# "Free" Online Services and Gonzo Capitalism

**Hal Berghel**, University of Nevada, Las Vegas

*Google and other online providers have paid huge court settlements over violations ranging from privacy abuses and antitrust issues to digital advertising. What is it about these companies' business models that drives their online abuse?*

Attempting to prevent governments, businesses, and criminals from surveilling the public has become one of the most futile challenges of the 21st century. In one recent court settlement, Google agreed to pay US$391.5 million to settle with 40 states over charges that it obfuscated its policy on the collection of personal location data.[1] "For years Google has prioritized profit over their users' privacy," reported Oregon Attorney General Ellen Rosenblum. No news there. For decades, privacy-concerned computer professionals have been chanting a mantra: users of "free" Internet services aren't customers, they're products. Although belated, it's refreshing to see that some politicians are championing the cause of consumer privacy despite a lack of public pressure. Politicians are placed squarely before Buridan's ass (in a nice way, I mean): an ill-informed public is largely apathetic on the matter, while the business community that benefits from the harvesting of personal information is hostile to any attempt at regulation. Many politicians have learned that they defend consumer and public privacy to their cost.

*Digital Object Identifier 10.1109/MC.2023.3271449*
*Date of current version: 26 June 2023*

## PERSONAL LOCATION DATA

So, what exactly did Google do this time? The suit was apparently an outgrowth of a 2018 exposé by the Associated Press (AP) wherein it was reported that "Google services on Android devices and iPhones store your location data even if you've used a privacy setting that says it will prevent Google from doing so."[2] The AP documented that Google's privacy policy falsely stated, "You can turn off Location History at any time. With Location History off, the places you go are no longer stored." The AP showed that even with Location History turned off, "some Google apps automatically store time-stamped location data without asking. For example, when you merely open its Maps app." After the AP's report, Google responded

EDITOR HAL BERGHEL
University of Nevada, Las Vegas; hlb@computer.org

predictably: "There are a number of different ways that Google may use location to improve people's experience, including: Location History, Web and App Activity, and through device-level Location Services ..." Ah, the magic defense: "to improve people's experience." Telling users that they should look at corporate harvesting of their personal information as a benefit to their user experience is like telling the accused that they should look at any possible incarceration as a character-building experience. This phrase should be taken for what it is: a lame defense for circumventing any reasonable semblance of privacy protection for the unsuspecting user. But in the case under consideration, the attorneys general successfully argued the narrower position that it is unlawful to tell users one thing and then do the opposite: "Google violated state consumer protection laws by misleading customers."[1] The state of Oregon, for one, is considering legislation this year that would provide consumers more control over the use of their personal information. It is worth remembering that such legislation is necessary at the state level because there is no privacy protection for citizens specifically provided in the Constitution of the United States. The closest we have come is the majority opinion of the Supreme Court case *Griswold v. Connecticut*, where Justice William O. Douglas claimed that any right to privacy that accrues to citizens is buried somehow in a "penumbra" of the constitution.[3] Needless to say, any attempt to protect individual rights to privacy with such ill-defined tactics as "penumbral reasoning" dooms privacy protection to the vicissitudes of partisan politics, as has been recently evidenced in the Dobbs decision overturning *Roe v. Wade*.[4] The most direct way to avoid continuous constitutional tribalism would be to expand section 1 of the Fourteenth Amendment to the Constitution to specifically include privacy. And one might even throw in concepts like the right to happiness and the right to be left alone, for good measure. This concept, of course, is not new. Alternative phrasings may be found in the works of Samuel Johnson, John Locke, and Lucretius that date back centuries,[5] although such talk would be considered seditious in some circles today.

## ANTITRUST

So, we have one count of misleading customers. The Department of Justice (DOJ) and the states of Virginia, California, Colorado, Connecticut, New Jersey, New York, Rhode Island, and Tennessee filed suit in federal court against Google in 2020 for anticompetitive practices regarding its online marketing practices. The petitioners alleged that Google maintains advertising dominance by preventing competition, either through mergers and acquisitions or pressuring advertisers to adopt Google products and services.[6] In 2023, the DOJ filed a second suit against Google, this time for anticompetitive practices in its online advertising business, that seeks to force Google to divest parts of its business.[7] In addition, at least three collections of states are suing Google for achieving market dominance by blocking competition by paying billions of dollars to manufacturers and browser developers to use its search engine exclusively, using merger and acquisition tactics to eliminate competition and engage in exclusionary conduct, and using its own "open bidding" tool to subvert ad exchange auctions to gain unfair revenue advantage, to name but a few.[8] According to CNN, the DOJ claims that, in this way, "Google effectively owns or controls search distribution channels accounting for roughly 80% of the general search queries in the United States."[9] In July 2022, the House of Representatives Judiciary Committee formally published a 2020 majority report, "Investigation of Competition in Digital Markets,"[10] that essentially reaffirms the claims in the DOJ litigation. So, we must add several more charges: anticompetitive practices in online marketing, anticompetitive practices in online advertising, and achieving market dominance by blocking competition through Google's open bidding environment.

> Attempting to prevent governments, businesses, and criminals from surveilling the public has become one of the most futile challenges of the 21st century.

The House investigation is noteworthy for its clarity. The report is unequivocal on two points: 1) online platforms enjoin monopolistic practices and 2) current antitrust legislation and enforcement are inadequate to address the problem. Was this ever in doubt? In the case of Google, the report demonstrates that the company maintains a "[near] monopoly for general online search and search advertising." It states that

> "documents show that Google used its search monopoly to misappropriate content from third parties and to boost Google's own inferior vertical offerings, while imposing search

penalties to demote third-party vertical providers.... Google appears to be siphoning off traffic from the rest of the web, while entities seeking to reach users must pay Google steadily increasing sums for ads."

In addition,

"A second way Google has maintained its monopoly over general search has been through a series of anticompetitive contracts.... Documents show that Google required smartphone manufacturers to pre-install and give default status to Google's own apps, impeding competitors in search as well as in other app markets.... Each of its services provides Google with a trove of user data, reinforcing its dominance across markets and driving greater monetization through online ads. Through linking these services together, Google increasingly functions as an ecosystem of interlocking monopolies."[10]

No news there. We emphasize that the report did not single out Google. Similar problems were identified with Amazon, Apple, and Facebook. The report notes that these four platforms were collectively valued at US$5 trillion, "more than a third of the value of the S&P 100." There were three common problems attributed to the quartet of online platforms: 1) the platforms serve as gatekeepers over a key channel of distribution, 2) they use this gatekeeper position to maintain market power, and 3) they abuse their role as intermediaries to enrich themselves and dominate markets. The report concludes that current antitrust laws need to be updated to deal with these problems and that antitrust enforcement agencies are inadequate to the task. While high-tech firms, such as Google, have historically been relatively immune to complaints from regulators within the United States, they have fared worse in Europe. In 2021, Google was fined US$2.7 billion by the General Court of the European Union (EU) for anticompetitive practices.[11]

An ill-informed public is largely apathetic on the matter, while the business community that benefits from the harvesting of personal information is hostile to any attempt at regulation.

It must be restated that Google is not alone in facing these DOJ complaints. In January 2023, Meta Platforms (formerly known as Facebook) settled a complaint that accused it of using "algorithms in determining which Facebook users receive housing ads and that those algorithms rely, in part, on characteristics protected under the FHA [Fair Housing Act]."[12] This is not to mention the current Federal Trade Commission suit against Meta over monopolistic practices.[13] In any event, Google's antitrust issues associated with search engines, digital advertising, and mobile platform software are so significant that they will linger on despite a business-sympathetic U.S. judicial climate. The Sherman and Clayton antitrust acts are anathema to Silicon Valley generally and not specifically limited to Google.

## MORE LITIGATION

The diversity of litigation against Google is both variegated and global. On 28 September 2022, final approval was granted for a class action settlement[14] for US$100 million in response to a suit that alleged Google violated consumer privacy rights with the Google Photos face recognition application. Google Photos is an image sharing service that enables users to identify individuals in digital photos by face geometry. The claim was that Google violated the Illinois Biometric Information Privacy Act.[15] To items of note: 1) Google settled the claim without admitting wrongdoing, and 2) although Congress has thus far failed to enact similar federal legislation, several states appear to be following Illinois' lead.[16]

But successful litigation goes beyond direct assaults on individual privacy. In 2017, the EU fined Google €2.4 billion for abusing its position as a market leader by biasing search engine results,[17] and in 2019, it fined Google €1.49 billion for abusive practices in online advertising through its AdSense search environment.[18] Of course, the intensity of the EU litigation is greater than in the United States because of the former's stronger commitment to personal privacy.

What is it about Google and other high-tech online and social media companies that is behind all this litigation? It's pretty easy to see when one investigates their business models. Google, in particular, has always been in the business of exploiting the personal identifying information (PII) ecosystem via 1) "free" online services, such as search engines, the Chrome browser, online advertising and shopping environments, Google Earth, Gmail, and so on; 2) subscription services, including Fitbit, Nest, and premium media offerings; 3) platforms, such as Android mobile devices, Chromebooks, and so on; and 4) smart home appliances, such as cameras, doorbells, thermostats, speakers and monitors, Wi-Fi, and so on. This is not to mention litigation for copyright and patent infringement and microtransaction abuse. But a common theme behind this litigation, irrespective of the revenue sources of the business model, is that the products and services all

involve Google's exploitation of the PII ecosystem. Since this is the driving force behind both the business initiatives and litigation, it behooves us to understand the motivation behind it.

Since the creation of e-commerce, the operative mantra has been that if you can't identify the specific revenue stream of an online service, you're not the user, you're the product. Put another way, when it comes to "free" online services, if you're not at the table, you're on the menu. These clichés serve as examples of essentially correct though unrefined memes. We need a deeper dive to get a better understanding of the online business motives of Google and other online service providers of its ilk.

## ONLINE RENT SEEKING

Here's our incomplete brief tally of those Google gaffes that resulted in litigation:

1. misleading customers/breaking contracts
2. anticompetitive practices
3. blocking competition
4. maintaining a monopoly
5. increasing monetization beyond prudence
6. creating an ecosystem of interlocking monopolies
7. serving as gatekeeper over primary distribution channels
8. abusing its role as intermediary for dominate markets
9. illegally using captured biometric data.

In the abstract, does this sort of business behavior sound familiar?

To provide one possible answer, we revisit Adam Smith's *Wealth of Nations*. "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."[19] Smith made it clear that anticompetitive behavior is baked into the capitalist model. This doesn't justify abandoning the model, but, as Smith seems to suggest, it does warrant the use of a reliable regulatory framework to establish that businesses continue to operate in the public interest.

Smith would no doubt be joyful that the House report mentioned previously confirms that his 18th century observation still applies in today's online digital domain. Google's legal gaffes could be anticipated by Smith's observations and should surprise no one. But why? I suggest that part of the answer lies in the fact that the business models of nontransparent pricing (aka "free") online services looks like a sketchy form of rent seeking.

Let's try to parse this out. If, as Smith claims, it is the natural tendency for capitalists to place making money paramount among competing goals—not necessarily to the exclusion of the public interest but certainly not dominated by it—then a capitalist business model must be expected to develop a way to make profit even from giving away online products and services. So far, Google and Smith are one. The twist that Smith didn't anticipate was that profit could be made by selling the customer instead of the product. In Smith's model of 18th century economic theory, Google's business model would be analogous to deriving profit by renting out the tenant farmer while letting him use the land for free to produce crops. Here's the Google business model in Smith's terms: monetize the tenant farmer, demand the right to surveil the tenant's movements, post ads on the walls of his house, provide billboards in his yard to advertise other opportunities to extract wealth from the tenant, and so forth. And, of course, to consummate this arrangement, the landlord would demand that the prospective tenant farmer implicitly consent to a pro-forma unrestricted tenant-farmer agreement. All that Smith needed for a successful e-commerce launch of this digital plowshare was the Internet.

Our hypothetical example of the potential tenant farmer is reminiscent not only of Smith's and David Ricardo's law of rents but also modern contracts of adhesion (for example, end-user license agreements). (We pass over, in silence, the question of whether our example is a closer approximation to sharecropping than tenant farming.) By framing our example in this way, we set the stage for an explanation of online service providers as rent seekers. That might make Google's motives easier to understand.

Our working definition of rent seeking will be similar to that used in modern economics, with one caveat: we'll view rent as the ratio between a value contributed to an economic system and the value removed or repurposed from the system. That is, in our terms, rent will be expressed as a difference rather than in absolute terms. For our purposes, this definition works nicely: "Rent seeking is an economic concept that occurs when an entity seeks to gain wealth without any reciprocal contribution of productivity."[25] We emphasize that there are other definitions that rely on different exclusions. Let's see if our definition is consistent with our observations.

There is no question that users of nonsubscription-based (aka "free") online services are exchanging something of value for the use of services. In this case, the commodity of value manifests in the form of monetized personal information of users. There is also no question who occupies the subservient position in the two estates of our hypothetical realm: service providers/landowners are the lords, and users/tenant farmers are the fiefs. Third, there is no doubt that online services would hold that their online service constitutes a "reciprocal contribution of productivity" in exchange for the harvesting of users' personal information. The operative question is whether the nine Google business practices mentioned above are subsumable under a sketchy form of rent-seeking behavior.

Google seeks to treat its services (for example, search and advertising) as a monopoly.[8, 9] Indeed, once again, the spirit seems to be consistent with

Smith's view of rent in book 1, chapter 11 of *Wealth of Nations*:

> "The rent of the land, therefore, considered as the price paid for the use of the land, is naturally a monopoly price. It is not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take; but to what the farmer can afford to give."[19]

Note that Smith is explicitly decoupling rent received (from tenants, or users) from the cost (land and improvements, or IT services). As Smith foretells, both Google and the landlord will seek to achieve monopolistic pricing (whatever the farmer/user can afford to give, whenever they can get away with it). How does one achieve maximum prices? By disfavoring competitive environments and removing options from the tenant farmer. If there is no other land available, the tenant farmer has no choice but to accept the terms of the landlord if he is to produce a crop for survival. In classical economic terms, monopolistic pricing is maximized when the margin of production is nil. There is a reason why this relationship appears to have all the appearances of feudalism. It is.

David Riccardo expands Smith's explanation of rent seeking by tying it together with anticompetitiveness. Ricardo observes,

> "Corn is not high because a rent is paid, but a rent is paid because corn is high; and it has been justly observed, that no reduction would take place in the price of corn, although landlords should forego the whole of their rent. Such a measure would only enable some farmers to live like gentlemen, but would not diminish the quantity of labour necessary to raise raw produce on the least productive land in cultivation."[20]

The analogy is that the provider of monopolistic online services should determine its value, independent of demand. A neoclassical spin on Ricardo's theory of rent might go something like this: [monopoly rents] are the returns in excess of opportunity cost obtained due to positional advantage. The rentier (landowner or online service provider) exacts the same sort of rent. And both exhibit similar rent seeking behavior.

> Any attempt to protect individual rights to privacy with such ill-defined tactics as "penumbral reasoning" dooms privacy protection to the vicissitudes of partisan politics.

## SKETCHY RENT SEEKING

Let's see if we can draw further parallels between rent seeking as it might apply in nontransparent pricing (aka "free") online service providers and land use.

### Case 1: "Free" online services

Context: the participants are provider (P), user (U), and intermediary (I); I pays "rent" to P for information about U, which can produce revenue:

1. The flow of money is from I to P.
2. The flow of information is from U to I through P.
3. The price of information is negotiated between I and P.
4. The price/rent will necessarily decrease if more providers compete for I's business, so P favors monopoly.
5. Therefore, P can maximize the price by
   - increasing the amount of information sold (in conflict with expectations of privacy)
   - decreasing competition through monopoly (buying up competing search engine providers or driving them out of business).

### Case 2: Landowner/tenant

Context: the participants are landowner (L), tenant (T), and grocer (G); G pays "rent" directly to L for T's produce:

1. The flow of money is from G to L.
2. The flow of produce is from T to G through L.
3. The price of produce is negotiated between G and L.
4. The price of produce will necessarily decrease in the presence of other landowners, so L favors monopoly.
5. Therefore, L can maximize the price by
   - increasing the volume of produce (in conflict with environmental considerations)
   - decreasing competition through monopoly (buying up competing farms or driving them out of business).

Now, compare this discussion with the litigation cases discussed earlier for goodness of fit.

## RENT SEEKING BY ANY OTHER NAME

In modern political economics, the term "rent seeking" is distinguished from "profit seeking," and our definition of rent seeking is admittedly not the received view. We ask the question of whether our explanation clarifies the motivations behind the class of business models adopted by nontransparent pricing (aka "free") online service providers.

Typically, political economists reserve "rent seeking" for contrived rents that carry with them social costs. Profit seeking, it is argued, even if unrestricted

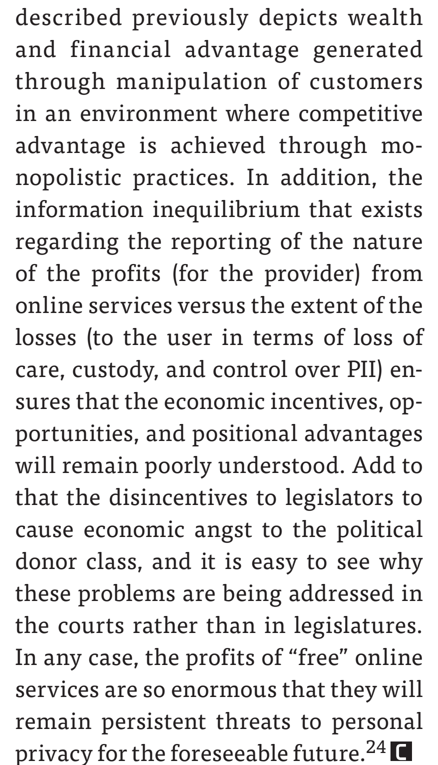
and a product of monopolies (as in escalating prices of pharmaceuticals), are just waste-free wealth transfers. Rent seeking, as in bribing public officials to get contracts, are examples of artificially contrived wealth transfers that carry with them a social cost in the form of waste (for example, the value of the bribe and cost of lobbying). In economics, such costs, deadweight losses, are measures of economic inefficiency. The received view seems to be that such losses from monopolies have a negligible effect on the economy. For a general survey of these issues, see Tollison[21] and Krueger.[22]

We're suggesting that there is a postmodern view of rents that accords with the business practices of online service providers. Of course, this is a stretch, which I can make without discomfort, having avoided the heavy yoke of the serious study of political economics. I can challenge the thesis that monopolistic rights must be understood in the context of perfect markets and are themselves subject to competition with relative impunity. I prefer to look at monopolistic practices in terms of value raiding. I am free to view economic waste as created by both wealth transfers through bribes as well as unnecessary wealth transfers resulting from anticompetitive and monopolistic pricing.

What does the class of nontransparent fee online services share with traditional rent seeking in my sense of the term?

1. They maximize revenue by hampering competition, which is to say that revenue gains are achieved to the exclusion of efficiency gains that would result from a competitive environment.
2. They derive revenue from wealth transfer rather than producing new goods and services in the following sense: online services, such as search engines, do not provide new content; they provide access to content that already exists. It may certainly be said that they add value to the search experience, but it cannot be said that they add value to the content (including AI Chat).
3. The business model appears to be zero sum. Revenue extracted from the service provider is exactly offset by value extracted from the user/product. There is no additional value added; that is, the economic pie remains the same after the users' PII is monetized and sold. It seems reasonable to assume that the value of the information about the online consumer is the same regardless of who sells it to the advertiser/marketer, so the wealth transfer is zero sum.
4. The litigation costs to the online providers are so low compared to revenue gains that it creates a moral hazard. In political economics, this is called the "Tullock paradox,"[23] although it arises in a different context, where bribes would take the place of litigation expense. In both cases, the expense is a capital outlay to achieve the desired effect—the cost of doing business, if you will.
5. The business model emphasizes the transfer of wealth rather than the creation of new wealth, in the sense that no new content is created. It's not too much of stretch to draw a comparison to financial derivatives, where, in this case, the commodity, or underlying asset, is the user's information, on top of which a variety of third-party contracts are negotiated.

Whether or not one accepts this somewhat tongue-in-cheek depiction of online business models as rent seeking, the fact remains that the litigation



described previously depicts wealth and financial advantage generated through manipulation of customers in an environment where competitive advantage is achieved through monopolistic practices. In addition, the information inequilibrium that exists regarding the reporting of the nature of the profits (for the provider) from online services versus the extent of the losses (to the user in terms of loss of care, custody, and control over PII) ensures that the economic incentives, opportunities, and positional advantages will remain poorly understood. Add to that the disincentives to legislators to cause economic angst to the political donor class, and it is easy to see why these problems are being addressed in the courts rather than in legislatures. In any case, the profits of "free" online services are so enormous that they will remain persistent threats to personal privacy for the foreseeable future.[24] ■

## REFERENCES


1. Consumer Protection, "Google: AG Rosenblum announces largest AG consumer privacy settlement in U.S. history," Oregon Department of Justice, Oregon, USA, Nov. 14, 2022. Accessed: Apr. 20, 2023. [Online]. Available: https://www.doj.state.or.us/media-home/news-media-releases/largest-ag-consumer-privacy-settlement-in-u-s-history/
2. R. Nakashima, "AP exclusive: Google tracks your movements, like it or not," *AP News*, Aug. 13, 2018. Accessed: Apr. 20, 2023. [Online]. Available: https://apnews.com/article/north-america-science-technology-business-ap-top-news-828aefab64d4411bac257a07c1af0ecb
3. Griswold v. Connecticut, 381 U.S. 479, 1965. Accessed: Apr. 20, 2023. [Online]. Available: https://supreme.justia.com/cases/federal/us/381/479/
4. Dobbs v. Jackson Women's Health Organization, No. 19-1392, 2022. Accessed: Apr. 20, 2023. [Online]. Available: https://www.law.cornell.edu/supremecourt/text/19-1392

5. C. Hamilton, "Why did Jefferson change 'Property' to the 'Pursuit of Happiness'?" *Hist. News Netw.*, Jan. 27, 2008. [Online]. Available: https://historynewsnetwork.org/article/46460
6. Complaint: United States et al., v. Google, *Case 1:20-cv-03010, District Court for the District of Columbia*, Oct. 20, 2020. Accessed: Apr. 20, 2023. [Online]. Available: https://www.pacermonitor.com/view/IAZ2QBY/UNITED_STATES_et_al_v_Google_LLC__vaedce-23-00108__0001.0.pdf?mcid=tGE3TEOA
7. Complaint: United States et al., v. Google, *Case 1:23-cv-00108, District Court for the Eastern District of Virginia*, Jan. 24, 2023. Accessed: Apr. 20, 2023. [Online]. Available: https://www.justice.gov/opa/press-release/file/1328941/download
8. L. Feiner, "DOJ files second antitrust suit against Google, seeks to break up its ad business," *CNBC*, Jan. 25, 2023. Accessed: Apr. 20, 2023. [Online]. Available: https://www.cnbc.com/2023/01/24/doj-files-second-antitrust-lawsuit-against-google.html
9. B. Fung, "The US government sues Google for alleged anticompetitive abuses in search," *CNN Bus.*, Oct. 21, 2020. Accessed: Apr. 20, 2023. [Online]. Available: https://edition.cnn.com/2020/10/20/tech/doj-google-antitrust-case/index.html
10. Investigation of Competition in Digital Markets. 117 Congress, 2d Session. (Jul. 2022). *Majority Staff Report and Recommendations, Subcommittee on Antitrust, Commercial, and Administrative Law of the Committee on the Judiciary of the House of Representatives*, *CP 117-8*. Accessed: Apr. 20, 2023. [Online]. Available: https://www.govinfo.gov/content/pkg/CPRT-117HPRT47832/pdf/CPRT-117HPRT47832.pdf
11. "General Court of the European Union," Curia, Luxembourg City, Luxembourg, Press Release No 197/21, Case T-612/17, Nov. 10, 2021. Accessed: Apr. 20, 2023. [Online]. Available: https://curia.europa.eu/jcms/upload/docs/application/pdf/2021-11/cp210197en.pdf
12. Settlement Agreement, United States v. Meta Platforms. (Jun. 26, 2022). *US District Court for the Southern District of New York, Case 1:22-cv-05187-JGK*. Accessed: Apr. 20, 2023. [Online]. Available: https://www.justice.gov/crt/case-document/settlement-agreement-final-judgment-united-states-v-meta-platforms-fka-facebook
13. Complaint, FTC v. Facebook. (Nov. 17, 2021). *US District Court for the District of Columbia, Case 1:20-cv-03590-JEB*. Accessed: Apr. 20, 2023. [Online]. Available: https://www.ftc.gov/system/files/documents/cases/085_2021.11.17_ps_memo_in_opp_to_mtd.pdf
14. Rivera v. Google Inc., *No. 1:16-cv-02714 Settlement Agreement*, Sep. 28, 2022. Accessed: Apr. 20, 2023. [Online]. Available: https://www.googlebipasettlement.com/wp-content/uploads/2022/05/Rivera-v.-Google-Settlement-Agreement.pdf
15. *2013 Illinois Compiled Statutes Chapter 740 - CIVIL LIABILITIES 740 ILCS 14/ - Biometric Information Privacy Act, Eff.*, Mar. 10, 2008. Accessed: Apr. 20, 2023. [Online]. Available: https://law.justia.com/codes/illinois/2013/chapter-740/act-740-ilcs-14/
16. K. Fath, K. Bryan, and D. Oberly, "New 2023 legislative proposals could reshape the biometric privacy landscape," *Nat. Law Rev.*, vol. XIII, p. 96, Apr. 6, 2023. Accessed: Apr. 20, 2023. [Online]. Available: https://www.natlawreview.com/article/new-2023-legislative-proposals-could-reshape-biometric-privacy-landscape
17. J. Vincent, "Google fined a record €2.4 billion by the EU for manipulating search results," *Verge*, Jun. 27, 2017. Accessed: Apr. 20, 2023. [Online]. Available: https://www.theverge.com/2017/6/27/15872354/google-eu-fine-antitrust-shopping
18. "Antitrust: Commission fines Google €1.49 billion for abusive practices in online advertising," European Commission, Brussels, Belgium, Press Release, Mar. 20, 2019. [Online]. Available: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_1770
19. A. Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations*. Edinburgh, U.K.: MDCCCLI, 1851, ch. 2, p. 54. Accessed: Apr. 20, 2023. [Online]. Available: http://www.bibliomania.com/2/1/65/112/frameset.html
20. D. Ricardo, *On the Principles of Political Economy and Taxation*, 3rd ed. London, U.K.: John Murray, 1821. [Online]. Available: https://www.econlib.org/library/Ricardo/ricP.html?chapter_num=3#book-reader
21. R. D. Tollison, "Rent seeking: A survey," *Kyklos*, vol. 35, no. 4, pp. 575–602, Nov. 1982. Accessed: Apr. 20, 2023. doi: 10.1111/j.1467-6435.1982.tb00174.x.
22. A. Krueger, "The political economy of the rent-seeking society," *Amer. Econ. Rev.*, vol. 64, no. 3, pp. 291–303, Jun. 1974. Accessed: Apr. 20, 2023. [Online]. Available: http://www.jstor.org/stable/1808883
23. G. Tullock, "Efficient rent-seeking," in *Toward a Theory of the Rent-Seeking Society*, J. Buchanan, R. Tollison, and G. Tullock, Eds. College Station, TX, USA: Texas A&M Univ. Press, 1980, pp. 97–112.
24. B. Cyphers, "Google says it doesn't 'sell' your data. Here's how the company shares, monetizes, and exploits it," *Eff*, Mar. 19, 2020. Accessed: Apr. 20, 2023. [Online]. Available: https://www.eff.org/deeplinks/2020/03/google-says-it-doesnt-sell-your-data-heres-how-company-shares-monetizes-and
25. C. Majaski. "What is rent seeking in economics, and what are some examples?" Investopedia. Accessed: May 1, 2023. [Online.] Available: https://www.investopedia.com/terms/r/rentseeking.asp#citation-1


**HAL BERGHEL** is a professor of computer science at the University of Nevada, Las Vegas, Las Vegas, NV 89154 USA. Contact him at hlb@computer.org.