SENATE SUBCOMMITTEE ON INTELLECTUAL PROPERTY

HEARING ON *THE STATE OF PATENT ELIGIBILITY IN AMERICA: PART III*

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1. Introduction

Good afternoon Chairman Tillis, Ranking Member Coons, and members of the Subcommittee on Intellectual Property. My name is Kimberly Chotkowski; I am InterDigital's Head of Licensing Strategy and Operations; and it is a pleasure to be with you today to discuss our nation's patent system, in particular the currently proposed amendments to 35 USC §100, 35 USC §101 and 35 USC §112. I'd particularly like to thank Senator Coons for his tireless efforts on behalf of Delaware, and the nation as a whole.

InterDigital is a Delaware headquartered company that designs and develops advanced technologies that enable and enhance mobile communications and capabilities. Since our founding in 1972, we have designed and developed a wide range of innovations that are used in digital cellular and wireless products and networks, including 2G, 3G, 4G, 5G, and IEEE 802-related products and networks.

Below is a summary of various highlights in InterDigital's long history of innovation and leadership in each generation of wireless:

- Founded in 1972 to pursue research into digital wireless telephony – two years before the first cell phone call is made

- In 1985, InterDigital's founder made the first digital wireless call to then FCC Chairman, Dennis Patrick – three years before TDMA (InterDigital's longtime research area) was chosen as the first US digital telecommunications standard

- In 1997, InterDigital demonstrated a broadband CDMA solution, delivering video over wireless on five different trial networks – a key development in the history of 3G networks

- In 1999-2000, InterDigital developed a protocol stack for Infineon Technologies' 3G chipset that has powered over 350 million devices worldwide

- 2008: Launch of InterDigital SlimChip, first R6 HSPA baseband ASIC, hailed as a technology success by leading research firm Signals Ahead

- InterDigital developed 5 different "world's first" demonstrations of key 5G technologies since 2014

We are a for-profit research firm and, quite possibly, the only remaining for-profit research firm in the U.S. developing advanced technology for wireless communications. As a for-profit research firm, our technology developments are not biased in favor of any existing technology or particular product implementations. This allows our engineers to simply pursue the best technologies as opposed to other companies doing research and development that could potentially be sub-optimal solutions in order to ensure the solutions they develop work within the confines of existing product lines.

This freedom has allowed InterDigital's incredibly talented engineers to consistently develop key advances in wireless technologies, with many of those advances adopted by standards bodies governing the standardization of wireless technologies.

In view of the current lack of clarity surrounding patent eligibility, however, our ability to innovate and invest in promising technologies has been reduced and a pillar of our nation's economic success, the patent system, along with the Federal Courts, have been bogged down, with needless challenges and increased uncertainty.

2. Amending the Patent Act would benefit the U.S. Patent System, the U.S. Economy and InterDigital.

To begin, amending the Patent Act would benefit the U.S. Patent System, the U.S. Economy and InterDigital.

Constitutional Background:

The current state of the U.S. Patent system does not accurately reflect the purpose and meaning of Article 1, Section 8, Clause 8 of the U.S. Constitution with respect to "discoveries."

Article 1, Section 8, Clause 8 states that Congress shall have the power:

> *To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.*

A lack of appreciation for what is and what is not a discovery has caused the U.S. Patent System and Federal Courts to introduce needless changes, thereby increasing uncertainty in this area of law.

Decisions involving 35 USC §101 such as *Alice* and *Mayo* Have Negatively Impacted the U.S. Patent System:

In the past decade, the courts have created tests for evaluating what is and is not eligible for patent protection that have caused confusion and are difficult to implement in practice.

For example, in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, the Court held that inventions directed to laws of nature, natural phenomena, or abstract ideas are not eligible for patenting unless they also contain an "inventive concept".[1] However, pertinent patent statutes, legislative history, and jurisprudence regarding patent-eligible subject matter were never presented to the Court in *Mayo*, and the Court did not discuss the statutory basis for patent-eligibility of scientific discoveries. Instead, *Mayo* relies on a single quotation from *Neilson v. Harford*, an English case from 1842, to conclude that courts must treat scientific discoveries as part of the prior art in assessing the eligibility of applications of such discoveries.[2] The *Mayo* decision, which redefined patent-eligible subject matter in the U.S. patent system, was immediately criticized as introducing new and confusing concepts into the traditional body of patent law.

Critics condemn Mayo and the cases that followed as confusing and unpredictable and correctly point out that restricting patent eligibility improperly weakens innovation incentives.[3]

In *Alice Corp. v. CLS Bank International*, the Supreme Court relied on its previous holding in *Mayo* to define a two-part test for determining patent eligibility under 35 USC § 101.[4] The first step of what has become known as the *Alice/Mayo* analysis is to distinguish patents that claim laws of nature, natural

[1] 566 U.S. 66, 72 (2012).
[2] *Id.* at 83 (citing *Neilson v. Harford*, Webster's Patent Cases 295, 371 (1841) ("We think the case must be considered as if the principle being well known")).
[3] *See, e.g.*, David O. Taylor, *Confusing Patent Eligibility*, 84 Tenn. L. Rev. 157, 158–59 (2016)).
[4] 573 U.S. 208, 134 S. Ct. 2347 (2014).

phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.[5] If the claims are not directed to an abstract idea, the inquiry ends.[6]

If the claims are determined to be directed to an abstract idea, the *Alice/Mayo* analysis moves to the second step, in which a search is performed for an "inventive concept"—something sufficient to ensure that the claim amounts to "significantly more" than the abstract idea itself.[7] If the claims recite additional elements that amount to significantly more than the judicial exception, the claims qualify as eligible subject matter under 35 USC § 101.

The *Alice/Mayo* test has not been consistently applied by the United States Patent and Trademark Office (USPTO) and Federal Courts and has created significant uncertainty regarding what is patent eligible subject matter. Some reasons for this include: abstract ideas are not defined by the courts; the "directed to" inquiry in the first step of the *Alice/Mayo* test is subjective; and the courts have found that well-understood, routine, conventional activity is a question of fact. As such, the USPTO has issued the "2019 Revised Patent Subject Matter Eligibility Guidance" (hereinafter "*Guidance*") to promote consistency and predictability of the *Alice/Mayo* test. This Guidance, however, is not binding on the Federal Courts.

The Supreme Court has explained that "[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas," and has cautioned "to tread carefully in construing this exclusionary principle lest it swallow all of patent law."[8] Since *Alice*, courts have been "compar[ing] claims at issue to those claims already found to be directed to an abstract idea in previous cases."[9] Likewise, "the USPTO has issued guidance to the patent examining corps about Federal Circuit decisions applying the *Alice/Mayo* test, for instance describing the subject matter claimed in the patent in suit and noting whether or not certain subject matter has been identified as an abstract idea."[10]

The USPTO, however, has noted that this practice has "since become impractical" as the "growing body of precedent has become increasingly more difficult for examiners to apply in a predictable manner."[11] To clarify the *Alice/Mayo* analysis, the USPTO's Guidance explains that the abstract idea

[5] *Visual Memory LLC v. NVIDIA Corp*., 867 F.3d 1253, 1258 (Fed. Cir. 2017).
[6] M*cRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016).
[7] *Finjan, Inc. v. Blue Coat Sys.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018).
[8] *Alice Corp.*, 573 U.S. at 216 (Internal citation and quotation marks omitted); *Mayo*, 566 U.S. at 71.
[9] *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).
[10] *Guidance*, 83 FR 50, 57 (2019).
[11] *Id.* at 52.

exception includes the following groupings of subject matter: mathematical concepts, certain methods of organizing human activity, and mental processes.[12]

Although some progress has been made at the USPTO regarding patentable subject matter, such progress is potentially temporary and, moreover, the Federal Courts are not bound by guidance issued by the USPTO. For example, in *Cleveland Clinic Foundation v. True Health Diagnostics LLC*, the Federal Circuit stated that it was not bound by the USPTO's Guidance.[13] Although the court acknowledged the deference courts give to administrative agencies, the Federal Circuit found that the consistent application of 35 USC § 101 case law outweighed such deference.[14] The Federal Circuit declined to give any weight to the patentee's argument that the patent at issue was allowed by the USPTO under the USPTO's Guidance and instead analogized the challenged claims to claims of previous cases, invalidating the patents at issue.[15]

In addition, the *Alice/Mayo* test has conflated 35 USC § 102 and 35 USC § 103 with 35 USC § 101. In fact, in *Berkheimer v. HP Inc.*, the Federal Circuit admitted that there may be overlap between the patent eligibility inquiry and "other fact-intensive inquiries," such as novelty under 35 USC § 102.[16] For example, step two of the Alice/Mayo test engages the court to determine if other elements of the claims are well-understood, routine, conventional activities. However, this analysis already takes place under 35 USC § 103 for obviousness, which prevents the USPTO from granting patents for well-understood, routine, or conventional activity.

The Current Confusion Surrounding 35 USC § 101 Negatively Impacts the U.S. Patent System, the U.S. Economy and InterDigital:

In view of the above, InterDigital's incentive to invest in promising new technology in the form of research and development, patents, and jobs has been reduced. Further, it has driven InterDigital to consider other jurisdictions and means of protection and enforcement for valuable technologies that are at risk under the current 35 USC § 101 analysis. This is not by choice but by necessity as other nations' goals of technical supremacy in software and 5G, for example, continue marching ahead.

[12] *Id.*
[13] *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 2018-1279 (Fed. Cir. Apr. 1, 2019) (non-precedential).
[14] *Id.*
[15] *Id.*
[16] *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

Former USPTO Director David Kappos recently stated that under the current law governing patent eligibility, "it is easier to secure patent protection for critical life sciences and information technology inventions in the People's Republic of China and in Europe, than in the U.S."[17] As such, patent eligibility in the U.S. puts us behind China and Europe in life sciences and information technology, perhaps the two most critical technical areas for national competitiveness.

The changes implemented judicially by the Federal Courts regarding patent-eligible subject matter did, in fact, have a negative impact on patentees, and in turn, a key incentive of innovation. Since 2014, patentees have lost over sixty percent of eligibility decisions in the Federal District Courts.[18] By comparison, patentees lose only about forty percent of validity challenges overall. [19] Patentees' loss rate grows to over ninety percent in cases that are appealed to the Federal Circuit.[20]

How Amendments to 35 USC § 101 Will Help the U.S. and InterDigital:

Amendments to 35 USC § 101 will allow InterDigital to more fully invest in promising new technologies in the form of research and development, patents, and most importantly, jobs.

Software is a critical component of virtually every technology of importance and impacts millions of lives each day. Additional certainty regarding patent protection for valuable software inventions is critical to the continued investment and development of technologies by InterDigital and the U.S. economy. A robust and properly functioning patent system with clear guidance as to what is and is not patent eligible is a key component to promoting investment and development of technology thereby fostering a strong overall economy.

InterDigital is a recognized leader in the development of wireless technologies, including 5G. Amendments to 35 USC § 101 will allow InterDigital, and others, to pursue the best technology advances in 5G. In turn, this would allow

[17] David J. Kappos, Oral Testimony Before the U.S. Senate Sub-Committee on Intellectual Property (June 4, 2019).
[18] Jeffrey A. Lefstin, Peter S. Menell & David O. Taylor, *Final Report of the Berkeley Center for Law & Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 Berkeley Tech. L.J. 551, 576 tbl.1 (2018).
[19] John R. Allison, Mark A. Lemley & David L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 Texas L. Rev. 1769, 1787 fig.4 (2014).
[20] Paul R. Gugliuzza & Mark A. Lemley*, Can a Court Change the Law by Saying Nothing?*, 71 Vand. L. Rev. 765, 787 & fig.8 (2018).

InterDigital to more fully invest in research and development, patents, and its workforce, thereby helping to advance the important national goal of the United States maintaining a leading role in the development of wireless technology and technology in general.

InterDigital has a demonstrated ability and desire to continue investing in advancements in software and wireless technologies in support of the U.S. remaining on the cutting edge of technology. Two examples that may be of interest to the Subcommittee are: 1) InterDigital's secure digital telephony systems which was deployed both in Desert Storm I and at the Reagan Ranch; and 2) InterDigital's development of 5 different "world's first" demos of key 5G technologies since 2014.

Amendments to 35 USC § 101 will allow InterDigital to continue investing and developing advanced technologies, not only bringing jobs and investment to Delaware and the rest of our U.S. operations, but also helping this great nation maintain its technical dominance.

3. InterDigital's View on Amending the Patent Act and Specific Comments on the Currently Proposed Amendments, Proposed Legislative Provisions, and Waiting Period

Comments on Proposed Amendments to 35 USC § 100(k):

It is understood that the proposed addition of 35 USC § 100(k) is to assist with the definition of, "useful." However, this addition could potentially open the subsection to additional judicial interpretation and activism. InterDigital appreciates that this section adds three criteria for determining what is "useful" and that the "specific and practical" utility language was an attempt to introduce more certainty. Although 35 USC § 100(k) has potential, we urge the subcommittee to keep an open mind.

Comments on Proposed Amendments to 35 USC § 101:

As submitted by InterDigital in response to the 35 USC § 101 Guidelines Questionnaire, we believe a simple yet elegant modification to 35 USC § 101 would bring a great deal of certainty back to the patent system. We understand the Subcommittee also wishes to minimize modifying 35 USC § 101 as much as possible and appreciate the Subcommittee's efforts in this regard. In particular,

InterDigital thanks the Subcommittee for not including a codified list of exceptions for fear of causing more uncertainty and unintended consequences.

InterDigital believes removing "new" from 35 USC § 101 is an effective and efficient solution for putting an end to the conflation of 35 USC § 101 with 35 USC §§ 102/103, and all of the confusion and contradictory analysis at the Federal Courts and U.S. Patent Office it has caused.

InterDigital also believes the addition of 35 USC § 101(b) is unnecessary. More specifically, to obviate the need to add 35 USC § 101(b), we would like to see the phrase "may obtain a patent" be modified to the more certain language of "shall be entitled to a patent." Unfortunately, the AIA removed the "entitled to a patent" language when it modified 35 USC § 102 to address a First Inventor to File system.

InterDigital has previously proposed 35 USC §101 read as follows:

> *Whoever invents or discovers any useful process, machine, manufacture or composition of matter, or any useful improvement thereof, shall be entitled to a patent on such invention absent a finding that one or more conditions or requirements under this title have not been met.*

In an attempt to further minimize changes to the current version of 35 USC §101, InterDigital respectfully requests the Subcommittee consider the following edits to our prior proposal:

> *Whoever invents or discovers any useful process, machine, manufacture or composition of matter, or any useful improvement thereof, shall be entitled to a patent on such invention [[absent a finding that one or more conditions or requirements under this title have not been met]]* <u>*subject to the conditions and requirements of this title*</u>*.*

This proposed language eliminates the conflation problem, minimizes edits to 35 USC § 101, and clearly places the burden of examination of patent eligible inventions on satisfying the 35 USC § 102, 35 USC § 103, and 35 USC § 112 statutory requirements. The proposed language also adds much needed clarity and confidence as to the subject matter that may be patented, thereby allowing InterDigital and others to more fully invest in promising advanced wireless technologies that are crucial to nearly every function and interaction of today's world.

InterDigital believes the importance of making an amendment to 35 USC § 101 as shown above without paragraph (b) as currently proposed is heightened in view of the currently proposed amendments to 35 USC § 112(f). That is, the currently proposed version of 35 USC § 112(f) coupled with 35 USC § 101(b) could create the possibility that the rights of patent holders would be strictly construed and that patents would be narrowly interpreted. More specifically, we believe the currently proposed amendments to 35 USC § 112(f) along with 35 USC § 101(b) could lead to the unintended consequence of reading out the "Doctrine of Equivalents" where purely functional claiming may be the only way to claim the full scope of an invention.

Comments on Proposed Amendments to 35 USC § 112:

The removal of "means or step for performing" in the currently proposed amendments to 35 USC § 112(f) negatively impacts patent holders by creating uncertainty as to whether 35 USC § 112(f) treatment applies. Specifically, removal of this language effectively eliminates the presumption that a claim which does or does not include the word "means" is or is not, respectively, subject to treatment under 35 USC § 112(f). This may lead to less certainty than before, as well as more judicial intervention. Not having guidance regarding specific claim terms to use when treatment under 35 USC § 112(f) is desired or not by the applicant can lead to confusion and judicial intervention similar to that generated by the current interpretation of 35 USC § 101.

The unintended consequences of proposed 35 USC § 112(f) with the newly suggested 35 USC § 101(b) is a major concern, as it could be read as reading out the "Doctrine of Equivalents" where purely functional claiming may be the only way to obtain the full scope of what is invented.

Comments on "Proposed Legislative Provisions":

InterDigital applauds the items identified under "Additional Legislative Provisions" and believes the amendment to 35 USC § 101 identified above aligns with the objectives highlighted therein.

Waiting Period:

InterDigital believes there should be no waiting period to enact the changes contemplated by the amended Patent Act, so that they are effective immediately to all currently pending applications and issued patents.

Conclusion:

Again, InterDigital would like to thank Chairman Tillis and the members of the Subcommittee on Intellectual Property, and particularly Ranking Member Coons for the opportunity to be here today and provide InterDigital's input on these critical issues.

InterDigital is cautiously optimistic that the quality work being done by the Subcommittee will lead to significant improvements to the U.S. Patent System and enhance the ability of industry-leading technology companies to more fully invest in research and development, patents, and jobs. If successful, this work will provide significant benefits to the strength of the United States economy, and its ability to serve as the driving force of our great country's technical leadership throughout the world.