

THE CASE FOR FAIR SEARCH

HOW SEARCH WORKS AND WHY IT MATTERS.

WE ARE AN INTERNET-DEPENDENT SOCIETY.

**240
MILLION**

About 240 million people in the United States regularly use the Internet and last year, their activity generated nearly \$170 billion in commerce, including online advertising and online transactions.

GENERATING

**\$170
BILLION**

HOW SEARCH WORKS

1. A search engine sends Web crawlers or “bots” to copy Web sites to create an index of everything that’s on the Internet.

2. When you enter a query into a search engine, the engine actually looks through the index that it has created, rather than the Web itself. This enables search engines to deliver results quickly. Often in less than a second, you are returned listings for both “organic” or “natural” search results, as well as “paid results,” or ads that are delivered alongside your natural search results based on your query. Depending on the listing, your search could return thousands of page results.

3. When you type in a search term, the engine uses a proprietary algorithm to organize and prioritize results that it identifies as likely to be relevant to your query. Changes to those algorithms can greatly impact a website’s opportunity for success, because they can determine whether a site is ranked high or low in response to a particular query.

4. Because algorithms are extremely complex it is very difficult to determine when changes are made to them and what those changes are. This lack of transparency also means that algorithms can be programmed to exclude, penalize or promote specific sites or whole categories of sites.

HOW SEARCH WORKS

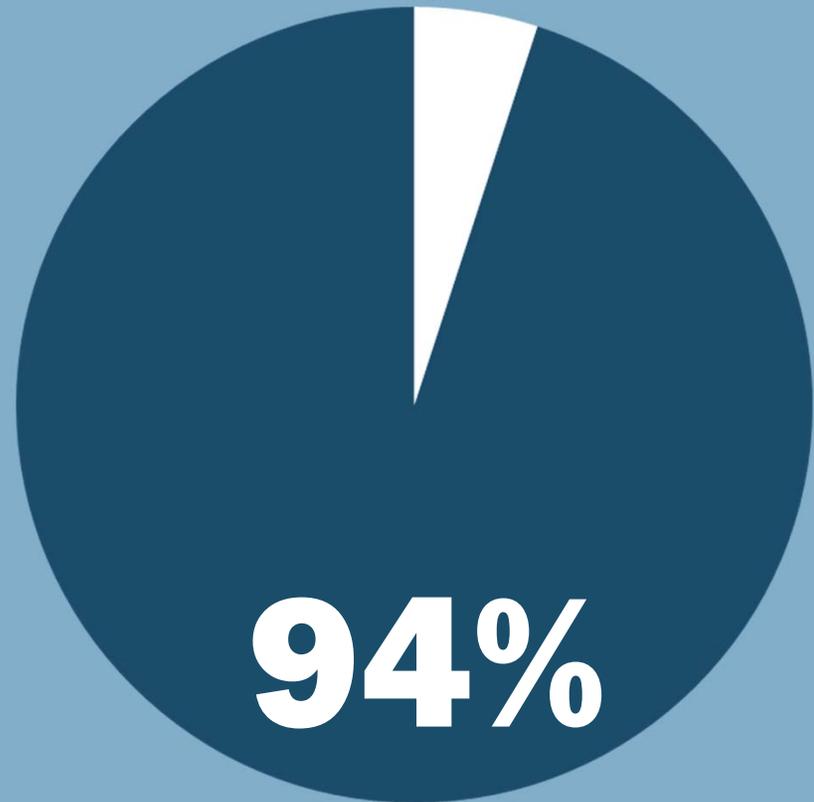
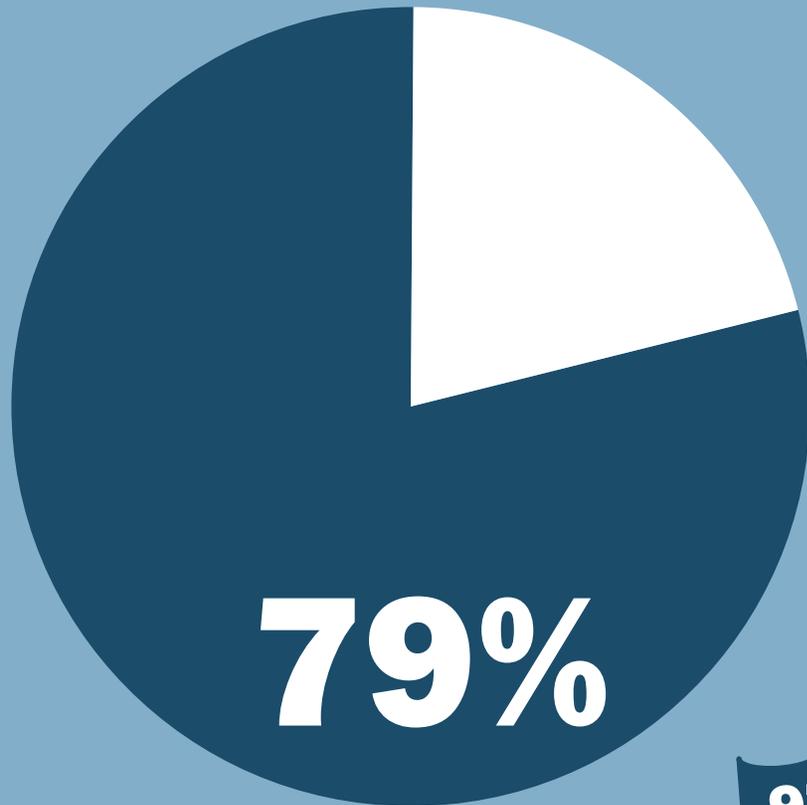
Whether we are information seekers, buyers, or sellers, we find each other on the vast Web through search. Being visible in search results is essential to participating in Internet commerce and discourse.

**THE TOP 3 RESULTS
RECEIVE 88% OF
USERS' CLICKS**

and those appearing past the first three pages of search results receive **none**.

ONE COMPANY, GOOGLE, DOMINATES SEARCH

Google dominates search, controlling more than 79% of search in the U.S. and up to 94% in some EU countries.



97%

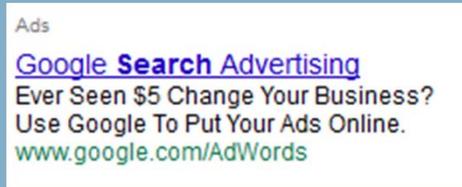


And don't forget about **mobile search**, where Google has *even more* control.

GOOGLE ALSO DOMINATES SEARCH ADVERTISING

Q: How does Google make money?

A: Ads, like this one:



Q: Do people really click on those paid links?

A: Yes. Google only makes money when people click, and in 2010, Google generated **\$28 billion** through search advertising. That's a lot of clicks.

Q: How important is advertising to Google?

A: In 2010, advertising accounted for almost **96%** of Google's revenue.

HOW DID GOOGLE COME TO DOMINATE SEARCH?

Google's dominance has been bolstered by its advertising and syndication deals.

2000

Google introduced its first ad program, AdWords (Google was sued for patent infringement and settled out of court in 2002). But Google only allowed ads to appear in 15% of all searches (because it wanted to only serve ads that were truly "relevant" to users' queries).

2002

Google partnered with AOL to provide search for AOL users (at the time AOL was the 5th largest search provider). In 2005, Google acquired a 5% stake in AOL for \$1 billion to continue the partnership.

2003

Google acquired Applied Semantics (AdSense – an online advertising platform), which "effectively meant that Google could turn everyone's content into a place for Google ads."

2006

Google entered an exclusive partnership with Fox Interactive Media to power search across most Fox online sites. Google agreed to pay Dell for 3 years of tool bar distribution. Google entered into a 3 year contract to provide search on MySpace.

2007

Google unveiled the Android operating system for mobile phones, after acquiring the company in 2005.

2008

Google acquired DoubleClick, an acquisition that gave Google "an opportunity to be the infrastructure backbone for all ad-serving on the Internet," said Wenda Harris Millard, Yahoo's then chief sales officer. Google also launched the Chrome web browser.

2009

Google announced its intent to purchase mobile ad leader AdMob for \$750 million.

2010

Competitors exit the market due to Google's dominance: "Doug Leeds, Ask.com President, says Google has become too powerful, cuts 130 search engineering jobs and ceases all work on algorithmic technology."



In addition, Google pays browsers including Mozilla and Opera to be their default search provider, bundles its Google Toolbar with software from Adobe and Sun Microsystems, and pays AdSense ad publishers \$1 for Firefox + Google Toolbar installs, or up to \$2 for Google Pack installs.

WHAT DOES THE FUTURE HOLD?

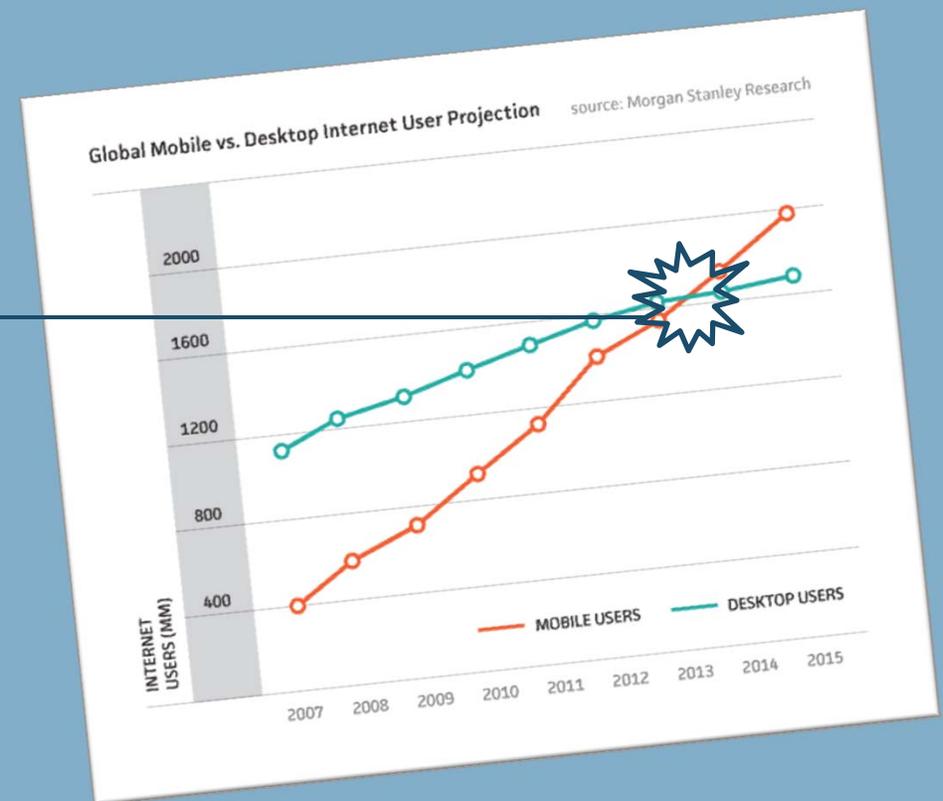
The future of the Internet is mobile.

The global mobile search market now accounts for 5.4% of all paid search impressions and is expected to grow to an \$1.1 billion by the end of the year.

In fact, by **2014**, the number of mobile internet users will surpass the number of users browsing the internet via a desktop computer.

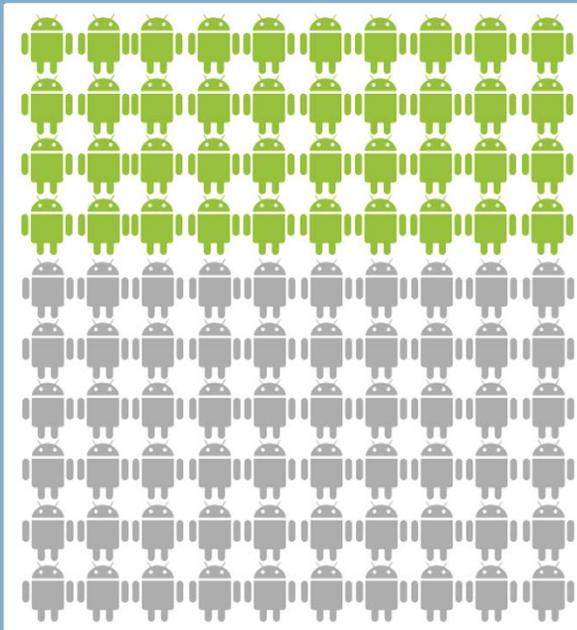
Google knows this.

It's exactly why Google gives its Android operating system away for free to phone makers. As Andy Rubin, SVP of Mobile at Google said, "We don't monetize the thing we create... We monetize the people that use it. The more people use our products, the more opportunity we have to advertise to them." Google wants to extend its dominance into mobile search.



ANDROID = SEARCH DOMINANCE EXTENDED

40% of the smartphones sold this year will run Android, **more than twice** the share of either Apple or BlackBerry software. Google is the default search engine of all Android devices.



“Google reports **300K new Android activations per day** and eMarketer notes that **50 percent of all new Internet connections worldwide** are coming from mobile devices.” - Rob Torres, Head of Travel, Google

“In fact, according to internal Google data, in Q3 [2010] Google **searches from mobile devices grew 130%** year over year.” - Anna Khesed, Google Mobile Ads Marketing Team

“Mobile will ultimately be the way you provision most of your services. The way I like to put it is, **the answer should always be mobile first.**” - Former Google CEO Eric Schmidt

“THIS IS THE PLACE THAT GOOGLE IS ESSENTIALLY BETTING ITS FUTURE ON.”

- Karim Temsamani, Google's head of mobile advertising

SEARCH DOMINANCE = POWER

Google has unprecedented power over a site's ability to reach users, with control over:

WHERE
SITES RANK
IN SEARCH
RESULTS

HOW
SEARCH
RESULTS ARE
DISPLAYED

WHO CAN
ADVERTISE
ON ITS
SEARCH
PAGE

WHAT PRICE
ADVERTISERS
MUST PAY

Just how much power? If you ask Google:

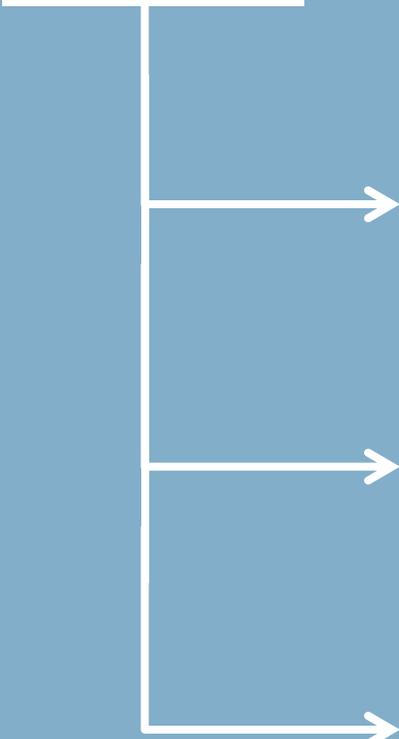
GOOGLE IS “THE BIGGEST
KINGMAKER ON THIS
EARTH”

- Google's Amit Singhal

WHY ISN'T THERE MORE COMPETITION?

Search is a **scale business** that is difficult for new entrants to crack.

WHY?



Scale of queries: The more search queries a search engine sees, the more it learns from them and the better it becomes at delivering more relevant results, especially in response to less-common queries.

Scale of resources: What's more, the search index is housed in many data centers around the world, which is expensive to maintain. Google spent nearly **\$1 billion** maintaining its data centers for the **first quarter of 2011**.

But even significant financial investment doesn't guarantee success.

SO DO OTHER WEBSITES HAVE A CHANCE?

Yes, and no.

So far, we've explained "horizontal" (also known as general) search, which Google dominates. In horizontal search, competitors have little chance of catching up.

But, there is an area where competitors still have a chance, "vertical" search.

A "vertical" search provider serves results from a specific category of content. Some examples include



travel



shopping



video



local



maps



financial

* And, because they focus on a *specific sector in which they are expert*, these companies can compete effectively with Google within that specialized search space *without having to have the same overall scale as Google*.

THE LAST LINE OF DEFENSE

“These vertical markets, which like online travel search, serve specialized needs, require unique inputs and/or technology, and are narrow enough to prevent Google’s tremendous scale advantage from overwhelming competition, are in a sense **all that remains of the online search frontier.**”

American Antitrust Institute 2/18/11

let's take a closer look at the tactics...

THE PROBLEM

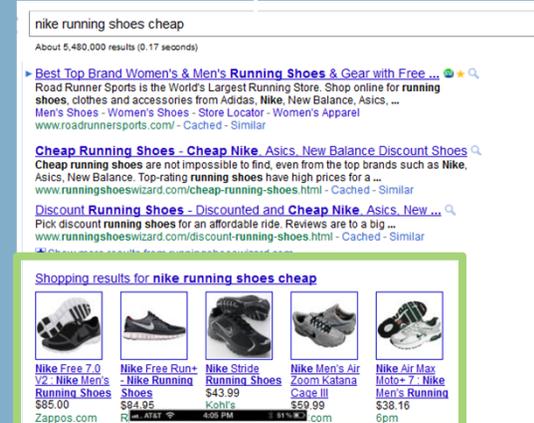
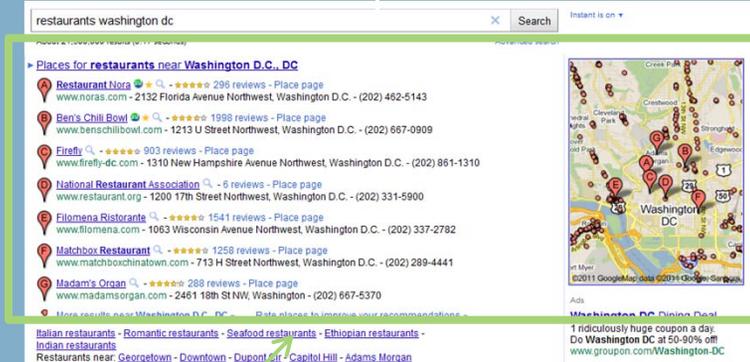
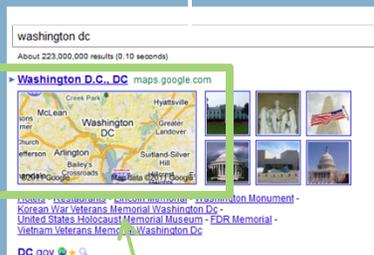
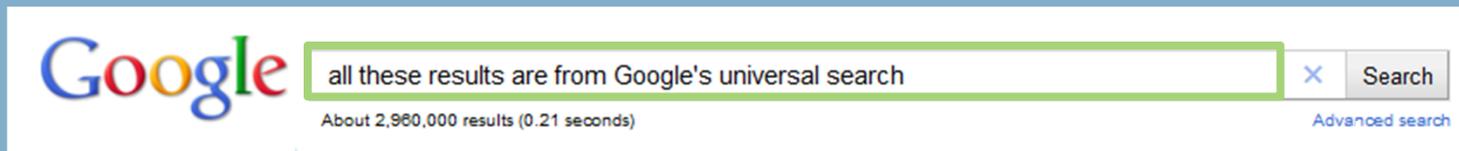
Google is using its enormous power in search and search advertising to maintain and extend its dominance at the expense of competition and consumers. How?

1. Deceptive search display and search manipulation
2. Acquisitions of competitive threats
3. Unauthorized or coerced scraping of content
4. Unfair treatment of advertisers and partners

DECEPTIVE SEARCH DISPLAY

As Google moves into these markets, it is now providing its own sites to compete with independent vertical sites. And it is using its dominance in search to **promote its own sites over those of competitors.**

It now displays its own content at the top or middle of a search results page without alerting consumers that the results are placed there artificially by Google.



GOOGLE PAID AD PRODUCTS

SEARCH MANIPULATION

Users expect search results to be presented in the order of their likely relevance to a query. But now, Google's own sites compete with vertical sites, incentivizing Google to prefer those rankings, instead of simply ranking and listing the most relevant results.

“[When] we roll[ed] out Google Finance, we did put the Google link first. **It seems only fair right, we do all the work for the search page and all these other things, so we do put it first...** That has actually been our policy, since then, because of Finance. So for Google Maps again, it's the first link.”
Google's Marissa Mayer 2007

Preferential Treatment

Google has ratcheted up competition with established websites by developing its own specialized services, shown below, and often promoting them above regular search results in recent years. Competitors to Google's sites in parenthesis

Developed: 2002

Froogle, now called Google Product Search
(Amazon, eBay, Shopzilla, The Find)

2005

Google Maps (Mapquest)

2006

Google Finance
(Yahoo Finance, MSN Money, AOL Money)

2009

Google Health (WebMD, Mayo Clinic)
Google mortgage and credit card comparisons
(Bankrate, LendingTree)
Google Place pages (Yelp, TripAdvisor, Citysearch)

2010

Google's Boutiques.com (eBay, Amazon)
Google Hotpot (Yelp, other review sites)

2011

Google travel-search site planned*
(Kayak, Expedia, TripAdvisor)

[The Wall Street Journal 12/12/10]

PURSUIITS OF COMPETITIVE THREATS

2005 - mobile

Understanding the potential for growth in mobile search, (i.e., that the number of mobile internet users will surpass the number of users browsing the internet via a desktop computer by 2014), Google bought the Android technology in 2005. Google is “not trying to make a profit on Android or Chrome...In essence [by giving Android away for free], they are not just building a moat; Google is also scorching the earth for 250 miles around the outside of the castle to ensure no one can approach it.” [[abovethecrowd 3/24/11](#)]

2005 - video

Google bought YouTube, the world’s largest video search engine, for \$1.5 billion. YouTube performs more searches than Yahoo! and by some measures, is the second largest search engine. Through this acquisition, Google captures **more than 83% of unique viewers** among top U.S. online video properties. [[comScore 3/17/11](#)]

2010 - travel

“In mid-2010, Google got serious about travel. Given that over half of travel sales are consummated online, Google wasted no time with DIY solutions. It went shopping and bid \$700 million in cash to buy ITA Software, a Cambridge (Mass.)-based travel software company that was founded in 1996 by scientists at MIT to provide search services for airlines and other travel operators.” [[Bloomberg 2/13/11](#)] **In April 2011 the Justice Department placed strong conditions on the deal.**

2010 - shopping

“The vast majority of Google's revenue comes from ads placed next to search results. **But growth in that core business has slowed from several years ago, leading the company to add websites that go deeper into categories like comparison shopping.**” [[The Wall Street Journal 12/12/10](#)] To support its existing product search, Google acquired visual search engine, Like.com.

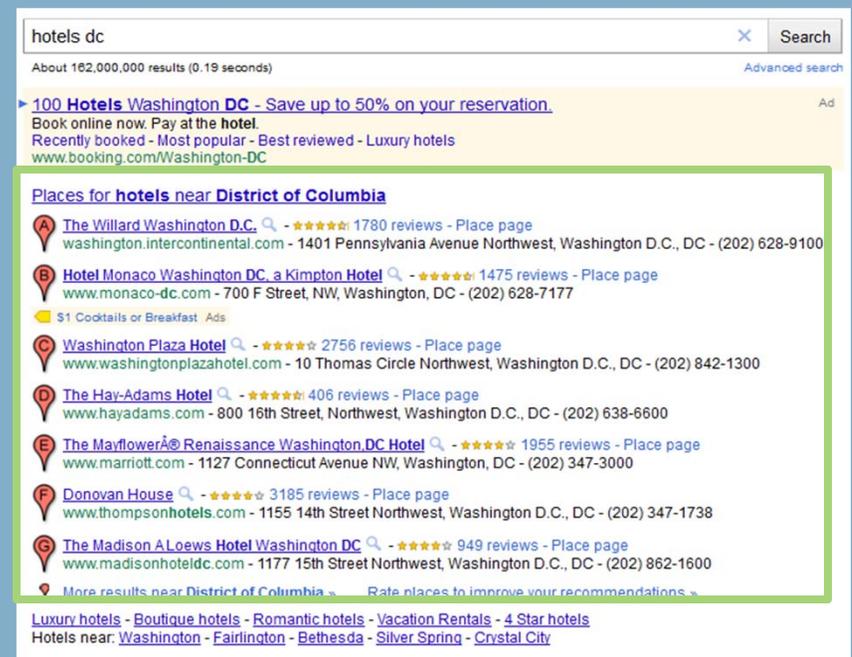
SCRAPING CONTENT

Google scrapes the content developed by other websites and displays it on a Google page. This enables Google to earn advertising revenues and to deprive the other website of user traffic.

Yelp: CEO Jeremy Stoppelman: “[A] ton of [Google’s content] is coming from Yelp content that Google is simply getting by crawling it with their search spiders... And even though **Google is using a good amount of Yelp content to populate its review areas**, they’re shoving the reviews to the bottom of the results, below the reviews from licensed partners.”

TripAdvisor: CEO Steve Kaufer “Google is manipulating its systems and position to promote Google Places over other competing sites. Links to Google Places appear at the top of the ‘natural’ search despite being an inferior product to sites that are dedicated to review collection and therefore more useful to the consumer. **Google is also forcing TripAdvisor to allow its reviews to be on Google Places**, and as the world’s largest travel site with more than 40 million reviews and opinions, become the key content provider in Google Places for hotel and other accommodation reviews.”

SCRAPED AND PACKAGED AS GOOGLE PLACES



hotels dc Search

About 162,000,000 results (0.19 seconds) [Advanced search](#)

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washington.intercontinental.com - 1401 Pennsylvania Avenue Northwest, Washington D.C., DC - (202) 628-9100
- B **Hotel Monaco Washington DC, a Kimpton Hotel** - ★★★★★ 1475 reviews - Place page
www.monaco-dc.com - 700 F Street, NW, Washington, DC - (202) 628-7177
- C **Washington Plaza Hotel** - ★★★★★ 2756 reviews - Place page
www.washingtonplazahotel.com - 10 Thomas Circle Northwest, Washington D.C., DC - (202) 842-1300
- D **The Hay-Adams Hotel** - ★★★★★ 406 reviews - Place page
www.hayadams.com - 800 16th Street, Northwest, Washington D.C., DC - (202) 638-6600
- E **The Mayflower Renaissance Washington DC Hotel** - ★★★★★ 1955 reviews - Place page
www.marriott.com - 1127 Connecticut Avenue NW, Washington, DC - (202) 347-3000
- F **Donovan House** - ★★★★★ 3185 reviews - Place page
www.thompsonhotels.com - 1155 14th Street Northwest, Washington D.C., DC - (202) 347-1738
- G **The Madison A Loews Hotel Washington DC** - ★★★★★ 949 reviews - Place page
www.madisonhoteldc.com - 1177 15th Street Northwest, Washington D.C., DC - (202) 862-1600

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SCRAPING CONTENT

Google's Places iPhone app scrapes content from Yelp and TripAdvisor without attribution.

The image displays four mobile app screenshots illustrating content scraping. The first screenshot shows the Google Places app interface with a review from 'John D.' (Elite '11, 92 Friends, 443 Reviews) dated 12/5/10. The review text is: "The staff here are really nice, I have never brought home anything expired (unlike 'Whole Foods' in the Lower Haight), and...". The second screenshot shows the Yelp app interface with the same review from 'John D.' and the same text. The third screenshot shows the Google Places app interface with a review from 'theoc456' (Phoenix, Arizona, 2 reviews) dated Mar 1, 2011. The review text is: "It was our first trip to Boston and we wanted to stay somewhere central. Brookline is a great area to stay in. The hotel was in a great location right off Beacon Street (train was also along Beacon). We walked outside and ther...". The fourth screenshot shows the TripAdvisor app interface with the same review from 'theoc456' and the same text. Arrows indicate the flow of content from the source apps to the Google Places app.

UNFAIR TREATMENT OF ADVERTISERS & PARTNERS

Customers suffer as a result of Google's anticompetitive tactics – but they often have nowhere else to turn.

By handicapping advertisers with a **“quality score,”** which can be **lowered without warning and with little or no justification,** Google can manipulate paid search to limit competition.

The placement of ads on Google is determined through an auction in which advertisers submit bids for search terms. The bid is the amount that the advertiser is willing to pay each time a user clicks on its ad. **The lower the quality score assigned to a bidder, the higher a price the advertiser has to bid to win the auction.**

Google's dominant share in search makes its paid search advertising platform, AdWords, a “must buy” for businesses that advertise online, but **Google uses this power to lock in advertisers.**

Google imposes limits on advertisers' ability to port their AdWords data other ad platforms using third party tools. This makes it difficult for advertisers to use and compare Google's prices and returns on investment with those of Google's competitors. Google also prevents advertisers from syncing updates or changes to their campaign data across multiple platforms.

*“...as [Google's own] Product Search received prime placement on Google's primary search engine via Universal Search, Foundem was practically unreachable through Google. In 2006, when [Google] introduced a new algorithm that targeted vertical search engines, Foundem vanished from Google's [general] search engine. **The site was also priced out of Google's AdWords search advertising system when the same algorithm reduced its landing page 'quality score,' sending its minimum ad bid sky-high.**”*

The Register 3/25/11

*“The net effect...is to reinforce the tendency of small to medium-sized advertisers to 'single-home' – **to use only Google AdWords, to the exclusion of competing platforms...** Were it not for Google's restriction, more advertisers would sign up to use competing ad platforms.”*

Harvard Professor Ben Edelman 6/27/08

UNFAIR TREATMENT OF ADVERTISERS & PARTNERS

Google has maintained and expanded its dominance in search and search advertising by **imposing exclusivity restrictions** on its partners' use of the Android mobile operating system.

■ Google has **locked up as much as 90% of search syndication** through its network of exclusive deals with websites, browser companies, software developers and device manufacturers. These exclusive deals help ensure that Google controls these searches and make it difficult for Google's current and potential competitors to achieve the "scale" that could enable them to compete more effectively with Google.

Android phones must adhere to a "compatibility" standard determined by Google. In an e-mail on Aug. 6, 2010, Dan Morrill, a manager in the Android group, noted in passing that it was obvious to the phone makers that **"we are using compatibility as a club to make them do things we want."**

The New York Times, 5/8/11

But recently, Google's tactics have come under fire. Case in point: reactions to the complaint of location technology provider Skyhook Wireless.

"The suit accuses Google of using its Android mobile operating system to **strong-arm handset manufacturers into using Google's location technology** rather than Skyhook's. At one point, the suit says, Andy Rubin – the man who oversees Google's Android project – told Motorola co-CEO Sanjay Jha that **if the handset manufacturer didn't drop Skyhook, Google would remove official Android support from the devices.** This would mean that Motorola could not use proprietary Google services such as the Android Market." [\[The Register\]](#)

"What Skyhook is suggesting is that **Google uses its contract terms to force OEMs to bend to its will**--however unpredictable that will is. The use of strong-arm tactics with Motorola also highlights that **Google could choose to do the same over any other technical aspect of Android.** The maneuvers remind us of the stink that kicked up when Microsoft forced Internet Explorer on the world to suppress competing browsers, or the mess caused by Intel bullying its OEM partners into ditching support for rival AMD chips in their shipping products--both events sparking multi-billion-dollar lawsuits." [\[Fast Company\]](#)

WHO DOES THIS HARM?

Google harms competition and consumers in multiple ways.

ADVERTISERS: Advertisers pay ever-higher fees to Google and have little choice but to accept Google's arbitrary terms.

WEBSITE AND CONTENT CREATORS: Websites lose traffic when Google steers users to its own or preferred partners' sites. This means competitors have to increase their advertising spend on Google to try to make up for that lost traffic.

CONSUMERS: Consumers are misled by Google's manipulated search rankings and deceptive and preferential display of its own sites in response to users' queries. More broadly, consumers pay more for goods and services because advertisers are paying more to Google and because of diminished competition among websites. Further, Google's exclusionary conduct denies revenue and traffic to sites that compete with Google, hindering the ability of those sites to bring more innovative online content and better services to consumers.

WHY SHOULD I CARE?

NOT TO MENTION...

GOOGLE THREATENS:

THE FUTURE OF THE INTERNET

Google's control over access to information on the Internet threatens both existing and new Internet businesses.

Simply put, Google's market power and anticompetitive practices inhibit other Internet businesses from competing by denying those companies the user traffic and revenue they need to develop new products, support innovation, create jobs, and foster economic growth.

For those who are unable to win Google's favor or those seeking to enter Internet commerce, Google's practices present a barrier to entry and an obstacle to competing on the merits.

**WHICH AGAIN
HARMS:**

CONSUMERS!

GOOGLE UNDER INVESTIGATION

Google's has become the focus of investigations around the world, including:

- Google was **forced to abandon its proposed agreement with Yahoo!** in 2008 in the face of an expected challenge by the Department of Justice;
- The DOJ expressed serious concerns with Google's proposed Book Search settlement. In its recent opinion rejecting that settlement, the court agreed with the DOJ and found that the deal **"would further entrench Google's market power in the online search market"** if allowed to go forward;
- The DOJ recently challenged Google's acquisition of ITA Software, concluding that, as proposed, it would have **violated antitrust law**;
- Members of Congress from both parties and in both Chambers also **expressed concern regarding the Google-ITA deal**. Some, including Sens. Herb Kohl and Mike Lee—the Chairman and Ranking Member of the Senate Antitrust Subcommittee, respectively—also **called for hearings into competition in online search and Google's conduct**;
- The Attorney General of Texas is investigating whether **Google uses its dominant positions to harm rivals by manipulating its search results and paid search advertisements**;
- In November 2010, the European Commission announced a wide-ranging antitrust investigation into allegations that Google is abusing its dominant position in online search;
- As of April 2011, Google faces antitrust charges in **South Korea**; and
- In April 2011, *Bloomberg* broke the story that the U.S. Federal Trade Commission is preparing a full-scale antitrust investigation into Google's dominance on the Internet search industry.

CONTINUED SCRUTINY IS NEEDED

**ENFORCERS MUST ENSURE THAT
GOOGLE ABIDES BY EXISTING ANTITRUST
LAWS IN ORDER TO PROTECT:**

- **INNOVATION,**
- **ECONOMIC GROWTH, and**
- **CONSUMERS.**

REFERENCES

- Internet Usage Statistics 239,893,600 Internet users as of June/10, 77.3% of the population, according to ITU. ([Internet World Stats](#) 6/10)
- comScore released its Q4 2010 U.S. retail e-commerce sales estimates, which showed that online retail spending reached a record \$43.4 billion for the quarter, up 11 percent versus year ago. And, retail e-commerce spending figures of approximately \$142.5 billion in 2010 ([comScore](#) 2/4/11)
- Online advertising spend was \$25.8 billion in 2010 ([eMarketer](#) 3/14/11)
- Studies confirm that approximately 88% of users' clicks are on links that appear in the top three results on those pages. ([SEO Scientist](#) 7/12/09)
- The top spot on a search page typically attracts 20% to 30% of the page's clicks, according to Adam Bunn, SEO director of Greenlight. After that comes an enormous tail-off: Positions 2 to 3 generate 5% to 10% of the clicks, and links below the fold receive less than 1% of users' attention. Fall off to the second page and your search-engine-driven clicks will be negligible. ([CNN Money](#) 3/8/11)
- Google Sites led the U.S. search market in August with a 79% market share ([StatCounter](#) 9/20/11)
- Google controls up to 94% of search in the Europe. ([StatCounter](#) 4/2/11)
- Google was used to perform 97.29% of mobile searches globally, over the past six months. ([StatCounter](#) 5/17/11)
- Advertising accounted for 96% of Google's revenue in 2010 or about \$28 billion. ([Google Investor Relations](#) 4/20/11)
- Google controls 97.2% of the global mobile search market, a market that now accounts for 5.4% of all paid search impressions and is expected to grow to an \$1.1 billion by the end of the year. [[StatCounter](#) 2/1/11], [[Efficient Frontier](#) 3/3/11]
- On December 20, 2005 [Google invested \\$1 billion in AOL](#) to continue their partnership and buy a 5% stake in AOL. In February 2006 Google agreed to [pay Dell up to \\$1 billion](#) for 3 years of toolbar distribution. On August 7, 2006, Google signed a 3 year deal to [provide search on MySpace for \\$900 million](#). On October 9, 2006 [Google bought YouTube](#), a leading video site, for \$1.65 billion in stock. ([Search Engine History](#))
- In 2005, AOL was the fifth largest search engine. ([Datamation](#) 9/2/10)
- Google pays browsers including Mozilla and Opera to be their default search provider, bundles its Google Toolbar with software from Adobe and Sun Microsystems, and pays AdSense ad publishers \$1 for Firefox + Google Toolbar installs, or up to \$2 for Google Pack installs. ([Search Engine History](#))
- Graph data from Morgan Stanley (via [Sparkbox](#))
- Andy Rubin, SVP of Mobile at Google said, "We don't monetize the thing we create... We monetize the people that use it. The more people use our products, the more opportunity we have to advertise to them." (Steven Levy; In the Plex p 229)
- According to IDC, an estimated 39.5% of the smartphones sold this year will run Android, more than twice the share of either Apple or BlackBerry software. ([IDC](#) 3/29/11)
- In its own words, Google is "the biggest kingmaker on this Earth" – it can crown, or unseat, kings at will. Matt Warner, Google, Caffeine, and the Future of Search, The Telegraph (June 17, 2010) (quoting Amit Singhal, who heads Google's search ranking team)
- Google reported spending close to US\$900m in the year's first quarter in the expense category that includes data center operations. The category Google calls "Other Cost of Revenue" also includes asset amortization, content acquisition and credit-card processing charges. ([DataCenterDynamics](#) 4/15/11)
- A senior Google executive has acknowledged this: "Search is critical. If you are not found, the rest cannot follow." Santiago de la Mora, Google's head of printing partnerships in London ([The New York Times](#) 8/23/09)
- By 2014, the number of mobile internet users will surpass the number of users browsing the internet via a desktop computer. ([Guardian.co.uk](#) 9/30/10)
- Mobile screengrabs via TechCrunch 6/2/11
- Using Google's self-stated figure that its mobile ad business was operating at a \$1 billion run rate through 2010, Piper Jaffray analyst Gene Munster said Google generated \$850 million in mobile ads for the year. Android, Munster said, accounted for \$130 million of this total, good for \$5.90 average revenue per user (ARPU). For perspective, Google's advertising totaled \$25.77 ARPU, while its Web search engine accounted for \$18.85 a head. Looking forward, the analyst said Google could have an average of 133 million Android users by 2012, each generating \$9.85 per year on advertising, meaning Android would kick in \$1.3 billion to the company's ad revenues. ([eWeek](#) 2/9/11)

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