SEVENTH EDITION

THE COMPREHENSIVE GUIDE TO ECONOMIC DAMAGES

VOLUME TWO

Edited by

Jimmy S. Pappas,

William Scally,

and Steven M. Veenema

BVR

What It's Worth

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What It's Worth
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Chapter 38.
Using Internet Analytic Tools for Valuation and Damages Calculations in Internet IP Infringement and Defamation Cases

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Chapter 38.
Using Internet Analytic Tools for Valuation and Damages Calculations in Internet IP Infringement and Defamation Cases

By Doug Bania, CLP

1.0 Introduction

The internet and social media have become increasingly essential elements of conducting business in the United States and globally, which raises new issues for calculating damages and performing valuations. With almost every business now using the internet and social media to conduct business, cases of internet intellectual property (IP) infringement, IP misuse, and defamation have increased and evolved. Before the rise of the internet, cases of infringement and defamation typically occurred in print or on television, or through word of mouth, and were obvious to all. Today, however, infringement and misuse via the internet can be hidden in areas of website code that target bots. These cases of infringement and defamation are not visually obvious in the average user experience but instead are obfuscated in site code. Historically, such misuse was usually geographically constrained to the area or region where the actual misuse occurred or was broadcast. In the world of traditional media, the number of people who would have been exposed to a billboard, sign, or even a television show could only be estimated at best. Today, anyone in the world can possibly see internet infringement, and a social media post can immediately go viral, but it also leaves a trail that can be followed.

This chapter describes the ways in which internet and social media analytics can be used to measure and quantify the spread, awareness, and impact of defamatory statements and IP misuse accurately. In doing so, it explores the overlap between internet and social media analysis and IP analysis and also provides examples showing the use of the data as part of traditional valuation and damages analyses.

This chapter begins with four concepts key to understanding effective internet use and analysis that valuation experts will want to clarify for clients, judges, jurists, or mediators*: search, optimization, social media,* and *analytics.* It then discusses the principles and readily available tools that analysts can use to uncover facts essential to determining whether clients have a case for legal action and to what financial damages they may be entitled.

2.0 Key Concepts of Internet and Social Media Analysis

Internet and social media analysis assignments begin with the process of educating the audience (i.e., client or trier of fact) about how important the internet has become to the success of a business. The client and participants in a possible court case need to understand that the internet is no longer primarily a source of information and entertainment but a serious and necessary business platform. Most businesses have at least a website, and a rapidly increasing number utilize a combination of websites and social media to promote their business and connect with customers. Search engines such as Google and Bing have replaced the Yellow Pages as the first place potential customers turn to find a product or service. The plethora of books, publications, and websites offering search engine optimization and social

media-oriented advice to business owners indicates that digital literacy has become an essential part of virtually every company's advertising mix.

Among the jaw-dropping statistics related to the use of the internet and social media are the following:

- In 1999, there were 248 million internet users; the latest statistics for 2021 indicate this number has grown to 5.25 billion.[1]
- During 2021, U.S. e-commerce activity generated over $870.78 billion in sales, or 19.1% of all retail sales.[2] The latest estimates suggest that this figure will grow to over $1.3 trillion by 2025.[3]
- In 2021, retail mobile commerce reached $359 billion; by 2025, that figure is forecasted to reach $728 billion, or 44% of total U.S. retail e-commerce sales.[4]
- In 2021, more than $20 billion was spent on social media advertising in the U.S.; that spending is expected to reach over $28 billion in 2023.[5]

The internet and social media have changed the way businesses communicate with customers, promote products, and interact with other businesses. Rather than relying on traditional media outlets, businesses can create text, images, videos, advertisements, and consumer messages and publish all of them on their own. Websites and social media pages are the new storefront, and search and social media users are today's foot traffic. Commerce takes place on computers, tablets, and mobile phone screens, and tracking all of this activity has become a key component of analyzing, quantifying, and valuing today's business activities. Properly contextualizing this requires an explanation of four key concepts: search, optimization, social media, and analytics.

2.1 Search

If the internet is the new corner store, then search is the new equivalent of foot traffic. To be discovered in online searches, companies must build websites based on specified keywords that they incorporate throughout their websites. Search engines are designed to return websites relevant to the user's search query ranked in order of most relevant to least relevant.

Google, with its sophisticated algorithm, dominates the search landscape, with an 85% market share of all internet search activity.[6] Because of Google's position as the market leader and creator of the search industry, the Google search process is discussed below as an example. All search engines mimic this process.

The creation of a search listing typically takes place in three stages. The first stage is called *crawling.* Google employs software, referred to as a crawler or Googlebot, to explore the internet for new and updated webpages continuously. The Google crawler stores the webpage address, or Uniform Resource Locator (URL), in a list to evaluate on a regular cadence. A webmaster can also trigger Googlebot to evaluate changes by submitting its content updates for a manual crawl. The second stage is called *indexing.* Google visits the URL list and attempts to understand what the page is about

1 "Internet Growth Statistics," Internet World Stats, June 9, 2022. internetworldstats.com/emarketing.htm.
2 "US Ecommerce Sales Grow 14.2% in 2021," Digital Commerce 360, Feb. 18, 2022. digitalcom-merce360.com/article/us-ecommerce-sales.
3 "Retail E-commerce Revenue in the United States From 2017 to 2025," Statista, January 2022. statis-ta.com/statistics/272391/us-retail-e-commerce-sales-forecast.
4 "Rise of MCommerce: Mobile Ecommerce Shopping Stats & Trends in 2022," Insider Intelligence, April 15, 2022. insiderintelligence.com/insights/mobile-commerce-shopping-trends-stats.
5 "56 Important Social Media Advertising Statistics for 2022, Hootsuite, February 24, 2022. blog.hootsuite.com/social-media-advertising-stats.
6 "Worldwide Desktop Market Share of Leading Search Engine for January 2010 to January 2022," Statista, March 2022. statista.com/statistics/216573/worldwide-market-share-of-search-engines.

by analyzing the site. All components of the site are evaluated, including the content, images, videos, tags, attributes, and more. Webpages with similar content are then clustered and analyzed to see which are the most representative of the group. The third and final stage is *serving* the search results. When a user performs a search on Google, Google looks through hundreds of billions of webpages and other content stored in its search index to return the highest quality and most relevant result to the user's query. The relevant results depend on hundreds of factors, including the user's location, language, device (desktop or mobile phone), previous queries, and many more ranking factors.[7] Google constantly updates these factors to enhance the user experience.

The internet can thus be compared to a massive library, for which keyword searches on engines such as Google, Bing, and DuckDuckGo are the new card catalogs that users employ to find their desired information, based on the search engine's algorithm. But, while search engines offer businesses expanded opportunities, they can also be exploited by rivals who manipulate how search results are presented to potential customers. Through such manipulation, rivals can unfairly compete or infringe on a business's intellectual property. Internet search results for specific words, phrases, or registered marks related to a client's business are thus key to any damages analysis. Important tips and techniques for using search are described in Section 3.1.

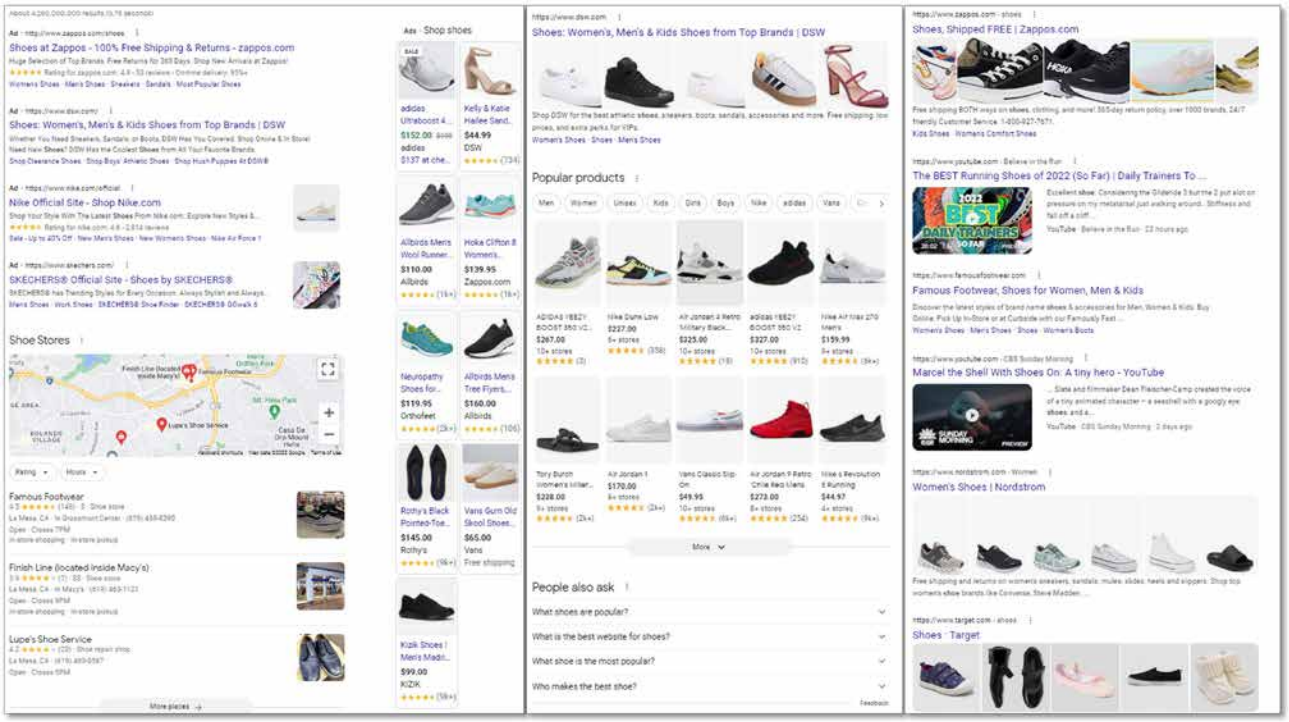
2.2 Optimization

Given the foregoing, the importance of first-page search results cannot be understated. The axiom of "location, location, location" remains true but modernized and manifested in a digital location. As presented in Exhibit 1, when an internet user searches for a keyword or phrase, the first-page results include both paid and organic results, the latter of which the search engine produces based on the relevance of the website to the user's search terms.

Exhibit 1. Typical Google Search Results Page

7 "In-Depth Guide to How Google Search Works," Google. developers.google.com/search/docs/fundamentals/how-search-works.

Exhibit 2. Updated Google Search Results Page



In 2016, Google updated the way it displays search engine results pages (SERPs) to bring the desktop experience more in line with mobile devices and improve user experience by customizing results according to predicted intent. For searches it deems "highly commercial queries," up to four ads may be featured at the top, followed by local or product listings, before organic results are shown. In some cases, additional ads may also be shown at the bottom of the page.[8] Additional updates to SERPs have been made to include more clickable links before, between, and below organic search results. Google continues to test and innovate with a focus on user experience. These changes to Google SERPs are presented in Exhibit 2.

As seen in Exhibit 2, Google SERPs today can have over 50 clickable links or features such as knowledge panels, shopping ads, related questions people have asked, images, videos, and other snippets. These features allow Google to retain people on their SERPs for a longer period of time but push down organic rankings on the page, thereby reducing click traffic to websites from organic listings.[9] As a result, search engine optimization (SEO) is more important than ever for brands looking to appear in the top organic search results.

2.2.1 Importance of Top Three Search Results

When evaluating current or historic internet SERPs, the analyst must consider the importance of top-three organic results. Research shows that the top three organic results of the first SERP receive a 53%-to-75% click through rate (CTR) (meaning the ratio of users who click on a specific link to the number of total users who view the page). In other words, the top three websites listed organically in Google search results receive the majority of the clicks for a specific Google search. A recent study by Backlinko, a company recognized SEO expert Brian Dean founded, shows that the top three

8 "The Biggest Trend in SEO Doesn't Affect Your Rankings," Orbit Media Studios. orbitmedia.com/blog/biggest-trend-in-seo.
9 Ibid.

organic results on the first SERP have a 75% CTR.[10] Advanced Web Ranking has been tracking Google CTR since May 2014 and shows the CTR for the top three organic results from 2020 to 2021 ranged from 53.76% to 57.81%.[11] Whether the CTR is 50% or 75%, it seems clear that the top three organic results on the first SERP are the most important.

Ranking at the top of the organic results becomes even more important with Google's new display format because even high-ranking organic listings are pushed "below the fold" (below the content immediately visible on the screen) to make space for the additional paid results. Importantly, first-page organic search results don't happen by accident. Successful business owners do all they can to appear on the first page of internet search results by optimizing their website with keywords and phrases that best match the search topics that their potential customers are likely to use in search queries. Purchasing a domain name and populating the website with relevant content are just the beginning; businesses must also engage in SEO to climb the long ladder to the first page of search results for competitive queries.

Given that first-page nonbranded organic search results are difficult to achieve, businesses may choose to pay for the opportunity to have their websites included in the paid results on the first page. Pay-per-click programs such as Google Ads (formerly AdWords) provide users with tools for creating advertisements that will appear in relevant keyword search results as paid advertisements that appear above organic listings. Because these advertisements are based on internet search users' own queries, they are less intrusive than online banner ads or pop-up ads. Although many internet users recognize the difference between organic and paid search results, some paid results nonetheless receive a lot of traffic leading to user click-throughs and subsequently sales.

The selection of words and phrases used on the website is a key strategic decision for website owners. To benefit from search engines, a website developer must properly code a site with keywords that are relevant to the content of the website and match an internet user's search query so that the site shows up in the user's search results. That content also impacts the cost of pay-per-click (PPC) media. Google scores every site with a relevancy score. The more relevant a site is for a query, the cheaper their media are relative to a competitor who is less relevant to a given query.

In addition to using selected words and phrases in the website's viewable content, businesses should also incorporate the relevant keywords and phrases into the site's *metadata* (i.e., data about data) in the back-end coding of the page.[12] Meta tags are snippets of text used in site titles and across site attributes. Google's algorithm uses meta tags to help understand what the web page is about, such that proper use of meta tags increases the likelihood of Google ranking the site for inclusion on the first page of appropriate search results.[13] A major aspect in Google's algorithm being able to understand a website is to have basic meta tags in place. Many meta tags are available, but commonly used meta tags include:

- Title: Tells both users and search engines what the topic of a particular page is. Title tag should accurately and briefly describe the page's content. The title tag is visible at the top tab of the browser.

- Description: Tells both users and search engines what the page is about within a sentence or two. Description tags should accurately summarize or outline the page content, and a unique description should be used for each page. Although description tags are not an official SEO ranking factor, they are important because a strong description could improve the CTR, a factor that indirectly improves search result rankings.

10 "Here's What We Learned About Organic Click Through Rate," Backlinko, August 27, 2019. backlinko.com/google-ctr-stats.
11 "Google Organic CTR History—Year Over Year" Advanced Web Ranking, June 2022. advancedwebranking.com/ctrstudy.
12 "How to Get Your Website on Google Search," Google Search Central. developers.google.com/search.
13 "Search Engine Optimization (SEO) Starter Guide," Google Search Central. developers.google.com/search/docs/beginner/seo-starter-guide.

- Heading/Subheading (<H1> and <H2>): Tells both users and search engines the important keywords and helps increase readability on a website. Headings should be used sparingly where appropriate and should contain only the main points and subpoints of the page content.

- Alt Attribute: Tells both users and search engines the contents of an image if any particular image cannot be loaded or if images are disabled in the browser. This tag type also provides search engines context as search engines technically cannot "see" images. Alt attributes should be considered when using an image as a link and should be a brief description of the image.[14]

All of these tags are required to make a website accessible to someone who is visually impaired. The web content accessibility guidelines identify the necessary attributes for a website to meet compatibility requirements.

Website developers can select any keywords or phrases they want. However, rival businesses may include keywords or phrases that intentionally or unintentionally infringe on another business's intellectual property, such as trademarks or copyrighted brand messages. A competitor's use of infringing keywords and phrases to outrank another company or push it below the fold could substantially decrease clicks and cause significant financial harm. Reviewing optimization strategies and practices involves a combination of interviewing webmasters, examining HTML code, and understanding accepted SEO best practices[15] to compile the relevant facts and data points for a valuation or damages calculation.

2.3 Social Media

Today, successful businesses also develop customer relationships by engaging with their customers through social media. Social media has evolved from being merely a platform for sharing personal information (e.g., family photos and pet videos) to becoming an important tool through which businesses regularly interact and communicate with current and potential customers.

Social media platforms such as Twitter, YouTube, Instagram, and Facebook allow businesses to build a dedicated following of targeted customers and educate their followers about their products and services. Research indicates that, over the last two decades, social media has risen to become a primary marketing channel.[16] Among the latest findings:

- Over 53% of the world's population uses social media. That is 4.55 billion users worldwide.
- Each person spends an average of two hours and 25 minutes on social networks and messaging per day.
- Facebook has over 1.93 billion daily active users.
- Twitter has over 211 million daily active users.
- Instagram has 1 billion monthly active users, and 500 million of them use Instagram Stories daily.
- There are over 800 million active user profiles on LinkedIn.
- YouTube is the second-largest search engine globally and is expected to reach 2.8 million users by 2025.
- TikTok has over 689 million global active users and was the most downloaded app in 2020.
- Reddit has over 52 million daily active users and receives more than 50 billion monthly screen views.

14 Ibid.
15 Ibid.
16 "80+ Essential Social Media Marketing Statistics for 2022," Hubspot, November 2021. blog.hubspot.com/blog/tabid/6307/bid/23865/13-mind-bending-social-media-marketing-statistics.aspx.

Companies often pay various platforms to place advertisements related to their products on the social media pages of likely customers. Although social media offers businesses an increasingly powerful marketing and promotional tool, the same platforms can be used to generate or disseminate negative feedback, to disparage, or to siphon traffic from a business. Thus, savvy businesses use social media not only to get their desired messages out, but also to monitor their online image as reflected in messages others post, both positive and negative. Reviewing a business's social media activity, as well as social media users' posts and comments about the business, can provide useful insight into the demand for a product or service, the effectiveness of marketing initiatives, and possible explanations for changes in financial performance.

2.4 Analytics

Businesses can use four readily available analytics tools to measure and evaluate the reasons visitors come to their website and what they do after they get there.[17] These tools provide data and information that analysts use in conducting their valuation and damages analyses.

- *Web Analytics tools* such as Google Analytics and Adobe Analytics provide a useful way to understand site traffic and site behavior. This includes why customers visit the site, what pages they visit after getting there, and whether the visits resulted in any e-commerce transactions.

- *Social media analytics tools such as Facebook's Audience Insights, Instagram Insights, TikTok Analytics, and Twitter Analytics provide a useful way to understand a social media page's engagement, reach, follower count and demographics, and other useful performance metrics. Organic metrics tend to be limited; however, analytics around paid media are quite robust.*

- The search query tool Google Trends shows how frequently a search term is entered into Google's search engine relative to Google's total search volume over a defined period of time.[18] With Google Trends, users can compare search terms to understand the competitive or synchronistic relationships between search terms.

- *Tools* such as the Google Ads Keyword Planner help businesses and analysts understand average monthly search volume for specific keywords and assist with quantifying the media costs of driving traffic to a website and calculating a business's return on its marketing investment.[19]

- *Competitor referral source tools* such as spyfu.com, similarweb.com, and semrush.com reveal competitors' organic and paid search engine optimization strategies.

Internet analytics provide useful data on a variety of business activities. For example, clients inquiring about the value of their trademark or brand name may be surprised to learn that very few search users actually use the registered term in search queries or click through to the company's website after a search. Analytics help uncover this information and thus provide a means of evaluating both product demand and how trademarks contribute to overall profitability.

The foregoing details of how businesses operate on the internet and through social media are unlikely to be common knowledge to a general audience. Analysts should, therefore, make sure to understand and teach these concepts before plunging into their resulting calculations, data, and observations.

17 "Open-Source Intelligence (OSINT) Tools, iris, Nov. 27, 2019. intelligence.is/open-source-intelligence-osint-tools.
18 Google Trends, Google. trends.google.com/trends/?geo=US.
19 Google Ads, Google. ads.google.com/home/tools/keyword-planner.

3.0 How to Use the Tools: Incorporating Internet and Social Media Data and Information Into Your Valuation and Damages Analyses

Importantly, internet and social media data tools do not replace existing valuation and damages methodologies. Rather, they supplement those classic methodologies with more facts and data to leverage in the analysis and offer analysts relatively easy and inexpensive tools for determining who is coming to a website and why, what is driving traffic to a given website, whether infringing names or trademarks are being used to redirect that traffic, and whether the infringing use is impacting customer transaction volume.

3.1 Using Search Tools

Internet search results can provide useful facts and information for a damages calculation or valuation, but using search as an analytical tool requires an understanding of a few key procedures.

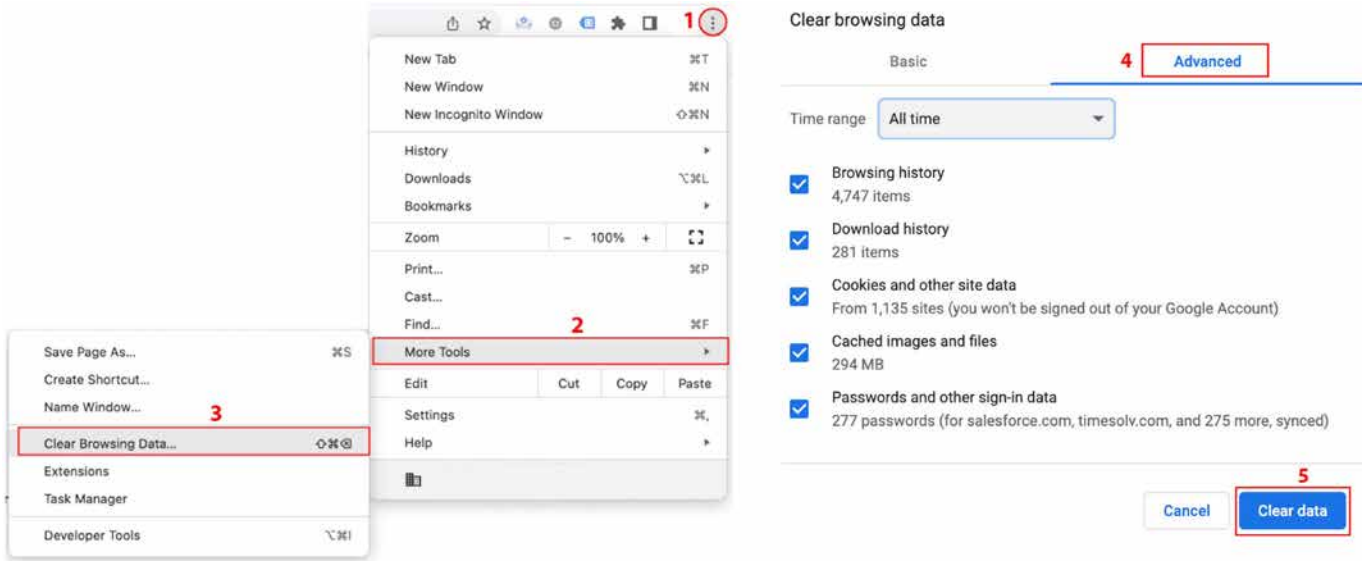
3.1.1 Clear Browsing History (Cache)

The importance of clearing browsing history before analyzing search results cannot be overstated. Browsing data include download and browsing history, active logins, form and search history, cookies, cache, site preferences, and offline website data. Search results are typically shaped in part by the users' past browsing data. Failing to clear browsing history before investigating potential trademark misuse will almost certainly corrupt a subsequent SERPs analysis.

For example, in a recent trademark dispute, the plaintiff alleged that the defendant's website appeared in the top three organic results when searching for the plaintiff's trademark. The plaintiff's expert's report contained screenshots that included Google text in Spanish and several Google results with different-colored link text, indicating that the expert had clicked on certain results in the past. The expert concluded based on this analysis that the defendant's business name was too similar to the plaintiff's trademarked business name and was causing confusing Google results for the plaintiff's company.

When asked at his deposition about the Spanish Google text, the expert admitted that he conducted his research using a virtual private network (VPN) from his vacation home in Mexico, and he had no explanation for why several results included text in a different color. The evidence thus suggested that the expert had not cleared his browsing history

Exhibit 3: Steps to Clear Browsing Data



before conducting his search and that his investigation of the defendant's business was, therefore, flawed. Because he performed his search analysis from a foreign-language VPN and apparently failed to clear his browsing history beforehand, the expert's methodology could not be replicated. The court, therefore, deemed it unreliable, and the expert's opinion was excluded.

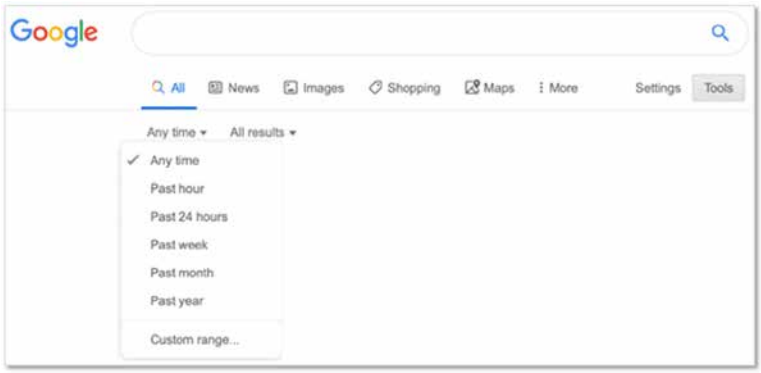
Exhibit 3 lists the five steps to take to clear Chrome browsing data and prevent user behavior from influencing the observed search results. These steps are similar in all web browsers. Before using search to gather information, analysts should also provide proof that they have cleared their browsing history to demonstrate that their search results are unbiased.

3.1.2 Search Techniques

Google offers several query modifier options that can be used to help users specify their search query.[20] Because search modifiers will impact search results, analysts should clarify when and if they use any search modifiers in their investigations. For example, when searching for an exact phrase, analysts should use quotes (e.g., "intellectual property valuation"). Without quotes, the SERPs will include results related to each individual word but not the exact phrase. If searching for specific keywords or phrases in a specific website, the analyst can use the site-specific search term with a colon followed by the relevant domain (e.g., valuation:nevium.com). The SERPs will then include only pages from the Nevium.com website.

Analysts working on litigation cases are typically dealing with infringement issues from the past. Google's date range function allows analysts to review SERPs as of a past date, such as the beginning of a damages period or when the infringement started. To review historical SERPs in Google, type the search phrase and click the Google Search button. After the SERP appears, click on the "Tools button" located below the blue search icon as shown in Exhibit 4.

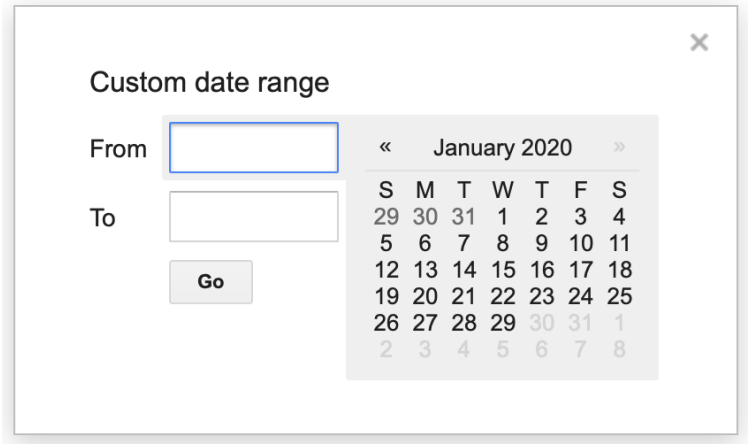
Exhibit 4. Google Date Range Tool



20 Currently, the search modifier descriptions page is static.googleusercontent.com/media/www.google.com/en//educators/downloads/Tips_Tricks_17x22.pdf.

Then click on the "Any time" dropdown menu, choose a custom range, and fill out the dates as shown in Exhibit 5.

Exhibit 5. Google Custom Date Range Tool



This window allows the analyst to choose a custom date range that fits the relevant time frame to find historic results based on webpages published in that time frame. This custom date-range search technique provides the best representation of what websites Google served during the selected time frame.

Litigation may also require an analyst to investigate Google search results specific to the city where the alleged harm occurred. As previously mentioned, Google search results depend on several factors, including the user's location—specifically, the IP address assigned to a computer by its local internet service providers. Google's Custom Locations settings under the Developer Tools allow analysts to identify what Google search results appear in a different city. Steps to make these location changes vary by browser should be researched to make sure the results reflect the desired location. IP addresses can be manipulated by VPN or by services that port users through a central hub, such as AOL users who would browse through AOL's web portal in the 1990s and 2000s.

Search results can provide useful information for infringement and damages analyses but must be analyzed with care. Analysts should always clear their browsing history and document their search steps and parameters to ensure their analysis can be replicated and confirmed as reliable.

3.2 Identifying IP Misuse

Web analytics tools are powerful aids in determining how trademark infringement occurs on the internet and through social media. As previously mentioned, internet infringement, unlike misuse on a billboard or TV, may not be visually obvious to users, and proving that online infringement is intentional, deliberate, or strategic is always a challenge. As shown in Exhibit 6, this begins with a simple web search to determine the extent to which a company may have unfairly used a competitor's IP to enhance its own search results. The analyst should then employ readily available optimization best practices and analytics to gather evidence indicating whether that infringing use was strategic rather than accidental.

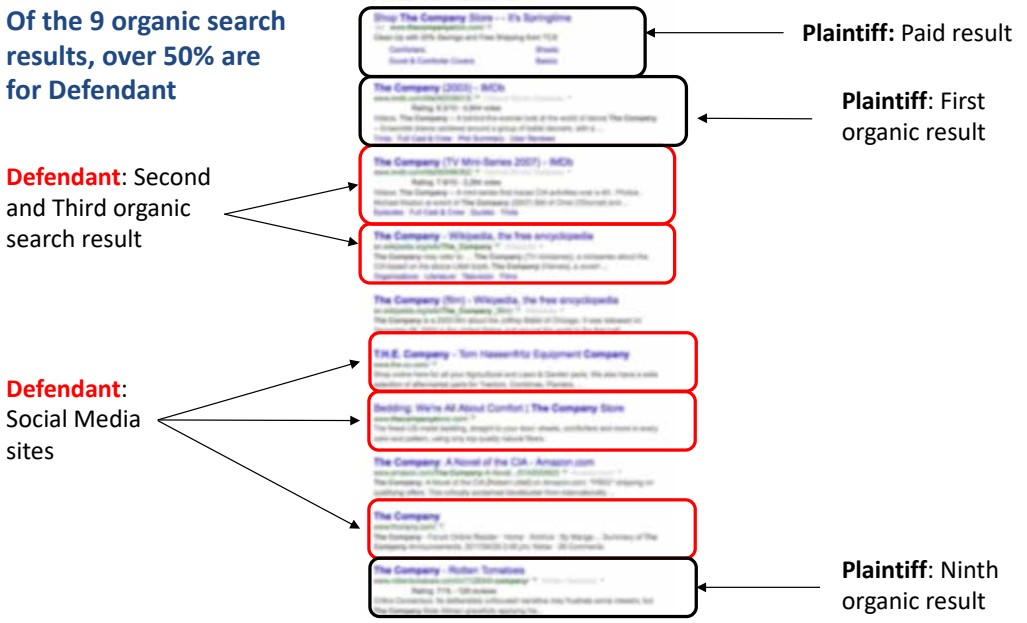
Exhibit 6. Multiple Tools to Identify Misuse

Although each of these steps contributes useful information and observations, combining all three can yield the analysis needed to determine intent.

Take, for example, the case of two competing companies, here called "Plaintiff" and "Defendant," which had operated in nonoverlapping geographies for many years. As both businesses evolved into offering online retail distribution and services, their businesses began to overlap and compete for customers outside their home geography. The Defendant then started using the Plaintiff's registered trademark in an apparent attempt to drive traffic to its site.

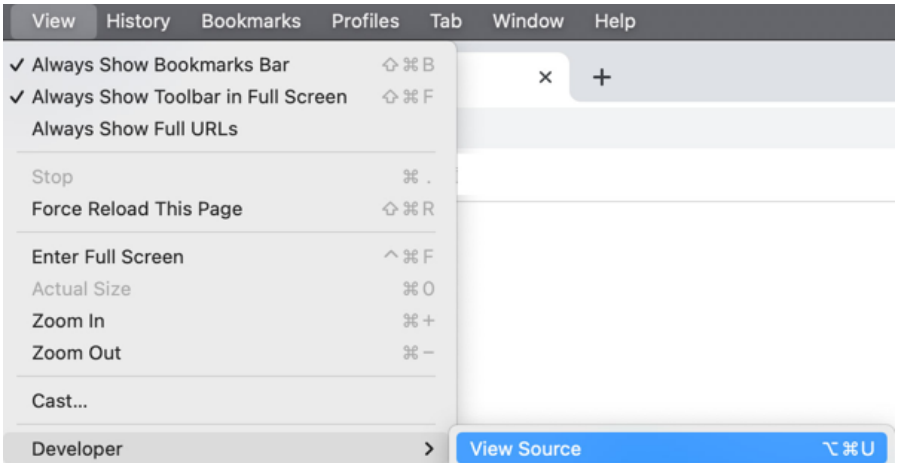
Exhibit 7 shows the first-page SERP after searching the Plaintiff's trademark. Although the first paid and the first organic search results led to the Plaintiff's own website, the second and third organic results linked to the Defendant's site, and the fifth, sixth, and eighth organic results led to the Defendant's social media accounts. Constant site changes over time helped the Defendant learn what content optimization would eventually take over the first organic search result position. The Defendant was thus cannibalizing the Plaintiff's organic search traffic.

Exhibit 7. First-Page SERP After Searching the Plaintiff's Trademark



To determine whether the Defendant strategically orchestrated these rankings, we analyzed the Defendant's website's HTML code and compared those findings to Google's publicly published best-practice SEO tactics.[21] Because a website's HTML code is publicly available, we did not have to go through the legal discovery process to obtain access to the information. Exhibit 8 shows the steps for analyzing HTML and metadata.

Exhibit 8. Steps for Analyzing HTML and Metadata



As shown in Exhibit 9, the site's HTML code revealed the Defendant's SEO strategy. The red text "PLAINTIFF" is being used as an example of a trademarked name that is part of a dispute.

To aid website developers in achieving optimal search results and to accommodate the dynamic nature of the industry, Google and other sources regularly update best practices for optimizing a website. In the case above, the Defendant followed nine different recommended best practices but replaced its own name with that of its competitor when doing so, thereby demonstrating that the infringing use was intentional and strategic.

3.3 Supplementing, Not Replacing, Accepted Valuation Methodologies

Proving infringement and calculating damages using web analytics and social media tools may be new, but it still rests on traditional methods of business valuation and damages approximation. Depending on the facts of a given case, valuation calculations may be based on *cost*, *income*, or *market* methodologies, as outlined in Exhibit 10.

21 "Search Engine Optimization (SEO) Starter Guide," Google. support.google.com/webmasters/answer/7451184?hl=en.

Exhibit 9. Defendant's SEO Strategy

Tactic	Use at DEFENDANT.com	Likely Result
Use key terms in Title Tag	<title>PLAINTIFF, Sales and Structure Designs</title>	The title tag "Plaintiff" alerts both the search engines and the user as to the topic of that particular page
Use key terms in the URL	http://www.sample.com/about-PLAINTIFF	This URL contains the keywords "Plaintiff" which provides users and search engines more information about the page
Use key terms in the Description	meta name="description" content=";PLAINTIFF has been selling since 1972. Click here to find out more about sales, structure and ." />PLAINTIFF	The description meta tag provides the search engines a summary of what the page is about
Use key terms in the Keywords	<meta name="keywords" content="sales, structure, PLAINTIFF, green supplies, PLAINTIFF, Sample Company, samplecompany" />	If a search engine finds specific key terms throughout the content of the website and in the keyword meta tags, that website will likely be ranked higher in search results
Use key terms in Anchor Text	About PLAINTIFF SampleCompany Brochures	Anchor text is words within the clickable hyperlinks that users click on to be taken to a different page of a website. Using "Plaintiff" in the anchor text tells users and search engines that the page is about "Plaintiff"
Label images & graphics using key terms		Including key terms in the name of an image allows the Google search engine to show the image in Google Image search results, and also influences a page's placement in text search results
Using IMG ALT tag to label image with keywords	<img src="/upload/PLAINTIFF.jpg">	IMG ALT Tag provides a clear-text alternative of the image for the blind or readers searching with images blocked Anyone searching for the phrase "Plaintiff" may find the photo in a search and click to the website
Links to social media accounts	PLAINTIFF on Facebook PLAINTIFF on Twitter	When a Googlebot crawls a website, it will notice social links and typically associate the social profiles with your company. Posts and comments placed on those social accounts will likely rank the site higher for specific keywords showing up frequently in followers' posts
Use key terms in the page's text	The phrase "PLAINTIFF" has been also been placed 14 times in the text of the page	Key terms throughout the page should be used so that search engines can determine the content of the page matches the title, description, and URL

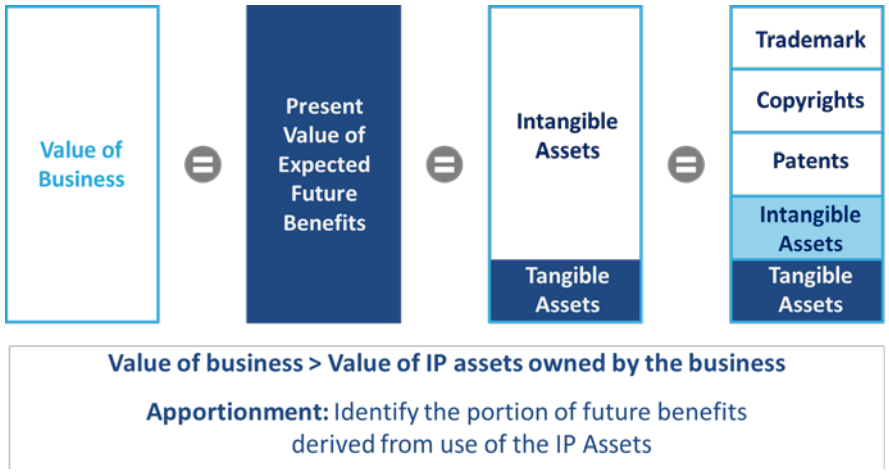
Exhibit 10. Cost, Income, and Market Methodologies

Analysis of the financial / economic impact of IP Assets on the Internet will employ one or more of these methodologies

	Standard Methodologies	Internet IP Methodologies
Cost Approach	Cost to replace or replicate	• Relief from pay per click • Value of impressions
Income Approach	Present Value (PV) of future benefits • Discounted cash flows (DCF) • Relief from Royalty • Lost Profits / Unjust Enrichment	PV of • Additional Site Visits / Traffic • Additional online transaction or customer inquiries
Market Approach	Study of transactions • Guideline companies • Guideline transactions • Industry benchmarks	• Comparable Pay Per Click • Hypothetical license/transaction

Because the value of IP depends in part on the resources required to generate the economic benefits from it, analyzing or valuing IP, or calculating the impact of IP misuse, requires an understanding of all the resources that create value for a business, of which IP is only one. For example, a trademark cannot generate value without the contribution and use of other tangible and intangible resources, as represented in Exhibit 11. The same is true for a celebrity endorsement, copyright, or patent. Thus, the key to IP valuation is *apportionment,* the process of identifying the different economic benefits derived from the use of an IP asset.

Exhibit 11. Tangible and Intangible Resources Contribute to Value Trademark Generates

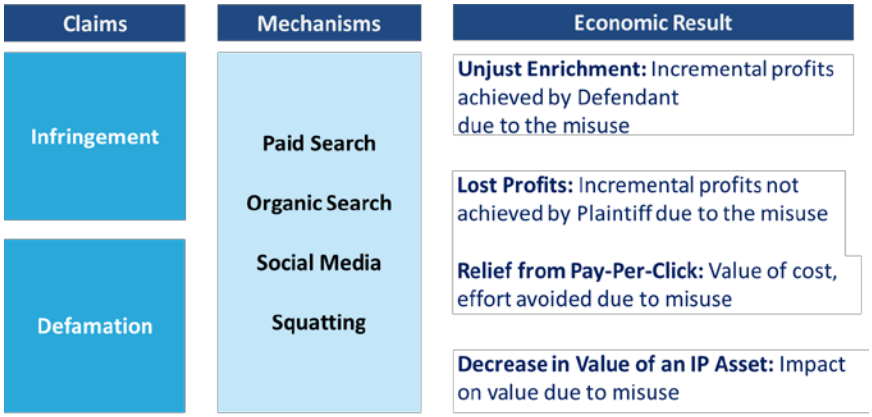


An analysis of digital-related damages, therefore, must first focus on the asset or assets involved. For trademarks and brands, for instance, one should determine whether the misuse is visible or hidden, and whether negative or defamatory comments are tied to a brand. For copyrights, one examines whether the infringing use drives traffic or is buried on a nontransactional page. For example, in one copyright infringement case in which a relationship-driven company was accused of infringing another company's product description on its website, Google Analytics demonstrated that customers rarely visited the page with the infringing text. The infringing company's sales were generated primarily through its sales reps, not online, so the copyrighted text's contribution to sales was very low.

Regardless of the asset type (trademark, copyright, name and likeness, domain name), the claimed harm in internet cases typically occurs in one of four contexts: paid search, organic search, social media, and cybersquatting (the bad-faith registration of an internet domain name using another's trademark).[22] The economic impact of this harm can also typically be measured in one or more of four ways, based on the cost, income, and market approaches to valuation: unjust enrichment, lost profits, relief from pay-per-click, and decrease in the value of the IP asset.[23, 24, 25]

22 "Trademark Protection in the Digital Age: Protecting Trademarks From Cyhbersquatting," America Bar Association, May 31, 2019. americanbar.org/groups/business_law/publications/blt/2019/06/trademarks.
23 The unjust enrichment remedy is discussed in detail in Chapters 17, 18, and 19.
24 Lost profits methodologies are discussed in detail in Chapters 9 and 10.
25 "Relief From Pay-Per-Click," Nevium. nevium.com/relief-from-pay-per-click.

Exhibit 12. Mechanisms and Results of Internet Claims



The following case studies demonstrate some of the ways in which internet and social media analytics provide information necessary to document and value IP infringement and misuse.

3.4 Using Internet Analytics to Support an Unjust Enrichment Calculation

Exhibit 13 illustrates how web analytics suites such as Google Analytics can be used in a case to measure traffic trademark search results drive and allow the analyst to follow the path of each visitor and calculate how many eventually made a purchase.[26] Following accepted methods to conduct a financial analysis of IP, financial ratios can then be used to determine the incremental profit achieved from these search-driven purchases, which represent the incremental profit or unjust enrichment achieved from misuse of the trademark.

Exhibit 13. Unjust Enrichment Profits: Traffic at Defendant's Website

Monthly visits due to searches using TM	25,000
Ratio: Visitors who purchased	25%
TM search purchases	6,250
Average e-commerce purchase	$250
Incremental revenue	1,562,500
Ratio: Incremental profit margin	15%
Incremental profit per month	234,375

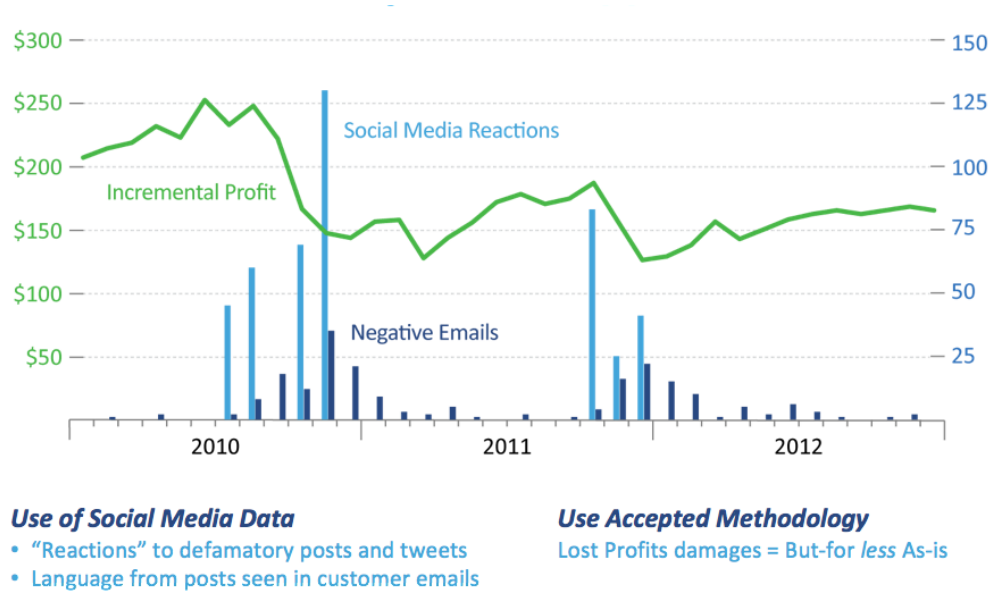
The calculation of incremental profit per month may then require further analysis to determine whether 100% of the calculated incremental profit should be apportioned to the infringement, which can be done by assessing the contribution to overall profits of all of the different assets and resources the business employed.

26 See Chapter 36 for an in-depth discussion of trademark damages.

3.5 Using Social Media Analytics to Support Lost Profits

Social media activity can also be analyzed to determine the financial impact of defamatory comments. For example, a plaintiff claimed that a former executive and spokesperson made allegedly defamatory comments toward the company in blogs, on Facebook, and on Twitter. This involved researching and counting the number of reactions to the defamatory posts, including likes, comments, shares, retweets, and similar data (i.e., actions that represented more than a view or impression). Customer feedback communications were reviewed to determine whether any of the defamatory comments were incorporated into feedback the company received. Exhibit 14 depicts the results of such an analysis. The lighter-colored bars represent the number of social media reactions to the former executive's posts, and the darker-colored bars represent the number of negative emails the company received; the solid line represents the company's monthly profits. With these results, the analyst can proceed to a typical lost profits calculation using a "before-and-after" methodology and can demonstrate through social media analysis the correlation between the defamation and the company's performance.

Exhibit 14. Results of Analysis of Social Media Reactions, Negative Emails, and Incremental Profit



In this case, the analysis was as direct as finding social media posts related to a business and tabulating social media user reactions to the defamatory posts. These counts were then combined with a traditional lost profits analysis to provide a more thorough calculation of damages.

3.6 Using Web Analytics to Defend Against a Celebrity Name and Likeness Claim

In another case, a celebrity's estate accused a company of using the celebrity's name and likeness on its website and social media accounts without permission. The estate's damages expert calculated damages in the tens of millions of dollars based on a traditional analysis that simply compared the fame of the celebrity to that of other paid celebrity endorsers appearing in person and in television commercials promoting different types of products. In this case, however, the actual infringement involved only stock photos being posted on a website and Facebook page. The company's counsel needed a methodology to counter the damages claim the estate made.

Using the web analytics suite Google Analytics, the company's expert measured the infringement's true impact. The data indicated that traffic to the company's website actually declined when the celebrity's name and likeness were on

the site. As shown in Exhibit 15, the top 50 search terms that drove nearly 50% of traffic to the company's website did not include the celebrity's name. Searches of the celebrity's name led to only 45 site visits, or less than one half of one percent of the traffic to the company's website. In addition, the company's website was a business-to-business promotional site through which visitors could not actually buy anything.

Exhibit 15. Data Demonstrating Decline in Website Traffic During Damages Period

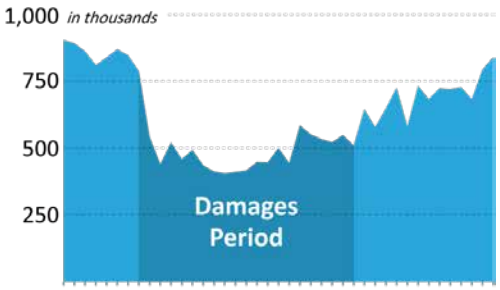
Search Term Analysis

Top 50 search terms did not include Celebrity's name

Top 50 search terms yielded 49% of total site visits during the Damages Period

Search terms using Celebrity's name resulted in a total of 45 visits during the Damages Period, less than (0.004%)

Monthly Page Views at Defendant's Website



Data demonstrating decline in Website traffic during Damages Period

The demonstrated decline in visits countered the estate's assumption that the company benefited from using the celebrity's photo. Analytics further established the minimal benefit by providing an actual count of visitors to the company's site based on searches for the celebrity's name, which would have cost the company only a few hundred dollars had they employed a pay-per-click search advertising campaign. The above search term and web traffic data thus countered the estate's overblown, market-based damages calculation with a more precise and credible calculation based on actual costs using actual site traffic data during the period of misuse and the *relief from pay-per-click* analysis that determined the actual price it would have cost the infringer to replicate the site visits achieved via Google Ads.

3.7 Using Analytics to Support a Celebrity Endorsement Relief From Pay-Per-Click Claim

In another case, a company had hired a celebrity to promote and endorse a soon-to-be-launched product and then failed to compensate the celebrity for his participation, leading the celebrity to seek compensation for his social media promotional activities for the company. There, a classic market approach based on a review of endorsement fees comparable companies paid was inadequate to calculate the celebrity's reasonable compensation. Instead, the proper analysis was a cost approach, using a relief from pay-per-click methodology to estimate the cost of replicating the impact of the celebrity's promotional activities.

The celebrity in this case had a large Facebook following and his own YouTube channel, which he had previously used to promote other products. The celebrity's Facebook posts and YouTube videos promoting the product all achieved a substantial number of views and impressions. The relief from pay-per-click calculation indicated the cost of search-based advertising that the company would have needed to obtain the same number of views and impressions. In other words, the celebrity's promotional activities and the awareness they generated relieved the company from spending an equivalent amount on search and social media advertising.

Each post and video the celebrity created featuring the relevant product had a set number of views and impressions resulting from the celebrity's promotional activities. Based on the Google PPC rate of 75 cents for paid searches using the celebrity's name—a rate that is notably higher than standard rates for either the relevant product or other celebrities—it was reasonable to assume that the company saved a corresponding 75 cents per YouTube impression because Google search and YouTube advertising share their back-end advertising portal (both are Google Ads products). The savings were similar with Facebook, which charges advertisers for the number of visitors who have viewed and reacted to ads appearing alongside a Facebook user's page. The charges for impressions on Facebook represent the number of users who have seen or reacted to the promotional message on Facebook. These are costs the company avoided, which otherwise would have been paid to Facebook to obtain an equivalent number of views and impressions. Facebook advertising rates for impressions and clicks were obtained by creating an equivalent Facebook advertising campaign based on the celebrity's followers and Facebook users who had "liked" the celebrity's Facebook page. Exhibits 16 and 17 show the resulting damages calculation, after multiplying the relevant advertising rate by the number of video views, post impressions, and post reactions to determine the amount of advertising the company would have needed to spend in order to achieve the same number of impressions the celebrity's activities generated.

Exhibit 16. Value of YouTube Views

YouTube
4 videos posted on the CELEBRITY's channel received over 2 million views

Total viewership (an active response), multiplied by the Google AdWord rate

YouTube Activities	Viewers
CELEBRITY Presents PRODUCT at CES	454,134
CELEBRITY comes to the CNET stage (CNET)	96,462
CELEBRITY Calls Name	1,188,608
CELEBRITY in Las Vegas introduces PRODUCT	372,067
Total YouTube Impressions	2,111,271
$Value / Impression	$0.75
Value of YouTube Activities	**1,583,453**

Exhibit 17. Facebook Responses and Impressions

Facebook
Reactions are Likes, Comments and Shares

A Reaction is an "active" response to the Celebrity's post, and is more valuable than a view

Likes for CELEBRITY's Facebook page	Likes	Cost
Impression Price ($/1000 impressions)	34,714,592	$0.16
Click Price ($/Click)		$0.75

Reactions to Posts Involving the Products	Likes	Comments	Shares
Visit www.product.com make sure to like!	28,921	7,432	657
CELEBRITY Presents PRODUCT	17,528	1,425	412
CELEBRITY in Vegas Introducing PRODUCT . . .	18,256	312	514
Total	64,705	9,169	1,583

Value of Activity	Count	Cost	Value ($)
Net Page Likes	34,649,887	$0.00016	5,544
Post Likes	64,705	$0.75	48,529
Other Reactions	10,752	$0.75	8,064
Value of Facebook Impressions			**62,137**

In this example, the company benefited from the celebrity's social media-based promotional activities, which generated a substantial number of views and impressions, resulting in increased awareness of the company's product. Rather than relying on estimates about the celebrity's influence, the relief from pay-per-click calculation provided a direct

measurement of the impact of the celebrity's activities by quantifying what the company would have otherwise had to spend to generate that awareness.

3.8 Using Google Historical Search Results to Debunk Damages and Causation in a Breach of Settlement Agreement Case

In a recent trademark-related lawsuit concerning an alleged breach of a settlement agreement,[27] the dispute concerned the plaintiff's claim to have lost sales on the plaintiff's e-commerce website.

The plaintiff's SEO expert opined that the plaintiff "dominated" internet search results for several keywords, but their rankings fell well beyond the first page after the defendant used the same keywords, which was allegedly a breach of the parties' prior settlement agreement. The damages expert's opinion of lost profit hinged upon this unsupported claim that, but for the defendant's alleged misuse of certain keywords, the plaintiff would not have lost its "dominant" position on Google and their e-commerce website would have generated an additional $1.5 million in profits.

The SEO expert failed to provide evidence of the plaintiff dominating historic internet search results, and the damages expert provided no evidence that defendant's use of the keywords caused 100% of the plaintiff's alleged lost profits. For the defendant, the author conducted an investigation that, as described below, contradicted the plaintiff's claim to having dominated internet search results before the alleged breach of the settlement agreement, or any time thereafter. The evidence also indicated that there are many other ways to reach the plaintiff's website (e.g., searching for other keywords, links on social media, typing a URL directly into the browser, etc.) and many other factors that could be related to lost profits.

3.8.1 Investigation of Historical Search Engine Results Pages

To begin the historical SERP investigation and analysis (SERP investigation), the author launched a browser, navigated to google.com, and cleared the browsing history. To investigate the plaintiff's alleged "dominance" of internet search results, the author used Google's Date Range function to obtain SERPs for dates relevant to the case. The dates used in the SERP investigation were as follows:

1. July 1, 2013: Plaintiff's claimed first use of the keywords;
2. August 14, 2015: Alleged first use of the keywords by defendants;
3. August 16, 2016: Effective date of the settlement agreement;
4. Sept. 30, 2019: Plaintiff provided financial data for the period ending Sept. 30, 2019; and
5. Feb. 12, 2020: Date I performed the investigation.

To use Google's Date Range function to obtain SERPs from past dates, the search phrase was entered before following the steps outlined in the previous section 3.1.2 Search Techniques.

One aspect of the review of the SERPs was to determine whether the plaintiff's website appeared within the top three organic results. As referenced above, research shows that the top three websites listed in Google SERPs receive most of the clicks for a specific Google search. Therefore, if the plaintiff had "dominated" internet search results when consumers performed online searches for its keywords, as the SEO expert claimed, the plaintiff's website should have appeared in the top three search results during the past-period SERPs.

27 *My First Shades, Inc. and SLP Enterprises, LLC v. Solarna, LLC,* George Granoff and Bernard Kossar; Commonwealth of Massachusetts, Case No. 1884-CV-708-BLS1.

The SERP investigation results contained 20 different websites but did not include any plaintiff-related websites. The SEO expert did not provide evidence that the plaintiff had "dominated" the search results, and the SERP evidence indicated that they did not. Without any analysis or investigation, the SEO expert's foundational claim that the plaintiff had dominated internet search results for the keywords was both unsupported and incorrect.

Because the defendant provided evidence that the plaintiff did not "dominate" Google search results, the plaintiff's damages expert could not rely on the SEO expert's opinion of lost "dominance" in search rankings as the cause of damages. Without causation, a damages analysis fails. Therefore, the damages expert could not prove that, "but-for" the defendant's use of the keywords, the plaintiff would have achieved $1.5 million in profits, and no damages were awarded at trial.

3.9 Using Location-Specific Search Statistics to Determine Confusion in Trademark Infringement Claim

Finally, internet analytics can help assess brand awareness in a particular geographic region, which can be potentially determinative in a likelihood-of-confusion analysis. In an illustrative case,[28] a furniture manufacturer used a designer's mark on an unauthorized private-label sofa line that was distributed exclusively by a retailer located outside the designer's established territories.[29] Whether the infringing use of the mark resulted in any sales and unjustly enriched the defendant thus depended on the extent of consumer awareness of the mark in the retailer's territories.

Google's Keyword Planner provided the answer. As seen in Exhibit 18, Google's Keyword Planner allowed the analyst to compare brand awareness of furniture manufacturers and retailers by geographic region. State-by-state search statistics indicated that there was minimal search activity of either company's name in the other's geography and that, overall, the retailer enjoyed the greater level of brand awareness on both a national and state level. This indicated that the retailer's customers were likely unaware of the designer as a furniture retailer and did not buy the furniture at issue based on any perceived affiliation with the plaintiff.

Exhibit 18. Comparison Brand Awareness of Furniture Manufacturers and Retailers by Geographic Region

Search Data: Searches for "Defendant" and "Plaintiff" by State	*Percent Inside*	*Percent Outside*	*State Count*
% for Searches "Plaintiff" in Defendant's Trading Territory	3.8%	96.2%	6
% for Searches "Defendant" in Defendant's Trading Territory	48.5%	51.5%	
% for Searches "Plaintiff" in Defendant's Operating States	16.6%	83.4%	26
% for Searches "Defendant" in Defendant Operating States	88.3%	11.7%	
% for Searches "Plaintiff" in Defendant Nameplate States	6.4%	93.6%	10
% for Searches "Defendant" in Defendant Nameplate States	79.3%	20.7%	

Based on that analysis, the judge agreed that the furniture infringed the designer's mark but concluded that the lack of brand awareness in the relevant territory precluded any risk of consumer confusion and that the plaintiff had, therefore, suffered no damages.

28 *Stone Creek, Inc. v. Omnia Italian Design, Inc.*, Case No. 2:13-cv-00688-NVW, USDC, District of Arizona.

29 "Can Trademark Infringement Be a Victimless Crime? The *Stone Creek v. Omnia* Case," 2018. redfame.com/journal/index.php/ijlpa/article/view/3879.

4.0 Conclusion

These cases and others like them prove the value of incorporating web analytics and social media tools in valuation analyses and damages calculations. As more business activity occurs online and through social media, valuation analysts unfamiliar with these tools may find themselves left behind. By incorporating web analytics tools and analyzing optimization tactics, search results, and social media analytics, analysts will uncover additional facts and information that can set their results apart and provide evidence to refute the testimony and opinions of other experts and professionals using more traditional tools.

As with any relatively new way of gathering facts and data, educating one's audience of its significance and usefulness is always a crucial first step. Thus, none of these web and social media analysis tools should be used without providing a thorough explanation of the growing importance of the internet and social media for businesses and the mechanics of online marketing and business. Analysts using these tools should offer their audience the background information necessary to enable them to understand and interpret the facts and figures being used.

It is also important to remember that obtaining facts, data, and analytics from websites and social media profiles is just one step of an assignment. Each case has a unique context, and each valuation or damages calculation requires a review of all the available facts, data, and information. For instance, a high volume of search-driven site traffic from use of a registered mark or term does not necessarily indicate infringement or that the search-driven site traffic was responsible for 100% of the calculated damages. Savvy analysts need to understand the limits of their calculations, make appropriate judgments, and consider other factors that may be influencing the data.