Section 101 Comments 14 October 2021

Dear Commissioner Hirshfeld:

I have been in the patent business since 1982 when I was hired to work as an Assistant Patent Examiner in Art Unit 253 (in semiconductor devices and electrolytic capacitors). I became a patent agent in1984 and a patent attorney in1990. I now work with seven other patent attorneys in a patent law firm in New Orleans, Louisiana. The current Section 101 chaos is the most harmful threat to our patent system I have seen in my work lifetime.

Most of this chaos could have been avoided had the courts simply used Section 102 to reject claims drawn to well-known business methods, or Section 103 to reject claims drawn to known methods formerly done manually and now claimed to be novel simply because they are done by a computer. Section 101 should have been reserved for alleged inventions such as perpetual motion machines and divining rods. The courts now have constantly evolving requirements for what they consider to be patent eligible, making it more and more difficult to figure out how to prepare patent claims that will be considered patent eligible.

The shocking 11 June 2021 case of YU v. APPLE INC. (Fed. Cir. - Case No. 2020-1760) is the latest and most egregious (in my opinion) example of the unfortunate use by courts of Section 101 where Section 102 and/or 103 might properly be applied - two of the three judges on the panel found patent claims **on a camera** to be patent ineligible under Section 101 as directed to an “abstract idea”. One claim declared invalid is the following:

> 1. An improved digital camera comprising:
> a first and a second image sensor closely positioned with respect to a common plane, said second image sensor sensitive to a full region of visible color spectrum;
> two lenses, each being mounted in front of one of said two image sensors;
> said first image sensor producing a first image and said second image sensor producing a second image;

> an analog-to-digital converting circuitry coupled to said first and said second image sensor and digitizing said first and said second intensity images to produce correspondingly a first digital image and a second digital image;
> an image memory, coupled to said analog-to-digital converting circuitry, for storing said first digital image and said second digital image; and
> a digital image processor, coupled to said image memory and receiving said first digital image and said second digital image, producing a resultant digital image from said first digital image enhanced with said second digital image.

Two judges of the three-judge panel of the Federal Circuit stated the following:

> Defendants filed a Rule 12(b)(6) motion to dismiss, which the district court granted with prejudice after concluding that each asserted claim was patent ineligible under § 101. The district court held that the asserted claims were directed to "the abstract idea of taking two pictures and using those pictures to enhance each other in some way." Yu v. Apple Inc., Nos. 18-cv-6181, 18-cv-6339, 2020 WL 1429773, at *3 (N.D. Cal. Mar. 24, 2020) ("District Court Opinion"). The court explained that "photographers ha[ve] been using multiple pictures to enhance each other for over a century." Id. at *4. The district court further concluded that the asserted claims lack an inventive concept, noting "the complete absence of any facts showing that the[] [claimed] elements were not well-known, routine, and conventional." Id. at *6.

The third judge, Judge Pauline Newman, dissented in an opinion almost as long as that of the first two judges. Unfortunately, the Federal Circuit declined to reconsider the panel's decision *en banc*.

What follows are comments with your topics and questions in *blue text in italics*, and our responses below.

Topics for Public Comment
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.

We are patent attorneys in an 8-person patent law firm. We help inventors in all technology areas. The Section 101 problems have arisen in patent applications claiming medical treatment inventions and biotech inventions, as well as software-related inventions. We tell our clients who have inventions in these areas that patent protection will not likely be obtainable under the current state of the law, but that we hope that something will be done while their patent applications are pending to change the law back to how it was for many years and should be again. We encourage them to file patent applications so that their patent rights will not be lost, even though it may be a long time (if at all) before a patent might be able to be issued on their inventions.

2. Please explain what impacts, if any, you have experienced as a result of the current state of patent eligibility jurisprudence in the United States. Please include impacts on as many of the following areas as you can, identifying concrete examples and supporting facts when possible:

a. Patent prosecution strategy and portfolio management;

We typically recommend to our clients having medical treatment inventions, biotech inventions, and software-related inventions filing of patent applications with non-publication requests, so our clients will not divulge their inventions if they never get patent protection.

b. patent enforcement and litigation;

We would not recommend attempting to enforce any patents on medical treatment inventions, biotech inventions, and software-related inventions at this time, until the law changes such that they will likely survive a patent-eligibility challenge.

c. patent counseling and opinions;

We warn our clients who are concerned about patents on medical treatment inventions, biotech inventions, and software-related inventions that patent eligibility issues may cause these patents to be declared invalid if sought to be enforced.

d. research and development;

We encourage our clients to consider adding physical features to their medical treatment inventions, biotech inventions, and software-related inventions to make them more likely to meet the current patent-eligibility guidelines. Unfortunately, sometimes that is simply not possible.

e. employment;

Section 101 issues have not had an effect on our hiring plans at our patent law firm.

f. procurement;

This does not apply to our patent law firm.

g. marketing;

This does not apply to our patent law firm.

h. ability to obtain financing from investors or financial institutions;

This does not apply to our patent law firm, but may affect our clients.

i. investment strategy;

This does not apply to our patent law firm, but may affect our clients. I am aware of some clients who decided not to seek patent protection due to patent-eligibility concerns.

j. licensing of patents and patent applications;

Our clients with patents on medical treatment inventions, biotech inventions, and software-related inventions are still able to license them sometimes, but perhaps they would be more successful if the Section 101 issues improve.

k. product development;

This does not apply to our patent law firm, but may affect our clients.

l. sales, including downstream and upstream sales;

This does not apply to our patent law firm, but may affect our clients.

m. innovation; and

This does not apply to our patent law firm, but may affect our clients.

n. competition.

Section 101 patent eligibility issues are a godsend for infringers who wish to copy patented inventions without getting a license or paying damages.

3. Please explain how the current state of patent eligibility jurisprudence in the United States impacts particular technological fields, including investment and innovation in any of the following technological areas:

a. Quantum computing;

Our patent law firm does not have any patent applications pending in this area.

b. artificial intelligence;

Our clients with inventions in this area continue to innovate and file patent applications, but some question whether patent applications continue to be a good investment.

c. precision medicine;

Our patent law firm does not have any patent applications pending in this area.

d. diagnostic methods;

Our clients with inventions in this area continue to innovate and file patent applications, but some question whether patent applications continue to be a good investment.

e. pharmaceutical treatments;

Our clients with inventions in this area continue to innovate and file patent applications, but some question whether patent applications continue to be a good investment.

and

f. other computer-related inventions (e.g., software, business methods, computer security, databases and data structures, computer networking, and graphical user interfaces).

Our clients with inventions in this area continue to innovate and file patent applications, but some question whether patent applications continue to be a good investment. Some have decided to abandon patent applications rather than to continue to fight patent-eligibility issues. This is lamentable. As someone once commented, in the days of the Deere decision, tractors were known, and implements were patentable. Now, computers are the tractors of today, and software programs are the implements of today - to not allow these inventions to be patent eligible will likely, over time, cause innovative persons to move on to other technology areas.

4. Please explain how your experiences with the application of subject matter eligibility requirements in other jurisdictions, including China, Japan, Korea, and Europe, differ from your experiences in the United States.

Because of the likelihood that US patents will not issue on inventions having subject matter eligibility issues, we typically file only in the US on these inventions, and with non-publication requests so that the inventions will remain secret unless and until a US patent issues - thus, we rarely file overseas on such inventions.

5. Please identify instances where you have been denied patent protection for an invention in the United States solely on the basis of patent subject matter ineligibility, but obtained protection for the same invention in a foreign jurisdiction, or vice versa. Please provide specific examples, such as the technology(ies) and jurisdiction(s) involved, and the reason the invention was held ineligible in the United States or other jurisdiction.

No examples come to mind at this time.

6. Please explain whether the state of patent eligibility jurisprudence in the United States has caused you to modify or shift investment, research and development activities, or jobs from the United States to other jurisdictions, or to the United States from other jurisdictions. If so, please identify the relevant modifications and their associated impacts.

I am not aware of any such modifications or shifts by our clients.

7. Please explain whether the state of patent eligibility jurisprudence in the United States has caused you to change business strategies for protecting your intellectual property (e.g., shifting from patents to trade secrets, or vice versa). If so, please identify the changes and their associated impacts.

We now encourage our clients with medical treatment inventions, biotech inventions, and software-related inventions to rely on trade secrets when possible and to file patent applications only in the US and with non-publication requests, so our clients will not divulge their inventions if they never get patent protection. This unfortunately prevents our clients from getting post-publication pre-issuance US patent damages, and also prevents them from getting patent protection overseas.

8. Please explain whether you have changed your behavior with regard to filing, purchasing, licensing, selling, or maintaining patent applications and

patents in the United States as a result of the current state of patent eligibility jurisprudence in the United States. If so, please describe how you changed your behavior.

Some of our clients with computer-related inventions have stopped filing patent applications and now attempt to rely solely on trade secret protection.

9. Please explain how, in your experience, the status of patent eligibility jurisprudence in the United States has affected any litigation for patent infringement in the United States in which you been involved as a party, as legal counsel, or as another participant (e.g., an expert witness). For example, please explain whether this jurisprudence has affected the cost or duration of such litigation, the ability to defend against claims of patent infringement, the certainty/uncertainty of litigation outcomes, or the likelihood of settlement.

I do not recall ever being involved in litigation involving a patent with patent-eligibility issues.

Section II—Impact of Subject Matter Eligibility on the General Marketplace
10. Please identify how the current state of patent eligibility jurisprudence in the United States impacts the global strength of U.S. intellectual property.

We have already had clients who have given up on seeking US patent protection due to patent-eligibility issues. Also, the great majority of our clients who have inventions with patent-eligibility issues typically file patent applications in the US only to prevent their inventions from being published. Thus, potential patent protection on these inventions overseas is lost - if the inventions cannot be kept trade secrets, then others are able to copy the inventions. Over time, this will cause an enormous loss of rights in US intellectual property, not just here but around the world.

11. Please identify how the current state of patent eligibility jurisprudence in the United States impacts the U.S. economy as a whole.

“I knew that a country without a patent office and good patent laws was just a crab, and couldn’t travel any way but sideways or backwards.” *A Connecticut Yankee in King Arthur's Court*, Chapter IX, by Mark Twain

(1889). The US has a Patent Office, but at the moment it does not have good patent laws relating to subject matter eligibility. Hopefully Congress will fix this, and affirm that: "Whoever invents or discovers ***any*** new and useful process, machine, manufacture, or composition of matter, or ***any*** new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 USC Section 101, emphasis added. While I am not able to point to any examples of inventions not commercialized due to the current state of patent eligibility jurisprudence in the United States, I believe that our economy as a whole is being adversely impacted. Patents today are as important, or should be, as they were in the 1800s.

12. Please identify how the current state of subject matter eligibility jurisprudence in the United States impacts the global strength of U.S. intellectual property and the U.S. economy in any of the following areas:

a. Quantum computing;

b. artificial intelligence;

c. precision medicine;

d. diagnostic methods;

e. pharmaceutical treatments; and

f. other computer-related inventions (e.g., software, business methods, computer security, databases and data structures, computer networking, and graphical user interfaces).

In responding to this question, please provide concrete examples and supporting facts when possible.

I am not able to provide more specifics than my observations in response to No. 11.

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 short term, failure to enforce issued patents on these inventions will benefit the public, as they will have access to these inventions sooner and cheaper from infringers than from the inventors who invested substantial time, effort, and resources in inventing them (though clearly the government here has reneged on its contract to provide patent protection for a limited time in exchange for disclosure of detailed information about the patented inventions). In the long term, companies will stop investing in inventions deemed not to be patent eligible, and the public will suffer from the lack of innovation in these areas. What is especially disheartening is that many of these inventions that are considered patent ineligible are vitally important, especially in the area of medicine and pharmaceutical treatments.

Thank you for considering these comments.

Best regards,

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