Submitted by:

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Re: Patent Eligibility Jurisprudence Study, Docket No. PTO-P-2021-0032-0002

The Electronic Frontier Foundation is the leading nonprofit organization defending civil liberties in the digital world. Founded in 1990, EFF champions user privacy, free expression, and innovation through impact litigation, policy analysis, grassroots activism, and technology development. We work to ensure that rights and freedoms are enhanced and protected as our use of technology grows. EFF represents tens of thousands of dues-paying members, including consumers, hobbyists, artists, computer programmers, entrepreneurs, students, teachers, and researchers.

EFF endorses the comments filed by Engine Advocacy. In these comments, we emphasize some points that are unique to EFF's position as a non-profit that advocates on behalf of users and makers of new technology.

Section I—Observations and Experiences

1. **Please explain how the current state of patent eligibility jurisprudence affects the conduct of business in your technology area(s). Please identify the technology area(s) in your response.**

Invalid software patents, some of which claim to cover "business methods," continue to be used to threaten small businesses, software developers, and even hobbyists. At EFF, we hear from these affected parties who bear the brunt of illegitimate patent threats.

In the Supreme Court's 2014 *Alice* decision, it ruled that an abstract idea is not eligible for a patent simply because it is implemented on a generic computer. The results of Alice are now clear: fewer bad patents were granted and litigated, while software innovation has proceeded in leaps and bounds.

As a result, patent litigation overall, and its attendant costs, have decreased since 2014.[1] As the data gathered by Engine shows, the decrease in the tech sector has been even more striking.[2]

That has occurred because courts have applied the *Alice* precedent to throw out a stunning array of abstract software patents, including patents on playing bingo on a computer, computerized meal plans, updating games, and others.[3] Some of these patents were asserted dozens or, in a few cases, hundreds of times.

Since the *Alice* decision in 2014, the software industry has experienced extraordinary growth and greatly expanded employment. The dire predictions of those who advocated for patentability of the claims in Alice have not come to pass; in fact, history has proven that they had the issue completely backwards, and that honoring limits on patentability has helped the industry thrive.

The pre-*Alice* system of analyzing software patents served patent prosecutors, litigators, and examiners. But it did not serve the creators and users of software technology, who have been burdened by added software litigation since the Federal Circuit opened the floodgates to software patents in 1999. Litigation over software patents more than tripled between 1999 and 2011.[4]

Since courts have begun applying the Alice-Mayo framework, they no longer accept the validity of patents that claim abstract ideas, but simply add computer terminology.

When patent assertion entities are prevented from using bad patents, small businesses benefit. We have summed up a number of these cases in our "Saved by Alice" project. This project documents the stories of very small businesses, some with just a sole proprietor or a handful of employees, that were faced with extortionate demands from patent assertion entities that claimed to have patented basic aspects of doing business. The "Saved by Alice" defendants were accosted by (often anonymous) patent owners who claimed wide-ranging rights to online

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[1] https://www.patentprogress.org/2018/10/18/ipr-and-alice-appear-responsible-for-reduced-patent-litigation-costs/

[2] Response of Engine Advocacy Regarding *Patent Eligibility Jurisprudence Study*, Docket No. PTO-P-2021-0032. Using data from Docket Navigator, Engine reported that: "Patent cases have dropped from a high of 3,634 in 2013 to 1,380 in 2018, and patent accusations have dropped from the 2011 high of 22,056 to 6,019 in 2018. By contrast, the number of patent cases filed involving life sciences or other types of patents has remained mostly consistent over the same time period."

[3] These examples are referenced in EFF's post "Happy Birthday Alice: Four Years Busting Software Patents." Available at: https://www.eff.org/deeplinks/2018/06/happy-birthday-alice-four-years-busting-software-patents

[4] James Bessen, *A Generation of Software Patents*, 18 B.U.J. Sci. & Tech. L. 241 (2011). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1868979

voting[5], package tracking[6], picture menus[7], and crowdfunding[8], and more business practices that rely on computers.

The Alice-Mayo legal framework allowed the small businesses we profiled in "Saved by Alice" to continue operating and avoid devastating litigation costs. That's because current patent jurisprudence correctly identifies basic concepts of business and culture as abstract ideas that are not eligible for U.S. patents. By preventing patent holders from acquiring monopoly rights to basic concepts, the law on patent eligibility since 2014 has allowed for a more level playing field for businesses to operate and innovate.

Section II—Impact of Subject Matter Eligibility on the General Marketplace

13. Please identify how the current state of patent eligibility jurisprudence in the United States affects the public. For example, does the jurisprudence affect, either positively or negatively, the availability, effectiveness, or cost of personalized medicine, diagnostics, pharmaceutical treatments, software, or computer-implemented inventions?

In the area of software inventions, there is no evidence that patents provide a net benefit for the public at all. In fact, there is a considerable body of evidence that software patents produce a significant net loss to the public good.[9]

As EFF said in 2019[10], Congress should study the impact that patents have on software innovation, development, and industry growth. Software is a uniquely bad fit for patent protection. The cost of development can be relatively low, the cycle of technology iteration is rapid, independent invention is ubiquitous, and the incentives to innovate are stronger in the absence of a lengthy patent monopoly.

Software-related patent applications also contribute little knowledge to the public, as they tend to enable very little in practice. They typically leave the hard work and challenge of creating

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[5] https://www.eff.org/alice/photographer-attacked-ludicrous-online-voting-patent

[6] https://www.eff.org/alice/bike-gear-company-nearly-run-over-patent-troll

[7] https://www.eff.org/alice/startup-runs-patent-picture-menus

[8] https://www.eff.org/alice/alice-decision-saves-crowdfunding-patent-troll

[9] James Bessen, *A Generation of Software Patents*, 18 B.U.J. Sci. & Tech. L. 241 (2011) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1868979

[10] Testimony of EFF Staff Attorney Alex H. Moss before the U.S. Senate Subcommittee on Intellectual Property, June 4, 2019. https://www.eff.org/files/2019/06/03/eff_testimony_for_the_state_of_patent_eligibility_in_america_part_i_hearing.pdf

code to others. Therefore, the owner of a software patent receives a monopoly that exceeds her contribution to an invention, while enabling her to stifle follow-on development.

Patents deter more innovation than they promote in the software industry. Congress should not undermine American software innovation by upsetting the longstanding limits on patentability that allow it to thrive.