



ACT | The App Association

Testimony of

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“Innovation Nation: How Small Businesses in the Digital Technology Industry Use Intellectual Property”





I. Introduction

Small mobile software companies like App Association members use a variety of intellectual property (IP) protections to produce the innovations that keep us safe, make us more productive, and enhance our lives. Too often, we think of small software companies as victims of overly-aggressive IP enforcement, rather than as IP holders themselves. But IP ownership is essential to success and innovation in the digital economy. As our 2018 State of the App Economy report reveals, the app economy is a \$950 billion industry that employs more than 4.7 million Americans and reaches 3.4 billion people with connected devices across the world.¹ As mobile access shifts from a value-add to a business necessity, our member companies are leveraging their IP—their patents, copyrights, trademarks, and trade secrets—to introduce new efficiencies that connect inventory management to sales departments, cash registers to the cloud, and provide the analytics and artificial intelligence that make it all work better.

We are fortunate to have an active feedback loop with many of our member companies across the congressional districts you represent, and we recently conducted a survey of them to gain insight into the meaning of IP in the hypercompetitive app economy. This survey yielded some interesting results, including experiences and insights to which I will refer throughout this written testimony. We found that most of our members own IP, and the issues they encounter have more to do with infringement of that IP than with potential infringement of others' rights.

Simply put, IP is usually at the forefront of our members' minds. Whether they're deciding whether to file for a patent, addressing their work being copied in a foreign country, negotiating with a cybersquatter, or being hit with a patent infringement allegation, it is vitally important that the American IP system be accessible and useful to small, innovative, software-driven companies. We offer several observations about the state of IP protections and recommendations for how those protections could be strengthened.

II. Copyright

In general, federal law provides copyright protection to software as written works.² Because copyright need not be granted by a federal agency, copyright is the most common form of protection our member companies use. Even though copyright automatically protects their work, many of our members have opted to take the additional step to register it. The App Association continually reinforces to our members the importance of fully protecting IP rights through proactive registration of copyrights. App Association members have taken this to heart, registering various kinds of works. Of the member companies that say they registered at least one copyright, just under half of them registered their code, a little less than a quarter registered a graphic, and the rest registered other kinds of written work.

a. Copyright Enforcement

Skeptics of copyright infringement call into question whether copying a free app is really theft. Some of them have similarly argued that if a developer wants to avoid copyright infringement, the app should be provided for free in the app store. This way, they argue, nothing is lost if it's copied, and infringers have no incentive to copy it in the first place because it is free. Nothing could be further from the truth. Our members are no strangers to copyright infringement, even when they offer their content for free to legitimate consumers. The theft of free content happens so frequently that many are left to believe the phrase "free is not cheap enough." In a particularly egregious example, an Ohio-based member faced the challenges of having had a pirated copy of its free app downloaded thousands of times by foreign consumers. Many may believe an illegal download of a free app is harmless, but this is simply untrue. The revenue from this member's app—and that of other free apps—depended on an ad network. In this instance, the pirated app successfully posed as the legitimate app to the ad network, and all the ad revenue associated with the downloads of the pirated content was illegally routed to the infringing company. What's worse, our member's app included a video component, so each of the views—even those generated by the pirated app—added to our member's hosting service bill. In short, a foreign pirate stole our member's legitimate content, resulting in it losing a substantial portion of its ad revenue while forcing it to subsidize the pirate's business. Sadly, this scenario is all too common.



Fortunately, industry-led efforts to curb the practice of pirating apps and website content to steal ad revenue are producing results. The Trustworthy Accountability Group (TAG) has developed certification programs for companies throughout the digital advertising supply chain designed to help industry collectively fight ad-supported piracy, as well as to combat malware, stop ad fraud and increase transparency.³ The TAG Certified Against Piracy Program not only recognizes the IP theft problem, but effectively addresses the harms that come with such IP theft. Research conducted by Ernst & Young (E&Y) in 2017 found that anti-piracy steps taken by the digital advertising industry through the TAG certification have reduced ad revenue for pirate sites by between 48 and 61 percent, notable progress against E&Y's earlier finding of the \$2.4 billion problem of infringing content.

Websites and apps that host pirated content often do so to lure people with free content to infect their devices or computers with malware. The malware then enables the copyright pirate to hijack the user's device to make it click certain links or ads, send sensitive data, or perform other functions as part of a "botnet" network. The problems are so intrinsically linked that about one in three websites that host pirated content successfully infect the web visitor's computer with malware. Put another way, internet users are 28 times more likely to encounter malware from sites with pirated content.⁴

In other cases, bad actors use fraudulent ads posing as legitimate ads to implant malware directly onto a user's computer, a practice known as "malvertising." Although this so-called "invalid traffic" (IVT) has historically been more prevalent on desktop displays than mobile platforms, the migration of the threat as our interconnected world continues to move to mobile has substantially occurred. Research measuring the efficacy of TAG's Certified Against Fraud Program has shown that, among TAG-certified ad distribution channels, the IVT rate fell 83 percent, to just 1.48 percent for display ads, while the industry average outside of TAG-certified channels is about 8.83 percent.⁵

As part of TAG's continued fight against ad-supported piracy, it has compiled a continually updated list of pirated mobile apps that advertisers should avoid. TAG certification programs are important private sector initiatives that inspire confidence in the companies that depend on ad revenue to survive and grow. For consumers, successful industry-led efforts like this are vital to inspire trust in the mobile ecosystem.

b. The Role of Platforms

In yet another example, a European app developer copied one of our American member's educational apps almost exactly, but they made a few minor alterations to avoid an infringement claim. The App Association assisted with the company's initial outreach to the infringing company, but the infringer denied any liability and continued to sell its app. Ultimately, our member raised the matter with the Apple App Store platform. The platform helps companies resolve IP disputes under its terms of service which require an app publisher to attest to owning or licensing relevant IP to publish their app in the App Store.⁶ It was clear that the infringing company was in the wrong, and Apple barred its content from the platform. We were happy to help our member navigate the process and avoid costly litigation. And this conflict offered a learning experience for our other members, as we blogged about the process and shared tips and best practices for other software companies that encounter this kind of copyright infringement.⁷

The dispute resolution functions provided by platforms like Apple's are essential to help small business innovators reach a resolution without incurring devastating legal costs. Ensuring the infringer does not reappear with similar—but still infringing—content under a different name is often a difficult problem for platforms to solve, and thankfully there is robust competition between platforms on these kinds of services for app developers.



c. Small Claims for Small Businesses

Copyright infringement litigants would benefit from lower-cost options to ensure copyright enforcement. For example, Representatives Hakeem Jeffries and Tom Marino introduced the Copyright Alternative in Small Claims Enforcement Act of 2017 (CASE) Act this congress, which would establish a small claims court at the Copyright Office for copyright owners' infringement claims. For small businesses, the dollar amounts in copyright claims are often low. The CASE Act would offer a less resource intensive avenue for copyright enforcement than those available through the court system.

In general, the most difficult-to-reach infringers are overseas in jurisdictions that struggle with the rule of law, which enables pirates to hone their pirating skills through trial and error in app stores and websites without having to deal with law enforcement. A small claims option in the United States would help alleviate the cost burdens for infringement that occurs domestically, but it might not address the problem of reaching infringers overseas. The App Association actively supports the development of bilateral or multilateral agreements to incentivize foreign jurisdictions to develop and implement responsible IP enforcement mechanisms. We urge this committee to examine available resources for small businesses to enforce copyrights overseas and evaluate whether these resources could be enhanced or streamlined.

III. Patents

Roughly one in three App Association members have filed or been granted patents for software or hardware. Although copyrights are common and useful in the software context, they provide narrow coverage, protecting only the precise written software code. A patent, on the other hand, would cover the actual functions of a software program. For example, one of our members has a pending patent application for machine learning routing for web and mobile applications that relies heavily on JavaScript. Another member has patented an automated device registration system that has "laid important groundwork for the internet of things (IoT) industry," as highlighted in our recent blog commemorating the U.S. Patent and Trademark Office's (USPTO) 10 millionth patent.⁸ The CEO of another App Association member company owns a patent for technology that facilitates vehicle-to-vehicle communication. Our members rely on a wide variety of patents—and their utility beyond copyright protection—which speaks to the importance of patent protection for small, software-driven companies in the mobile economy.

a. Applying for Patents

Though patents have great importance to our members, many have encountered difficulty navigating the USPTO's patent application process. Delays in prior art reviews are frustrating, and our members often recount the difficult decision-making process when trying to determine whether to protect novel inventions by patenting them. The costs are great, particularly for software patents. According to IPWatchdog, attorney fees for filing a software patent can reach upwards of \$16,000, while a "relatively simple" invention like an umbrella or flashlight costs between \$7,000 to \$8,500.⁹

Notwithstanding the resource issues involved with applying for patents, we also believe that any effort to streamline application processes should avoid cutting corners. In other words, efforts to make reviews faster should not sacrifice the quality of the patents USPTO grants. Policymakers are now dealing with the fallout of improperly granted patents and the resources that need to be put toward improving the quality of patents. The USPTO must strike a difficult balance in improving patent quality while maintaining reasonably expeditious examinations.



b. Defending Against Patent Assertion

The existence of overly broad patents has been the most significant issue for small software-driven companies when defending against patent assertion. Therefore, we believe it is important to preserve the method to invalidate patents that should never have been granted. The American Invents Act of 2011 established post-grant review processes that are important to small mobile software companies' ability to challenge such patents.¹⁰ The Small Business Committee could weigh in—or ask the Small Business Administration (SBA) to weigh in—on behalf of small businesses in discussions to significantly change the inter partes review (IPR) process. The IPR process has been a useful and important means of reviewing the validity of patents that are overly broad and weaken the patent system for both IP holders and licensees.

c. Standards

Technical interoperability standards are extremely important to small software companies in the mobile economy. Standards like Wi-Fi, 5G, MPEG, and USB are necessary for the networks, programs, and devices App Association members use to reach their customers and clients. When members of standards-setting organizations (SSOs) work to have their patented technologies adopted as part of a standard, they must clearly state that they own patents on the technologies before a consensus technical standardization committee decides whether to incorporate it into the standard. Once accepted, the technology is potentially a standard-essential patent (SEP). In other words, any company that wants to make an innovative product or service using a standard must license those patents, or risk liability for infringement. SSOs also require SEP owners to license their SEPs on terms that are “fair, reasonable, and non-discriminatory (FRAND)” to any willing licensee. These crucial agreements offset the inherent anticompetitive issues associated with the ability to demand licensing royalties from those who implement widely-accepted standards like Wi-Fi. We believe SEP owners would otherwise be free to abuse their position by “holding up” standards implementers' ability to use the standard by leveraging the necessity of the standard to charge supra-competitive license fees, clearly raising antitrust concerns. Without transparency in standardization processes and without the FRAND commitment, such abusive licensing activity has and will continue to occur in the marketplace. The vigilance of U.S. antitrust authorities in this regard is essential to ensure unfair licensing practices by SEP owners do not harm consumers and the small businesses that create the mobile software products and services they want and need.

The App Association has long advocated for policymakers around the world to uphold the existing global consensus that antitrust authorities hold SEP owners to their voluntary FRAND promises, as a matter of competition policy. The App Association has even created a separate coalition called All Things FRAND (ATF), which has a steering committee of tech innovators directly impacted by FRAND abuse,¹¹ and ATF works closely with other affected industries.¹² The coalition reflects the sheer breadth of industries that care about the strength of standards, from software companies and tech manufacturers to tech-driven automotive companies and retailers. In fact, auto companies are some of the largest patent owners and standards implementers in the world. The United States and countries around the globe maintain robust competition oversight of SEP licensing practices. In recent months, there have been signals that a new approach could be forthcoming, in which SEP owners are no longer held to their FRAND promises. It is especially important for small businesses that U.S. competition authorities continue the global consensus approach, because small businesses are the least able to pay exorbitant licensing fees for their software or hardware to run on a standard. This committee could examine opportunities to ensure small business voices are heard in standards policy and ongoing SEP debates.



IV. Trademarks

Trademarks are important to our member companies' brands. Roughly half of our survey respondents say they've registered a trademark. Our members are cutting-edge creators who find new ways to turn mobile connectivity into entertainment and productivity, and they work hard to build their brands and protect the image they share with consumers. It is only natural that bad actors want to appropriate the success of our members' businesses through brand confusion. The App Association works with our members to advance their understanding of trademark rights and to encourage their trademark registration before a problem arises. We actively engage in key international policy fora like the Internet Corporation for Assigned Names and Numbers (ICANN) to ensure our members can protect themselves in the global digital economy.

a. Cybersquatting

Trademarks are uniquely important in the cybersquatting context. Cybersquatting refers to a situation where a company has trademarked the name of its brand, but an opportunistic actor—a "cybersquatter"—has purchased the domain name associated with the trademark. The cybersquatter then typically offers the domain name to the legitimate trademark owner at a grossly inflated price. More than 75 percent of our members who own a trademark have also experienced a domain name trademark issue like cybersquatting. In fact, many of our survey respondents said they have experienced multiple instances of cybersquatting. They sought resolutions in various ways, from hiring a lawyer and registering a costly complaint ICANN to simply paying the inflated price. But unfortunately, in some cases, the issue was not resolved.

Cybersquatting and other domain name system (DNS)-based trademark infringement continue to create serious problems for our member companies. We encourage this committee to examine the resources, outreach, and dispute resolution assistance available to small businesses in their efforts to protect their brands online. Our members remain a common target for cybersquatters, and there may be ways for this committee to level the playing field for small software companies.

V. IP Enforcement and Internet Governance.

The global nature of the internet has connected our members with consumers and markets they wouldn't have dreamed of reaching just a short time ago. However, this global reach has also enabled IP theft to occur anywhere in the world at any time. For this reason, one of the most important methods for IP owners to track and confront infringers is through the global databases of contact information, or the WHOIS database, which ICANN oversees. As a member of ICANN's Intellectual Property Constituency (IPC), we represent the views of App Association members as IP owners.

The WHOIS database is critical for enabling parties to contact the owners of website domains. The reasons for contacting domain registrants go beyond IP enforcement. For example, enforcement agencies use the database to confront companies suspected of violating antitrust, consumer protection, or drug interdiction laws. Other entities use WHOIS data to contact the legitimate owner of a domain if it has been hijacked or if there is a technical issue with the site. Unfortunately, with implementation of the European Union's General Data Protection Regulation (GDPR) this May, many groups have suggested the publication of WHOIS data violates GDPR's prohibition against processing personal information. Although ICANN is attempting to develop a GDPR-compliant means to ensure continued access to non-public WHOIS data, the European Data Protection Board responsible for enforcing GDPR has informed ICANN that its interim plan is not compliant with the law.¹³ Policymakers should know that ICANN is working toward a solution that is fully GDPR-compliant and should consider options to help ICANN meet its obligations while ensuring WHOIS remains useful for the enforcement of IP owners' rights.



VI. Conclusion

Our members rely on a diversity of IP protections, from trademark and copyright to patents and trade secrets. I commend the House Small Business Committee for holding this hearing to examine the ways in which small businesses in the digital technology field use IP to survive and grow. Smartphones have become the single most rapidly adopted technology in the history of the world, but the success, growth, and utility of this mobile-driven phenomenon depends on the ingenuity of the small businesses that create new frontiers of opportunity. We must utilize every means to protect this ingenuity and the ideas that will drive these innovations in the future.

End Notes

- ¹ http://actonline.org/wp-content/uploads/ACT_2018-State-of-the-App-Economy-Report_4.pdf.
- ² <https://www.copyright.gov/help/faq/faq-protect.html>.
- ³ www.tagtoday.net
- ⁴ <https://www.digitalcitizensalliance.org/clientuploads/directory/Reports/digitalbait.pdf>.
- ⁵ <https://docs.house.gov/meetings/IF/IF17/20180614/108413/HHRG-115-IF17-Wstate-ZaneisM-20180614.pdf>.
- ⁶ Apple's policy for developers: <https://developer.apple.com/app-store/review/guidelines/#intellectual-property>; Apple content review complaint portal: <https://www.apple.com/legal/internet-services/itunes/appstorenotices/#?lang=en>.
- ⁷ <http://actonline.org/2017/08/30/omg-someone-copied-my-app-what-do-i-do-now/>.
- ⁸ <http://actonline.org/2018/06/19/patent-million-celebrating-ten-million-ideas-and-the-importance-of-intellectual-property/>.
- ⁹ <http://www.ipwatchdog.com/2015/04/04/the-cost-of-obtaining-a-patent-in-the-us/id=56485/>.
- ¹⁰ Pub. L. No. 112-29.
- ¹¹ <https://allthingsfrand.com/>.
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- ¹³ <https://www.icann.org/en/system/files/correspondence/jelinek-to-marby-11apr18-en.pdf>.