Comments on USPTO Patent Eligibility Study Reveal Stark Contrast in Viewpoints of Some U.S. Patent Stakeholders

By **Steve Brachmann**
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"IBM notes that it has had what it called 'a high percentage' of U.S. patent applications abandoned for patent eligibility issues with counterpart applications in other countries that reached patent status, [whereas Google] could not identify a single instance where it was denied patent protection in the U.S. for Section 101 subject matter eligibility issues that was granted in the EU or China."

Friday, October 15, marked the final day of the public comment period for the U.S. Patent and Trademark Office's patent eligibility jurisprudence study. By the close of the comment period, 43 public comments were submitted from entities with very different viewpoints on the U.S. patent system. Public comments will be used to determine how the current state of Section 101 patent eligibility case law is impacting investment in U.S. innovation. Many comments raised dire concerns about the uncertain nature of Section 101 eligibility and how that uncertainty has been impacting R&D activities across the nation.

The USPTO first announced the patent eligibility jurisprudence study this July, although the study has its origins in a letter sent this March to Drew Hirshfeld, performing the functions and duties of the Director of the USPTO, by a bipartisan group of Senators asking the agency to

request and analyze public comments on Section 101 patent eligibility law. In early September, the USPTO announced that it would be extending the public comment period for the patent eligibility jurisprudence study through October 15.

Legislative reforms to Section 101 have stalled in recent years, but it's expected that the results of the study will help Congress consider appropriate action on patent eligibility issues. A review of the submitted comments shows that, although a few commenters prefer maintaining the status quo in subject matter eligibility, most respondents feel that the current state of the law creates too much uncertainty in which inventions may be eligible for patent rights, which has led to a reduction in the amount of investment in critical areas of innovation like software and medical diagnostics.

A. Sasha Hoyt: *Mayo* Decreased Diagnostic Technologies Investment by $9.3 Billion

A comment submitted by A. Sasha Hoyt, a law student at Washington and Lee University School of Law, offered draft findings from an empirical study on venture capital (VC) investment into disease diagnostic technologies; Hoyt completed the study as part of a student Note that will be published in the *Washington and Lee Law Review*. Using VC investment data collected from PwC Money Tree, Hoyt analyzed changes in VC funding from 2006 to 2010 and then from 2013 to 2017, excluding the intervening years between the U.S. Supreme Court decisions in *Bilski v. Kappos* and *Mayo Collaborative Services v. Prometheus Laboratories*.

Hoyt's key finding is that, during the four-year period following the Supreme Court's *Mayo* decision, VC investments in disease diagnostics technologies were $9.3 billion less than those investments would have been without *Mayo*, which held that a claimed diagnostic method was an unpatentable law of nature. Although VC investment totals in diagnostic technologies have generally increased since *Mayo*, that increase has been lower than VC investment in other

industries over the time period analyzed. Hoyt concludes that confusing, inconsistent interpretations of Section 101 following *Mayo* has reduced incentives to invest in medical diagnostics R&D, which should lead to Congressional action to restore patent eligibility for diagnostics.

IBM: Section 101 Reforms Should Provide Clarity, Reduce Bias Against Certain Inventions

"Collaborative research and development in the information technology ecosystem thrives when there are clear rules of the road," reads IBM's comment to the USPTO's patent eligibility jurisprudence study. "Uncertainty – like we have with patent eligibility – undermines productivity." IBM, the top recipient of U.S. patent grants each year for nearly three decades, notes that without reform of Section 101 to reduce uncertainty, the R&D giant may direct its research into areas where patent eligibility is clearer. Uncertainty in patent eligibility causes issues during patent prosecution, as USPTO patent examiners often have issues applying Section 101 jurisprudence, and during litigation in federal courts, where infringers can raise numerous Section 101 invalidity arguments that reduce the incentive to efficiently resolve disputes.

Section 101 uncertainty is most concerning in several growing areas of computer innovation including quantum computing and artificial intelligence (AI). According to IBM, Section 101 is biased against these areas of computer-related innovation "because abstraction is a foundational characteristic of computer science." For example, AI inventions, which mimic the functions of the human mind, are often developed as models through iterative training processes such that there's often no objective line between how those models operate and the results they achieve. As a result, IBM argues that it's difficult to adequately claim an AI invention in a patent application without focusing the patent claim on the desired result.

Since the Supreme Court's 2014 decision in *Alice Corp. v. CLS Bank*, IBM notes that it has had what it called "a high percentage" of U.S. patent applications abandoned for patent eligibility issues with counterpart applications in other countries that reached patent status, although IBM noted that its sample size was small. Overall, uncertainties in Section 101 eligibility have weakened U.S. patent protections compared to the rest of the world, provoking changes to global invention filing behaviors that will reduce the competitiveness of the U.S. economy and make other nations the top jurisdictions for fighting global infringement disputes.

EasyTracGPS: Abstract Idea Jurisprudence Helps Our Business Succeed

One of the supporters of the current state of patent eligibility jurisprudence is GPS tracking solution provider EasyTracGPS, which voiced concerns about extortion attempts from so-called "patent trolls" that could threaten its own business success. EasyTracGPS claims that preventing patenting of abstract ideas has benefited software- and technology-based industries, although the company provides no statistics to substantiate that claim. From its own perspective, EasyTracGPS notes that it has been able to spend less on legal fees thanks to current abstract idea jurisprudence, and Unified Patents' litigation analytics portal shows that EasyTracGPS was only named a defendant in a single infringement suit filed in the Northern District of Illinois, a case that lasted less than two months. EasyTracGPS argues that its business model doesn't rely on patenting abstract ideas or other judicial exceptions to patent eligibility like laws of nature or natural phenomenon. Truly, EasyTracGPS' business model doesn't seem to rely on patents at all: a search of the USPTO patent full-text database shows zero patents or patent applications assigned to EasyTracGPS.

Dominion Harbor: 1,100 Eligibility Motions Since *Alice* Result in CAFC Panel-Dependent Outcomes

Dominion Harbor, an IP consulting firm whose business model does rely on patents, argues in its comments that current subject matter eligibility jurisprudence has turned many situations that should be routine commercial patent licensing transactions into unnecessary and costly patent litigation. Many more infringers are turning to Section 101 challenges and data provided by Dominion Harbor shows how, while Section 101 challenges in motions to dismiss were rare prior to *Alice*, more than 1,100 such motions have been filed by defendants in U.S. district court through the end of 2021 (estimated based on year-to-date totals).

The rate at which different district courts have been granting motions to dismiss for Section 101 invalidity also points out the uncertainty of patent eligibility jurisprudence, according to Dominion Harbor. The firm cites to a 2019 study by district court litigation analysis firm Docket Navigator showing that the Southern District of New York and the Eastern District of Virginia had both granted more than 80% of motions to dismiss under *Alice* while the Eastern and Western Districts of Texas granted less than half, incentivizing defendants to forum shop by challenging jurisdictional issues. While most of the eligibility issues have been directed at software inventions, Dominion Harbor notes several cases where Section 101 challenges were raised to invalidate patent claims covering electric car chargers, power grid monitoring systems, methods of manufacturing automotive axles and prenatal genetic testing.

Google: We've Never Had a Problem with *Alice*

Comments from Internet services giant and Big Tech stalwart Google were unsurprisingly bullish on the current state of patent eligibility jurisprudence. The company cites several

studies on investment data and patent application filing activities to argue that innovation in both AI and quantum computing are currently very healthy. What *Alice* provided, Google argues, was a "forcing function" that pushes patent applicants to include more detail in patent applications, especially regarding the technological solution covered by the patent.

Google notes that, despite holding a portfolio of more than 11,000 patents covering AI and quantum computing technologies, they could not identify a single instance where it was denied patent protection in the U.S. for Section 101 subject matter eligibility issues that was granted in the EU or China. "To the best of our knowledge, only the opposite has happened – patent protection was denied in Europe or China, but granted in the United States," Google says. According to the tech giant, *Alice* pushed Section 101 in the right direction for patent litigation by enabling early dismissals of infringement suits Google has faced over mobile payment and mapping technologies.

NYIPLA: *Alice* Increased Patent Prosecution Costs by Up To 30%

The majority of the New York Intellectual Property Law Association's (NYIPLA) member attorneys found that Section 101 issues were appearing during patent prosecution for inventions being developed in a wide array of industries. "Some members estimate the cost of drafting an application has increased from 20% to 30% due to patent eligibility concerns," the NYIPLA writes. Many NYIPLA members also indicated to the association that the United States, when compared to several foreign jurisdictions, is the only patent system where subject matter eligibility concerns are fatal, instead of a hurdle that can be overcome by amending claims with help from a patent examiner.

Anecdotes provided by NYIPLA members provide a stark view of just how many industries are being visited by Section 101 issues. One patent application covering a system for concussion treatment required significant amendments despite claiming a vision tracker novel in the art, while the Canadian IP Office granted patent claims on the technology without requiring claim amendments. Another member working with a bioinformatics firm reported that Section 101 issues doomed a patent application covering a tool for identifying disease-causing genes, despite the technology being novel and non-obvious over the prior art. Several members also noted that Section 101 issues impacted prosecution of patent claims covering avionics, nuclear power plant systems, and steel manufacturing systems technologies, adding costs and narrowing claims thanks to patent examiners that are "inconsistently setting the Section 101 goalposts with no consistent basis provided."

Industry Insider Reactions

Here is what some stakeholders who reached out to IPWatchdog on the topic had to say about the study and its potential impact.

Paul W. Browning, Partner, Finnegan

"The comment period is significant because it appears the Senators who requested the USPTO study are interested in hearing how businesses and other stakeholders are impacted by the current state of patent eligibility jurisprudence in the United States. The Senators may be assessing whether legislative action is desirable or necessary to address perceived issues with subject matter eligibility law and also may be gauging public and industry support for any such legislation they may propose. It will be interesting to see whether the comments criticize the current status of patent eligibility law as overly uncertain or restrictive. Stakeholders that rely on patent protection for their businesses would be expected to offer that type of criticism. But other responders may instead comment favorably on recent decisions invalidating patent claims based on a lack of subject matter eligibility. It is even possible that some commentators will advocate for a change in the law further restricting the scope of patent eligible subject matter. Many other countries and jurisdictions are far more restrictive in their subject matter eligibility requirements than the United States, and do not permit patents directed to, for example, business methods or methods of medical treatment. Some commentators may point this out and argue that the United States should restrict its laws in this manner.

The USPTO has made substantial and commendable efforts in trying to account for the continuing evolution in the law of subject matter eligibility. However, absent further helpful guidance from the Supreme Court or Congress, it is hard to be optimistic about these endeavors. Recent decisions by the Federal Circuit in *Athena Diagnostics, Inc*. and *American Axle* indicate that the Federal Circuit itself is sharply divided about how to resolve questions of subject matter eligibility. Given this uncertainty, it is hard to imagine how the USPTO alone can bring clarity to this area of the law and its application to the work that they do."

Nicholas Matich, Principal, IP Practice Group, McKool Smith

"It was very exciting to see bipartisan interest in the subject-matter eligibility issue from Senators Coons, Hirono, Tillis, and Cotton. I'm sure the USPTO's study will be a valuable contribution to the conversation and I would expect it to highlight the need for reform. The current state of section 101 law makes it very difficult for parties on either side of licensing or litigation to know whether a patent is valid. From a USPTO perspective, the complexity and uncertainty of 101 diverts examiner time that would be better spent on core issues like obviousness and written-description. Spending time there, rather than on 101,

would likely advance everyone's goal of promoting innovation with reliable patent rights on new technology."

Ed White, Senior Director of IP Analytics, Clarivate

"The question for the United States is whether the rules and jurisprudence surrounding patent eligibility for software makes sense in 2021, where many of the megatrends in our economy surround automation and data connectivity. In tension is the appropriate caution around potentially creating monopolistic positions via the patent system for ideas that are foundational, versus the public good of incentivizing disclosure of technical innovation so that others may learn and improve.

Arguably, while the application and grant statistics for software-related patent applications were quite profoundly affected by the Supreme Court's *Alice Corp. v. CLS Bank* 2014 ruling, this did not stunt the creation and advancement of the technologies themselves. Instead, inventors likely turned to trade secrets to protect these types of technologies. Potentially, that means that existing powerful market positions became entrenched anyways, as those ideas cannot be reviewed and further improved. As these are large macro-economic effects and impact the balance of trade and economic influence in the US, it is understandable that the US is carefully evaluating the current IP landscape before drafting new legislation."

Innovation Alliance (excerpted from submitted comments)

"Intellectual property in the field of artificial intelligence has been heavily impacted by the recent Section 101 developments. Because the application of Alice is so fraught with uncertainty and unpredictability, a cloud of uncertainty hangs over these patents, threatening incentives to innovate in this key technology area…. If left unaddressed, the impact of current Section 101 jurisprudence will deter innovation as investors and companies become less willing to take the large risk to invest in important technologies, given the unpredictability as to whether they are able to obtain patent protection for their inventions. Strong, predictable patent rights incentivize inventors to assume the risky investment of time and resources necessary to innovate…. While uncertainty in patent eligibility has weakened the U.S. patent system, other countries, such as China, that harbor aspirations to lead the world's technology development, have invested heavily in intellectual property, strengthening patent rights as a part of their broader innovation strategy…. National security, therefore, depends on continually maintaining the conditions necessary for U.S. inventors—both individuals and companies—to innovate. The United States must enact laws

and policies that incentivize and reward risky and transformative investments in innovation and ensure a fair and competitive global marketplace."

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