

**Written Submission to the House Subcommittee on
Antitrust, Commercial and Administrative Law Regarding
Anti-Competitive and Discriminatory Behavior by Apple Inc. and Alphabet Inc. towards
Independent Software Application Developers by
Dr. Ajintha Pathmanathan**

The Honorable Jerrold Nadler, Chairman
The Honorable Jim Jordan, Ranking Member
House Committee on the Judiciary
United States House of Representatives

The Honorable David N. Cicilline, Chairman
The Honorable F. James Sensenbrenner, Jr., Ranking Member
Subcommittee on Antitrust, Commercial and Administrative Law

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Attachments:

- Exhibit I: Key ClinIQ Capabilities in Information and Cyber Security
- Exhibit II: Chronology of Communication with Apple and Google
- Exhibit III: Details on Google's Requests Related to their "Sensitive Events" Policy
- Exhibit IV: Select Apple and Google Questions that Encroach on FDA and MHRA Authorities

Introduction

I would like to begin by thanking Chairman Cicilline, Ranking Member Sensenbrenner, and the members of the Subcommittee on Antitrust, Commercial and Administrative Law for your attention to this matter and continued commitment to promoting competition in software application (“app”) marketplaces.

My name is Dr. Ajintha Pathmanathan, MD, MPH, MBA, LL.M. I am the Founder and CEO of ClinIQ Inc., a medical technology company, which leads the VirusIQ public health project. As a doctor and small business owner, I am very concerned by Apple and Google’s arbitrary, cumbersome and invasive app review processes that discourage or prevent small businesses from making their apps and services available to mobile phone users—especially when Apple and Google decide to develop and publish their own competitor apps.

While we know many other businesses have faced similar discriminatory practices, they depend too much on Apple and Google’s continued approval and fear retaliation in the form of blacklisting from their App Stores.

This discriminatory behavior calls to mind Shakespeare’s line from *Measure for Measure*, “it is excellent to have a giant’s strength, but it is tyrannous to use it like a giant”. I ask the Subcommittee for your assistance in stopping tech giants from using their power to discriminate against and potentially copy smaller, innovative competitors like ClinIQ that seek to provide affordable, timely, and life-saving products to the public.

ClinIQ Inc., Background

ClinIQ launched the VirusIQ public health project in January 2020, before the pandemic hit in full force. Our digital health screening app provides a first line of defense against any viral outbreak—not just COVID-19. Our screening service combines a user’s self-reported symptoms with wearable or mobile technology data to assess a user’s risk level for a contagious viral disease. Those at risk of testing positive for COVID-19 are directed to a more detailed screening and/or a physician. **Our app is powered by a clinical algorithm that has been reviewed and cleared by the U.S. Food and Drug Administration (FDA).** We prioritized privacy and security from day one and have taken a more rigorous approach to information and cyber security than larger competitors and currently deployed healthcare technologies (see Exhibit I).

Our screening service helps people understand how likely it is that they have contracted a virus such as COVID-19. For companies, ClinIQ assesses viral risk across their employee and/or customer base as they open up. At a macro level, ClinIQ helps governments shape infectious disease, such as COVID-19 response plans and protect people. The platform enables businesses and governments to implement the Centers for Disease Control (CDC) guidelines to ensure safer venues, and in so doing, to save lives and the economy. ClinIQ is vital in our collective effort to detect, prevent, and contain the virus.

ClinIQ has the potential to help millions stay safe and healthy and enable economies to return to stable and sustainable growth. In our efforts to develop a global public health solution, we are committed to partnering with like-minded organizations to provide as comprehensive a solution as possible. We want to make our inexpensive, simple, mobile app available to the widest possible audience, but our issues with the Apple and Google app stores have prevented those who need it most from accessing ClinIQ.

Vertical Integration of the Mobile Application Market

The duopoly of Apple and Google dominates the mobile app store market, which has spurred recent Congressional and Department of Justice investigations.¹ This is even more troubling given that these tech giants have integrated across the entire mobile app vertical. They create apps, manage the marketplaces for downloading apps, control the operating systems that run apps, and manufacture and sell the essential hardware devices that customers need to use these apps. This provides Apple and Google with an augmented ability to engage in anticompetitive behavior because they can create choke points at multiple stages along the mobile app value chain to block any app they deem a threat to success.

The dominance of Apple and Google in the mobile app market harkens back to Standard Oil's vertical integration of the oil industry.^{2,3,4} Just as Standard Oil dominated the production of oil, controlled the process for delivering oil to the customer, and built the equipment/facilities to store and transport oil, Apple and Google now dominate in the production of apps, control the process of "delivering" apps to customers (marketplaces and operating systems), and build the equipment (devices) to store and use apps.

Apple and Google's Pattern of Anti-Competitive and Discriminatory Behavior Towards ClinIQ

We listed the ClinIQ app on the Apple App Store and Google Play Store in March/April 2020. Shortly afterwards, Apple and Google put the ClinIQ app "up for review." Over the past several months, we have responded promptly to their requests, but they have used their review processes to systematically exclude our app from their App Stores. Google has gone so far as to entirely exclude us from their PlayStore. Apple has refused to even allow us to test our app via TestFlight, their platform usually available to app developers to help with beta testing. With Apple, we cannot update our app from the first version, which remains on their App Stores, to the latest version that has critical security fixes.

Apple and Google's anti-competitive actions have included:

1. Subjecting our app to a continuous and invasive review process despite documented support from the FDA before eventually rejecting it because of their "sensitive events" policy (Google);
2. Preventing us from listing the latest version of our app with vague claims of violation of non-applicable or irrelevant "policies" (Apple);
3. Overloading our team with unduly burdensome questions as part of an ever-demanding and protracted "review" process;
4. Pressuring our team to divulge proprietary and confidential trade secrets;
5. Demanding our offering integrate with their proprietary systems beyond levels necessary for our app/system/solution to function (Apple);

¹ Eadicicco, Lisa. "The Department of Justice Is Reportedly Gearing up for a Battle with Apple over Its Controversial App Store Policies, Which Have Sparked Backlash and Criticism from Developers." *Business Insider*, Business Insider, 24 June 2020, www.businessinsider.com/apple-antitrust-probe-over-app-store-from-doj-2020-6.

² In the late 19th century, Standard Oil expanded beyond its traditional refinery business into all stages of oil and gas production. It acquired pipelines, railroad cars, terminal facilities, and barrel manufacturing factories, gaining a monopoly in oil. A U.S. Supreme Court antitrust ruling broke up the oil giant in 1911, at which point Standard Oil owned 85 percent of the oil market.

³ History.com Editors. "John D. Rockefeller: Oil, Money and Power." *History.com*, A&E Television Networks, 30 May 2012, www.history.com/topics/early-20th-century-us/john-d-rockefeller-oil-money-and-power-video.

⁴ Kielmas, Maria. "Stages of Vertical Integration in the US Oil Industry." *Small Business - Chron.com*, Chron.com, 21 Nov. 2017, smallbusiness.chron.com/stages-vertical-integration-oil-industry-58830.html.

6. Supplanting the role of government to operate as *de facto* regulators of digital health apps; and,
7. Abusing the public trust by rejecting submissions without due process in a manner that is arbitrary and capricious.

1. Subjecting our app to a continuous and invasive review process despite documented support from the FDA before eventually rejecting it because of their "Sensitive Events" policy (Google)

On March 27, Google flagged our app on the pretext of violating their Sensitive Events policy (Exhibit III), which prevents apps that serve during natural disasters, conflicts, or tragedies (i.e. the COVID-19 pandemic). ClinIQ should never have been subject to this policy in the first place, as our app is not specific to COVID-19, and as a physician, I have spent my entire career serving during a “Sensitive Event” in people's lives. Still, we provided documentation verifying that we met the requirements, including correspondence confirming that the FDA had reviewed and cleared our app and that it was not subject to regulatory approval as a medical device. Google rejected the many different types of verification we provided and continuously shifted requirements, suggesting they are hiding behind an arbitrary and invasive review process to block us from listing our app.

2. Preventing us from listing the latest version of our app with vague claims of violation of non-applicable or irrelevant "policies" (Apple)

Apple made baseless assertions about the risks of our application and neglected to clarify when we — in the spirit of cooperation — sought additional information. For instance, without pointing to any evidence or conclusion drawn from reasonable belief, Apple claimed that our app *would* cause physical harm. Obviously, this concerned us, and when we asked Apple to explain the deficiency they had detected, they were conspicuously silent.

Despite these accusations, Apple has not removed the first version of our application, a version that contains the same functionality and design they have deemed unsuitable, from their App Store. This inaction demonstrates the arbitrary, capricious, and inconsistent nature of their review processes. If Apple truly has determined that our app will cause physical harm due to the sensors, then the sensors should not be part of the phone, and they would have removed the App from their App Store, or otherwise assume liability for the sensors and their use. Our app’s sustained presence on the App Store affirms that Apple’s questions sought to discriminate against our product, not due to any genuine safety risk or intention to resolve any safety risk that they had detected, and points to Apple’s desire to wield tyrannous power.

3. Overloading our team with unduly burdensome questions as part of an ever-demanding and protracted "review" process

Beginning in March 2020, Apple inundated ClinIQ with an inordinate amount of questions as part of the review process for our app in an attempt to overwhelm and discourage our small team which, as a start-up, is limited in its resources (see Exhibit II). A pattern quickly emerged over several weeks, where every time we responded to a series of onerous questions, Apple would return with more questions that increased in complexity, invasiveness, and/or scale.⁵ Apple made additional requests over telephone calls that seemed to have no legal or medical basis—they were simply throwing up hurdles at every juncture.

⁵ This culminated in a list of 17 burdensome demands on June 10, 2020. While 17 questions may not seem onerous, some questions were of an incredibly technical, legal, or vague nature and required a tremendous amount of extra resources.

We addressed their questions, which we believed were necessary to move forward, in good faith. However, as the questions increased in volume and complexity from both Apple and Google, we had reason to believe that Apple acted in bad faith. Like the Hydra in Greek mythology, every time we chopped off one head, another two would appear. We have tried to cooperate with Apple and Google despite their arbitrary, capricious, demanding, and endless review processes, but the unpredictability and growing scope of questions has denied us access to the AppStores and forced us to appeal to the committee as a last resort.

4. Pressuring our team to divulge proprietary and confidential trade secrets

Apple and Google attempted to coerce us to divulge proprietary information and trade secrets, effectively in exchange for listing our app. For instance, Apple asked us for specific information on how ClinIQ performs screening, for us to list every bit of evidence, disclose our algorithm and how we have digitised the contact tracing process—two features crucial to a competitor service provided by Apple.⁶

5. Demanding our offering integrate with their proprietary systems beyond levels necessary for our app/system/solution to function (Apple)

Certain questions appeared designed to compel ClinIQ to use Apple and Google systems, including requests from Apple that we transition to using the joint Apple-Google contact tracing framework. Our integration with Apple's competing system should have no bearing on whether ClinIQ can be listed on the App Store, and yet Apple's question suggested that ClinIQ's approval could be conditional on it.

6. Supplanting the role of government to operate as *de facto* regulators of digital health applications

Apple and Google's questions often encroached on the authority of healthcare regulators, including the U.S. FDA and UK Medicines and Healthcare products Regulatory Agency (MHRA) (Exhibit IV). Apple and Google arbitrarily applied an even higher level of scrutiny to our app beyond what was required for FDA clearance, including demands for information to evaluate the safety, efficacy, and methodology of our services. Both companies compete in the virus screening market and combined hold over 99 percent market share for smartphone operating systems, presenting a clear conflict of interest.⁷ Apple and Google have dangerously positioned themselves as *de facto* regulators and gatekeepers of digital health products, amid an unprecedented public health crisis.

7. Abusing the public trust by rejecting submissions without due process in a manner that is arbitrary and capricious

⁶ Their tactics resemble those used in strategic lawsuits against public participation (SLAPP suits), which intend to silence or intimidate critics by overburdening them and straining their resources with costly legal defense fees until they abandon their position. Over 30 states have enacted anti-SLAPP laws to prevent people from using the courts or threat of a lawsuit to intimidate people who are exercising their First Amendment rights. We ask that the Subcommittee take steps to address these same tactics used to intimidate small businesses from competing in the mobile app market.

⁷ "Subscriber share held by smartphone operating systems in the United States from 2012 to 2019." *Statista*, November 2019, <https://www-statista-com.stanford.idm.oclc.org/statistics/266572/market-share-held-by-smartphone-platforms-in-the-united-states/>.

Apple and Google’s review processes are representative of bad faith practice, process and procedure that does not genuinely clarify and improve apps to meet a predetermined and transparently presented set of relevant criteria—they are merely arbitrary barriers to entry for smaller competitors like ClinIQ. While we sought to address the Apple and Google queries initially in the spirit of collaboration, we quickly realized they would evolve and twist their review process to increase our developer and legal costs and dissuade us from listing our app on their App Stores.

Apple and Google Launch Competitor Apps

In the midst of the review process, Apple and Google both launched competitor products to ClinIQ, including Project Baseline,⁸ the Apple COVID screening app and the Apple and Google Exposure Notification System.⁹ Now that Apple and Google are working together, they wield even more power and have a stronger incentive— together or independently — to exclude us from their app stores. These tech giants do not just control the marketplaces, operating systems, and hardware necessary for the ClinIQ app, they also now directly compete with us in the digital virus screening and detection market.

Consequences of Apple and Google’s Anti-Competitive Behavior

ClinIQ’s mission is to provide an affordable, simple, and scalable public health solution for early detection, prevention, and containment of viruses. Apple and Google’s onerous, arbitrary, capricious, and discriminatory review processes have caused significant damages to ClinIQ, draining our resources and obstructing our access to consumers. Apple and Google’s scrutiny appears to be targeted specifically at ClinIQ and the VirusIQ public health project,¹⁰ suggesting they pick apps at their own discretion for a higher degree and misapplication of scrutiny. As discussed with various independent bodies, we believe Apple and Google view us as a legitimate threat — given our early success and FDA clearance — to their market dominance. As such, they have taken steps to systematically exclude our app from their marketplaces. This has dissuaded us from pursuing a direct-to-consumer business model, potentially causing hundreds of thousands of dollars in lost potential revenue, loss of opportunity to further our development and to save lives.

Restricting access to our app not only damages us and helps Apple and Google consolidate power and eliminate their competition in the digital health space, but it also harms the American public in two key ways: 1) it prevents the public from accessing a digital health tool providing timely and critical personal health risk assessments, and 2) it favors access to inferior, competitor products developed by Apple and Google, which have minimal experience in healthcare. Apple and Google’s anti-competitive behaviors do a tremendous disservice to citizens, small businesses, and governments.

⁸ “Project Baseline - Apps on Google Play.” *Google*, Google, play.google.com/store/apps/details?id=com.google.android.apps.baselinestudy&hl=en_US.

⁹ “Exposure Notifications: Helping Fight COVID-19.” *Google*, Google, www.google.com/covid19/exposurenotifications/.

¹⁰ It is worth noting that there are several other COVID-19 apps on their marketplaces, many developed by companies without healthcare expertise. This raises the question of whether we would have even faced such scrutiny had we described ourselves as a social network or lifestyle app.

An Emory University study found that daily screening can reduce cumulative cases of COVID-19 by greater than 90%.¹¹ The people need medically-informed daily screening, developed by physicians, not repurposed and repackaged advertising algorithms. We're not asking for Google and Apple to stand down, but merely to not interfere or replace the FDA in determining which apps are safe for the public.

Conclusion

Amid these uncertain and trying times, consumers need access to critical, affordable and life-saving public health products. In order to access these products, consumers need marketplaces to be fair and open, foster innovation, promote healthy technological partnerships, and enable timely access to these affordable and life-saving public health products. Put simply, a marketplace cannot favor the owner of that marketplace for it to be considered competitive. We have endeavored to resolve these concerns collaboratively, but to date Apple and Google's approach to communication has proved intractable. We hope these marketplaces can one day be fair and open, and support the efforts of Congress to explore how Apple and Google's dominance in the mobile app vertical and discriminatory treatment of competitive software apps could limit competition, hinder consumer choice, and harm public health.

Thank you again, Chairman Cicilline, Ranking Member Sensenbrenner, and members of the Subcommittee on Antitrust, Commercial and Administrative Law for your attention to this critical matter to the economy and our democracy.

¹¹ Lopman, B et al, 2020. "A model of COVID-19 transmission and control on university campuses." *Emory University*.

Exhibit I: Key ClinIQ Capabilities in Information and Cyber Security

- An evidence-based, dynamic informed consent module to protect data privacy rights and the personal information of users. Users are the ultimate owners of their data;
- Privacy and security compliance certifications, which we aim to undergo auditing for, including ISO 27001¹² and HITRUST¹³. We are General Data Protection Regulation (GDPR)¹⁴ and Health Insurance Portability and Accountability Act (HIPAA)¹⁵ compliant and will be compliant with the California Consumer Privacy Act (CCPA); and
- A 7-person team of cybersecurity policy and data protection experts, including U.S. Office National Coordinator for Health Information (ONC) blockchain in healthcare IT prize winner.

¹² “ISO/IEC 27001 - Information Security Management.” *ISO*, 3 Apr. 2020, www.iso.org/isoiec-27001-information-security.html.

¹³ “HITRUST CSF.” *HITRUST*, hitrustalliance.net/hitrust-csf/.

¹⁴ “Data Protection.” *European Commission - European Commission*, 3 July 2020, ec.europa.eu/info/law/law-topic/data-protection_en.

¹⁵ “Health Information Privacy.” *HHS.gov*, 4 Jan. 2019, www.hhs.gov/hipaa/index.html.

Exhibit II: Chronology of Communication with Apple and Google

Google Chronology

Date	Event
March 27, 2020	<ul style="list-style-type: none">● Google informs ClinIQ of suspension due to Sensitive Event policy violation for COVID-19 apps, asks that ClinIQ demonstrate that it is a government/healthcare organization, has been commissioned by government or official health organization, or has been supported/acknowledged by government or health agency
April 3, 2020	<ul style="list-style-type: none">● Acknowledgement of FDA clearance of ClinIQ app provided to Google● Google returns additional questions● ClinIQ clarifies that app is not a COVID-19 specific app, and therefore should not be subject to terms of Sensitive Event policy
April 10, 2020	<ul style="list-style-type: none">● Google rejects FDA documentation, adds new questions
April 14, 2020	<ul style="list-style-type: none">● ClinIQ replies asking for clarification, does not receive response
April 27, 2020	<ul style="list-style-type: none">● ClinIQ again replies to Google, providing additional information validating ClinIQ's status as healthcare organization, even though as stated earlier ClinIQ should not be subject to Sensitive Event policy● Google rejects ClinIQ as healthcare organization, requests "endorsement" from FDA or Oxford University

Apple Chronology

Date	Event
April 2020	<ul style="list-style-type: none">● ClinIQ listed on App Store
Late April, 2020	<ul style="list-style-type: none">● Apple starts review of VirusIQ app, raises six questions/issues● ClinIQ responds with answers
Early May, 2020	<ul style="list-style-type: none">● Apple raises five new questions/issues● ClinIQ responds
Early June, 2020	<ul style="list-style-type: none">● Apple raises 17 new questions, including questions that appear arbitrary to the review process, require disclosing sensitive information, and demonstrate overreach of Apple's authority● ClinIQ responds, raising concerns about the discriminatory nature of the review process● Apple replies with the same questions, does not address ClinIQ concerns● ClinIQ sends two follow-up emails

Mid June, 2020

- Apple replies with request for a phone call and four additional questions
- ClinIQ addresses questions and raises concerns via telephone

Exhibit III: Details on Google’s Requests Related to their “Sensitive Events” Policy

On March 27, Google flagged our app for violating their Sensitive Events policy, which prevents apps that capitalize on natural disasters, conflicts, or tragedies (i.e. the COVID-19 pandemic). In order to approve our app, Google asked that we provide verifiable documentation demonstrating that:

1. A government body/healthcare organization developed the app;
2. The developer was commissioned to build this app by a government or an official health organization entity (examples include WHO, Red Cross, Hospital, etc.); and/or
3. This app was supported/acknowledged by a government or official health entity for use.

ClinIQ should never have been subject to this policy in the first place, as our app is not specific to COVID-19. Still, we provided documentation verifying that we met these requirements, only for Google to reject our documentation and change its requirements:

- We provided documentation demonstrating that ClinIQ is a verified healthcare organization (point #1 above), supported by Oxford University and led by a physician. Upon reviewing this documentation, Google requested an official “endorsement” from Oxford University and refused to recognize us as a healthcare organization in our own right.
- We provided email correspondence confirming that the FDA reviewed and cleared our app and that the app would not require regulatory approval as a medical device (point #3 above). Google rejected this, so we asked the FDA for additional documentation. The FDA informed us that it has no legal authority or need to provide additional documentation as the app was cleared for use and not subject to regulatory approval. Google continued to push, even though the FDA has no obligation or ability to provide such documentation, and despite the fact that we should have already met the original requirements as a certified healthcare organization (not to mention that ClinIQ should not have even been subject to the policy).

Exhibit IV: Select Apple and Google Questions that Encroach on FDA and MHRA Authorities

Example 1: Apple asked whether we planned to “remove any app with quarantine management or contact tracing functionality from the App Store once the need for those apps has passed (i.e. once the COVID-19 pandemic is over).” This question would require us to disclose proprietary business strategy, and implied that our “virus screening” app would only prove useful during the pandemic.. In fact, our app is not specific to COVID-19, and will serve users, companies, and governments well beyond the pandemic. The FDA has even asked us to use the product to cater to Influenza epidemics. Most concerningly, this line of questioning demonstrates that Apple lacks the knowledge to determine which apps serve critical public health needs. Without proper authority or expertise, Apple is wielding its power to block apps from the store that will save lives and free up limited healthcare resources.