



## **Google Benefit from News Content**

Economic Study

by News Media Alliance

June 2019

**EXECUTIVE SUMMARY:** The following study analyzes how Google uses and benefits from news. The main components of the study are: a qualitative overview of Google’s usage of news content, an analysis of news content on Google Search, and an estimate of revenue Google receives from news.

## **I. GOOGLE QUALITATIVE USAGE OF NEWS**

- News consumption increasingly shifts towards digital (e.g., 93% in U.S. get some news online)
- Google has increasingly relied on news to drive consumer engagement with its products
- Some examples of Google investment to drive traffic from news include:
  - Significant algorithmic updates emphasize news in Search results (e.g., 2011 “Freshness” update emphasized more recent search results including news)
- Google News keeps consumers in the Google ecosystem; Google makes continual updates to Google News including Subscribe with Google (introduced March 2018)
- YouTube increasingly relies on news: in 2017, YouTube added “Breaking News;” in 2018, approximately 20% of online news consumers in the US used YouTube for news
- AMPs (accelerated mobile pages) keep consumers in the Google ecosystem

## **II. GOOGLE SEARCH QUANTITATIVE USAGE OF NEWS CONTENT**

### **A. Key statistics:**

- ~39% of results and ~40% of clicks on trending queries are news results
- ~16% of results and ~16% of clicks on the “most-searched” queries are news results

### **B. Approach**

- Scraped the page one of desktop results from Google Search
  - Daily scrapes from February 8, 2019 to March 4, 2019
  - Geographic locations randomized within the US
  - Results based on queries without user information
- Generated Search query terms and volumes from (i) most popular keywords identified by Ahrefs, (ii) keyword expansion on Ahrefs, and (iii) trending queries from Google Trends
- Identified news domains from News Media Alliance and Google News
- Developed click-through rates and click curve by page location based on third-party research
- Tested robustness for weighting by only the search volume or only the click-through rate curves

## **III. GOOGLE’S HISTORIC GOOGLE NEWS VALUATION SUGGESTS THEY RECEIVE AN ESTIMATE OF \$4.7B FROM NEWS CONTENT TODAY**

Google revenue from news content is estimated at \$4.7 billion in 2018, based on these assumptions:

- Revenue estimate includes news content on Google Search and Google News
- Google News in 2008 generated approximately \$100M for Google properties
- Google News contributes a constant ratio over time to revenue on Google properties
- Traffic from Google Search contributes to revenue on Google properties as Google News does
- News on Google Search is at least 6x larger than news consumption on Google News (based on a lower bound of the ratio of referral traffic from select publishers)

This value is conservative in excluding Google advertising revenue from publisher properties and data collected from news content. Adjusting for these can increase the estimate.

## GOOGLE BENEFIT FROM NEWS CONTENT

### IV. SUMMARY

1. Since the rise of the global Internet in the early 1990s,<sup>1</sup> the news industry has undergone a continuous shift toward online news consumption. Pew Research Center found that in 1995, only 2% of the U.S. population went online at least three days a week to get news. That number had increased to 23% by 2000.<sup>2</sup> In June 2018, roughly nine-in-ten adults (93%) in the U.S. accessed at least some news online.<sup>3</sup> Most importantly, this shift to online fundamentally changed how consumers access and consume news content. For example, Pew Research Center's study in 2016 found that more digital news consumers get their news online in the process of accomplishing other digital tasks (55%) than specifically seek the news out.<sup>4</sup> Additionally, the shift to online was followed by a further shift from desktop to mobile devices. A Pew Research Center survey found that 88% of U.S. adults get news on a mobile device at least some of the time, up from 72% in 2016 and 54% in 2013.<sup>5</sup> These major shifts in the news industry have allowed for increasing engagement of emerging technology players at the expense of news publishers who had traditionally relied on news subscriptions.

2. Google has emerged as a major gateway for consumers to access news. In 2011, Google Search combined with Google News accounted for the majority (approximately 75%) of referral traffic to top news sites.<sup>6</sup> Since January 2017, traffic from Google Search to news publisher sites has risen by more than 25% to approximately 1.6 billion visits per week in January 2018.<sup>7</sup> Corresponding with consumers' shift towards Google for news consumption, news is becoming increasingly important to Google, as demonstrated by an increase in Google searches about news.<sup>8</sup> The importance of news to Google is also reflected in its increasing reliance on recent content to improve its search engine infrastructure and search algorithm over the years.

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<sup>1</sup> Percentage of U.S. population using the Internet grew drastically from 0.8% in 1990 to 43% in 2000; [https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=US&name\\_desc=false](https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=US&name_desc=false).

<sup>2</sup> <http://www.people-press.org/2004/06/08/i-where-americans-go-for-news/>.

<sup>3</sup> <http://www.journalism.org/fact-sheet/digital-news/>; <http://www.journalism.org/2016/07/07/pathways-to-news/>.

<sup>4</sup> <http://www.journalism.org/2016/07/07/digital-distinctions/>.

<sup>5</sup> <http://www.pewresearch.org/fact-tank/2017/06/12/growth-in-mobile-news-use-driven-by-older-adults/>;

<http://www.pewresearch.org/fact-tank/2018/07/17/use-of-mobile-devices-for-news-continues-to-grow-outpacing-desktops-and-laptops/>.

<sup>6</sup> Pew Research Center's Project for Excellence in Journalism, *Navigating News Online: Where People Go, How They Get There and What Lures Them Away*, 2011. For top news sites in this study, 60%-65% of visits were through direct traffic, and 35%-40% were through referral sites; Google Search and Google News accounted for 30% of the traffic to these top news sites.

<sup>7</sup> <http://blog.chartbeat.com/2018/02/15/google-is-up-what-to-do-about-it/>.

<sup>8</sup> Numbers representing search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term. The increase in interest can be seen in searches for terms like "breaking news:" <https://trends.google.com/trends/explore?date=all&geo=US&q=breaking%20news>.

## V. GOOGLE PROVIDES A SET OF CONSUMER PRODUCTS MAKING SIGNIFICANT USE OF NEWS CONTENT

### A. Google Search incorporates news content in featured snippets such as top stories

3. Google's aim is to "organize the world's information and make it universally accessible and useful."<sup>9</sup> As Google's main product, Google Search indexes billions of webpages to enable users to search and discover information through the use of search queries.<sup>10</sup> Google Search has become a dominant search engine tool worldwide with a global market share of approximately 93% as of January 2019, while the second player Bing has 3% global market share.<sup>11</sup> During the last quarter of 2018, Google Search accounted for 93% of overall U.S. search engine visits and 96% of mobile visits.<sup>12</sup>

4. Google Search relies heavily on news content to increase user engagement. It is used by consumers to access information from news publishers and other sources.<sup>13</sup> Consumers can either search directly for news online, or receive news content alongside search results. Specifically, Google Search incorporates news content in search results, including featured snippets such as "Top Stories" carousels. In 2014, Google launched "In the News" as a new type of search result display, with the goal to make it easier for users to get the latest news and information.<sup>14</sup> In 2016, Google replaced "In the News" with "Top Stories" carousels to make the desktop user interface match the mobile version.<sup>15</sup> This update was both an aesthetic change to Google Search and also reflected Google's efforts to visually distinguish high-quality news content from rest of the search results in response to consumers' need for accurate news stories.<sup>16</sup>

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<sup>9</sup> <https://about.google/>.

<sup>10</sup> <https://techcrunch.com/2008/07/25/googles-misleading-blog-post-on-the-size-of-the-web/>.

<sup>11</sup> <http://gs.statcounter.com/search-engine-market-share>.

<sup>12</sup> <https://www.statista.com/statistics/625554/mobile-share-of-us-organic-search-engine-visits/>.

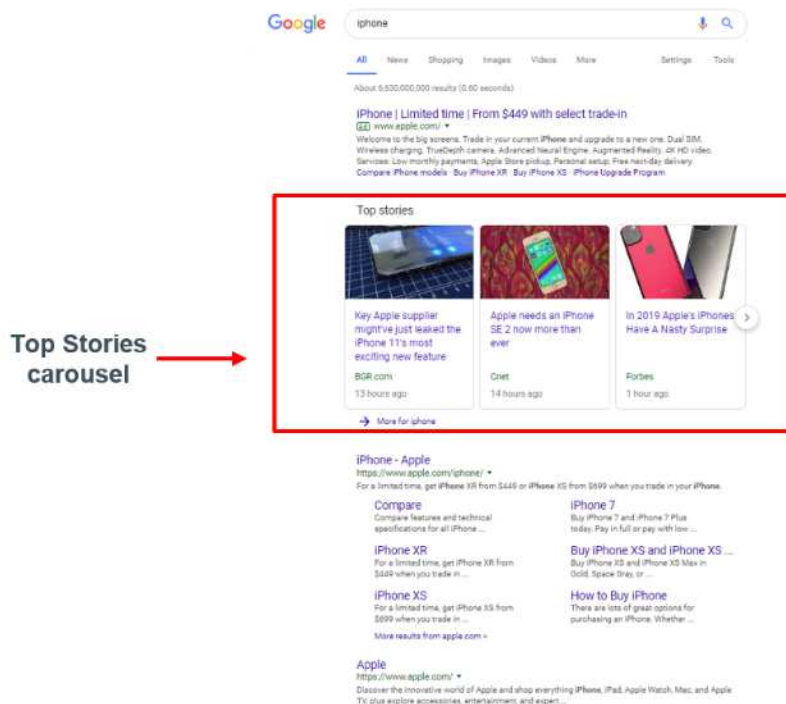
<sup>13</sup> Philipp Schindler, Google Chief Business Officer: "People come to Google looking for information they can trust, and that information often comes from the reporting of journalists and news organizations around the world."

<https://www.blog.google/outreach-initiatives/google-news-initiative/announcing-google-news-initiative/>

<sup>14</sup> <https://searchengineland.com/google-knowledge-graph-now-news-box-203073>; In response to initial complaints about "In the News" feature, Google responded that "Google Search has made an update that will make it easier for users to get the latest news and information in real-time with fresh content coming from across the web. The goal of Search is to get users the right answer at any one time as quickly as possible - so results may include an article from an established publisher or from a smaller niche publisher-- or indeed it might be a press release or a relevant social post... We believe this change is good for web publishers." [https://productforums.google.com/forum/?hl=en#!category-topic/news/RnL\\_yMOyS6g](https://productforums.google.com/forum/?hl=en#!category-topic/news/RnL_yMOyS6g).

<sup>15</sup> <https://searchengineland.com/google-replaces-news-box-top-stories-desktop-264993>.

<sup>16</sup> <https://mashable.com/2016/11/21/google-replaces-in-the-news-section/#Qra2YnZm3mqW>.



(Google Search results for “iphone”, retrieved February 12, 2019)

5. Google Search has evolved over the years to put a greater emphasis on more recent content by updating its search engine architecture and search algorithm. Due to the fast changing nature of news content, Google has continuously invested in improving its crawlers over time such that they could scan news sites more frequently, adding recent content to the index within seconds of publication.<sup>17</sup> This reflects the increasing importance of freshness of news content that Google displays in its “Top Stories” carousels. For example, the Google Caffeine update in 2009 upgraded the search engine infrastructure to allow Google Search to quickly index and present up-to-date content.<sup>18</sup> The completion of this new web indexing system allowed Google Search to immediately provide 50% fresher search results than Google’s last index infrastructure.<sup>19</sup> The Caffeine update has fundamentally changed how consumers access news content because it enabled Google to crawl information from a recently published webpage and display it among search engine results pages (SERPs) nearly instantly.<sup>20</sup> Building on the Caffeine update, Google announced a Freshness update in 2011 to better determine when to deliver search results that are fresher (e.g. current events, hot topics, recurring events) in order to be more relevant to users.<sup>21</sup> The updated search ranking algorithm largely affected approximately 35% of search queries. As a result, Google Search largely prioritized the rankings of a number of news publisher sites in the

<sup>17</sup> <https://apnews.com/693f55e3781a4c53a390a1e3b917c76e>.

<sup>18</sup> <https://webmasters.googleblog.com/2009/08/help-test-some-next-generation.html>.

<sup>19</sup> <https://webmasters.googleblog.com/2010/06/our-new-search-index-caffeine.html>.

<sup>20</sup> <https://searchengineland.com/googles-new-indexing-infrastructure-caffeine-now-live-43891>.

<sup>21</sup> <https://search.googleblog.com/2011/11/giving-you-fresher-more-recent-search.html>.

search engine result pages,<sup>22</sup> which suggests a greater use of news content by Google Search in order to better engage consumers.

6. In addition, Google Search Quality Rating Guidelines indicate that Google assumes most users are searching for the most recent information for a topic,<sup>23</sup> and therefore the fundamental principle of Google's search algorithm is to display the most recent information based on how the query meanings change over time. The guideline says that Google "will assume users are looking for current information about a topic, the most recent product model, the most recent occurrence of a recurring event, etc., unless otherwise specified by the query."<sup>24</sup> For example, the interpretation of the query "iPhone" has changed as new iPhone models are released. The first iPhone was introduced in 2007. Google assumes that users searching for iPhone at that time were looking for the new first iPhone model at the time, and that most users now are looking for the most recent or upcoming iPhone model.

7. Google Search not only uses news content to increase its user engagement, but also changes the nature of news consumption in response to the shift to mobile. In particular, the switch to mobile combined with the shift to online has contributed to the decline in time spent with online news.<sup>25</sup> In 2015, Google introduced the Accelerated Mobile Pages (AMP) to allow news content to load significantly faster on mobile devices compared to the publisher's own website.<sup>26</sup> Since AMP pages are hosted and controlled by Google, consumers are essentially viewing the news content within Google's ecosystem. In the case of Google News, Google has made AMP the default display method for all publishers using Google News on mobile, unless a publisher actively opts out.<sup>27</sup> Even though AMP was supposed to help publishers deal with slow-loading mobile pages, evidence shows that only one-third of publishers saw traffic boost from AMP.<sup>28</sup> In addition, publishers can advertise on the AMP page, but news content sometimes loads faster than the advertisements on the AMP page. This has led publishers to earn less revenue per AMP page view compared to ad revenue earned on publishers' own websites.<sup>29</sup>

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<sup>22</sup> <https://techcrunch.com/2011/11/07/the-winners-losers-of-googles-freshness-update-revealed/>.

<sup>23</sup> Google Search Quality Rating Guidelines 2018.

<sup>24</sup> Google Search Quality Rating Guidelines 2018.

<sup>25</sup> <https://www.tandfonline.com/doi/full/10.1080/1461670X.2017.1397532>.

<sup>26</sup> <https://googleblog.blogspot.com/2015/10/introducing-accelerated-mobile-pages.html>.

<sup>27</sup> The Cairncross Review: A Sustainable Future for Journalism, February 12<sup>th</sup>, 2019; <https://support.google.com/news/producer/answer/7281462?hl=en>.

<sup>28</sup> <http://blog.chartbeat.com/2018/08/23/research-study-1-3-publishers-see-clear-traffic-boost-amp/>.

<sup>29</sup> <https://digiday.com/media/publishers-find-google-amp-loads-fast-ad-views/>.

## **B. The Google News website combines news content from many different publishers and displays it to users on a single platform**

8. Google News was founded in 2002 and was officially released in January 2006, with the goal to “encourage readers to get a broader perspective by reading ten articles instead of one”.<sup>30</sup> Google News was one of the first products that Google launched beyond its core search engine product, implying the significance of news to Google even in the early stage of the company. As one of the major news aggregators, Google News collects news from various sources and provides an aggregated view of news from around the world. At its inception, Google News was crawling information from 4,000 news sources worldwide.<sup>31</sup> The number had grown significantly to 50,000 news sources by 2012.<sup>32</sup>

9. Google News is widely used by consumers in the United States. A Reuters Institute survey (2017) reported that approximately 13% of U.S. respondents used Google News weekly in 2017.<sup>33</sup> As of May 2018, Google News had approximately 150 million unique monthly visitors in the U.S., superseding top news publisher sites such as Huffington Post (110 million), CNN (95 million), and The New York Times (70 million).<sup>34</sup> Furthermore, a Pew Research Center study in 2011 showed that Google News and Google Search combined are the biggest drivers of traffic (30%) to top news sites.<sup>35</sup>

10. Despite significant use of news content to engage consumers, Google does not pay news publishers or consult them on how the news content is treated or displayed within the Google News platform. Google News does not rephrase or transform crawled information, but simply aggregates news stories from one platform and displays the news headlines as verbatim. From its inception (2002) to June 2017, Google News had been showing a short excerpt of each news story underneath the headline, all in verbatim. The redesign of Google News in June 2017 removed the verbatim excerpt to introduce “a clean and uncluttered look”,<sup>36</sup> which implies Google’s attempt to avoid any potential dispute that might be caused by misappropriation of news content. Today, Google News contains two major sections that were introduced in May 2018 – “Headlines” and “For You.”<sup>37</sup> The “Headlines” section provides a Full Coverage feature that applies an algorithm to aggregate several similar articles under a given topic. For each individual news article, Google News shows the headline, the

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<sup>30</sup> <http://www.niemanlab.org/2011/04/google-news-founder-krishna-bharat-for-news-consumers-the-whole-experience-is-what-counts/>; <https://googleblog.blogspot.com/2006/01/and-now-news.html>.

<sup>31</sup> <https://www.blog.google/products/news/building-google-news-everyone-retrospective/>.

<sup>32</sup> <https://www.theatlantic.com/technology/archive/2012/09/google-news-at-10-how-the-algorithm-won-over-the-news-industry/262641/>.

<sup>33</sup> Reuters Institute Digital News Report 2017.

<sup>34</sup> <https://www.statista.com/statistics/381569/leading-news-and-media-sites-usa-by-share-of-visits/>.

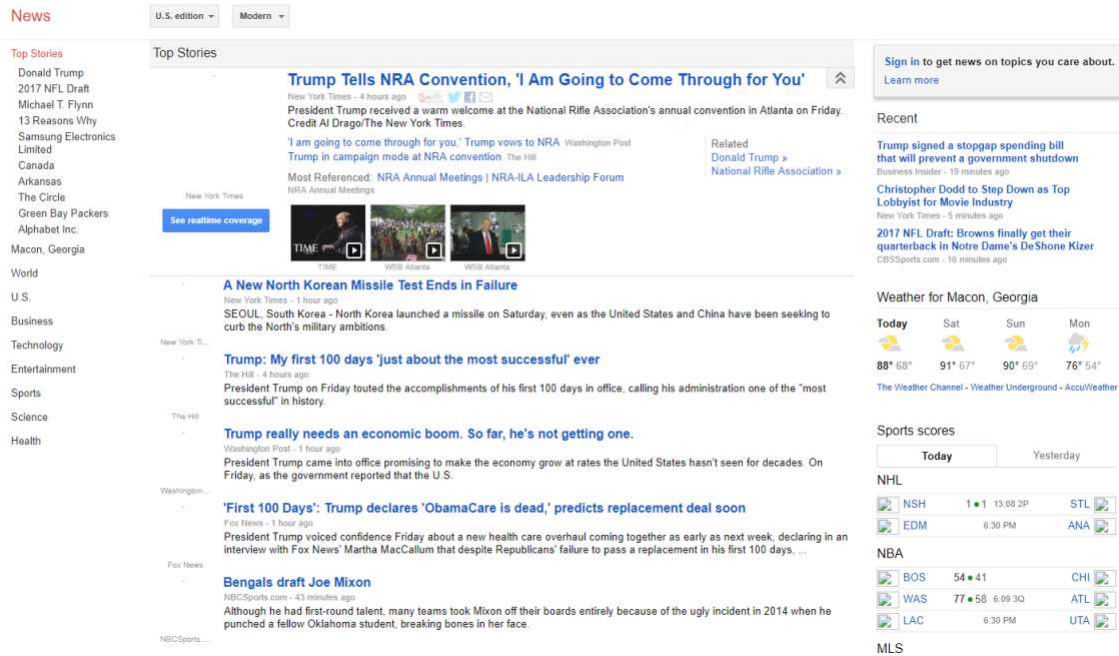
<sup>35</sup> <http://www.pewresearch.org/fact-tank/2011/06/02/google-drives-news/>.

<sup>36</sup> <https://www.blog.google/outreach-initiatives/google-news-initiative/redesigning-google-news-everyone/>.

<sup>37</sup> [https://blog.google/products/news/new-google-news-ai-meets-human-intelligence/?utm\\_source=tw&utm\\_medium=feed&utm\\_campaign=io18](https://blog.google/products/news/new-google-news-ai-meets-human-intelligence/?utm_source=tw&utm_medium=feed&utm_campaign=io18;);

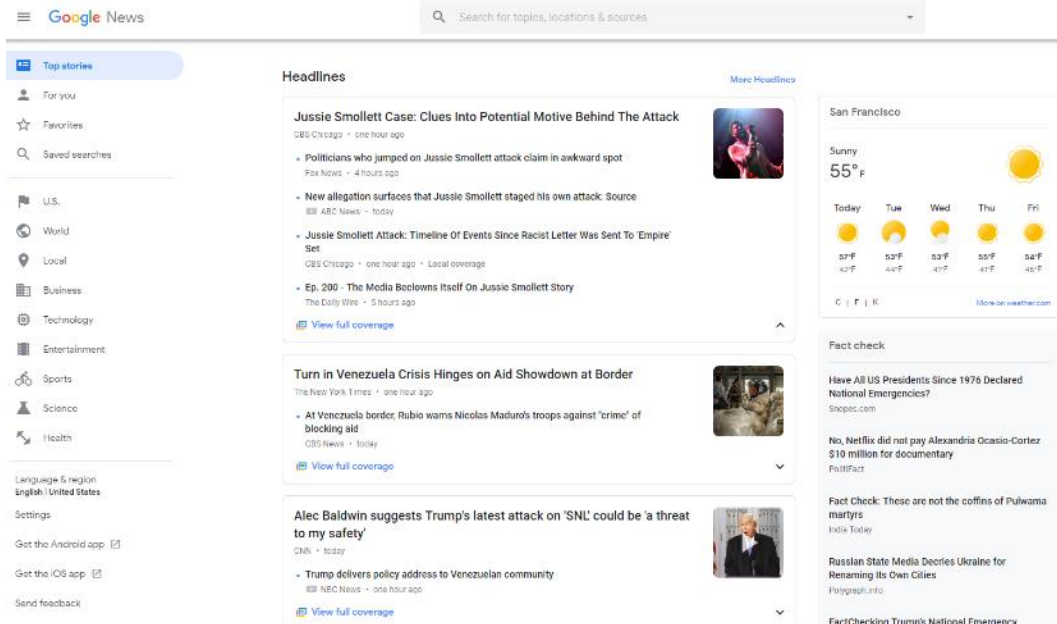
<https://thenextweb.com/google/2018/05/08/google-news-aims-to-fix-journalism-by-offering-an-easy-way-to-pay-for-it/>.

source, a photo or video, and a link to the original article. The “For You” section provides personalized news recommendations based on user click behavior and browsing history.<sup>38</sup>



(Google News site retrieved from April 29, 2017:

<https://web.archive.org/web/20170429011748/https://news.google.com/>)



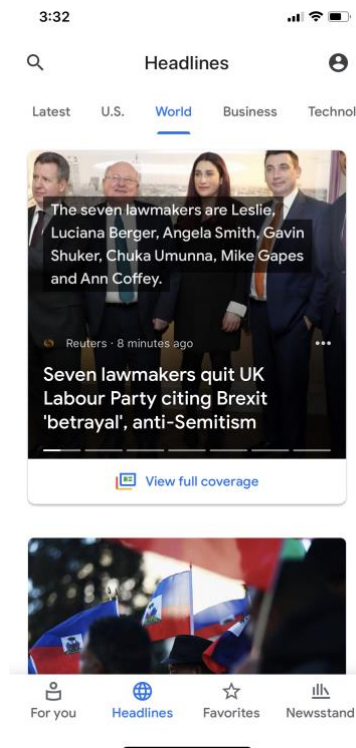
(Google News site retrieved February 18, 2019: [news.google.com](https://news.google.com/))

<sup>38</sup> Personalized news recommendation based on click behavior, 2010.



**C. The Google News app is the mobile app version of Google News**

11. The Google News app is the mobile application version of Google News. Google introduced the latest Google News mobile app in May 2018, representing Google’s investment in streamlining the user experience for consuming news on mobile devices. The new Google News app replaced the discontinued products Google Play Newsstand and Google News & Weather apps on mobile.<sup>39</sup> Google Play Newsstand aggregated news, magazines, blogs, and other online feeds tailored to user preferences and habits in one platform.<sup>40</sup> Google News & Weather provided a comprehensive library of the latest headline stories and local news with approximately 65,000 publication sources back in 2014.<sup>41</sup> With the new Google News app, Google merged the core functionalities of both Google Play Newsstand and Google News & Weather to have a single platform to better engage consumers who consume news on mobile devices.



(The latest version of the Google News app, February 18, 2019)

12. The Google News app serves as an important channel for Google to reinforce its role in the online news space. In March 2018, Google introduced “Subscribe with Google,” which allowed Google News consumers to purchase subscriptions to participating news publishers directly using their Google accounts.<sup>42</sup>

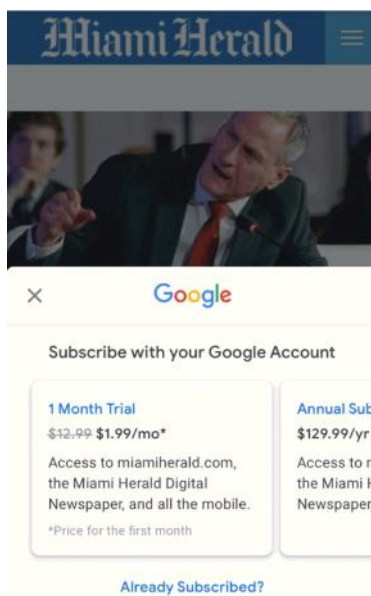
<sup>39</sup> <https://support.google.com/news/producer/answer/6016113?hl=en>.

<sup>40</sup> <https://www.androidpolice.com/2013/11/20/google-play-newsstand-is-live-officially-combines-current-and-play-magazines/>.

<sup>41</sup> <https://thenextweb.com/google/2014/10/07/google-introduces-news-weather-app-ios/>.

<sup>42</sup> <https://www.blog.google/outreach-initiatives/google-news-initiative/announcing-google-news-initiative/>.

Google thus furthers its role as an intermediary between end consumers and news publishers, expanding its data into all subscriptions information that an individual consumer has.



(<https://www.blog.google/outreach-initiatives/google-news-initiative/announcing-google-news-initiative/>)

13. As mobile applications become an increasingly popular way for users to access news,<sup>43</sup> the Google News App has emerged as one of the major apps for news consumption, competing head to head against news publisher apps and other news aggregator apps. In 2018, the Google News App ranked as the sixth most-downloaded app in the Apple App Store and the Google Play Store combined in the U.S.<sup>44</sup> Additionally, the Google News App is a particularly a strong contender when it comes to user engagement. A 2017 Reuters study found that 13% of users used the Google News App weekly in North America, superseding other popular news aggregator apps such as Reddit (7%), Flipboard (5%), and SmartNews (3%).<sup>45</sup> As of March 2019, the Google News App had approximately 85,000 ratings in the Apple App Store with an average rating of 4.5, bypassing major news publisher apps such as The New York Times (approx. 26,500 ratings), The Wall Street Journal (approx.. 51,000 ratings), etc.<sup>46</sup> The major redesign of the Google News App in May 2018 turned it into a more powerful tool for delivering news.<sup>47</sup> Due to this redesign, it is highly likely that the Google News App will be able to gain significantly more attention at the expense of user engagement with other news aggregator apps and news publisher apps.

<sup>43</sup> Reuters study found that the proportion of consumers using news apps weekly increased from 18% in 2016 to 26% in 2017 in the U.S. Reuters Institute Digital News Report 2017.

<sup>44</sup> CNN ranked as 3<sup>rd</sup>, Fox News ranked as 4<sup>th</sup>, and The New York Times ranked as 8<sup>th</sup> of the most downloaded news apps in App Store and Google Play combined. <https://sensortower.com/blog/top-news-apps-2018>.

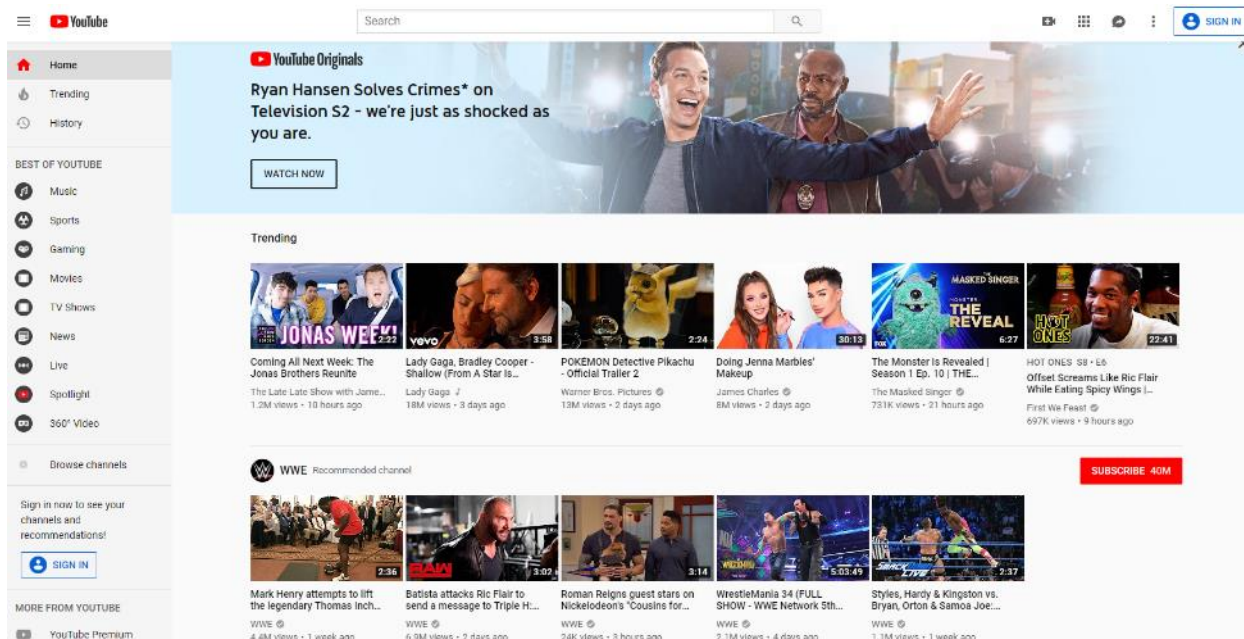
<sup>45</sup> Reuters Institute Digital News Report 2017.

<sup>46</sup> Apple App Store, March 2019.

<sup>47</sup> <https://www.businessinsider.com/google-news-vs-apple-news-2018-7#so-which-should-you-choose-9>.

**D. YouTube is a video-sharing website that includes news-related videos, along with user generated content**

14. YouTube is a video-sharing website launched in 2005,<sup>48</sup> offering a wide variety of videos from corporate media and content generated by users. Users can upload, view, rate, share, and comment on videos, and subscribe to other users and video channels on the platform. YouTube was acquired by Google in 2006 and has since been operating as one of Google’s products.<sup>49</sup>



(YouTube homepage: <https://www.youtube.com/>)

15. YouTube is one of the most visited websites in the history of the Internet. Even in the early stages, YouTube had become so successful that in 2008 it used as much online memory space as the entire Internet used in 2000.<sup>50</sup> A 2018 Pew Research Center study revealed that the number of American adults using YouTube on desktop or mobile devices had climbed to 73% — more than Facebook, which came in at 68%.<sup>51</sup> As of 2018, YouTube had 1.8 billion registered users who were actively watching videos on the platform.<sup>52</sup> More than 1 billion hours of YouTube videos are watched on a daily basis.<sup>53</sup> In addition, a 2017 BI Intelligence study found that YouTube was the top digital platform for millennials with the highest average monthly time spent

<sup>48</sup> <https://www.telegraph.co.uk/news/uknews/2480280/YouTube-Overnight-success-has-sparked-a-backlash.html>.

<sup>49</sup> <https://www.nytimes.com/2006/10/09/business/09cnd-deal.html>.

<sup>50</sup> <https://www.telegraph.co.uk/news/uknews/2480280/YouTube-Overnight-success-has-sparked-a-backlash.html>.

<sup>51</sup> <http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>.

<sup>52</sup> <https://www.theverge.com/2018/5/3/17317274/youtube-1-8-billion-logged-in-monthly-users-brandcast-2018?fbclid=IwAR040yAAkfnjSvsi8kxOZTwGpVmB6rQ9JSaV2YvO5wFhiFTow72Qu0cMDx4>.

<sup>53</sup> <http://www.businessofapps.com/data/youtube-statistics/>.

(1,163 minutes), with significant advantage over other contenders such as Facebook (744 minutes) and Netflix (510 minutes).<sup>54</sup>

16. YouTube has also emerged as one of the major social media platforms for consumers to access news online. For instance, a 2018 Reuters Institute survey found that 20% of online news consumers used YouTube as a source of news in the U.S.<sup>55</sup> A Pew Research Center study in 2018 found that nearly four-in-ten YouTube users got news from the platform (38%), up from 32% in 2017 and 21% in 2016.<sup>56</sup> In 2016, 48% of U.S. adults used YouTube and about one fifth of them got news from the site.<sup>57</sup>

17. News content is also important to YouTube, which can be evidenced by significant investment Google has made in developing the news usability on the YouTube platform. For example, YouTube launched and expanded YouTube TV,<sup>58</sup> a live TV streaming service that offers content from more than 70 TV channels, with many news networks.<sup>59</sup> Furthermore, in 2017, YouTube added a “Breaking News” section at the top of users’ feeds on the homepage to display authoritative news videos.<sup>60</sup> In 2018, YouTube invested \$25 million in grants to support online video capabilities of news organizations, and formed a working group of newsrooms dedicated to developing new products for journalists.<sup>61</sup> YouTube’s chief business officer stated that “we’re doing this because, while we see the news industry changing, the importance of news is not.”<sup>62</sup>

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<sup>54</sup> <https://www.businessinsider.com/millennials-still-watch-tv-despite-cord-cutting-increases-2017-11?r=UK&IR=T>.

<sup>55</sup> Reuters Institute: Digital News Report 2018.

<sup>56</sup> <http://www.journalism.org/2018/09/10/news-use-across-social-media-platforms-2018/>.

<sup>57</sup> <http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/>.

<sup>58</sup> <https://techcrunch.com/2017/02/28/youtube-launches-youtube-tv-its-live-tv-streaming-service/>;

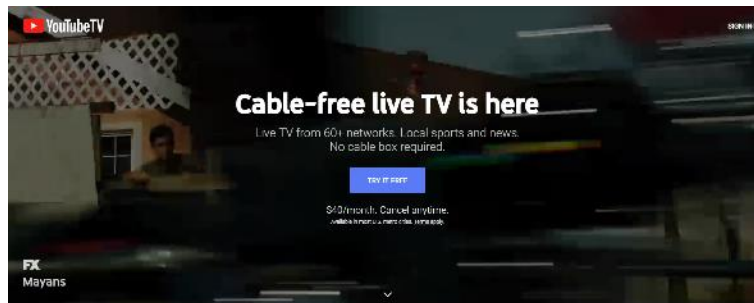
<https://techcrunch.com/2017/07/20/youtube-tv-triples-its-footprint-with-launches-in-10-more-u-s-markets/>.

<sup>59</sup> <https://tv.youtube.com/welcome/>.

<sup>60</sup> <https://techcrunch.com/2017/08/18/youtube-starts-delivering-breaking-news-on-its-homepage-across-platforms/>.

<sup>61</sup> <https://www.wired.com/story/youtube-debuts-plan-to-promote-fund-authoritative-news/>.

<sup>62</sup> <https://www.wired.com/story/youtube-debuts-plan-to-promote-fund-authoritative-news/>.



**6 accounts per household**  
Each person gets their own login. Watch on any device. No extra fees. Personalized DVR.

**Cloud DVR with no storage limits**  
Record live TV, pause, skip ahead, or watch it again. All recordings are saved to the cloud.

Networks    Devices

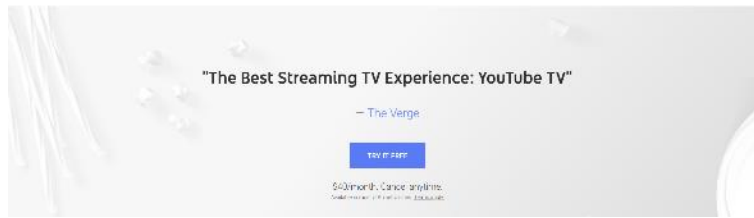
**What's included for \$40/month**  
Live TV from 60+ networks. Local sports and news. No cable box required. No extra fees. Enter your home ZIP code to see what's included in your area.

Enter a 5 digit Zip Code

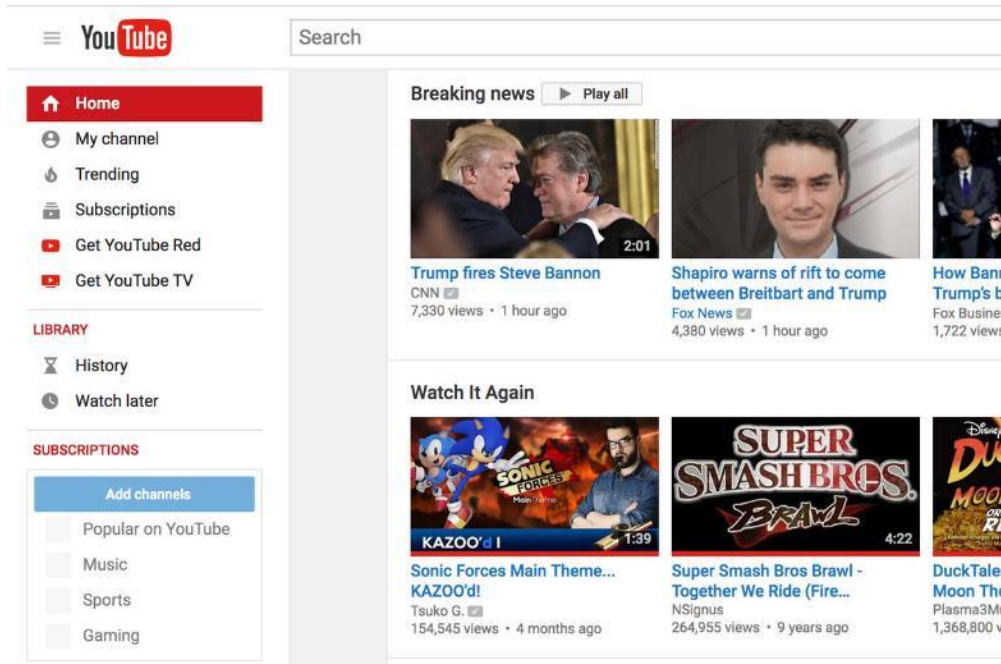
Available on demand



Additional networks



(Homepage of YouTube TV retrieved March 7, 2019: <https://tv.youtube.com/welcome/>)



(“Breaking News” section on YouTube: <https://www.theverge.com/2017/8/18/16171876/youtube-breaking-news-section-homepage-mobile-apps-suggested-content>)

**E. Google Alerts allows users to monitor the web for interesting new content**

18. Launched in 2003,<sup>63</sup> Google Alerts is a notification service that alerts consumers to new mentions of subjects that matter to them. It allows users to receive emails when new results for a topic show up in Google Search.<sup>64</sup>

<sup>63</sup> <https://money.cnn.com/2016/04/04/smallbusiness/naga-kataru-google-alerts/>.

<sup>64</sup> <https://support.google.com/websearch/answer/4815696?hl=en>.




## Alerts

Monitor the web for interesting new content

🔍 Create an alert about...

### Alert suggestions

#### Music

-  Twenty One Pilots
-  Tool
-  Pearl Jam

#### Movies

-  Jensen Ackles
-  Sebastian Stan
-  Kevin Durant



#### Politics

-  Merger
-  Daca
-  Tax




#### Sports

-  College Basketball
-  Kawhi Leonard
-  Bryce Harper

#### Technology

-  iPhone
-  Snapchat
-  Dropbox



#### TV

-  Game of Thrones
-  Rick and Morty
-  WestWorld

#### Health

-  Autism
-  PTSD
-  Dyslexia

#### Companies

-  Google
-  US Bank
-  Salesforce

#### Finance

-  Bitcoin
-  US Dollar
-  British Pound

#### Programming

-  Swift
-  Julia
-  Hack

#### News Sections

-  Entertainment
-  Science
-  Sports

(Google Alerts suggestions retrieved March 7, 2019: <https://www.google.com/alerts>)

19. Google Alerts serves as an important channel to access news for users who have created or are exploring the alerts on news updates. For instance, the default Google Alerts suggestions include a “News Sections” that has entertainment, science, and sports as three major topic categories. Additionally, the majority of the alerts suggestion topics for which users can get notifications on include content from news sources. For example, when entering “iPhone” into the Google Alerts search bar, a list of preview results includes 10 news results and five web results. This implies that, in addition to Google’s core products (Google Search, Google News, and YouTube), Google Alerts is another Google product that heavily uses news content to engage users.



Alerts

Monitor the web for interesting new content

iPhone

Enter email  Show options

Alert preview

MP&P

Apple Leak Details Shock New iPhone Upgrades

Forbes

Working with XDA Developers' popular sleuth Max Weinbach, EverythingApplePro has learnt the iPhone 11 does not mark the end of 3D Touch. See...

Hackers are reportedly cracking the iPhone using stolen Apple prototypes

The Verge

We all know the story of the prototype iPhone 4 that was left at a cafe, spelling what could have been one of the biggest disasters in Apple history.

A \$2000 iPhone and \$2000 USB cables are all you need to hack iOS - BGR

These Special iPhones Allow Hackers to Launch Apple's Secret Backdoor - Ars Technica  
Developer-only iPhones help reveal Apple's secret security escape - Naked Security

iPhone XS and XS Max devices exhibit slight animation stutters after ten seconds of being idle

9to5Mac

The iPhone XS and XS Max will experience slight animation stutters after about ten seconds of inactivity. This is usually most visible when opening...

Does your iPhone XS suffer from 'stuttering'? - Out of Milk

BGR

5 paid iPhone apps you can download for free on March 8th - BGR  
Your iPhone XS, XS Max Suffer From This Flaw - Haven't You Noticed It - ValueWalk

Grab a professionally refurbished Apple iPhone 7 for as low as \$240

Digital Trends

Apple hardware is fairly expensive when compared to its Android and Windows competitors, but nobody can deny that devices like the iconic iPhone...

Apple's AR glasses arriving in 2020. iPhone will do most of the work

AppleInsider

The iPhone product's work in the field of augmented reality has led to many reports over the years claiming a headset or smart glasses that take...

Report claims that Apple could begin production of iPhone-powered AR glasses this year - The Verge

AppleInsider

Apple's rumored AR headset might receive an iPhone - Engadget  
Kiss Apple to start mass-producing AR headset in Q2 2019 - Q2 2020, relies on iPhone for... - MacRumors

You can now play PlayStation 4 games on your iPhone

Ara Technica

Today, Sony released its 6.10 firmware for PlayStation 4 systems. The headline feature of the update is support for remote play to iOS devices. Here...

Scrolling now, you can finally play PlayStation 4 games on your iPhone - Business Insider South Africa

Out of Milk

PS4 update lets you play remotely on iPhone - Dan of South UK

Man shot after pulling fake gun on armed seller during iPhone buy

KOMO News

SEATTLE, Wash. -- A deal for an iPhone turned violent late Thursday night outside a bank in Everett, sending one person to the hospital with...

Man shot after pulling fake gun during iPhone exchange - CBS FOX

WashPost.com

Man shot during attempted iPhone sale - SeattlePost.com

Tile sale drops prices on tech gadgets that can track your iPhone, keys, and more

Digital Trends

Loosing something like your iPhone or keys can be pretty devastating, and it's not always easy to find those things once they're lost. It's no surprise...

Keep your battery green with over \$20 off Apple's iPhone 7 Smart Battery Case

More (press release) | Blog

Amazon currently has Apple's iPhone 7 Smart Battery Case on sale for just \$78.29. That's the best price we've seen in over a year and over \$20 off...

Video: iPhone XR versus Galaxy S10e photo quality comparison

AppleInsider

The budget-friendly iPhone XR and Samsung Galaxy S10e both have extremely capable cameras packed in their attractive - and lower-cost...

Apple faces pressure to deliver foldable iPhone fast - Out of Milk

AppleInsider

Here's another 'valuable' reason to buy iPhones - Times of India

WEB

iPhone SE 2 could be the savior Apple needs [Opinion]

Out of Milk

Apple must make a new budget model if it wants to succeed. It needs a \$149 iPhone SE 2 both for short-term profits and long-term viability.

How to use your iPhone's Instant Hotspot

Crut

This feature could come in handy if you're on the go and there's no Wi-Fi network nearby.

Apple's AR glasses might be an iPhone accessory instead of a standalone headset

Yahoo Finance

Now that iPhone sales are slowing down, what's Apple's next groundbreaking product going to be? Maybe AR glasses. Apple's AR headset was last...

You Need This New iPhone Photo App

Marketplace

Editors: Auto Automate India UK US. You Need This New iPhone Photo App. Share on Facebook. Share on Twitter. More Reads.

You can now play PlayStation 4 games on your iPhone

Ara Technica

That took a while -- You can now play PlayStation 4 games on your iPhone. The PS4's 6.50 firmware update adds support for an iOS remote-play app...

(When entering "iPhone" as the keyword, Google Alerts presents a preview of the alerted content; retrieved

March 8, 2019)

#### **F. Gmail, Android and other services that don't use news**

20. Google also offers additional core products and services that do not heavily rely on news content, including G Suite, Android mobile operating system, etc. G Suite is a collection of collaboration, productivity, and storage services.<sup>65</sup> G Suite is mostly comprised of Gmail (a free email service), Google Doc (an online documents service), Hangouts (a communication platform), and Calendar (a time management and schedule calendar service) . Android is a mobile operating system developed by Google in 2008.<sup>66</sup> These additional Google services currently do not heavily leverage news content.

### **VI. GOOGLE USES NEWS CONTENT TO DRIVE TRAFFIC AND REVENUE**

#### **A. Google uses a significant volume of news content to keep users within its ecosystem, also allowing Google to capture user data and thus improve its core services**

21. Google provides consumers news content through its search results; the volume of news content that consumers encounter depends on a number of factors, including:

- a. The set of queries consumers run, estimated based on representative queries,
- b. the results of those queries, found from running those queries and tracking the results,
- c. and the click patterns of consumers on those queries, estimated based on SERP click patterns.

22. Estimation of Google Search's usage of news is based on scraping representative sets of queries and analyzing the volume of news content in those.<sup>67</sup>

##### 1) Three datasets provide samples to measure news content

23. To estimate the amount of news on Google Search, data was scraped from Google Search daily between February 8 and March 4, 2019. Three search query datasets were constructed for the empirical analysis. These datasets consisted of search result listings for trending queries growing in popularity, listings for 200 most searched queries, and listings for a much larger (11,839) set of high-volume queries. All three search query datasets include the search keyword and a measure of search volume or query frequency for each search query.

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<sup>65</sup> <https://gsuite.google.com/>.

<sup>66</sup> <https://android-developers.googleblog.com/2008/09/announcing-android-10-sdk-release-1.html>.

<sup>67</sup> Analysis of usage performed by Keystone Strategy. Keystone is an innovative economics and strategy consulting firm delivering transformative ideas on leading-edge challenges in technology, business, and science. With offices in New York, Boston, San Francisco, and Seattle, Keystone works with a broad range of clients including technology companies and government organizations. For more details, visit .

24. The first search query dataset, “**Trending queries,**” consists of trending queries from the Google Trends site. On a given day, Google Trends publishes up to 20 trending queries ranked by daily search volume.<sup>68</sup> Google dynamically updates the daily search volume for all search queries entered into Google Search on a given day, and thus the top 20 trending queries may change throughout the day depending on the latest daily search volume. The trending queries and their final daily search volume were recorded daily from Google Trends site from February 8, 2019 – March 4, 2019.<sup>69</sup>

25. The second search query dataset, “**Top 200,**” consists of 200 most searched queries with the highest monthly average search volume in the U.S. as of December 2018.<sup>70</sup> For example, the most searched query in this dataset is “facebook,” with an average monthly search volume of 236,700,000. The search volume shows that the search query “Facebook” is being entered into Google Search 236,700,000 times per month on average.

26. The third search query dataset, “**Most searched – expanded,**” is constructed by applying keyword expansion methodology to the second dataset of 200 most searched queries. The top 200 search queries were used as a basis to generate a list of additional 11,639 keywords with high relevancy and high search volume.<sup>71</sup> The relevant keywords were generated based on four major types of relevancy: 1) phrase match (any keyword phrases that contain the exact same seed phrase in them); 2) having same terms (any keyword phrases that contain any terms of the seed phrase); 3) also rank for (keyword phrases ranked by the top 10 ranking pages for the seed phrase); 4) search suggestions (keyword phrases that Google Search suggests via its “autosuggest” feature). For example, one of the most searched queries “youtube” has approximately 195 million monthly searches. The keyword expansion methodology enables the discovery of search queries that are highly relevant to “youtube” and have high search volume, such as “you tube” (14 million monthly search volume), “youtube.com” (2.9 million monthly search volume), and “youtube music” (1.9 million monthly search volume). This approach resulted in a total of 11,839 unique search queries with high monthly search volume in the third search query dataset.

27. For each query identified in the three search query datasets, a scraper pulled all results on the search engine result page (SERP) generated for each search query. Queries were pulled for multiple days and from multiple geographic locations. For example, the query for “youtube” may yield 11 search result listings on the first search engine result page (as exemplified in the screenshot below). There are seven organic listings, three

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<sup>68</sup> For a few days, Google Trends publishes 18 trending queries per day.

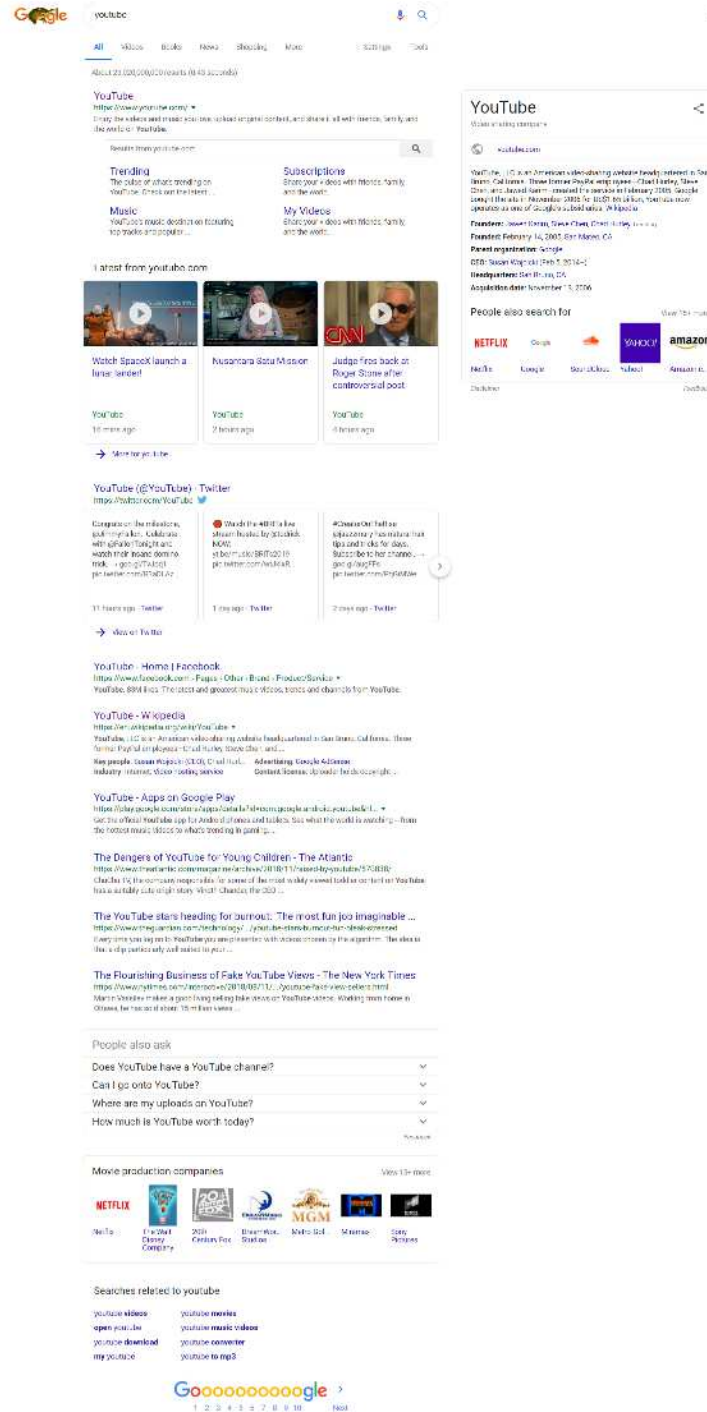
<https://trends.google.com/trends/trendingsearches/daily?geo=US>.

<sup>69</sup> In order to get the final daily search volume, the top 20 trending queries from the day before were scraped on any given day between February 7, 2019 and March 3, 2019.

<sup>70</sup> <https://ahrefs.com/blog/top-google-searches/>.

<sup>71</sup> <https://ahrefs.com/keywords-explorer>. Keywords from the Top 200 list were entered into Ahrefs database each time to generate approximately 100 relevant keywords with high search volume, which was repeated. 20,000 relevant keywords were then compiled, removing duplicates to find a total of 11,639 unique keywords.

video listings from YouTube.com, and quote listings from Twitter.<sup>72</sup> No paid advertisement listing is yielded in this example.



(Google Search results for “youtube” retrieved February 21, 2019)

<sup>72</sup> The three Twitter search result listings were scraped as one search result because all three listings are linked to Twitter URLs.

28. For each search query, the scraped results include which U.S. city (i.e. “location”) and when (i.e. “date time”) the first SERP for the query is scraped. There are approximately 10 to 20 search result listings on the first SERP for any given query. For each search result listing on the first SERP, key characteristics about the listing include whether the listing is an organic or paid result, rank position, rank position within a carousel listing, title of the listing, URL, how the listing is displayed (e.g. Top Stories carousel), etc. A full list of scraped data points can be found in VIII. Appendix.

29. A search result listing is identified as news content based on the result’s domain and a list of news publisher domains. Examples of news domains include major news sites (such as foxnews.com, nytimes.com, usatoday.com, etc.) and smaller local news sites. The set of domains is constructed using news sources from two sources. The first is a list of URLs of News Media Alliance members. The second comes from a dataset of 422,937 news webpage URLs.<sup>73</sup> Domains that are not primarily news but appeared in the list were then removed.<sup>74</sup> This constructed news URL list contains 11,258 domains but does not include all news sites in the world, and so the estimates of news content serve as a lower bound.

30. To illustrate the application, when the query “iPhone” returns a search result listing that is a news story about iPhone from Forbes (forbes.com), this listing will be labeled news because forbes.com has been identified as news content in the constructed news URL list. When the query “iPhone” returns a search result listing of Apple’s website (apple.com), this listing will not be labeled as news because apple.com is not a news URL based on the constructed URL list. This cross-reference analysis is applied to all search result listings in the final scraped dataset.

2) Approximately 39% of content on Trending Queries and 16% on high-volume queries in Google Search is news content

31. Table 1 below shows a summary of the fraction of results from each sample that are news results.

**Table 1: Percentage of Google Search results linking to news domains on query samples**

	Percentage of Google Search results linking to news domains
Trending queries	38.7%
Top 200 queries	20.6%
High volume search queries	16.4%

<sup>73</sup> UCI Machine Learning Repository <https://archive.ics.uci.edu/ml/datasets/News+Aggregator>; Gasparetti, F. (2017). Modeling user interests from web browsing activities. *Data mining and knowledge discovery*, 31(2), 502-547.

<sup>74</sup> E.g., youtube.com and linkedin.com, which occasionally house news content linked to by Google News.

32. These results describe the volume of news content in search engine results on Google. While the Trending queries statistic of 38.7% indicates the significance of news content to consumers searching for the latest information, the 16.4% represents the significance of news content in the most common queries consumers submit.

3) Approximately 40% of clicks on Trending Queries and 16% on high-volume queries in Google Search are news content

33. Another estimate of Google’s reliance on news clicks for Google Search comes from weighting search results by query volume and location on the search engine results page. For example the query “facebook” has an estimated monthly volume of 236,100,000, relative to the query “khan academy,” which has an estimated monthly volume of 3,360,000.<sup>75</sup> And while the top listing on the search engine results page for the query for “facebook” is a set of links to facebook.com, below that are the top news stories for facebook.<sup>76</sup>

34. The other adjustment depends on the position of certain results on the page, for example the top result on a SERP is estimated to get between two and four-times as many clicks as the next highest result, and results on the bottom of a page receive almost no clicks.<sup>77</sup>

35. Table 2 summarizes the percentage of news clicks from the samples, after adjusting for these two factors:<sup>78</sup>

**Table 2: Percentage of news clicks from Google Searches for query samples, weighted for click-through rate and query volume**

	Percentages of news clicks
Trending queries	40.1%
Top 200 queries	16.1%
High volume search queries	15.7%

<sup>75</sup> Estimated by Ahrefs for October 2018.

<sup>76</sup> As of April 2019.

<sup>77</sup> On desktop, see <https://www.advancedwebranking.com/ctrstudy/> or <https://seo-hacker.com/lesson-28-important-page-serps/>. Adjustment performed based on <https://www.advancedwebranking.com/ctrstudy/>.

<sup>78</sup> Queries are weighted by volume based on the lower bound of volume estimates from Google Trends, and based on the volume of searches calculated in Ahrefs. The click curve from <https://www.advancedwebranking.com/ctrstudy/> is applied to queries to adjust for different click-through rates.

## B. Google extracts significant value from news content

36. Google makes most of its revenue from its own properties; in 2018, they brought in \$96.3 billion of Google’s \$136.8 billion total annual revenue (70%).<sup>79</sup> While a large component of this is Google Search, most content served on Google Search does not generate ads. According to one study, approximately 3.4% of distinct Google search queries (2.6% of all Google search queries) resulted in a click on a paid result.<sup>80</sup> Yet the content not generating ads still contributes towards Google’s “mission to organize the world’s information and make it universally accessible and useful.”<sup>81</sup>

### 1) Google News drives significant revenue for Google, even without ads

37. Content on Google Search that does not directly result in revenue still provides Google significant benefit, as users who come to Google for free content are the same users clicking on ads. While it is difficult to measure the monetary value of this content, Google has provided a benchmark. Specifically, Google estimated that Google News, a product without ads, brought in an estimated \$100 million in yearly revenue in 2008.<sup>82</sup> Although Google has provided no more recent estimates of the value of news content, the \$100 million quoted by Google for Google News (which has no ads) can be extrapolated in a straightforward way to suggest an estimated \$4.7 billion of revenue in 2018 to Google from news content on Google Search and Google News.<sup>83</sup>

38. The \$100M in 2008 is 0.7% of Google’s 2008 revenue of \$14 billion from Google websites.<sup>84</sup> From 2008 to 2018, revenue generated on Google websites has grown from \$14 billion to \$96 billion.<sup>85</sup> This growth in revenue was driven by several factors including an increase in online behavior in emerging markets.<sup>86</sup>

39. Another driver of the increase in revenue over the past few years came from improved monetization of the ad space. Google has adjusted their product over the years, affecting how consumers interact with ads,

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<sup>79</sup> Alphabet 2018 Form 10-K.

<sup>80</sup> <https://moz.com/blog/state-of-searcher-behavior-revealed>.

<sup>81</sup> <https://www.google.com/search/howsearchworks/mission/>

<sup>82</sup> Former Google VP Search Products & User Experience Marissa Mayer reported that Google News was worth approximately \$100 million during a lunch session at Fortune’s Brainstorm Tech conference in California in 2008 from <http://fortune.com/2008/07/22/whats-google-news-worth-100-million/>, and “Ad-free Google News generates \$100 million per year?” from <https://thenextweb.com/2008/07/24/ad-free-google-news-generates-100-million-per-year/>

<sup>83</sup> Analysis by Keystone Strategy based on a Google estimate, public financials, and News Media Alliance member data.

<sup>84</sup> Google 2008 Form 10-K page 42.

<https://www.sec.gov/Archives/edgar/data/1288776/000119312509029448/d10k.htm>

<sup>85</sup> Google 2008 Form 10-K page 42.

<https://www.sec.gov/Archives/edgar/data/1288776/000119312509029448/d10k.htm> and Alphabet 2018 Form 10-K, page 27 <https://www.sec.gov/Archives/edgar/data/1652044/000165204419000004/goog10-kq42018.htm>.

<sup>86</sup> See, e.g., Alphabet 2018 Form 10-K, page 26.

growing the space devoted to advertising from 2010 to 2014, according to two studies.<sup>87</sup> This is depicted in the following image:<sup>88</sup>



40. Google has continued to adjust the ads to make them more visually appealing than organic results over the years. For instance, Google’s Expanded Text Ads<sup>89</sup> in 2016 expanded the ad size to be 50% bigger with higher click-through rates.<sup>90</sup> In January 2019, Google added an extra headline and description to all expanded text ads.<sup>91</sup>

41. Along with increased engagement on Google Search and improved monetization from queries, Google News has also grown significantly. In 2009, Google News had approximately 24 million monthly unique visitors in the U.S. compared to 50 million for both CNN and the New York Times.<sup>92</sup> In the same year, Google News attracted 100 million unique visitors on a global scale, making it a larger news site than CNN (66 million) or the combined properties of the New York Times (92 million).<sup>93</sup> In 2010, Google News ranked ninth on the list of most popular news websites as measured by average monthly unique visitors by Nielsen, with CNN being third and The New York Times being fifth.<sup>94</sup> In 2012, Google News had 65 million unique monthly visitors in the U.S. (Yahoo! News had 110 million, CNN had 74 million, MSNBC had 73 million, The New York Times had 59.5 million, and Huffington Post had 54 million).<sup>95</sup> A Reuters Institute survey (2017) reported that approximately 13% of U.S. respondents used Google News weekly in 2017.<sup>96</sup> As of May 2018, Google News

<sup>87</sup> <https://moz.com/blog/google-organic-clicks-shifting-to-paid>, and <https://www.edwords.nl/2014/04/27/steeds-meer-ruimte-adwords-ten-koste-van-seo/>

<sup>88</sup> <https://www.edwords.nl/2014/04/27/steeds-meer-ruimte-adwords-ten-koste-van-seo/>

<sup>89</sup> <https://www.blog.google/products/ads/ads-and-analytics-innovations-for-a-mobile-first-world/>.

<sup>90</sup> <https://www.wordstream.com/blog/ws/2018/08/22/new-expanded-text-ads>.

<sup>91</sup> <https://www.wordstream.com/blog/ws/2018/08/22/new-expanded-text-ads>.

<sup>92</sup> <https://techcrunch.com/2009/12/23/google-news-cnn/>.

<sup>93</sup> <https://techcrunch.com/2009/12/23/google-news-cnn/>.

<sup>94</sup> <https://www.journalism.org/2011/05/09/top-25/>.

<sup>95</sup> <https://www.gsb.stanford.edu/sites/gsb/files/rp3353.pdf>.

<sup>96</sup> Reuters Institute Digital News Report 2017.



had approximately 150 million unique monthly visitors in the U.S., superseding top news publisher sites such as Huffington Post (110 million), CNN (95 million), and The New York Times (70 million).<sup>97</sup>

## 2) News content on Google Search yields significant revenue for Google

42. While the number of unique visitors to Google News grew at an average rate of 23% per year between 2009 and 2018, over that same time period Google revenue from Google properties has grown on average 22% per year.<sup>98</sup>

43. This similar growth in Google News and Google properties suggests that the 2008 estimate of the value of Google News relative to Google properties can be applied to recent years. To apply the 0.7% factor from the value of Google News to the value of Google Search requires adjustment for the difference in scale between Google News and Google Search. This is calculated based on the referral traffic to publisher websites.

44. Combining these factors results in a suggested estimate of Google's benefit from news content at \$4.7 billion of revenue in 2018. The calculation steps are found in Appendix B.

## VII. CONCLUSION

45. News content provides significant value to Google by enabling Google Search to drive greater user engagement. News content from news publishers not only contributes to Google Search's freshness and quality of the search results, but also helps inform the emerging keywords that were not previously searched on Google. As new search queries continue to emerge,<sup>99</sup> Google continuously improves its Search to return fresher and more relevant search results in response to the trending queries. News content plays an irreplaceable role in informing improvement areas for Google Search, which ultimately helps Google build trust in its products from users and thus keep users within Google's ecosystem of products.

## VIII. APPENDIX

### A. Construction of the Google SERPs dataset

46. Search results on the first page of SERPs were scraped because they receive the most traffic. Research shows that search results on the first search engine results page receive almost 95% of web traffic, leaving only

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<sup>97</sup> <https://www.statista.com/statistics/381569/leading-news-and-media-sites-usa-by-share-of-visits/>;  
<http://www.ebizmba.com/articles/news-websites>.

<sup>98</sup> Google properties revenue was \$15.7 billion in 2009 and \$96.3 billion in 2018 from Google 2009 Form 10-K and Alphabet 2018 Form 10-K. Google News growth based on estimates of unique monthly visits.  
<https://techcrunch.com/2009/12/23/google-news-cnn/>; <https://www.statista.com/statistics/381569/leading-news-and-media-sites-usa-by-share-of-visits/>

<sup>99</sup> In 2013, Google stated that 15% of search queries entered into Google Search had never been seen before on a daily basis since the company's existence. In 2017, Google reaffirmed that 15% of queries were brand new among trillions of searches on Google every year. <https://www.cnet.com/news/google-search-scratches-its-brain-500-million-times-a-day/>; <https://blog.google/products/search/our-latest-quality-improvements-search/>.

5% for remaining search results pages.<sup>100</sup> Additionally, about 65% of all clicks on SERPs go to the top five listings.<sup>101</sup>

Two scraping jobs were scheduled for a given day. The first job was scheduled to run at 1AM PT, and the second job was scheduled to run at 12PM PT.

Data captured	Definition	Example
Location	U.S. city	"Fremont, CA"
Query	Search query	"facebook"
Organic or paid	Whether the search listing is organic or paid result	"paid"
Date time	Timestamp for when the data is scraped	"2019:02:06:18:07:57"
Listing rank	Rank position of the listing	"1"
Carousel count	For each carousel with 3 sub-results, position of each sub-result	"2"
Title	Title of the search result	"Facebook - Log In or Sign Up"
URL	Site URL displayed under the "title"	"https://www.facebook.com/"
Snippet	A short description or intro of the search result under the "URL"	"Create an account or log into Facebook. Connect with friends, family and other people you know..."
Result type	How the search result is displayed	"Top Stories carousel"
Multimedia	Whether the search result includes image or video	"Image"
Has pricing	Whether the search result includes pricing information	"1" (i.e. the result contains pricing info)
Has rating	Whether the search result includes review rating information	"0" (i.e. the result doesn't contain review rating info)

## B. Alternate weighting of news content in Google Search

47. The following table presents an estimate of the percentage of news listings on Google search engine results pages, based on weighting by volume.

	Volume weighted percentage of news listings
Trending queries	41.1%
Top 200 queries	27.0%

<sup>100</sup> <https://www.brafton.com/news/95-percent-of-web-traffic-goes-to-sites-on-page-1-of-google-serps-study/>.

<sup>101</sup> <https://www.advancedwebanking.com/ctrstudy/>.

High volume search queries	23.8%
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48. The following table presents an estimate of the percentage of news clicks on Google search engine results pages, adjusted for the click-through rate differences of different listings on the page, but not adjusted for different volumes of queries.

	Click-through rate weighted news clicks
Trending queries	39.5%
Top 200 queries	13.8%
High volume search queries	12.9%

### C. Estimation of Google Revenue from News Content

	Year	Revenue from Google Properties (\$billion)	Google Stated Value of Google News (\$million)	Google News Fraction of Properties Revenue	Google News to Google Search Scaling Factor	Fraction of Google Property Revenue attributable to news on Google Search	Estimated value of news on Google Search (\$billion)	Estimated value of news on Google Search and Google News (\$billion)
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
[1]	2008	14	100	0.7%	6	4.2%		
[2]	2018	96		0.7%	6	4.2%	4.0	4.7

49. The “Google News to Google Search Scaling Factor” in column [E] is estimated based on referral traffic from internal referral data from major publishers; based on comparing six full calendar years of traffic from two publishers, the median factor differential between referrals from Google News and Google Search is 8.2 and the minimum is 6.2.<sup>102</sup> From these, 6.0 is selected as a conservative estimate in the difference in traffic.

50. The above table generates an estimate of Google’s annual benefit from news on Google News and Google Search contributing approximately 4.9% to revenue generated by Google’s Properties, for a suggested estimate of \$4.7 billion in 2018.

<sup>102</sup> Based on News Media Alliance member data.