

## SIIA Responses to Senator Tillis

1. Can you briefly describe any concerns you have with our proposed fix to Section 112(f). Do you care to rebut any of Mr. Morinville's testimony?

**Answer:** The quid pro quo reflected in the patent system is based on a grant of exclusive rights in exchange for sufficient notice to those practiced in the art of what was invented so that they can build on it. Section 112 enforces that disclosure bargain: a person that receives the benefit of patent protection is “obligated to sum up his invention in clear and determinate terms; and his summing up is conclusive upon his right and title.”<sup>1</sup> Section 112(f) requires that the if the patent claims a way of doing something, such as a means of preventing water from leaking into a boat, that claim is limited to what the inventor disclosed in the specification and its equivalents. Failure to disclose the structure of that invention (e.g., a plug or a new means of welding) would allow patentees to claim rights in something they never invented and did not disclose.

In and of itself, SIIA has no concerns with the discussion draft's amendments to section 112(f) and applauds it. We view it as a helpful statement of what SIIA believes the current law of 112 ought to be with respect to means-plus-function claims. To be clear, however, the proposed change is insufficient to resolve our concerns with the present draft. Additional suggested changes to section 112 and elsewhere are discussed in SIIA's responses to questions 2 and 3.

Mr. Morinville's objections to the change seem to stem from the idea that it would require an inventor, if she created a way to make computer memory run more efficiently, to disclose every programming language in which that result could be achieved as part of the structure. We view those claims as dubious. First, the statute requires the specification to be directed at a person of ordinary skill in the art. Second, it provides protection to “equivalents.” Thus, the structure of the claims in the specification need not disclose code so long as a person skilled in the art would have been taught the improvement by reading the specification, and the statute's language regarding equivalents would balance the need to protect the inventor's

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<sup>1</sup> Wyeth v. Stone, 30 F. Cas. 723, 727 (C.C.D. Mass. 1840) (No. 18,107) (Story, J.).

incentive against preempting future developments in technology.

Mr. Morinville made many other claims in both his written and oral testimony that we dispute. Our failure to mention them should not be interpreted as agreement with any of those claims.

2. Are there ways we can strengthen our proposed modification to Section 112(f) in order to better accommodate your concerns regarding over-broad patents?

**Answer:** To reiterate, while appreciative of the changes made to section 112(f), they do not ameliorate the adverse effects on innovation that would ensue from the changes to section 101. Nor do they fully accommodate our concerns with the current inability of section 112 to stem large numbers of vague and overbroad patents flooding the tech space. The additional changes to Section 112 that we would recommend accomplish the following goals:

- Limiting patent claims to what was actually invented;
- Emphasizing that Section 112(f) is the only exception to the prohibition against functional claiming; and
- Allowing trial court judges to resolve Section 112 challenges early in litigation.

Accomplishing these ends requires broader changes to section 112 to ensure that the patent is limited to what was actually invented:

- Strengthen the written description requirement of Section 112(a)
- Strengthen the definiteness requirement of Section 112(b)
- Emphasize that Section 112(f) is the only exception to the prohibition against functional claiming; and
- Designates analysis of these Section 112 requirements as a question of law to be decided by a judge.

3. Are there any additional changes or additions you'd propose we make to our draft bill text?

**Answer:** SIIA believes that the Federal Circuit has correctly limited

the application of the patent law to technological innovation by requiring that patent applications claim an improvement in relevant technology in order to be patent-eligible. The state of the law thus has two important components: a procedural one that must be preserved: a procedural one that permits patents to be challenged as a matter of law early in litigation; and a substantive one that contains the requirement for a technological requirement described above.

The critiques of existing law by supporters of the existing text revolve around the assertion that section 101 was performing roles properly undertaken by other sections such as 102, 103, and 112. Those sections, however, did not stop the issuance and assertion of patents in a variety of abstract ideas, from hedging strategy to escrow “on a computer.” The draft makes no changes to these other sections to accommodate the problems that the discussion draft would create, and those changes are essential to preserving innovation in existing law.

**Questions for the Record for Mr. Christopher Mohr**  
**Senate Committee on the Judiciary**  
**Subcommittee on Intellectual Property**  
**Hearing on “The State of Patent Eligibility in America: Part II”**  
**June 5, 2019**

**QUESTIONS FROM SENATOR BLUMENTHAL**

1. Striking the appropriate balance between encouraging innovation and protecting consumers is a key goal of our patent system.

**a. What impact will broadening the subject matter that can be patented have on industry?**

**Answer:** For SIIA and its members, the effect of broadening the scope of patent eligibility will be harmful. As an initial matter and as discussed in our written testimony, investment in R and D and venture capital is at an all-time high for software. Innovation is flourishing. On the other hand, when overbroad business method patents existed in the years before *Alice* was decided, R and D investment decreased, only to increase once the decision was handed down.<sup>1</sup>

**b. What impact will broadening the subject matter that can be patented have on consumers?**

**Answer:** Expanding the scope of patentability as suggested in the discussion draft will lead to decreased innovation and fewer choices for consumers. In addition, the cost of licensing these patents will have to be passed on to purchasers of software as well as consumers of other kinds of articles that are subject to patent protection.

**c. Could these reforms increase consumer prices? If so, in what industries or on what products?**

**Answer:** A patent that does not increase consumer prices is not performing its constitutional job. The patent grant creates exclusive rights in the patentee to make, use or vend a particular invention—exclusive rights that would not otherwise exist. That is a trade worth making when the patent demonstrates an improvement in technology.

Our concern with this legislation is that it expands patent eligibility in a way that has no such limitation. It provides patent protection to software that does

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<sup>1</sup> Sridhar Srinivasan, *Do Weaker Patents Induce Greater Research Investments?* (December, 2018) ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3185148](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3185148)) (finding the above relationship between investment and R and D before and after the Alice decision).

not advance the state of the art in software. As a result, it will harm innovation in the software industry, as has been shown to have happened in the past.

## SIIA Responses to Senator Hirono

1. Last year, Judge Alan Lourie and Judge Pauline Newman of the Federal Circuit issued a concurring opinion to the court's denial of *en banc* rehearing in *Berkheimer v. HP Inc.*, in which they stated that “the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems.”

### **Do you agree with Judges Lourie and Newman? Does § 101 require a Congressional fix or should we let the courts continue to work things out?**

The courts are currently quite capable of solving any alleged problem. For example, certiorari has been sought in *Vanda Pharm. Inc. v. W.-Ward Pharm. Int'l Ltd.*, 887 F.3d 1117 (Fed. Cir. 2018) which, if affirmed, would have significant implications for any complaints about eligibility law in the life sciences sector. Thus, while *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012) excluded the patenting of discovered correlations, *Vanda* permits the patenting of drug dosages based on *using* discovered correlations. The Court has sought the views of the Solicitor General. (Similarly, the Court also asked for the views of the Solicitor General in *Berkheimer* itself.). Legislation at this point seems to us to be premature.

However, if it is true that current patent eligibility standards have led to problems in the life sciences in securing patents (as evidenced through disproportionately high rejection rates) and in securing investment, Congress has ample tools to develop a factual record about those specific problems and draft a narrowly tailored legislative solution to solve them.

There is no such need for our members. As described in SIIA's testimony and that of the High Tech Innovation Alliance, investment in software is thriving, and the law is working for our industry. The Federal Circuit has routinely required that software patents focus on technological improvement.<sup>1</sup> as our members have re-allocated investment from paying off patent settlements to research and development. From the broader perspective of the 800 software and content companies that SIIA represents, if an amendment of section 101 is necessary, that amendment should provide the protection for software innovation that exists under current law: (1) a procedural means to dispose of overbroad patent claims as a matter of law at the 12(b)(6) stage; and (2) a substantive test that requires the patentee to have invented a technological solution to a technological problem. We note that the discussion draft contains neither of these elements, and instead abrogates the “abstract idea” doctrine as well as every other

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<sup>1</sup> See, e.g., *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (“[W]e find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the Alice analysis.”); *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1008 (Fed. Cir. 2018) (the claims are directed to “a specific solution to then-existing technological problems).

judicial exception developed over a century ago—a course correction far broader than anything that these jurists suggest or that is warranted by the legislative record.

2. The Federal Circuit rejected a “technological arts test” in its *en banc Bilski* opinion. It explained that “the terms ‘technological arts’ and ‘technology’ are both ambiguous and ever-changing.” The draft legislation includes the requirement that an invention be in a “field of technology.”

**a. Do you consider this a clear, understood term? If so, what does it mean for an invention to be in a “field of technology”?**

SIIA does not believe this to be a clear term. We also note that the discussion draft requires courts to construe claims in favor of eligibility, while abrogating 150 years of case law. It will take decades of litigation to determine what those words mean, and that uncertainty will disrupt our industry—one that thrives under existing law.

**b. The European Union, China, and many other countries include some sort of “technology” requirement in their patent eligibility statutes. What can we learn from their experiences?**

The U.S. should maintain what it currently has, and what other major patent regime has: an effective technology requirement. If we were to abrogate *Mayo* and *Alice* (as the draft bill does) without adopting an effective technology requirement the U.S. patent system would become an anomaly. (The “field of technology” language does not create such a requirement.)

There has been an international consensus that patenting non-technological innovation is not helpful to innovation or economic growth, and the U.S. system has contained this precept since the patent clause was drafted. The importance of preserving innovation comes from hundreds of years of experience with patent regimes. Departing from this consensus through the approach in the discussion draft will be extremely harmful to innovation in the software industry and elsewhere.

**Is a claim that describes a method for hedging against the financial risk of price fluctuations—like the one at issue in the *Bilski* case—in a “field of technology”? What if the claim requires performing the method on a computer?**

For reasons given in response to question 2(c), *supra*, it is difficult to answer these questions with confidence because the draft abrogates all the cases (including *Bilski*) which kept hedging strategies out of patent protection. We can state with confidence that the meaning of that term will create extensive litigation. Performance of a particular method “on a computer” would pass muster, as use of a strategy “on a computer” could be a field of technology, and the language of the draft instructs courts to construe claims in favor of eligibility. The result of that rule would be re-institution of the harmful state of the law as it existed prior to *Alice*.

**c. What changes to the draft, if any, do you recommend to make the “field of technology” requirement more clear?**

Section 101 has to continue to perform the role of a rough filter that ensures that software patents claim an improvement in technology—a requirement that the Federal Circuit has applied in several dozen cases, and which has provided certainty and success to the software industry. In general terms, that filter currently contains two components: (a) a procedural filter that allows an early challenge to poor-quality patents; and (b) a rule that focuses on technological improvement. The draft bill not only abrogates those, but many other cases decided over the last hundred and fifty years. Thus, clarifying field of technology is but one of the changes that would have to be made to this bill to secure clarity and promote innovation.

3. Sen. Tillis and Sen. Coons have made clear that genes as they exist in the human body would not be patent eligible under their proposal.

**Are there other things that Congress should make clear are not patent eligible? There are already statutes that prevent patents on tax strategies and human organisms. Are there other categories that should be excluded?**

SIIA believes that abstract ideas, printed matter, methods of organizing human behavior, and other categories of judicially defined ineligible subject matter should not constitute patentable subject matter.

4. I have heard complaints that courts do not consistently enforce Section 112 with respect to claims for inventions in the high tech space.

**a. Are these valid complaints?**

Yes. This is an ongoing serious concern for all of our members as it is a critical component of patent quality. We note that all of the business method patents struck down under section 101 survived section 112 scrutiny at the examination stage.

**b. Do the proposed changes to Section 112 adequately address those complaints and limit the scope of claims to what was actually invented?**

While SIIA appreciates the changes made to section 112, those changes do not ameliorate the adverse effects on innovation that would ensue from the changes to section 101. The additional changes to Section 112 that we would recommend appeared in our round table submissions, and SIIA adds them below. These amendments accomplish four goals:

- Limiting patent claims to what was actually invented and disclosed;
- Ensuring that the boundaries of claims are clear to the public;
- Emphasizing that Section 112(f) is the only exception to the prohibition against functional claiming; and
- Allowing trial court judges to resolve Section 112 challenges early in

litigation.

Accomplishing these ends requires legislative changes to section 112 that:

- Strengthen the written description requirement of Section 112(a)
- Strengthen the definiteness requirement of Section 112(b)
- Emphasize that Section 112(f) is the only exception to the prohibition against functional claiming; and
- Designates analysis of these Section 112 requirements as a question of law to be decided by a judge.
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**c. Are you concerned that the proposed changes will make it too easy for competitors to design around patent claims that use functional language?**

While not sufficient to overcome our concerns with the balance of the draft, we view the changes to section 112(f) as helpful in preventing overbroad functional claiming. The problem that the software industry faces is the exact opposite: the current statute is being interpreted to permit applicants to claim inventions that do nothing more than recite a desired property or a result in a way that encompasses all ways of achieving that result. Designing around the disclosed invention is a legitimate and important commercial practice—one that is essential to innovation. Section 112(f) provides protection to the claimed invention “and equivalents” as provided in the written specification.

5. There is an intense debate going on right now about what to do about the high cost of prescription drugs. One concern is that pharmaceutical companies are gaming the patent system by extending their patent terms through additional patents on minor changes to their drugs. My understanding is that the doctrine of obviousness-type double patenting is designed to prevent this very thing.

The Federal Circuit has explained that obviousness-type double patenting “is grounded in the text of the Patent Act” and specifically cited Section 101 for support.

**Would the proposed changes to Section 101 and the additional provision abrogating cases establishing judicial exceptions to Section 101 do away with the doctrine of obviousness-type double patenting? If so, should the doctrine of obvious-type double patenting be codified?**

SIIA views the double-patenting doctrine as one of the many implied exceptions that is essential to innovation. To the extent that the text of the draft creates any doubt on this point, that doubt should be expressly eliminated.

6. In its *Oil States* decision, the Supreme Court explicitly avoided answering the question of whether a patent is property for purposes of the Due Process Clause or the Takings Clause.

**What are the Due Process and Takings implications of changing Section 101 and applying it retroactively to already-issued patents?**

The Supreme Court has stated that in “issuing patents, the PTO take[s] from the public rights of immense value, and bestow [s] them upon the patentee. Specifically, patents are public franchises that the Government grants to the inventors of new and useful improvements.” *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018) (internal citation and quotation omitted). That franchise is property that is at least protected from acts of federal and state deprivation without due process of law. See *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642, 119 S. Ct. 2199, 2208, 144 L. Ed. 2d 575 (1999) (finding patents to be property under the 14th Amendment); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986 (1984) (trade secrets as property for Fifth Amendment purposes). Thus, were a state or federal government to infringe a patent that right would be susceptible to a remedy as a deprivation of property or possibly a taking.

However, SIIA respectfully suggests that it is not the Fifth Amendment that may limit Congress’s power, but the Patent Clause itself. It is true that under the Patent and Copyright Clause, statutes will generally receive rational basis review: Congress has plenary power to enact intellectual property statutes. Congress’s adjustment of patent rights to permit a research exemption does not raise takings concerns and would receive rational basis review, as would shortening or lengthening the patent term. Congress may adjust (and has adjusted) the scope of the public franchise.

However, legislative exercise of that power may receive enhanced scrutiny when Congress violates the traditional contours of patent and intellectual property rights. The prohibition on claiming patent protection in abstract ideas is such a traditional contour, and the bill abrogates that limitation in what is a fundamentally overbroad way. Congress may not strip the court of its ability to determine the scope of the patent power, which is what the discussion draft seems to do.