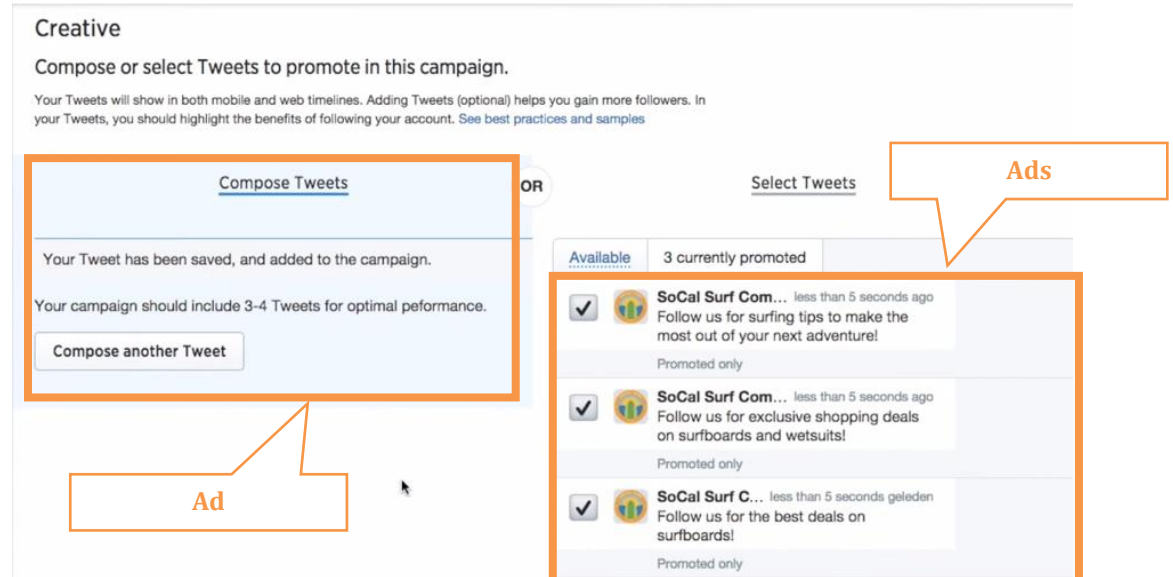
Twitter enables advertisers to create ads which are then stored in Twitter's ads database ("a first data field containing advertising information").

To help you gain relevant followers, you'll be creating a Followers campaign. This type of campaign displays a Promoted Account in several key places to desktop and mobile users.

Promoted Accounts are ad units that are included in Followers campaigns.

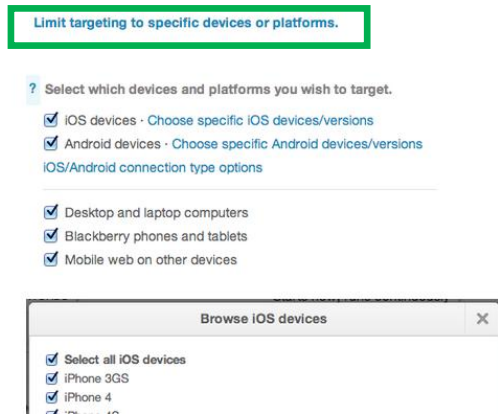
<https://business.twitter.com/solutions/grow-followers>

Below is a screenshot of the Twitter ad management user interface. Advertisers compose or select a tweet ("advertising information") which is saved in Twitter's ad database.



<https://www.youtube.com/watch?v=Jv0quwaLDmE&feature=youtu.be>

6,513,052	Twitter
<p>[35b] and a second data field containing <b>asset information</b> describing data archived from a computer,</p> <p>wherein the asset information of the second data field is <b>used as an index for selecting advertising of the first data field.</b></p> <p><i>“The <b>asset information</b>, referred to hereafter as an <b>asset profile</b>, describes in detail the current state of user computer 205. The asset profile <b>identifies the operating system 135 and software applications 136</b> that are currently loaded on user computer.”</i></p> <p>’052 Patent - Col 4:24-32</p>	<p>While creating their ads in Twitter (“first data field”), advertisers are presented with a number of targeting criteria.</p> <p>Targeting criteria dictate the placement of an ad, i.e. where it will appear. Advertisers select their targeting options, and these selections are stored in Twitter’s ad database (“second data field”).</p> <p>Twitter uses the selected targeting criteria to help dictate where to display specific ads. That is, Twitter uses the targeting criteria or “...information of the second data field [] as an index for selecting advertising of the first data field.”</p> <p>Among the targeting criteria offered to advertisers is the selection of devices with particular technical specifications. For example, advertisers can select to have their ad displayed to only devices running a particular operating system or mobile app (“asset information...as an index for selecting advertising”).</p> <p><a href="#">Device, carrier, and new mobile user targeting overview</a></p> <p><a href="#">Reach Twitter’s highly mobile user base</a> with relevant, timely messaging <b>targeted to users by the type of mobile device they use, the operating system for their device</b> and/or the user’s carrier. You also have the option to target only users with new devices.</p> <p>To <b>add these targeting criteria to your campaign</b>, expand the menu by clicking Device, carrier or new mobile user targeting in the campaign edit screen.</p> <p><a href="https://support.twitter.com/groups/58-advertising/topics/254-targeting/articles/20172127-device-carrier-and-new-mobile-user-targeting">https://support.twitter.com/groups/58-advertising/topics/254-targeting/articles/20172127-device-carrier-and-new-mobile-user-targeting</a></p>

6,513,052	Twitter
<p>[35b] and a second data field containing asset information describing data archived from a computer,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p><b><u>Target users by device or OS</u></b></p> <p>To set up device specific targeting, click <b>Device, carrier or new mobile user targeting</b> in the campaign edit screen. Within the expanded menu, you'll see the option to select which devices, platforms, and carriers you wish to target...</p> <p><b><u>Target specific OS Versions</u></b> within iOS and Android</p> <p>You can further customize your campaign based on device by clicking on Limit targeting to specific devices or platforms. To access these options, click <b>Device, carrier or new mobile user targeting</b> in the campaign edit screen. Within the expanded menu, you'll see the option to select which devices, platforms, and carriers you wish to target.</p>  <p>The screenshot shows a 'Limit targeting to specific devices or platforms.' dialog box. It contains a list of checkboxes for selecting devices and platforms: 'iOS devices - Choose specific iOS devices/versions', 'Android devices - Choose specific Android devices/versions', 'Desktop and laptop computers', 'Blackberry phones and tablets', and 'Mobile web on other devices'. Below this is a 'Browse iOS devices' window showing a list of iOS devices with checkboxes: 'Select all iOS devices', 'iPhone 3GS', and 'iPhone 4'.</p> <p><a href="https://support.twitter.com/groups/58-advertising/topics/254-targeting/articles/20172127-device-carrier-and-new-mobile-user-targeting">https://support.twitter.com/groups/58-advertising/topics/254-targeting/articles/20172127-device-carrier-and-new-mobile-user-targeting</a></p>

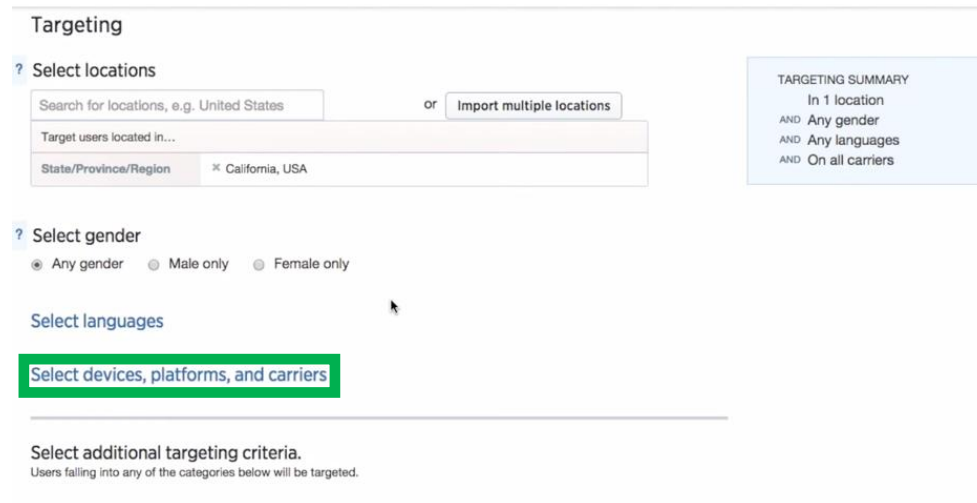
6,513,052

Twitter

[35b] and a second data field containing asset information describing data archived from a computer,

wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.

Below is a screenshot of the Twitter ad management interface which illustrates an advertiser's ability to select devices with specific characteristics (i.e., running a particular operating system) for targeting.



The screenshot shows the Twitter targeting interface. It includes a 'Targeting' section with options to 'Select locations' (with a search bar and 'Import multiple locations' button), 'Select gender' (with radio buttons for 'Any gender', 'Male only', and 'Female only'), and 'Select languages'. A green box highlights the 'Select devices, platforms, and carriers' option. A 'TARGETING SUMMARY' box on the right shows: 'In 1 location', 'AND Any gender', 'AND Any languages', and 'AND On all carriers'. Below the main options, there is a section for 'Select additional targeting criteria' with a note: 'Users falling into any of the categories below will be targeted.'

<https://www.youtube.com/watch?v=Jv0quwaLDmE&feature=youtu.be>

Twitter's targeting criteria also enable advertisers to selectively display ads to users that have downloaded specific mobile apps ("asset information... identifies software applications that are currently loaded").

To help build a more personal Twitter experience for you, [we are collecting](#) and occasionally updating [the list of apps installed on your mobile device so we can deliver tailored content that you might be interested in...](#)

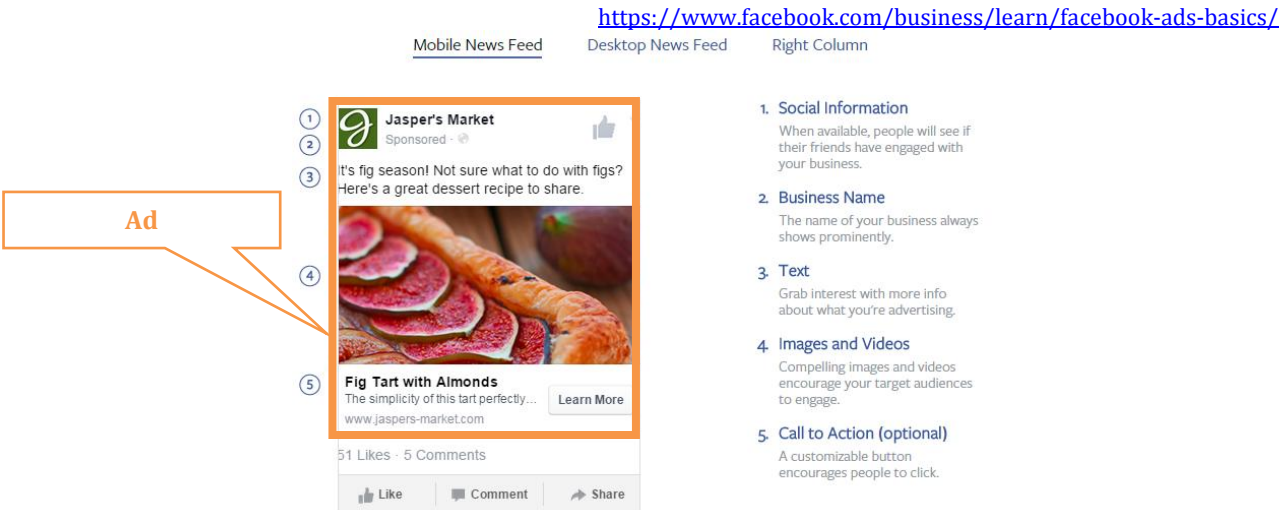
<https://support.twitter.com/articles/20172069>

6,513,052	Twitter
<p>[35b] and a second data field containing <b>asset information describing data archived from a computer</b>,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>In order for Twitter to provide its services, including the delivery of the most appropriate ads to the right targets as described above, Twitter relies on its knowledge of its users' devices.</p> <p>Tip: We collect and use your information below to provide our Services and to measure and improve them over time...</p> <p><u>Twitter uses Log Data to</u> provide, understand, and improve our Services, to make inferences, like what topics you may be interested in, and to <u>customize the content we show you, including ads.</u></p> <p><a href="https://twitter.com/privacy?lang=en">https://twitter.com/privacy?lang=en</a></p> <p>Specifically, Twitter stores or “archives” technical data about its users’ individual mobile devices such as device information and apps downloaded (“asset information describing data archived from a computer”).</p> <p><u>When you use our Services, we may receive information</u> (“Log Data”) such as your IP address, browser type, <u>operating system</u>, the referring web page, pages visited, location, your mobile carrier, device information (including device and application IDs), search terms, and cookie information...</p> <p><a href="https://twitter.com/privacy?lang=en">https://twitter.com/privacy?lang=en</a></p> <p>To help build a more personal Twitter experience for you, <u>we are collecting and occasionally updating the list of apps installed on your mobile device so we can deliver tailored content that you might be interested in.</u></p> <p><a href="https://support.twitter.com/articles/20172069">https://support.twitter.com/articles/20172069</a></p>

## U.S. Patent No. 6,513,052 – Facebook

6,513,052	Facebook
<p>35. A <b>computer-readable medium</b> having stored thereon a data structure comprising:</p>	<p>Facebook provides a platform that enables advertisers to deliver ads to Facebook users.</p> <p>Facebook’s <b>database</b> (“computer-readable medium”) stores the advertisers’ ads for delivery (“stored thereon a data structure”).</p> <p>More than 1.3 billion people use Facebook to connect with what matters to them, and 64% visit every day. 1 Facebook Ads are shown to people based on their location, age, interests and more.</p> <p><a href="https://www.facebook.com/business/products/ads/">https://www.facebook.com/business/products/ads/</a></p>



6,513,052	Facebook
<p>[35b] a first data field containing <b>advertising information</b>;</p>	<p>Advertisers create their ads (“first data field containing advertising information”) and design customized campaigns that dictate how Facebook will deliver them to Facebook subscribers.</p> <p>You can reach your goals by reaching the right people. The ads we offer are designed to help you get the best possible response from the people who see your ad.</p> <p>Whether you want to get more people in your store, on your website, installing your app, liking or commenting on your Page and more, we’ll help you create ads that make your goals a reality...</p> <p>When you run an ad, just choose the traits of the audience that should see your ads.</p> <p>Choosing your audience with such reach, accuracy and affordability is what makes Facebook an incredible place to advertise.</p> <p><a href="https://www.facebook.com/business/learn/facebook-ads-basics/">https://www.facebook.com/business/learn/facebook-ads-basics/</a></p> <div>  </div> <p><a href="https://www.facebook.com/business/ads-guide?tab0=Desktop%20News%20Feed">https://www.facebook.com/business/ads-guide?tab0=Desktop%20News%20Feed</a></p>

6,513,052

Facebook

[35b] and a second data field containing **asset information** describing data archived from a computer,

wherein the asset information of the second data field is **used as an index for selecting advertising of the first data field.**

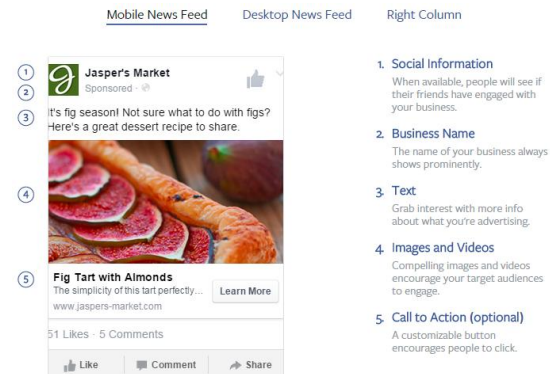
*"The **asset information**, referred to hereafter as an asset profile, describes in detail the current state of user computer 205. The asset profile **identifies the operating system** 135 and software applications 136 that are currently loaded on user computer."*

'052 Patent - Col 4:24-32

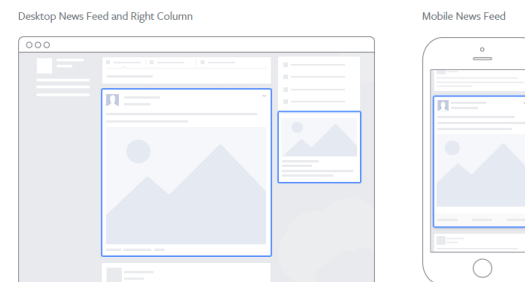
While creating their ads for Facebook ("first data field"), advertisers are presented with a number of placement options.

These options dictate where the ad will appear. Advertisers select their placement options, and these selections are stored by Facebook ("second data field").

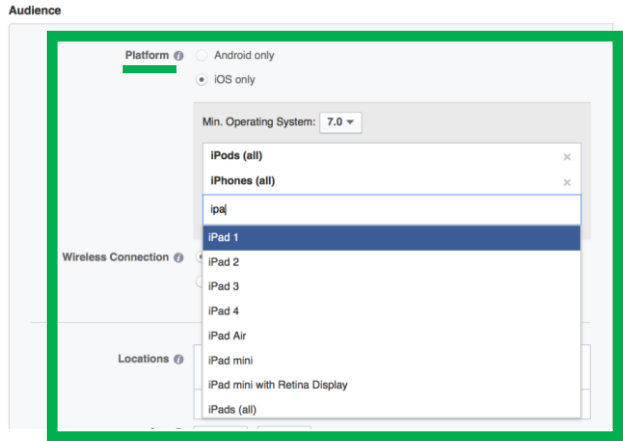
Facebook Ads look slightly different depending on the results you want. This guide includes recommendations to help make your Facebook Ads look their best wherever they're seen.



Facebook Ad Placements



<https://www.facebook.com/business/ads-guide?tab0=Desktop%20News%20Feed>


6,513,052	Facebook
<p>[35b] and a second data field containing asset information describing data archived from a computer,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>Facebook uses the selected placement options to help dictate where to display specific ads. That is, Facebook uses the targeting options or “...information of the second data field [] as an index for selecting advertising of the first data field.”</p> <p>Among the targeting options offered to advertisers is the selection of devices with particular technical specifications. For example, advertisers can select to have their ad displayed to only devices running a particular operating system or mobile app (“asset information...as an index for selecting advertising”).</p> <p><u>App developers have seen a lot of success with Facebook's Mobile App Ads, largely because of Facebook's precise targeting abilities for mobile app ads... Available in the next few days, <b>you will be able to reach people using specific mobile devices, such as a Samsung Galaxy S5, iPhone 5s, or an HTC One. For example, you can deliver ads to people specifically using a Google Nexus 10 with a minimum OS version of 3.0</b>, who are on Wi-Fi. Previously you could only target iOS or Android, minimum OS version and Wi-Fi only users.</u></p> <p><a href="https://developers.facebook.com/blog/post/2014/07/22/device-level-targeting/">https://developers.facebook.com/blog/post/2014/07/22/device-level-targeting/</a></p>  <p>The screenshot shows the Facebook Audience targeting interface. A green box highlights the 'Platform' section, which is set to 'iOS only'. Below this, the 'Min. Operating System' is set to '7.0'. A list of devices is shown, including 'iPods (all)', 'iPhones (all)', 'iPad 1', 'iPad 2', 'iPad 3', 'iPad 4', 'iPad Air', 'iPad mini', 'iPad mini with Retina Display', and 'iPads (all)'. The 'iPad 1' option is currently selected.</p>

6,513,052	Facebook
<p>[35c] and a second data field containing asset information describing data archived from a computer,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>Benefits of device targeting for your mobile app ads:</p> <p>Greater return on investment: You will be able to reach the most relevant users and optimize your bids by bidding separately per device.</p> <p>App Insights at the device level: <b><u>You can</u></b> identify which devices are working best for your app with App Insights and <b><u>target those devices</u></b>. For example, one travel company determined that a significant amount of their mobile revenue is coming from an iPhone 5s and can now target engagement ads at people with iPhone 5s specifically.</p> <p>Eliminate wasted spend: <b><u>You can reach devices optimal for your app and filter out devices that are no longer compatible</u></b>. This reduces development time as you only need to build to devices best suited for your app.</p> <p><a href="https://developers.facebook.com/blog/post/2014/07/22/device-level-targeting/">https://developers.facebook.com/blog/post/2014/07/22/device-level-targeting/</a></p>

6,513,052	Facebook
<p>[35c] and a second data field containing <b>asset information describing data archived from a computer</b>,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>In order for Facebook to provide services, including delivery of the appropriate ads to the right targets as described above, Facebook relies on its knowledge of its users' devices.</p> <p>Specifically, Facebook stores or "archives" technical data about its users' individual devices ("asset information describing data archived from a computer").</p> <p><u>We collect information from or about the computers, phones, or other devices where you install or access our Services</u>, depending on the permissions you've granted. We may associate the information we collect from your different devices, which helps us provide consistent Services across your devices. <u>Here are some examples of the device information we collect:</u></p> <p><u>Attributes such as the operating system, hardware version, device settings</u>, file and software names and types, battery and signal strength, and device identifiers.</p> <p><a href="https://www.facebook.com/about/privacy/">https://www.facebook.com/about/privacy/</a></p>

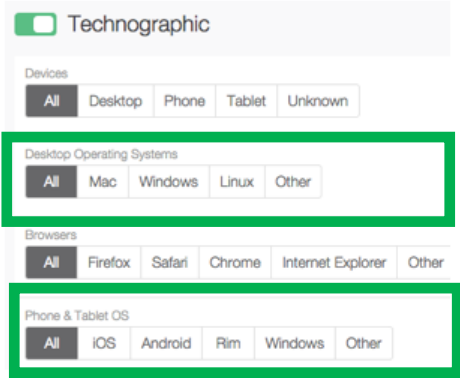
## U.S. Patent No. 6,513,052 – Yahoo! Ad Manager Plus

6,513,052	Yahoo! Ad Manager Plus
<p>35. A <b>computer-readable medium</b> having stored thereon a data structure comprising:</p>	<p>Yahoo! provides the Ad Manager Plus platform that enables advertisers to deliver ads to Yahoo! users.</p> <p>Yahoo! <b>database</b> (“computer-readable medium”) stores the advertisers’ ads for delivery (“stored thereon a data structure”).</p> <p>Yahoo Ad Manager Plus is an ad buying platform for display, video, and native advertisements. Use Yahoo Ad Manager Plus to plan, execute and optimize ad campaigns, and monitor the performance of your ads on Yahoo and third-party programmatic inventory.</p> <p><a href="https://help.yahoo.com/adv/yahoo-ad-manager-plus/overview-sol2051.html?impressions=true">https://help.yahoo.com/adv/yahoo-ad-manager-plus/overview-sol2051.html?impressions=true</a></p>

6,513,052	Yahoo! Ad Manager Plus
<p>[35b] a first data field containing <b>advertising information</b>;</p>	<p>Advertisers upload their creatives, or “ads” and create customized campaigns that dictate how Yahoo! will deliver them.</p> <hr/> <h2>Set up Advertisements</h2> <p>To set up advertisements, begin by uploading creatives to a campaign. Because Yahoo Ad Manager Plus creatives are at the campaign level, and you can use a creative with multiple advertisements, you need to create campaign line items and link the creatives to the lines.</p> <p>Yahoo Ad Manager Plus advertisement setup involves the following workflow:</p>  <pre> graph LR     A[1. Upload Creatives] --&gt; B[2. Create, Edit, and Manage Lines]     B --&gt; C[3. Link Creatives to Lines]   </pre> <p><a href="https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3283.html?impressions=true">https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3283.html?impressions=true</a></p>

6,513,052	Yahoo! Ad Manager Plus
<p>[35b] and a second data field containing <b>asset information</b> describing data archived from a computer,</p> <p>wherein the asset information of the second data field is <b>used as an index for selecting advertising of the first data field.</b></p> <p><i>“The asset information, referred to hereafter as an asset profile, describes in detail the current state of user computer 205. The asset profile identifies the operating system_135_and software applications_136_that are currently loaded on user computer.”</i></p> <p>’052 Patent - Col 4:24-32</p>	<p>While creating their ads for Yahoo! (“first data field”), advertisers are presented with a number of targeting categories.</p> <p>The targeting categories dictate the placement of an ad, i.e. where it will appear. Advertisers select their targeting categories, and these selections are stored in the Yahoo! database (“second data field”).</p> <p>Yahoo! uses the selected targeting categories to help dictate where to display specific ads. That is, Yahoo! uses the targeting options or “...information of the second data field [] as an index for selecting advertising of the first data field.”</p> <p>Among the targeting categories offered to advertisers is the selection of devices with particular technical specifications. For example, advertisers can select to have their ad displayed to only devices running a particular operating system or mobile app (“asset information...as an index for selecting advertising”).</p> <p><u><b>Target users based on the technologies in their computing environment.</b></u> Depending on the attribute you select, you may be able to select subcategories (e.g., <b>if you choose device type of “Phone” you can also specify one or more mobile operating systems to target</b>).</p> <p><a href="https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3291.html?impressions=true">https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3291.html?impressions=true</a></p>



6,513,052	Yahoo! Ad Manager Plus
<p>[35b] and a second data field containing asset information describing data archived from a computer,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>6. Move the <b>Technographic</b> slider to the right to enable targeting based on device types and operating systems.</p>  <p>7. Select one or more devices, or select <b>All</b>.</p> <p>8. Select one or more desktop operating systems, or select <b>All</b>.</p> <p>9. Select one or more browsers, or select <b>All</b>.</p> <p>10. Select one or more phone and tablet operating systems, or select <b>All</b>.</p> <p><a href="https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3291.html?impressions=true">https://help.yahoo.com/adv/yahoo-ad-manager-plus/sol3291.html?impressions=true</a></p>

6,513,052	Yahoo! Ad Manager Plus
<p>[35c] and a second data field containing <b>asset information describing data archived from a computer</b>,</p> <p>wherein the asset information of the second data field is used as an index for selecting advertising of the first data field.</p>	<p>In order for Yahoo! to provide its services, including delivery of the appropriate ads to the right targets as described above, Yahoo! relies on its knowledge of its users' devices.</p> <p><u><a href="#">Yahoo uses information for the following general purposes: to customize the advertising</a></u> and content you see, fulfill your requests for products and services, improve our services, contact you, conduct research, and provide anonymous reporting for internal and external clients.</p> <p><a href="https://policies.yahoo.com/us/en/yahoo/privacy/index.htm">https://policies.yahoo.com/us/en/yahoo/privacy/index.htm</a></p> <p>Specifically, Yahoo! stores or “archives” technical data about its users’ individual devices (“asset information describing data archived from a computer”).</p> <p><u><a href="#">Yahoo automatically receives and records information from your computer</a></u> and browser, including your IP address, Yahoo cookie information, <u><a href="#">software and hardware attributes</a></u>, and the page you request...</p> <p>We may also set and access device identifiers which could include IP address, user agent information (browser version, <u><a href="#">OS type and version</a></u>), and device provided identifiers. Once you log into Yahoo on your device, <u><a href="#">Yahoo may recognize your device to provide you with a personalized experience, independent of your device settings</a></u>.</p> <p><a href="https://policies.yahoo.com/us/en/yahoo/privacy/index.htm">https://policies.yahoo.com/us/en/yahoo/privacy/index.htm</a></p>