I. INTRODUCTION

My name is Luther Lowe, and I am the Senior Vice President of Public Policy for Yelp. I am here today on behalf of Jeremy Stoppelman, Yelp's CEO and co-founder, who is genuinely sorry he could not fly in from San Francisco as he manages operational issues that have arisen as a result of the Coronavirus outbreak. We at Yelp sincerely appreciate the subcommittee permitting us to have a presence in light of these extraordinary circumstances.

Before I begin, I want to thank Chairman Lee and ranking Senator Klobuchar for your oversight of these critical issues. It follows the vital work of the Department of Justice, the House antitrust subcommittee led by Chairman Cicilline and Ranking Member Sensenbrenner, state attorneys general, the intrepid work of European Commission Vice President Margrethe Vestager, as well as work by competition authorities in Australia, Brazil, and Turkey, to name a few. The role of dominant internet platforms has emerged as an issue where there's concern globally and across the political spectrum.

At Yelp, we exist to empower and protect consumers. The service and app allow people throughout the country to share detailed and passionate reviews about businesses in their neighborhoods. In turn, local businesses providing exceptional service can establish and promote themselves online.
As any consumer today could tell you, the online review and comment ecosystem has become a crucial part of the modern economy. These feedback loops greatly enhance the ability of consumers to make informed decisions while deepening the incentive of small businesses to compete on product quality, customer service, and price. Indeed, the proliferation of Yelp-like star ratings and reviews in consumers' digital lives shows that user-generated content has a significant impact on consumer behavior and merchants' success in the economy. But the market can only flourish if the flow of information is genuinely free, and so long as the channels of exchange are genuinely competitive.

There have been concerning reports that the state attorneys general and the DOJ are pursuing incredibly narrow theories of harm in their respective Google investigations, only looking at advertising technology. I believe making the focus too narrow would be a grave mistake. You can't look at Standard Oil without looking at oil; you cannot investigate Google without looking at search. That is what makes today's hearing — on the self-serving bias of companies like Google — so important. Dominant internet platforms like Google enjoy enormous market power. For years, Google, in particular, has biased its results to serve its interests and leverage its power to entrench it further and hurt consumers in the process.

Today, when a mom searches for a pediatrician in Salt Lake City on Google, instead of being matched with the most relevant information from across the web, she is steered toward a set of results that come solely from Google's exclusionary corpus of ratings and reviews. This self-serving bias matches unwitting consumers with objectively lower quality information. And because local searches like this are the most common type of search people conduct, Google's self-dealing produces at least a billion degraded search results in the United States every week.¹

This behavior poses a dire threat to our market, the local search market, as well as many other specialized search markets. When customers receive the most relevant and highest quality information, and when businesses receive consumers based on having a competitive offering, the Main Street economy functions optimally. But we will not realize the full potential of consumer-powered information feedback loops so long as Google stifles competition and restricts output.

II. HISTORICAL BACKGROUND

*From Turnstile to Self-Dealer*
It's important to remember that it wasn't always this way. At its beginning, Google touted itself as a turnstile to the internet — an intermediate step before users arrived at their ultimate destinations on the web. Google’s role was to match the information that was most relevant to a user’s query and send the user to where that information lived online. As Google co-founder Larry Page put it in 2004: "We want to get you out of Google and to the right place as fast as possible." In this role, Google contributed significantly to the flourishing of the web. New companies were able to launch innovative services built on a model of using Google to find and connect to users. Indeed, it is difficult to decouple the rise of Google the "turnstile" from the rise of "Web 2.0," the term Tim O'Reilly popularized and which describes the rise of social services and long-form user-generated content. Google was, in other words, the anti-self-preferencing agent of the internet: it served as an unbiased and impartial matchmaker sitting between consumers and all that the web had to offer.

Sadly, however, Google-as-turnstile was not bound to last. After the company obtained dominance in search, its attitude began to change. It shifted from providing users the most relevant and high-quality information on the internet to providing users whatever would keep them on Google's own properties for as long as possible. The apparent goal was to leverage Google's extraordinary power in general search to serve more pages and increase the available inventory of ads it could sell.

But to keep consumers locked into its own platform, Google had to deal with emerging competitors – namely, "specialty" or "vertical" search services, which began gaining popularity in the mid-2000s as a way to connect users to specific categories of information more efficiently. Thus, as Google’s motivations shifted and the markets evolved, so too did Google’s conduct. It began to deceptively self-preference its own material over third-party websites.

It’s worth taking a moment to describe the difference between “vertical” and “general” search. A search for "dentistry" on a general search engine like Google could mean the user is looking for information about the history of dentistry, applications for dental schools, or perhaps the user is just hoping to find a new dentist. A search for "dentist" on a vertical search service like Yelp includes a geographic coefficient like "Washington, DC." This more specific query intent is clear enough to enable a vertical search service like Yelp to invest in the cultivation of more in-depth information about local businesses.
The introduction of Yelp and other verticals in response to users’ demand (as expressed through increasingly specific queries) was a boon to users, but Google saw such sites as a threat to its broader search monopoly. The inadvertent disclosure of internal company documents to *The Wall Street Journal* in 2015 showed that Google was anxious about the trend towards disintermediation, the tendency for users to skip the middleman (i.e., Google) and go straight to vertical sites for specific types of queries. As one Google executive put it:

*What is the real threat if we don't execute on verticals? (a) loss of traffic from google.com because folks search elsewhere for some queries; (b) related revenue loss for high spend verticals like travel; (c) missing opty [sic] if someone else creates the platform to build verticals; (d) if one of our big competitors builds a constellation of high quality verticals, we are hurt badly.*

This communication shows that Google understood that in the newly emerging market, competition often does not come from merely replicating the product of the dominant player. Instead, it comes from new players in new categories disrupting the business model and changing the shape of the market altogether. Vertical search engines were one such disruption. While Google’s general search engine focused on *breadth*, indexing information from across the web, vertical search sites focused on *depth*, eschewing the one-size-fits-all formula and allowing users to perform more powerful searches for specific types of information. The risk to Google was thus not another general search engine coming along and outcompeting it, but rather a change in user behavior that valued the vertical services’ depth to Google’s breadth. Deceptive self-preferencing presented itself as a convenient solution to this threat.

This self-serving bias became Google’s preferred method of controlling the flow of online traffic and attacking emerging competitors that it perceived as threats. It deployed a two-pronged strategy — which it continues to use to this day — to ensure that its vertical services would win out over rivals. First, Google added answer boxes (or "OneBoxes") — visually distinct boxes containing vertical search results — to the top of its search results pages. Then, Google started populating the most important OneBoxes exclusively with its own vertical content. Together, this deceptive self-preferencing starved Google’s vertical rivals of necessary search traffic and ensured the supremacy of Google’s own services, regardless of their standalone merit. And therefore, Google would no longer play a neutral role in helping users find the best information online. Google’s strategy instead shifted towards manipulating its own search results page to hamper perceived rivals. Yelp was one of the first vertical services to bear the brunt of this
attack. Google grew on the promise of a web-shaped Google, but instead, we got a Google-
shaped web, to everyone's detriment.

**Deceptive Self-Preferencing Becomes the Business Model**

Google began liberally displaying OneBoxes in its search results in May 2007. Google gave
these answer boxes graphical interfaces designed to attract users' attention while minimizing
click-through to the source of the content. It also created different OneBox designs for different
types of verticals, such as local search, image search, news search, and more. In each case,
Google "hardwired" its OneBoxes at or near the top of its search results where it had
conditioned consumers to expect for the best or most relevant results from around the web —
even though they no longer were. By doing so, Google physically demoted non-Google results
even if they contained information with higher quality scores than the information Google
preferenced. According to the FTC staff memo, Google developed a separate algorithm whose
sole function was to observe the organic results and "trigger" Google services if links to Yelp or
TripAdvisor were part of the ten blue links. If a service like Yelp or TripAdvisor appeared in the
top ten results, it inferred the user must be performing a local search, so it triggered a map and
Google's in-house product to physically push down the merit-based results. The WSJ's
revelation of an algorithm that basically functioned as, "If Yelp or TripAdvisor, then show Google
instead," is smoking gun evidence of deceptive self-preferencing.

**Why Local Search is So Important**

Local search is the most common form of search on Google. A conservative estimate suggests
local search accounts for over 40% of total search query volume, and Google has said the
majority of smartphone searches – which constitute 65% of total search volume – have local
intent. Given the popularity of local search, Google saw the existence of a healthy ecosystem
of services like Yelp as a threat to its dominance. In response to this threat, Google used its
power in the general search to insert itself into local search, an adjacent market. Though its
design has varied over the years since its introduction, Google essentially cloned the
functionality of services like TripAdvisor and Yelp by creating a specialized "answer box" with a
map, links to local businesses, star-ratings and contact information. The decision to place this
clone above third party services is not based on the organic meritocracy Google relied upon to
establish its dominance in general search.
Google relies solely on ratings and reviews it has nudged Google users to create as the content foundation of its Local OneBox. When Google sees a user's query has local intent, Google's local search service is placed higher on the page, and in a more attractive format, than any organic links to other local search verticals that might appear. The effect is to steer a massive amount of traffic away from local search providers, starving them of the user interaction they require to keep their content fresh and relevant. Aggregated click study estimates suggest roughly 7 in 10 smartphone local searches result in a consumer being siphoned into Google's walled garden. This allows parts of the web to grow in absolute terms while shrinking relative to the total number of search engine result pages Google serves and steers internally. According to Jumpshot, the majority of searches conducted on Google either terminate on Google or go to Google secondary pages. This siphonage is more pronounced in the local search category.

III. GOOGLE'S DECEPTIVE SELF-PREFERENCING HURTS CONSUMERS

For years, Yelp has been vocal about the damage that Google’s conduct has done to Google's rivals in adjacent markets. But it is important to emphasize that the primary victim of Google’s conduct has not been any particular company – competitor or not – but the American consumer. Google's exclusion of third party competitors was not primarily based on a concern for the user experience, nor was it borne out of any technical necessity. It was designed to leverage Google's extraordinary power in one market for the benefit of its position in adjacent markets.

After all, it would have been trivially easy for Google to incorporate third-party results into the Local OneBox, as illustrated by an open-source project known as Focus on the User (FOTU). FOTU is a project commissioned by consumer watchdogs and local search providers to show how Google’s preferencing of its own local search results hurts consumers. The project developed a "widget" to modify the Local OneBox so that it shows the top results from Google's organic search results (the "10 blue links"), where third-party local search providers' content can appear. In effect, FOTU lets users see what would happen (according to Google's own ranking algorithm) if Yelp, TripAdvisor, and other providers could compete to have their results appear in the Local OneBox. If the FOTU project could give competitors access to the Local OneBox through a browser widget, then Google's engineers could easily do the same thing.

The FOTU proof of concept is substantial not only because it shows that third-parties’ results can be incorporated into the Local OneBox, but also because it has shown that users actually prefer that to Google's closed OneBox. In a paper titled "Does Google content degrade Google
search?" Harvard Business School's Michael Luca and Columbia Law School's Tim Wu used the FOTU tool to construct two versions of Google's Local OneBox — a closed version and a competitive version — and conducted randomized controlled trials to identify users' revealed preferences. They found that users were approximately 40% more likely to engage with the non-discriminatory, interoperable Local OneBox, suggesting a strong preference for competition rather than Google's closed ecosystem. A follow-up study by Professor Luca, which underscored these original findings, was peer-reviewed and published in 2019.

Such findings should not come as a surprise. They are consistent with economic theory, which tells us that competition between providers is good for consumers. The question, then, is why does Google degrade the quality of its Local OneBox — and thus the quality of its search results page more generally — by excluding third-party local search providers? The answer is that Google is willing to put out a worse product — and thus hurt consumers — if it helps preserve its search monopoly.

There are many other quantifiable ways to demonstrate Google's deceptive self-preferencing is worse for consumers than pure competition. These include comparing the number, quality, and distribution of user ratings and reviews offered by different local search providers or looking at how well different providers weed out false or biased information. Perhaps the most damning indictment of Google’s quality was that, for years, the search behemoth’s own PageRank-style quality scores suggested its local review content belonged dozens of pages after the first page. When antitrust authorities were shown how poorly the Google organic algorithm ranked Google’s local review product, Google hid the ball, de-indexing all of its review content so enforcers could no longer monitor the overt bias.

As a monopoly, Google can knowingly degrade the quality of its services without fear that users will switch to general search competitors. The results are sometimes tragic. Last summer, the Wall Street Journal ran a story which documented “millions” of fake listings on Google’s local offering. The story included first-hand accounts of consumers that had been ripped off because the information they found on Google was of such poor quality.

Yelp has taken the problem of misinformation seriously from Day 1. A fourth of reviews submitted to Yelp are put into a "not recommended" state. Such quality control is similar to an
email's spam folder. Sometimes perfectly legitimate reviews wind up in this state, but overall it ensures Yelp's service is a good predictor of consumers' offline experiences.

For example, Google gives Bullfeathers a few blocks from here a 4.1 out of 5 stars; Yelp gives it a 3. I'll let those who spend their time on Capitol Hill reflect on what is a better predictor of the offline experience. Getting unhelpful information when you're looking for a happy hour spot isn't the end of the world. But consumers are more likely to use local search services if they are looking for something high stakes like an auto mechanic or a pediatrician.

IV. THE ANTITRUST LAWS PROVIDE A REMEDY

Google's persistent self-serving bias — to say nothing of its vertical search conduct more generally — is a form of monopoly maintenance that violates both federal and state antitrust laws. It creates just the kind of competitive harm that the antitrust laws are meant to prevent. First, it is self-evident that Google is trying to monopolize various vertical search markets (i.e., those adjacent to the general search market). Second, Google's deceptive self-preferencing is designed to maintain its primary monopoly in general search. These two characterizations are not mutually exclusive — indeed, both are likely true here.

Labeling Google's self-serving bias as illegal would not be novel. It would not represent a departure from antitrust doctrine, or the development of the law in the courts, agencies, and private bar. Concern over illegal monopoly maintenance strategies by technology monopolists has been with us for some time.

Indeed, the conduct at issue in the seminal case United States v. Microsoft and Google's self-dealing here bear strong similarities. Microsoft was, of course, found guilty of engaging in a variety of self-dealing tactics, in the design of its operating system, meant to undermine rival internet browsers. The strategy, in the words of an executive, was to "cut off [the] air supply." An asserted competitive harm in that case, among others, was that Microsoft was trying to undermine browser rivals in order to stifle nascent threats to its primary monopoly in P.C. operating systems. Microsoft once illegally steered users of its operating system to its own browser over others', so too is Google, through its search manipulation, illegally steering internet searches toward its own properties. Like Microsoft before it, Google is attacking vertical rivals to preserve its primary monopoly.
Google's usual defense for its conduct is that its self-preferencing represents a "product improvement" that benefits users. As such, Google seeks immunity from antitrust scrutiny and forgiveness for the anticompetitive effects of its self-dealing. But, as is so often the case in the debate over deceptive self-preferencing on internet platforms, this conflates several different practices and disingenuously converts the choice into a single take-it-or-leave-it proposition. Google made separate, distinct decisions to (1) introduce OneBoxes to the search results page, (2) elevate the OneBoxes above all other links, and (3) exclude rival vertical search results from the OneBoxes. Each choice must be viewed separately and judged on its individual merits. Antitrust law does not permit Google to hide behind one defensible product decision (such as the introduction of OneBoxes, generally) to shield its entirely separate, and anticompetitive, deceptive self-preferencing (such as excluding rivals from the OneBoxes).

It is also worth noting that due to the nature of the information being served, not all answer boxes are created equally. Google puts a 4 on the screen when a user types "2+2." In the early days of Google, users would see a link to a service such as "calculator.com," and then they would be required to re-enter these numbers in order to see the answer. The OneBox in this context represents an improvement. Indeed, for commodity-style, fact-based information generally, few suggest that Google's conduct is controversial. But when it comes to an entirely different kind of information – the best doctor for a child, the best plumber for a broken sink, the best restaurant for an anniversary – Google disingenuously applies the same defense of its conduct. The problem for consumers is that Google has habituated us to assume the information that appears at the top of the search results page is the "best." But for the most common type of search — local — that is objectively false.

The question that policymakers have to answer is this: "What purpose does elevating OneBoxes to the top of the page (while excluding rivals from the OneBox) serve? Does this serve to bring users more relevant information, or does it merely serve to protect Google's search monopoly?" Google says it designs results to help consumers, not competitors. But we can see that in steering consumers to OneBoxes filled with proprietary but inferior content, Google puts the lie to its statement. Google is designing its results not to help consumers but to harm competitors.

V. CONCLUSION
There is an emerging consensus across political parties and industries that the economy of the 21st century poses challenges that we haven't seen before. That is, again, why I, and so many others, are so pleased that the committee has called this hearing today. The last time our ever-vigorous economy faced the threat of monopoly capture – the Microsoft monopoly – our antitrust policymakers and enforcers stepped up to the plate. As a result of their efforts, the market was revitalized with new innovation, new market entrants, and new options for consumers. Most antitrust historians agree that the enforcement action against Microsoft oxygenated the markets at the precise time Google needed to gain adoption. One can easily imagine an alternate universe where — absent U.S. v Microsoft — the dominant tech firm of that era could have used its 90% market share in the browser market to clip Google's wings and steer people to a Microsoft-developed Google clone. All of us – even Microsoft! – benefitted from the enforcement. It is equally clear that the FTC's decision to abruptly close its investigation of Google for similar conduct in early 2013 has not aged well.

For all the right Google has done, and for all the potential that the internet offers, Google's deceptive self-preferencing, especially in the local search market, is creating clear anticompetitive effects. Consumers are paying the price. Remedying Google's abusive local search practices will not only result in a better experience for consumers and small businesses, but it will erode Google's dominant control over the way people find and connect to information online. We have faced challenges like this before, and antitrust law and policy has proven up to the task. The efforts of this subcommittee and enforcement bodies across the globe to rein in Google's self-preferencing are paramount. Thank you once more for the opportunity to testify.
ENDNOTES

i Google’s last disclosure of the number of search results it served in May of 2016 stated there are “trillions” of searches annually or at least 38.5 billion weekly searches, assuming an outdated (and therefore conservative) lower bound of two trillion. U.S. internet consumers represent about 7% of the global internet population. Google’s US market share is approximately 90%. Local search volume conservatively represents at least 40% of total search volume. 38.5b*.9*.4*.07~1b.

ii Google S-1 filed with the SEC, April 29, 2004.


v According to an investigation by the U.S. Federal Trade Commission, Google used “co-occurrence signals” to determine when to show its Local OneBox. Google first made a list of “blessed sites,” the sites of Google’s key vertical rivals, such as Yelp, that Google’s own organic quality metrics showed consumers value. A query on Google’s main page that produced organic results in which one of those blessed sites placed prominently “triggered” (in Google’s terminology) the preferential placement of Google’s Local OneBox above the blessed site’s listing. FTC Staff Memo at 26, 130 n. 136.

vi https://twitter.com/nickwilsdon/status/1049964084597264384

vii https://sparktoro.com/blog/less-than-half-of-google-searches-now-result-in-a-click/


ix Id. at 25.
