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Meeting the Challenges to America's Economic Future: Charting the Course in U.S. Intellectual Property & Innovation Policy

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Meeting the Challenges to America's Economic Future: Charting the Course in U.S. Intellectual Property & Innovation Policy

Erratum

Corrections made to footnotes.

International IP Commercialization Council
U.S.A. Chapter

MEETING THE CHALLENGES TO AMERICA'S
ECONOMIC FUTURE:

CHARTING THE COURSE IN U.S. IP & INNOVATION
POLICY⁺

With an Introduction by Professor Megan M. La Belle

May 9, 2018
11:00 AM to 3:00 PM
U.S. Capitol Building
Washington, D.C.

Speakers:

ROBERT ARONOFF
Executive Director IIPCC U.S.A.; Managing Partner, Pluritas, Inc.

KIM CHOTKOWSKI
Chief Executive Officer, LES USA & Canada

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⁺ The conference transcripts have been edited to remove minor speech aberrations and to reference sources mentioned in the statements.

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INTRODUCTION: THE PAST, PRESENT, AND FUTURE OF THE U.S. PATENT SYSTEM

Megan M. La Belle⁺

For more than a decade now, the topics of innovation policy and patent reform have been priorities among U.S. lawmakers. In the early 2000s, the conversation focused on concerns about our patent system impeding innovation because it was “too strong.”¹ Innovators, particularly in the high-tech industry, claimed that non-practicing entities or “trolls” were using junk patents to force operating companies into nuisance settlements by threatening infringement suits and permanent injunctions.² These threats distracted companies like Google and Facebook from what they should be focused on—namely, the creation and development of beneficial consumer products and services—or so the story went. Consequently, in September 2011, Congress passed the America Invents Act (AIA), a comprehensive law that overhauled the U.S. patent system.³

Since the AIA became effective in 2012, it has been easier to invalidate patents.⁴ This is due, in large part, to the creation of new administrative proceedings at the U.S. Patent and Trademark Office (PTO), particularly *inter partes* review. These post-grant proceedings allow patents to be invalidated in a quicker and cheaper manner than pre-AIA, when patents were primarily challenged in federal court.⁵ In addition to the changes wrought by the AIA, the U.S. Supreme Court has issued key decisions regarding patentable subject matter under 35 U.S.C. § 101 that arguably have undermined the strength of the U.S. patent system.⁶

Earlier this year, the International IP Commercialization Council (IIPCC) hosted a conference titled *Meeting the Challenges to America's Economic Future: Charting the Course in U.S. Intellectual Property and Innovation Policy* that explored these topics. As the conference transcripts published herein reflect, many stakeholders are worried that our innovation ecosystem is at risk

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1. See, e.g., Mark Lemley, Doug Lichtman & Bhaven Sampat, *What to Do About Bad Patents?*, REGULATION, Winter 2005, at 10, 12.

2. *Id.*

3. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284-341 (2011) (codified as amended in scattered parts of 35 U.S.C.).

4. See, e.g., Brian J. Love & Shawn Amwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 100–01 (2014) (discussing how many patent claims have been successfully challenged through post-grant review proceedings at PTO).

5. See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 653 (2012) (explaining that Congress created post-grant review proceedings to provide a cheaper and more efficient alternative to litigation).

6. See *Alice Corp. v. CLS Bank Int'l*, 537 U.S. 208, 221 (2014).

because the pendulum has swung too far against the protection of patent rights.⁷ Yet, others believe that the AIA is operating exactly how Congress intended and is creating a more balanced patent system that facilitates and encourages innovation.⁸ With various legislative proposals introduced over the past few years—including the Support Technology & Research for Our Nation’s Growth and Economic Resilience (STRONGER) Patents Act⁹ and the Targeting Rogue and Opaque Letters (TROL) Act¹⁰—Congress will have to decide what reforms to our patent system, if any, are necessary to “promote the Progress of Science and useful Arts.”¹¹

I. THE U.S. PATENT SYSTEM OF THE PAST

The patent system in the U.S. is as old as the nation itself.¹² Over the past two centuries, the country has experienced periods of stronger and weaker patent protection. The 1970s, for example, was a “low water mark” for patent rights thus prompting Congress to create the U.S. Court of Appeals for the Federal Circuit in 1982.¹³ The Federal Circuit, which has exclusive jurisdiction over patent cases, heralded a new era of protectionism for patent rights that persisted until the AIA was passed in 2011.

For the first two decades after its creation, the Federal Circuit consistently issued decisions favoring patent owners thereby establishing the U.S. as a stronghold of patent protection. Without cataloguing each of these decisions, a few key ones are worth mentioning. Early on, in *Smith International, Inc. v. Hughes Tool Co.*,¹⁴ the Federal Circuit announced a rule for near automatic injunctions upon a finding of patent infringement.¹⁵ As a result, patent owners were armed with a powerful bargaining tool (*i.e.*, the threat of a permanent injunction) that could be used to secure license fees and settlements.¹⁶ What is more, just two years after its creation, the Federal Circuit made it much more difficult to invalidate patents on obviousness grounds by adopting the “teaching-

7. *See infra*.

8. *Id.* (discussing arguments of AIA supporters).

9. Support Technology and Research for Our Nation’s Growth and Economic Resilience (STRONGER) Patents Act of 2018, H.R. 5340, 115th Cong. (2018); S. 1390, 115th Cong. (2018).

10. Targeting Rogue and Opaque Letters (TROL) Act, H.R. 6370, 115th Cong. (2018); H.R. 2045, 114th Cong. (2016).

11. U.S. CONST. art I, § 8, cl. 8.

12. *Id.*; Patent Act of 1790, Ch. 7, 1 Stat. 109–112 (1790).

13. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (codified in scattered sections of 28 U.S.C.).

14. 718 F.2d 1573 (Fed. Cir. 1983).

15. *Id.* at 1581 (“A court should not be reluctant to use its equity powers once a party has so clearly established his patent rights. We hold that where validity and continuing infringement have been clearly established . . . immediate irreparable harm is presumed.”).

16. *See eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring) (stating that patentees can employ injunctions “as a bargaining tool to charge exorbitant [licensing] fees”).

suggestion-motivation” test.¹⁷ The court also expanded the scope of § 101, most notably in *State Street Bank & Trust Co. v. Signature Financial Group*¹⁸ where it decided that business methods were patentable subject matter. This led to a significant increase in the number—and many believe a decrease in the quality—of patents granted by the PTO each year.¹⁹ Finally, but perhaps most importantly, the Federal Circuit ensured its position as the primary policymaker in the patent arena when it held that the PTO lacked substantive rulemaking authority and refused to afford deference to the agency’s legal determinations.²⁰

These and other Federal Circuit decisions created an environment ripe for abuse. With the more relaxed standards for obviousness and subject matter eligibility, the number of patent applications filed, as well as patents ultimately granted by the PTO, rapidly increased.²¹ During this time, the PTO was severely under-resourced and patents were mistakenly granted.²² Rather than commercializing those inventions, however, “bad” patents were often sold to entities that enforce patents through licensing and litigation, but don’t practice them.²³ These entities—alternatively referred to as patent enforcement entities (PAEs), non-practicing entities, and trolls—posed serious “holdup” problems for operating companies, particularly in the high tech sector.²⁴ The PAE business model, in essence, was to acquire low-value patents, and then demand that accused infringers take a license or face an infringement suit and a permanent injunction.²⁵ Because injunctions were virtually guaranteed under Federal Circuit law and patent suits were time-consuming, unpredictable, and expensive to defend, accused infringers often capitulated to PAEs and took licenses or settled.²⁶

17. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.* 732 F.2d 1572, 1577 (Fed. Cir. 1984) (“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination.”).

18. 149 F.3d 1368 (Fed. Cir. 1998).

19. See, e.g., Megan M. La Belle & Heidi Mandanis Schooner, *Big Banks and Business Method Patents*, 16 U. PENN. J. BUS. LAW 431, 448–50 (2014).

20. See, e.g., *Merck & Co. v. Kessler*, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996).

21. U.S. Patent & Trademark Office, *U.S. Patent Statistics Chart Calendar Years 1963–2015* (last modified Dec. 14, 2018), available at https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (reflecting a significant jump in the number of patents issued in the late 1990s after *State Street* was decided).

22. See, e.g., Mark A. Lemley & Bhaven Sampat, *Is the Patent Office a Rubber Stamp?*, 58 EMORY L.J. 181, 181–82 (2008).

23. Michael Risch, *Patent Troll Myths*, 42 SETON HALL L. REV. 457, 459 (2012).

24. Brian J. Love, *The Misuse of Reasonable Royalty Damages as a Patent Infringement Deterrent*, 74 MO. L. REV. 909, 931 (2009) (defining patent holdup as “the opportunistic use of patent rights to extract above-benchmark compensation”).

25. Megan M. La Belle, *Against Settlement of (Some) Patent Cases*, 67 VAND. L. REV. 375, 401 (2014).

26. *Id.*

This patent holdup problem spurred a call for reform.²⁷ Beginning in 2005, various bills were introduced in Congress to overhaul the patent system, but they died in committee.²⁸ Legislative reform efforts intensified the following year, and ultimately culminated in Congress enacting the AIA on September 16, 2011.²⁹ To be sure, the impact of the AIA has been significant, as discussed below. Yet, even before the landmark legislation passed, the courts were effecting major change in patent doctrine. Specifically, the Supreme Court made it harder for patent owners to defend against declaratory judgment actions³⁰ and get permanent injunctions,³¹ and made it easier for accused infringers to prove that patented inventions were obvious under 35 U.S.C. § 103³² or lacked proper subject matter under 35 U.S.C. § 101.³³ Thus, by the time the AIA went into effect in 2012, the U.S. patent system already looked markedly different than it had just a decade before.

II. THE PRESENT STATE OF THE U.S. PATENT SYSTEM

The AIA, the most comprehensive patent reform legislation since 1952, fundamentally altered the way patents are issued and litigated in this country. For starters, it switched our priority system from “first-to-invent” to “first-to-file,” bringing the U.S. more in harmony with the rest of the world.³⁴ The new law also expanded the definition of prior art to include public disclosures outside the U.S.,³⁵ created a new defense to patent infringement of prior commercial use,³⁶ and gave the United States Patent & Trademark Office (PTO) greater control over its fees.³⁷ Arguably more significant than any of these changes, however, was the AIA’s creation of the Patent Trial and Appeal Board (PTAB) and various administrative proceedings for challenging patent validity *ex post*,

27. See, e.g., Colleen V. Chien, *Holding Up and Holding Out*, 21 MICH. TELECOMM. & TECH. L. REV. 1, 1 (2014).

28. Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 439 (2012).

29. *Id.*

30. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 132 n.11 (2007) (rejecting “the Federal Circuit’s ‘reasonable apprehension of suit’ test,” and thus making it easier for alleged infringers to challenge patents via declaratory relief).

31. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391–92 (2006) (rejecting the Federal Circuit’s “general rule that courts will issue permanent injunctions against patent infringement”).

32. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007) (holding that the Federal Circuit’s “teaching, suggestion, or motivation” test for obviousness should be flexibly applied, not as “rigid and mandatory formulas”).

33. *Bilski v. Kappos*, 561 U.S. 593 (2010).

34. Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 3(a), 125 Stat. 284–341 (2011) (codified as amended in scattered parts of 35 U.S.C.).

35. *Id.* § 3(b).

36. *Id.* § 5(a), § 273(a).

37. See, e.g., *id.* § 10(a) (allowing PTO to “set or adjust by rule any fee” for patent-related services or materials provided that any such change is used “to recover the aggregate estimated costs to the Office for processing, activities, services, and materials relating to patents”).

meaning after patents had already been granted.³⁸ These new proceedings, which include inter partes review (IPR), post-grant review (PGR), and covered business method review (CBM), were supposed to simplify patent litigation by providing a quicker and less expensive means for invalidating bad patents.³⁹ As one Federal Circuit judge explained it, “[t]he premise [was] that an adversarial evidentiary proceeding in the PTO [would] reliably resolve most issues of patent validity, without the expense and delay of district court litigation, and sometimes even before infringement has occurred.”⁴⁰

The PTAB opened its doors in September 2012, immediately went to work, and has kept busy ever since. As of July 2018, a total of 8,874 post-grant petitions had been filed (8,190 IPRs, 557 CBMs, and 127 PGRs), far exceeding expectations about how attractive these proceedings would be to patent challengers.⁴¹ One reason these proceedings have been so popular is because of the early success that challengers enjoyed. By way of example, a 2014 study showed that petitioners in IPRs were winning complete victories almost two-thirds of the time when they pursued petitions to a final decision.⁴² These early statistics caused some, including the former Chief Judge of the Federal Circuit Randall Rader—one of the speakers at the IIPCC conference⁴³—to view the PTAB as a “death squad”⁴⁴ and a “killing field”⁴⁵ whose inclination to invalidate patents undermines our economy by discouraging investment in innovation and technology.⁴⁶ What is more, critics have denounced the PTAB for complicating patent litigation rather than streamlining it, as Congress intended.⁴⁷ Rader and

38. *Id.* §§ 6, 7, 18 at 299–316, 329–31.

39. *See Matal*, *supra* note 5, at 653.

40. *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015) (Newman, J., dissenting), *aff'd sub nom.* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016).

41. *See, e.g.*, Rochelle Cooper Dreyfuss, *Giving the Federal Circuit a Run for Its Money: Challenging Patents in the PTAB*, 91 NOTRE DAME L. REV. 235, 251 (2015) (“[T]hese statistics speak loudly about the public’s eagerness and ability to use these procedures to ‘weed out’ bad patents.”).

42. *See* Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI L. REV. DIALOGUE 93, 101 (2014).

43. *See infra* at 627.

44. Rob Sterne & Gene Quinn, *PTAB Death Squads: Are all Commercially Viable Patents Invalid?*, IP WATCHDOG (Mar. 24, 2014), <http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id=48642/> (quoting the comments of former Federal Circuit Chief Judge Randall Rader made at the 2013 AIPLA annual meeting in Washington, D.C.).

45. Erich Spangenberg, *Patent Predictions for 2015*, IPNAV BLOG (Jan. 2015), <http://www.ipnav.com/blog/erich-spangenbergs-patent-predictions-for-2015/>.

46. *See, e.g.*, A. Abbott, et al., *Crippling the Innovation Economy: Regulatory Overreach at the Patent Office*, REGULATORY TRANSPARENCY PROJECT OF THE FEDERALIST SOCIETY (Aug. 14, 2017), <https://regproject.org/wp-content/uploads/RTP-Intellectual-Property-Working-Group-Paper.pdf>.

47. *See, e.g.*, Gregory Dolin, M.D., *Dubious Patent Reform*, 56 B.C.L. REV. 881, 883 (2015) (“[M]ore opportunities to challenge issued patents also means more opportunities to engage in abusive practices to undermine legitimate patent rights.”)

Paul Michel, also a former Chief Judge of the Federal Circuit, both addressed that point at the conference, claiming that PTAB proceedings complicate patent litigation—for example, by using different standards than courts for claim construction and burden of proof—thus driving up costs by a significant margin.⁴⁸ Finally, detractors argue that the PTAB has failed to solve the patent troll problem, and instead has besieged operating companies, undermined the federal courts' role in patent law, and hampered innovation in the U.S.⁴⁹

These critiques of the PTAB were explored in depth at the IIPCC conference. Speakers talked about how the increased risk of patent invalidation is discouraging research, development, and investment in innovation. Representatives from a cross-section of patent owners—the Cleveland Clinic, University of Michigan, IBM, Qualcomm, and Personalized Media Communications (PMC)—shared stories about how recent changes to the patent system are negatively impacting innovators “on the ground.”⁵⁰ Aaric Eisenstein, Vice President of Licensing Strategy for PMC, explained how repeated PTAB challenges cause significant strain on innovators, especially the individual inventors his company serves. More fundamentally, Eisenstein and others complain, the PTAB undermines the PTO's primary mission: issuing patents.⁵¹

Yet the stories shared at the IIPCC conference did not focus exclusively, or even primarily, on the PTAB. Instead, much of the discussion was devoted to two other issues wholly unrelated to the AIA: patentable subject matter under 35 U.S.C. § 101 and permanent injunctions in patent cases. As noted above, before Congress enacted the AIA, the Supreme Court undertook patent reform on its own by issuing a number of landmark decisions.⁵² In a similar vein, the Supreme Court continued to tweak the patent system after the AIA, particularly with respect to § 101 in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*,⁵³ *Association for Molecular Pathology v. Myriad Genetics*,

48. See *infra* at 627 (“The PTAB, quite aside from invalidations, adds per challenge something in the order of \$300 to \$600 thousand dollars per challenge and there are often multiple challenges.”) (Michel, P.); *id.* (“In many instances, [PTAB review] has added to the expense and the time of the proceeding without any real concomitant benefit.”) (Rader, R.).

49. *Id.* (“[The PTAB] hasn't even hit the main target it was supposed to hit, which is the patent troll case.”); *id.* at 628 (“[I]t seems to me the measure of accuracy and fairness—due process, if you will—in a PTAB should be by comparing it to what happens in a court of law.”) (Michel, P.); see also Abbott, *supra* note 46, at 4 (“The PTAB administrative tribunal is creating unnecessary costs for inventors and companies, and thus it is harming the innovation economy far beyond the harm of the bad patents it was created to remedy.”).

50. See *infra* at 634–645.

51. *Id.* at 639 (stating that the PTO “is directed to issuing valid patents. That's what it's for.”); see also Ryan Davis, *PTAB's “Death Squad” Label Not Totally Off-Base, Chief Says*, LAW360 (Aug. 14, 2014, 5:47 PM), <http://www.law360.com/articles/567550/ptab-s-death-squad-label-not-totally-off-base-chief-says> (quoting Randall Rader as saying that the PTO “was in tension with itself, with thousand[s] of examiners ‘giving birth’ to patents and hundreds of judges on the PTAB ‘acting as death squads, kind of killing property rights’”).

52. See *supra* notes 30–33.

53. 566 U.S. 66 (2012).

Inc.,⁵⁴ and *Alice Corp. v. CLS Bank International*.⁵⁵ This trilogy of cases reinvigorated the judicially-created exceptions to § 101—*i.e.*, that laws of nature, natural phenomena, and abstract ideas are excluded from patent protection—and attempted to set out a framework for determining when the exceptions apply.⁵⁶ Specifically, the *Alice* test requires courts to ask, first, whether the claims at issue are directed to a “patent-ineligible concept,” meaning one of the judicially-created exceptions.⁵⁷ If so, then is there an element or combination of elements in the claim that amounts to “significantly more than a patent upon the [ineligible concept] itself.”⁵⁸ With respect to this second prong, courts consider, *inter alia*, whether the invention’s functions are “well-understood, routine, conventional activit[ies]’ previously known to the industry.”⁵⁹

As a result of this trilogy of cases, it became easier than ever to invalidate patents under § 101, often at much earlier stages of litigation.⁶⁰ Jeff Cicarella, for instance, explained how patents owned by the Cleveland Clinic on an important diagnostic tool were invalidated at the pleading stage under *Mayo* without claim construction or consideration of expert testimony.⁶¹ Manny Schecter opined that recent § 101 jurisprudence has created major obstacles for companies like IBM working in Artificial Intelligence (AI) because AI “intersects with the judicial exception on abstractness but the Supreme Court has never ever told us what abstractness means.”⁶² While the speakers recognize that the Federal Circuit and PTO are doing their best to bring some clarity to § 101, they seem to agree that legislation is necessary at this point.⁶³ Indeed, some believe that the best legislative fix would be for Congress to eliminate the judicially-created exceptions to § 101.⁶⁴

54. 569 U.S. 576 (2013).

55. 537 U.S. 208 (2014)

56. See, e.g., Amy Landers, *The Interconnections Between Entrepreneurship, Science, and the Patent System*, 2016 UTAH L. REV. 631, 634 (2016); Andres Sawicki, *The Central Claiming Renaissance*, 103 CORNELL L. REV. 645, 647 (2018).

57. *Alice*, 537 U.S. at 217.

58. *Id.*

59. *Id.* at 225 (citing *Mayo*, 566 U.S. at 73).

60. Paul R. Gugliuzza, *Quick Decisions in Patent Cases*, 106 GEO. L.J. 619, 651 (2018) (“[T]he invigorated patent eligibility requirement is, like Congress’s expansion of post-issuance proceedings at the PTO, another route to quick decisions on patent validity.”).

61. See *infra* at 642–43.

62. *Id.* at 635.

63. See, e.g., *id.* at 625 (acknowledging that there have been some “good panel decisions[s] of . . . the Federal Circuit” on § 101 issues, but “despite [the Federal Circuit’s] best efforts to cope,” there’s “chaos up and down the Courts”) (Kappos, D.); *id.* at 629 (“The [Patent] Office is doing everything it can to fix what it can fix, but legislation is needed to help fix other aspects of the system that were wired in by the AIA and we now know need to be adjusted . . .”) (Kappos, D.).

64. *Id.* at 644 (“I like the idea I heard in the first panel about the legislative revision to 101 to do away with the exceptions to create clarity.”) (Pilz, B.).

Aside from patentable subject matter, the other topic that received a good deal of attention at the IIPCC conference was injunctive relief—again, something unrelated to the AIA. During the push for patent reform, one of the primary complaints from accused infringers was that patent trolls were using the threat of permanent injunctions to extort settlements.⁶⁵ Such threats were effective because, under Federal Circuit law at the time, injunctive relief was almost automatic once infringement had been established.⁶⁶ Thus, the earliest patent reform bill proposed to limit injunctive relief by requiring the court to “consider the fairness of the remedy in light of all the facts and the relevant interests of the parties associated with the invention.”⁶⁷ Congress never had the opportunity to act on this proposal, however, because the Supreme Court decided *eBay v. MercExchange*⁶⁸ in 2006, less than a year after the first reform bill was introduced. The *eBay* Court rejected the Federal Circuit’s automatic injunction rule and held that courts must consider the traditional four-factor standard for permanent injunctions in all types of cases.⁶⁹ As a consequence of *eBay*, it has become much more difficult for patent owners to obtain permanent injunctions.⁷⁰ In Paul Michel’s words, it is “almost impossible” to get a permanent injunction in the U.S. today, whereas injunctive relief is routine in other parts of the world.⁷¹ Laurie Self, Vice President and Counsel for Government Affairs at Qualcomm, likewise claims that “we are now in a strange dynamic where it’s easier to get an injunction in China than it is in the United States.”⁷² In fact, Self believes the inability to obtain injunctive relief is the biggest problem facing patent owners today.⁷³

As you read the transcripts from the IIPCC conference and hear more about the problems with the current patent system in the U.S., keep in mind that—as is usually the case—there are two sides to the story. The changes that have come about in recent years were motivated, in large part, by evidence that the former patent system was inefficient, subject to abuse by trolls, and often unfair to

65. See, e.g., Jason Rantanen, *Slaying the Troll: Litigation As an Effective Strategy Against Patent Threats*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 166 (2006) (“[A] patent troll makes heavy use of the threat of litigation—and the threat of an injunction—to force a license of its patent.”).

66. See *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1266, 1246–47 (Fed. Cir. 1989).

67. Patent Reform Act of 2005, H.R. 2795, 109th Cong. § 7.

68. 547 U.S. 388 (2006).

69. *Id.* at 391–92. The four factors include: (1) patent owner has suffered an irreparable injury; (2) remedies available at law are inadequate to compensate for that injury; (3) considering the balance of hardships between plaintiff and defendant, injunctive relief is warranted; and (4) public interest would not be disserved by an injunction. *Id.* at 391.

70. See, e.g., Jonathan M. Barnett, *Has the Academy Led Patent Law Astray?*, 32 BERKELEY TECH. L.J. 1313, 1317 (2017) (discussing the difficulty of obtaining injunctions post-*eBay*).

71. See *infra* at 626.

72. *Id.* at 644.

73. *Id.*

accused infringers.⁷⁴ If the current climate is less favorable to patent owners, supporters argue, that simply means the legislative and judicial reforms are working as intended. With respect to the PTAB, for example, its purpose was to provide an expert tribunal that “facilitate[s] both the validation of properly issued patents and the elimination of invalid patents.”⁷⁵ As the former Chief Judge of the PTAB said in response to criticism from Radar and others that the tribunal was invalidating too many patents, if the PTAB was not “doing some ‘death squadding,’ [it] would not be doing what the [AIA] calls on [the PTAB] to do.”⁷⁶ Moreover, while the PTAB initially invalidated patent claims at a seemingly high rate, the pace has slowed, suggesting that the worst of the bad patents were quickly and easily invalidated in the early years of the PTAB—exactly the result Congress hoped to achieve.⁷⁷ Perhaps more importantly, data indicate that the PTAB’s invalidation rate is actually quite similar to that of its European counterpart and U.S. district courts, thus undermining the claim that the PTAB is a “death squad.”⁷⁸

Turning to the issues of § 101 and permanent injunctions, there are also arguments on both sides about the impact of the recent changes. For a long time, courts broadly interpreted the judicially-created exceptions to § 101 (*i.e.*, laws of nature, natural phenomena, and abstract ideas) to preclude the patenting of business methods,⁷⁹ computer software,⁸⁰ and certain types of innovations in

74. See, *e.g.*, Robert P. Merges, *Software and Patent Scope: A Report from the Middle Innings*, 85 TEX. L. REV. 1627, 1676 (2007) (discussing how the threat of injunctions gives patentees “highly disproportionate leverage over . . . accused infringer[s]” and how “[c]urrent institutional arrangements do not make it easy for companies to challenge the validity of ‘mistake’ patents”).

75. SAS Inst., Inc. v. ComplementSoft, LLC, 825 F.3d 1341, 1353 (Fed. Cir. 2016), *rev’d*, SAS Inst., Inc. v. Iancu, 138 S. Ct. 1348 (2018); see also Rochelle Cooper Dreyfuss, *Giving the Federal Circuit a Run for Its Money: Challenging Patents in the PTAB*, 91 NOTRE DAME L. REV. 235, 236 (2015) (explaining that Congress created post-grant review proceedings to “improve the likelihood that invalid patents would be quickly weeded out of the system” to reduce the burden on innovation caused by patent thickets”).

76. Ryan Davis, *PTAB’s “Death Squad” Label Not Totally Off-Base, Chief Says*, LAW 360, Aug. 14, 2014.

77. See, *e.g.*, Brian Berliner, Sina Aria & Alex Boyadjian, *Busting 3 Myths About the Patent Trial and Appeal Board*, LAW 360, Aug. 9, 2018 (arguing that PTAB data shows that “AIA proceedings have been sufficiently fair to patent owners”).

78. See John R. Allison, Mark A. Lemley, & David L. Schwartz, *Our Divided Patent System*, 87 U. CHI. L. REV. 1073 (2015); Josh Landau, *A Little More than Forty Percent: Outcomes at the PTAB, District Court, and the EPO*, PATENT PROGRESS (May 1, 2018), <https://www.patentprogress.org/2018/05/01/a-little-more-than-forty-percent/>.

79. *Bilski v. Kappos*, 561 U.S. 593, 613 (2010) (“For centuries, it was considered well established that a series of steps for conducting business was not, in itself, patentable.”) (Stevens, J., concurring).

80. See, *e.g.*, *Parker v. Flook*, 437 U.S. 584, 594 (1978) (holding that method for updating alarm limits during catalytic conversion was not subject to patent protection).

biotechnology.⁸¹ That began to change in the 1980s and continued for the next decade or so as the Supreme Court and the Federal Circuit broadened the scope of what's patentable under § 101,⁸² thus leading to a proliferation of new patents granted by the PTO.⁸³ When the Internet bubble burst in the 2000s, many of these software and business method patents were acquired by PAEs and enforced in unscrupulous ways, as discussed earlier.⁸⁴ During that same time frame, concerns were mounting that some biotechnology patents were harming patients and impeding innovation.⁸⁵ It was these circumstances that led to the Supreme Court's decisions in *Mayo*, *Myriad*, and *Alice* in an attempt to bring some balance back to our patent system.

Like the broad scope of § 101, the ease with which patent owners could get permanent injunctions was another primary impetus for patent reform.⁸⁶ The PAEs who acquired software and business method patents in the early 2000s used those patents, together with the threat of an injunction, to force accused infringers to pay nuisance settlements.⁸⁷ The Supreme Court addressed the injunctive relief problem in *eBay*, as discussed above. And while critics contend that *eBay* has made it difficult for patent owners across-the-board to get permanent injunctions, a study by Professor Christopher Seaman reaches a different conclusion.⁸⁸ Specifically, Seaman studied post-*eBay* patent decisions and concluded that district courts are systematically denying injunctive relief only for patent owners that do not compete directly with the accused infringer.⁸⁹ Direct competitors, by contrast, continue to seek and secure permanent injunctions when they have established infringement.⁹⁰

The bottom line is that our current patent system looks the way it does for a reason. There was a strong consensus before the AIA that the patent system was out of whack and unfairly favored patent owners. Thus, a slew of changes was

81. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 131 (1948) (holding that a composition of two naturally occurring bacteria was not patentable).

82. *See, e.g., Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980) (holding that a genetically-modified bacterium could be patented); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (rejecting business methods exception to patentability as "ill-conceived").

83. Paul R. Gugliuzza & Mark A. Lemley, *Can a Court Change the Law by Saying Nothing?*, 71 *VAND. L. REV.* 765, 771 (2018); La Belle & Schooner, *supra* note 19, at 449.

84. Gugliuzza & Lemley, *supra* note 83, at 771.

85. *Id.*

86. *See, e.g., Merges, supra* note 74, at 1676.

87. Gugliuzza & Lemley, *supra* note 83, at 771.

88. Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 *IOWA L. REV.* 1949 (2016).

89. *Id.* at 1953. Seaman points out that this *de facto* rule itself contradicts the *eBay* decision, which rejected a categorical approach to injunctive relief. *Id.*

90. *Id.* *See also* Jonathan M. Barnett, *Property As Process: How Innovation Markets Select Innovation Regimes*, 119 *YALE L.J.* 384, 441 n.140 (2009) (stating that post-*eBay* "direct competitors are almost always entitled to an injunction following a finding of validity and infringement whereas indirect competitors are almost always not so entitled").

implemented by Congress, the courts, and the PTO in an attempt to restore balance to the patent system. It is possible, of course, that the pendulum has swung too far in the other direction and patent owners are now at a distinct disadvantage for the reasons discussed at the IIPCC conference. Yet, bombarding the system with a whole host of new changes is not the solution to this problem. Instead, a piecemeal approach—which is already underway—is more likely to achieve the balance necessary for a well-functioning patent system.⁹¹

III. THE FUTURE OF THE U.S. PATENT SYSTEM

When Donald Trump became President, it was predicted that the tenor of discussions on innovation policy would shift in a pro-patent owner direction.⁹² In the two years since the election, those predictions have proven accurate. Evidence of this shift includes recent statements by the Head of DOJ's Antitrust Division that “patent holders rarely create antitrust concerns,”⁹³ and Trump's ceremonial signing of the ten millionth patent issued by the PTO.⁹⁴ Still, the clearest indicator of the Trump administration's patent policy priorities has appropriately come from the PTO Director, Andrei Iancu, himself.⁹⁵

Shortly after he assumed office in early 2018, Iancu declared that the patent system is at a crossroads, and that “we cannot continue down the same path if we want to maintain our economic leadership.”⁹⁶ Iancu then set out two principal policy objectives: first, increasing the reliability of the patent grant, and second, creating a dialogue that is pro-innovation and pro-patents.⁹⁷ At the IIPCC conference, the Director re-emphasized this latter point about the narrative surrounding the patent system,⁹⁸ while simultaneously stressing the

91. David J. Kappos & Christopher P. Davis, *Functional Claiming and the Patent Balance*, 18 STAN. TECH. L. REV. 365 (2015) (“The central premise of the patent system, and the key to its operability as an innovation engine, is balance.”).

92. Jeff John Roberts, *What Trump Means for the U.S. Patent System*, FORTUNE, Jan. 24, 2017, <http://fortune.com/2017/01/24/trump-patents/>.

93. Dennis Crouch, *Patents and Antitrust: Trump DOJ Sees Little Connection*, PATENTLY-O (Feb. 18, 2018), <https://patentlyo.com/patent/2018/02/patents-antitrust-connection.html>.

94. *U.S. Patent 10 Million*, USPTO, <https://10millionpatents.uspto.gov/patent-10-million.html> (last visited Dec. 15, 2018).

95. See, e.g., Gene Quinn, *PTO Proposes Rulemaking to Implement Phillips Claim Construction at PTAB*, IP WATCHDOG (May 8, 2018), <http://www.ipwatchdog.com/2018/05/08/pto-proposed-rulemaking-phillips-claim-construction-ptab/id=96995/> (explaining that Iancu “has been giving speeches raising the hopes of patent owners”).

96. *Remarks by Director Andrei Iancu at U.S. Chamber of Commerce Patent Policy Conference*, USPTO (Apr. 11, 2018), <https://www.uspto.gov/about-us/news-updates/remarks-director-andrei-iancu-us-chamber-commerce-patent-policy-conference>.

97. *Id.*

98. See *infra* at 648 (“[T]he community needs to have confidence in the [patent] system and relentless criticism of the system from any side reduces the industry's confidence in the system”).

need for balance.⁹⁹ More recently, however, Iancu's remarks have taken a decidedly pro-patent owner turn. In a talk to the Eastern District of Texas Bar Association, Iancu called patent troll concerns "Orwellian 'doublespeak'"¹⁰⁰ and issued a warning:

In our zeal to eliminate "trolls" and "the bad patents" they allegedly use to terrorize society, we have overcorrected and risk throwing out the baby with the bathwater. This must now end, and we must restore balance to our system.... [S]caring our inventors and our entrepreneurs is harmful. And scaring our government officials drives towards over-broad policies that, on balance, inhibit innovation.¹⁰¹

Iancu criticized those who complain about trolls as anti-innovation, and proclaimed that the PTO is now focused on inventors and the benefits they bestow on the public.¹⁰²

More important than these platitudes, however, are the key policy initiatives that Iancu has implemented at the PTO. For one, shortly after Iancu took the helm, the PTO issued guidance to its examining corps on § 101 based on a recent Federal Circuit decision in *Berkheimer v. HP Inc.*,¹⁰³ which provided some clarity on how to apply the second prong of the *Alice* test.¹⁰⁴ While it's too soon to understand the full impact of the *Berkheimer* memo, it is expected to counteract the *Myriad/Mayo/Alice* trilogy of cases and allow more patent applications to pass muster under § 101.¹⁰⁵ Indeed, early data indicate that is precisely what's happening, as the PTAB is overturning significantly more § 101 rejections than before *Berkheimer*.¹⁰⁶

99. *Id.* ("I caution balance and an even-keeled approach From the get-go, the founders believed that there needs to be a balance in the system inherently for the system to work it needs to be balanced.").

100. *Remarks by Director Iancu at the Eastern District of Texas Bar Association Inaugural Texas Dinner*, USPTO (Oct. 18, 2018), <https://www.uspto.gov/about-us/news-updates/remarks-director-iancu-eastern-district-texas-bar-association-inaugural-texas>.

101. *Id.*

102. *Id.*

103. 881 F.3d 1360 (Fed. Cir. 2018).

104. USPTO, MEMORANDUM RE CHANGES IN EXAMINATION PROCEDURE PERTAINING TO SUBJECT MATTER ELIGIBILITY (Apr. 19, 2018), <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>; see also John M. Rogitz, *USPTO Memo Explains Changed Alice Step 2B to Examiners*, IP WATCHDOG (Apr. 20, 2018), <http://www.ipwatchdog.com/2018/04/20/uspto-memo-changed-alice-step-2b-examiners/id=96153/>.

105. See, e.g., Julian Asquith & Tobias Eriksson, *Worldwide: The Berkheimer Memorandum—Good News For Software Patents In The U.S.*, MONDAQ (July 16, 2018), <http://www.mondaq.com/uk/x/719506/Patent/The+Berkheimer+Memorandum> ("[W]e are cautiously optimistic that the Berkheimer memorandum heralds a significant change to the interpretation of subject-matter eligibility in the US.").

106. Karam Saab, *Overcoming Subject Matter Rejections: The Berkheimer Shift*, LAW 360 Aug. 6, 2018, <https://www.law360.com/articles/1070216/overcoming-subject-matter-rejections-the-berkheimer-shift> (noting a 23% increase in reversal rates).

In addition to addressing § 101, the PTO has also effected important changes with respect to PTAB. By way of example, the PTO has amended the PTAB Trial Practice Guide to allow patentees to file sur-replies as a matter of right, effectively granting them the “last word” in PTAB proceedings before the oral hearing.¹⁰⁷ Even more significant, the day before the IIPCC conference, the PTO proposed new rules regarding the claim construction standard that PTAB should use.¹⁰⁸ Having received and considered hundreds of comments, the agency subsequently promulgated the claim construction rules, which became effective on November 13, 2018.¹⁰⁹ In short, the new rules mandate that PTAB interpret disputed patent claim terms in accordance with *Phillips v. AWH Corp.*¹¹⁰—the same standard that district courts use—rather than the “broadest reasonable interpretation” standard that PTAB had been using before.¹¹¹ As with the changes to § 101, only time will tell the extent to which this new standard has affected PTAB proceedings. But the expectation is that the *Phillips* standard will make it somewhat more difficult to challenge patents in IPR, and thus patent owners should gain from this switch.¹¹²

Along with the PTO, the courts have taken steps that may very well shift the tide in favor of patent owners. Specifically, the Federal Circuit and Supreme Court have issued opinions in crucial cases that inure to the benefit of patent owners. As mentioned above, *Berkheimer* has made it more difficult to invalidate patents under § 101, particularly at an early stage of the proceeding, because the Federal Circuit held that the second prong of the *Alice* test— “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent”—is a question of fact that must be proven by clear and convincing evidence.¹¹³ The court went on to explain that “[t]he mere fact that something is disclosed in a piece of prior art . . . does not mean it was well-understood, routine, and conventional.”¹¹⁴ In other words, the court clarified, proving the second prong of the *Alice* test takes more than showing

107. See Ryan Davis, *PTAB Practice Guide Changes Will Aid Patent Owners*, LAW 360, Aug. 14, 2018, <https://www.law360.com/articles/1072738/ptab-practice-guide-changes-will-aid-patent-owners>.

108. See *infra* at 649–50 (Iancu, A.) (discussing the changes to PTAB the PTO has the power to make).

109. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340 (Nov. 13, 2018).

110. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

111. See Dennis Crouch, *Final Rule Package: Phillips Standard to be Used by PTAB in IPR Claim Construction*, PATENTLY-O (Oct. 10, 2018), <https://patentlyo.com/patent/2018/10/phillips-standard-construction.html>.

112. *Id.*; see also Justin L. Krieger & Christopher Thomas, *Final Rules: PTAB Adopts Phillips Standard for AIA Trials*, KILPATRICK TOWNSEND (Oct. 11, 2018), <https://www.kilpatricktownsend.com/Insights/Alert/2018/10/Final-Rules-PTAB-Adopts-Phillips-Standard-for-AIA-Trials> (“[T]he shift to the *Phillips* standard will be seen as a victory for patent owners since claims may be construed more narrowly and less likely to read on the prior art.”).

113. 881 F.3d at 1368.

114. *Id.* at 1369.

that the technology was publicly available.¹¹⁵ Thus, although the ultimate § 101 question is a legal one, there are factual determinations underpinning that decision that frequently cannot be made at the pleadings or summary judgment stage of a lawsuit.¹¹⁶ Assuming it remains good law,¹¹⁷ *Berkheimer* will push § 101 decisions later in the litigation—a welcome change for patent owners.¹¹⁸

Moreover, the Supreme Court's decision in *SAS Institute, Inc. v. Iancu*¹¹⁹ is also likely to move patent policy in a pro-patent owner direction.¹²⁰ *SAS* held that when the PTAB institutes an inter partes review, it must issue a final written decision addressing the patentability of all of the claims the petitioner has challenged.¹²¹ This means that partial institutions are no longer permitted, which may well cause PTAB to institute fewer IPRs in the first place as a way of managing its workload.¹²² And even when the PTAB does institute IPR, patent owners should still benefit because the final decision will likely uphold the patentability of some of the challenged claims. Due to the AIA's estoppel provisions, those patent claims upheld by the PTAB should then be immune

115. Michael Borella, *Berkheimer v. HP Inc.*, PATENT DOCS (Feb. 8, 2018), <https://www.patentdocs.org/2018/02/berkheimer-v-hp-inc-fed-cir-2018.html> (“[T]he Court is distinguishing between whether a technology is ‘known’ in the sense of § 102 . . . and whether one of ordinary skill would find this technology to be well-understood, routine, and conventional.”).

116. *Berkheimer*, 881 F.3d at 1368.

117. Although the Federal Circuit denied the petition for rehearing *en banc*, see 890 F.3d 1369 (May 31, 2018), HP has filed a petition for certiorari with the Supreme Court, to which the Court requested a response. See *HP Inc. v. Berkheimer*, SCOTUSBLOG, <http://www.scotusblog.com/case-files/cases/hp-inc-v-berkheimer/> (last visited Dec. 15). Several amicus briefs have already been filed in the case. *Id.*

118. See Scott Graham, *Federal Circuit Won't Budge From Decision Reining in 'Alice'*, NAT'L L.J. (May 31, 2018) (stating that *Berkheimer* “would shift leverage back to the patent owner side”); Gugliuzza, *supra* note 60, at 677 (explaining that recent changes to patent doctrine, including the § 101 trilogy of cases, have facilitated quick decisions in patent disputes that “allow defendants to avoid liability for infringement . . . [but] offer little help to patentees seeking quick adjudication of meritorious claims”).

119. 138 S. Ct. 1348 (2018).

120. See, e.g., Dennis Crouch, *SAS Institute v. Iancu: Shifting IPR and Litigation Strategies*, PATENTLY-O (Apr. 24, 2018), <https://patentlyo.com/patent/2018/04/institute-litigation-strategies.html>.

121. 138 S. Ct. at 1359–60.

122. See *SAS*, 138 S. Ct. at 1360 (Ginsburg, J., dissenting) (“[T]he Patent Trial and Appeal Board could simply deny a petition containing challenges having no ‘reasonable likelihood’ of success.”); see also Gene Quinn & Renee C. Quinn, *SAS: When the Patent Office Institutes IPR It Must Decide Patentability of All Challenged Claims*, IP WATCHDOG (Apr. 25, 2018) (Comments of Terry Clark), <http://www.ipwatchdog.com/2018/04/25/sas-patent-office-institutes-ipr/id=96297/> (“[T]he Board may exercise its discretion more often in declining to institute IPRs”); *id.* (Comments of Terry Clark) (“[T]his decision may have the unexpected result of reducing the percentage of petitions actually granted.”); Saurabh Vishnubhakat, *First Steps After SAS Institute*, PATENTLY-O (Apr. 27, 2018), <https://patentlyo.com/patent/2018/04/first-steps-institute.html> (“The incentive of the Patent Office, meanwhile, is likely to deny institution relatively more often in the wake of *SAS Institute*, at least initially.”).

from further challenge.¹²³ Simply put, *SAS* has put “greater teeth” into the PTAB estoppel provisions in a way that will favor patent owners.¹²⁴

It is possible, of course, that these changes—the new claim construction standard, *Berkheimer*, and *SAS*—will not have the positive effect for patent owners that many have predicted.¹²⁵ But they could, and it’s simply too early to know for sure. What we do know, however, is that making a bunch of changes to the patent system at once—which is arguably what happened leading up to the AIA—can swing the pendulum too far in the other direction. While legislation like the STRONGER Patents Act may be attractive in theory, there is little chance that such a major overhaul would achieve the delicate balance that our patent system requires.¹²⁶ The better approach, which is well underway since Director Iancu took office, is incremental reform led by the PTO—the entity that should serve as the nation’s primary policymaker on innovation.¹²⁷ Admittedly, this takes more time and patience than comprehensive reform like the STRONGER Patents Act, and thus is less responsive to the short-term interests of certain stakeholders.¹²⁸ Yet for the public—the primary beneficiary of our patent system¹²⁹—history makes clear that it’s the right path to take.¹³⁰

123. Berliner et al., *supra* note 77 (arguing that *SAS* “may limit the petitioner’s ability to assert secondary challenges in the district court”).

124. Quinn & Quinn, *supra* note 122 (Comments of Sharon Israel & Van Lindberg); Saurabh Vishnubhakat, *Renewed Efficiency in Administrative Patent Revocation*, 1, 14 (2018), available at <https://ssrn.com/abstract=3237841> (explaining that, after *SAS*, “the only way to entertain any arguments is to adjudicate all arguments,” which comes with “the full scope of estoppel”).

125. To be sure, some predict that the net effect of *SAS* will be to help petitioners, not patent owners, because it will: (1) complicate PTAB proceedings and make them even more expensive than they already are, (2) make district courts more likely to grant stays pending the outcome of PTAB proceedings, and (3) put more of the patent owner’s claims at risk of invalidation. *See, e.g., id.* (Comments of Stephen Kunin, Rubén Muñoz, & S. Benjamin Pleune).

126. *See, e.g.,* Claude Barfield & John E. Calfee, *Congress’s Patent Mistakes*, WALL ST. J., Oct. 29, 2007, at A18 (arguing that Congress should not pass comprehensive legislation that culminated in AIA because “[i]ncremental reform is a better idea than radical change”); Colleen V. Chien, *Reforming Software Patents*, 50 HOUS. L. REV. 325, 326 (2012) (“[H]istory teaches away from broad based legislative reform and towards narrowly tailored incremental reform with lessons for today.”).

127. *See* Megan M. La Belle, *Public Enforcement of Patent Law*, 96 B.U. L. REV. 1865, 1920–21 (2016) (discussing the PTO’s policymaking role); Jonathan S. Masur, *Regulating Patents*, 2010 SUP. CT. REV. 275, 306 (2010) (same).

128. *See, e.g.,* Daniel Nazer, *How the Stronger Patents Act Would Send Innovation Overseas*, EFF (June 23, 2017), <https://www.eff.org/deeplinks/2017/06/how-the-stronger-patents-act-would-send-innovation-overseas> (“The STRONGER Patents Act shows how far certain patent owners are willing to go to serve their narrow interests at the expense of everyone else.”).

129. *See* U.S. CONST. art 1, § 8, cl. 8 (noting that patents are to “promote the Progress of Science and useful Arts”).

130. Arti K. Rai, *Growing Pains in the Administrative State: The Patent Office’s Troubled Quest for Managerial Control*, 157 U. PA. L. REV. 2051, 2081 (2009) (discussing the benefit for our patent system of incremental reform by the PTO).

PANEL I: ASSESSMENT FROM THE TRENCHES—WHERE WE ARE TODAY

MR. LANGER: So we're going to start off with the first panel that includes former Judge Paul Michel, the Honorable Randall Rader, Dick Thurston, and David Kappos, and Mr. Phil Johnson is going to MC this panel for us. And, Phil, would you like to sit or would you like to do it from the podium?

MR. JOHNSON: Okay. The introductions are out of the way. We're going to start with an easy first question, which I'm going to direct to Dick. Getting right down to it, Dick, how do you see the U.S. patent system today? How well is it doing? Is it encouraging innovation? Is it rewarding innovation? How is it doing for investment?

MR. THURSTON: I see it as a mixed bag, actually. I think I have the perspective as a General Counsel, and earlier Assistant General Counsel, of major high-tech companies. And I think that the points though that were just being made in the slides and my current life—both as a lawyer and also as a mayor of a town that's trying to promote development—and particularly high-tech development in the state of New York—I see two different sides to that coin. And, in fact, the middle portion of the coin seems to be more prevalent and part of the issue when it comes to start-up companies is I have the difficulty in helping companies raise money because actually the VC investment is either fewer or it's more particular. On the other hand, I'm representing a company that's working in nuclear fusion and it doesn't get the patents issues from the Patent Office because of the issues that were just briefly alluded to.

For a high-tech company, I think that that's a major company and it's probably—well, it is definitely in that one percent category. I think TSMC is now in the top 10 issuers in the United States. There it's not really effecting innovation because innovation—they invest the R&D monies regardless of whether or not the patents are issued and particularly for TSMC and a number of my clients throughout Asia, we're taking more and more a trade secret approach because of either difficulties in getting patents issued, but largely because of the growth of industrial espionage and also the advancement of technologies. With the way the claims are being proved, it makes it sometimes difficult for us to protect in the courts. So that's the general high level and we can come back to more detail.

MR. JOHNSON: Director Kappos, I'm going to apologize right now if I use first names when I should be more formal. Director Kappos, you've seen this from many different sides: a long time at IBM, then, of course, your time leading the Patent Office and implementing the American Invents Act, and now out in private practice representing a whole variety of clients. Do you agree? And what differences do you see in how the system is working, especially the patent part of the system?

DIRECTOR KAPPOS: Yeah, so, well, the way I would put it is I think that our system has clearly become degraded—particularly the U.S. patent system. I don't think there's any serious doubt about that any more when an objective study done by the U.S. Chamber drops the U.S. patent system to the number 12 strongest in the world. We're number 12. Hard to get excited about that. And we're headed down, too. It's not like a one-year thing. It's a downward spiral that we're in. I think it's hard to say anything but that we have inflicted some wounds on ourselves that are pretty bad—particularly in the area of Section 101¹³¹ and statutory subject matter, where it now demonstrably true that inventions that are patentable in Europe and the People's Republic of China for important biotech innovations and software innovations—those very same inventions are not patentable in the United States of America. I never would have thought I'd have to say that we've come to this point, but we have, and I think that's pretty bad.

And in another—of course, there's issues that are brought on by the PTAB and we'll probably talk about those as we go forward—so I won't go into those in detail. But I think it's also worth mentioning something that's not necessarily on everyone's radar screen: that we live in a world in which more and more heavyweight innovation is delivered, deployed through standards, and at the same time, we're seeing rigging of standards bodies—in my view—in flagrant violation of any real antitrust principles in order to try and benefit those who get a free ride off of standards at the expense of those who spend lots of money innovating in those areas.

I'm hopeful that the new Department of Justice in its leadership to showing signs of taking a positive direction on that and really coming down on those who manipulate standard setting organizations will be helpful to us in that regard. But I have to say, there's so much innovation getting deployed through standards, it's not a happy situation to see standards bodies that are leaning in against the innovators and in favor of those who get a free ride off of innovation. So I'm afraid I can't be too positive with my answer, Phil, but that's the truth of the matter.

MR. JOHNSON: Judge Rader, the defenders of the system—people who are contending that it hasn't been so degraded—point to the numerical difference between being first and being twelfth and say, well, it's not all that big a numerical difference and, yet, Director Kappos and others say, well, directionally this is significant and it's especially significant when viewed in comparison to what's going on in other countries who are trying to strengthen their patent systems. What's your take on the state of play?

JUDGE RADER: I think we are in a global competition for innovative policies and it's no secret that the entire productive capability of places like China have shifted from an emphasis on manufacturing to an emphasis on innovative and they devote vast resources to that. The leadership in intellectual property is

131. 35 U.S.C. § 101 (2012).

simply shifting away from the United States to areas that have a greater dedication to supporting R&D, investment, and full-scale innovative policies.

MR. JOHNSON: Judge Michel, I'm sure you have an opinion on the topic.

JUDGE MICHEL: Well, if we look inwardly, there are other severe warning signs beside the Chamber of Commerce ranking where we dropped from first to tenth to twelfth in three consecutive years. So certainly that is a downward trend and I agree that it's likely to go down even further. But there are many other warning signs, and when you take them all you see a very severe picture.

So, for example, there are indications that average patent valuations are down as much as 60 percent since the PTAB and the Supreme Court eligibility decisions have taken effect. There are indications that early stage R&D investments is down again about 60 percent. If you look at who is patenting in the last decade or so, independent inventors, as a share of the total, applicants in the Patent Office have fallen from about 24 percent to 4 percent. So it's now one-sixth the proportion of prior times.

So we saw the graphs about start-up formation. In a couple years, more start-ups died in America than were born. And that's the first time that's ever happened in our recorded history. So there are many, many, many warning signs besides simply the Chamber of Commerce ranking. And one more I think is also worth mentioning is that the Bloomberg Publications have again a sort of very objective numerical ranking based on general innovation robustness and the U.S. in the last year fell out of the top 10 for the first time ever in our history. So when I look at all those warning signs, I think we're in big trouble. I would even quarrel a little bit with the title of this conference, which talks about America's economic future. I think we're in big trouble in America's economic present.

MR. JOHNSON: Any other comments on this topic before we move on?

MR. THURSTON: I'd like to add one other point where I see we have a fundamental breakdown. It's not really purely the Patent Office, but it's the U.S. government. If you look at where we're getting out competed, whether it's by China or whether it's by Japan or Korea, the government has made essential policy to support business industrial innovation and patents. I've been dealing with the Chinese since 1980. And from that year on they've been dedicating huge amounts of money into their patent system, into innovation including also trade secret theft and development.

You look at our innovation in the United States. I have a lot of friends in the New York area. They are increasingly being lured over to China, not by two times, but three times the salaries and compensation. Even good American general counsels are being paid three times what they might get in the United States. The inventors—they're recruiting at Rensselaer, for example, in New York. So we have a major fundamental structural problem in the U.S. that we have to address as well.

MR. JOHNSON: Well, let's drill down a little bit on something that was mentioned earlier and that's the matter of subject matter eligibility that is the

scope of what can be patented and what can't be patented, which we refer to as the 101 problems after the statute defining it.

Director Kappos, right now there are people who say that the quartet of recent Supreme Court cases that have addressed these issues have been very harsh on reigning back or drawing down what can be patented than in areas like software, business methods, diagnostics, natural materials, certain biopharmaceuticals, certain agricultural products and others that you simply can't patent in this country or may not be able to patent things that are routinely patented elsewhere in the world. How do you see this situation? Is this a matter where the Supreme Court has simply left it ambiguous and there's hope that they'll fix it or do we have to do something different?

DIRECTOR KAPPOS: So, short answer, we have to do something different, quite clearly. The data—despite the micro events that we see—within any particular week, there might be a good panel decision of some panel of the Federal Circuit. What you find when you look at the data in aggregate over the period of time since the four decisions, capped off with the *Alice* decision now several years ago—and I do track this data with help from experts who count the cases—we're looking at, if I remember right, in the fourth quarter of 2017, something like 100 decisions at the District Court in the Federal Circuit level against patentability on 101 grounds, followed by, it might have been 90 the next quarter.

So we're looking at numbers that are stunningly high compared with one, two, three per quarter before the Supreme Court took aim at subject matter eligibility. So I think if you just look at the data, the macro trend, and look at it over a period of time, you have to say the situation is definitely not getting better in aggregate. Perhaps you can say, if you're an extreme optimist, it's not getting any worse. But that's a little bit like being a terribly ill patient and being told at least you're not getting any worse. It's a pretty bad place to be.

So that's the data. It definitely shows that things have radically changed in the U.S. The Supreme Court put down a new legal test that is unadministerable by the PTO. And this is why you see the agency, despite its very best efforts, repeated attempts at guidelines, repeated refinements of them trying to adapt to the case law quickly. All good steps, but they're all in a sense doomed by the fact that they're dealing with an unadministratable situation. I'd imagine if you were tasked with running an agency of around 8,500 or so dedicated people, smart people coming into the office every day to do the right thing and you told them doing the right thing, means asking yourself for hundreds of thousands complicated disclosures every year. For each disclosure, whether it's abstract, that is the epitome of a personal test—of a test that cannot be rendered repeatable according to rules and, therefore, we should not be surprised that the agency is struggling and we're dealing with chaos.

And, of course, the same thing at the District Courts. And the Federal Circuit, despite its best efforts to cope, some good decisions. You've got tremendous panel dependency. You've got chaos up and down the Courts.

So one other thing I would say, Phil, and then I will turn it back over to others, is in addition to the data, it's always useful to actually understand individual case studies. What's happening to small, innovative companies on the ground? And you don't have to go very far to find examples of extreme stress now. And I'll just give you one that is hopefully getting more publicity these days, that's so sad to me that you don't know whether to laugh or cry when you talk about these things: the Cleveland Clinic, right? A great institution out in the Ohio swing-state area. Several years ago, many of you may know, they come up with the invention or the discovery of an important enzyme correlation—uh-oh, that's a terrible word. A correlation, right? We used to think they were patentable, but now we know they're not. And that correlation resulted in something even more terrible: a diagnostic. Oh, my God.

That's the worst thing in the world for patentability. That diagnostic detected the correlation between an enzyme in blood and a high-likelihood of a cardiac event. For those of you who don't spend time with cardiologists, that means if you have this enzyme, you're going to have a heart attack, and pretty soon. It seems pretty important. They got three patents. Those patents seemed fine. They built a company, created the diagnostic, put it in the marketplace. This is the American dream. It should be fine. But, no, then EDTX finds the patents to be invalid—ineligible under 101. The company's prospects crater. It's divested for a loss. And the Cleveland Clinic is put in the position of instructing its researchers, “don't bother researching diagnostics anymore because they're unpatentable and as a result we can't get funding to put them into the marketplace.” And as a result we don't care about that area of human investigation.

That to me is a pretty sad story. But that's an actual true story. You can contact the folks at the Cleveland Clinic and verify that all you want. And it's just one of many examples of the mess we're in.

MR. JOHNSON: Others want to share their viewpoints?

JUDGE MICHEL: In addition to the large number and the large percentage of invalidations for ineligible subject matter, we should focus on the fact that there are thousands of patents—I would guarantee you tens of thousands of patents—maybe hundreds of thousands of patents enforced today whose eligibility is totally unpredictable. So if you're a venture capitalist, or you're a business leader in an established company, and the question is whether you're going to invest in a new product and take all the risks and wait for five or ten years to make a profit on it, are you going to invest in that? And the answer is absolutely not. It's become way too risky, way too unreliable. And the 101 problem, of course, doesn't exist in isolation. I know we'll talk about the PTAB problem, but there are still other problems, all of which converge to enfeeble the American patent system today.

So, for example, we talk about our competitive situation. In the United States, it's almost impossible to get an injunction. In Germany, it's routine. In China, it's becoming routine. In the United States, it takes five to ten years to get a final

judgement, where if you have a valid infringed patent, somebody actually has to write a check to pay you damages. In Germany, it takes about a year. In England, much the same. The cost of litigation in America is horrendous. The PTAB, quite aside from invalidations, adds per challenge something in the order of \$300 to \$600 thousand dollars per challenge and there are often multiple challenges.

So assume you own a valid patent. This is now the prelude to district court litigation. So it's added to the costs which already were in the millions and so now you have another half a million, million or whatever upfront. So, again, the investment decision becomes "no, I'm not going to do it." The gauntlet is too long. It's too risky. It's too expensive. It's too uncertain. It's too unpredictable. So what's happening? The money is going out of R&D in technology into entertainment and other things that are less risky. Build a casino. Make a movie. Don't back technology. And it's also going increasingly out of the United States to China, to Europe, and to other places that have comparative better patent systems. That's economic suicide by the installment plan.

MR. JOHNSON: Let's move on since you've started down that road, and Judge Rader, I'll direct this to you. The American Invents Act now is six years old and the post-grant challenge procedures that go before the Patent Trial and Appeal Board, called the PTAB, are now five years old. Back—early on, I think in an interview that Todd Dickinson had with you—you predicted, based on what you were seeing, that these PTAB proceedings would become a killing field for patents and that the PTAB itself was acting like a death squad. Now in the intervening five years, you have a chance now to say you were right or wrong or under or overstated it and I've been waiting at least five years to be the position where I could ask you that question. So what's your take on how it's going?

JUDGE RADER: Well, I, with humility, might have gotten that one right. There's a couple of interesting observations. Back when David and I were monitoring and working on the passage of the AIA, it was very clear in a vote in both houses, I believe, that we were closing what was called the second window. And yet, we've seen the PTAB become not only a second window, but a third, fourth, fifth, and eternally open window and that has resulted in another very consequential unintended consequence.

Remember the PTAB was designed to replace with a swifter and easier and cheaper alternative to district court proceedings. Well, in the first place, district courts never invalidated at a 60 to 70 percent rate. So it doesn't replace in that sense. But even more important, this is adding two years and you still come back to a district court. In many instances it has added to the expense and the time of the proceeding without any really concomitant benefit.

I'd make one last comment, and that is anecdotally I've observed that it hasn't even hit the main target it was supposed to hit, which is the patent troll case. In those cases you simply lowered the value of the case from slightly below the defense value in a district court to now slightly below the defense value in the

PTAB. So it's not hitting the target. It isn't making things cheaper, faster, and easier. And it is resulting in vast deaths of otherwise important inventions.

MR. JOHNSON: Judge Michel, over 85 percent of the proceedings now in the Patent Office involve related District Court litigation and, of those that go to final decision, the rate of invalidation of one or more claims of the patents that are challenged is also about 85 percent. Supporters of the system say these are bad patents—that you would expect or should expect that kind of invalidation rate and that this is a service to the system. And others argue to the contrary that the patents in litigation are amongst the most valuable and should have much lower invalidation rates. How do you see it?

JUDGE MICHEL: Well, I think that it's impossible to be able to prove it, but I surmise that many patents that are good patents are being invalidated at the PTAB. And I say that based on the difference in District Court invalidation rates or reexam invalidation rates versus PTAB rates, which are two to three times higher in each case. But also I based it on the difference in standards of proof and other procedures. In our country, we define justice, fairness, reliability, accuracy by what courts do. So it seems to me the measure of accuracy and fairness—due process, if you will—in a PTAB should be by comparing it to what happens in a court of law.

So in a PTAB, mere preponderance wins. In a court of law, it has to be clear and convincing. In a court of law, you have to have standing. In the PTAB, you don't have to have standing. In a court of law, you can get discovery of documents that the adverse party holds that help prove your case. In the PTAB, as a practical matter, you can't. In a court of law, where you have dueling experts, they're both on the stand where the adjudicators—whether it's a judge or jury, or in the case of the PTAB, the three Administrative Patent Judges—not only see and hear the witnesses live and their conflicting testimony, but also get to ask questions themselves. The PTAB, they never have live testimony. So the glaring disparities between the procedures and the burdens and the process in the PTAB compared to the District Court tells me that the PTAB is inherently unfair.

MR. JOHNSON: Director Kappos, this week the new director has just announced that at least one change is proposed and that is a change in the way that claims are construed. I know you have been looking at this for a long time. Do you have any comments as to whether that's going to in and of itself fix the problem or otherwise? What's your take on that?

DIRECTOR KAPPOS: Thanks, Phil. So, first of all, the PTO is moving in the right direction. Moving from the BRI standard to the Phillips standard was clearly the right thing to do. The Office knows now things that weren't known before that made it clearly in the interest of the system to move to that standard. I do not think this is a sort of a one and done change by the PTO. I would expect that there will be more things coming and I think that's great. I think they're taking a measured approach and rolling out the changes that have been needed and doing what they can do within the system. I do think that we've learned a

lot, as has been pointed out by others on the panel, about aspects of the system that haven't worked the way we wanted them to when we designed it now around six years ago or so.

The Office is doing everything it can to fix what it can fix, but legislation is needed to help fix other aspects of the system that were wired in by the AIA and we now know need to be adjusted and, fortunately, we've got that legislation in the STRONGER Patents Act.¹³² It has 20 sponsors on the House side, cosponsors on the House side, R&D. It has a range of sponsors on the Senate side. So I think we're now within sight of the changes that are needed—both within the agency and through the follow-on legislation—the changes that we need in order to set the PTAB on a really sustainable trajectory.

MR. JOHNSON: Dick, would you like to add a few comments?

MR. THURSTON: I agreed with David. I think though that where we still need to look more closely is how the PTAB has been used or abused particularly by companies that are looking at it as a means to avoid some of the competitive competition issues on the market playing field. I have had a number of companies that approach me and say, “well, look, if we can go and invalidate a patent and particularly get the upstream technology”—part of the battle that's being done is the upstream versus downstream, particularly when you look at advanced technology. And where there's targeting of certain patents to try to invalidate it at the PTAB rather go in the Court. So I think we have to have some more procedural reforms that allow our companies also to be more competitive, starting with the early stage companies that are at a real disadvantage.

JUDGE RADER: Could I just add one more small point, Phil?

MR. JOHNSON: Absolutely.

JUDGE RADER: And that is the PTAB has upset one careful balance that was achieved in the Hatch-Waxman Act¹³³ where there was a negotiated settlement between the research drug companies and the generic drug companies to ensure they both got great benefits and provided an early challenge to validity of patents. And, indeed, I think this gave birth to the generic industry in many respects. But now you can do an end run on the Hatch-Waxman Act by going directly to the PTAB with the lower standards of review that my former colleague, Paul Michel, pointed out. And I think it's undercutting that careful balance and upsetting both research and generic incentives.

MR. JOHNSON: I think Senator Hatch has recently spoken on that topic and, in fact, has suggested that he sees it the same way and feels that challengers should choose one route or the other.

DIRECTOR KAPPOS: Wonder where he got that idea?

132. Support Technology and Research for Our Nation's Growth and Economic Resilience (STRONGER) Patents Act of 2018, H.R. 5340, 115th Cong. (2018).

133. Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified in scattered sections of 21 U.S.C., 35 U.S.C., and 42 U.S.C.).

MR. JOHNSON: And, therefore, they could chose the IPR or Patent Office challenge route if they wanted to, in which case they'd forego the benefits of Hatch-Waxman, which would include I assume the exemption from infringement, pre-testing infringement, and the ability to rely on the innovators data. Or to choose the Hatch-Waxman route, in which case they'd forego the opportunity to challenge in the Patent Office. So with that as a background and recognizing that Senator Hatch, I think, is in his last term. He's not running for reelection, would you like to handicap the likelihood that that legislation will get through?

DIRECTOR KAPPOS: Well, I do know there are efforts to achieve that and they're received somewhat favorably on both the generic and the research side. So, of course, it's too early to handicap any legislative success in this Congress, but this is an area that targeted reform could really do a great benefit.

MR. JOHNSON: Let's go back for a minute; we're about 32 seconds behind, but I think we can probably get back on track. I'd like to know what each of you think Director Iancu should do in order to materially improve the situation. Perhaps kind of a rapid fire: what are the top two or three things to come to mind that you'd like to see the Director do that you think he can do without legislation?

JUDGE MICHEL: I think that he can make significant, but not sufficient, changes in the way that 101 standards are applied during examination by the 8,000 plus examiners. And that would do a great deal of good and, actually, it's a little ironic because you could say he's at the bottom of the pyramid with the Supreme Court at the top and the Federal Circuit and then the District Courts and then the Patent Office. But he's providing leadership that I don't see coming from any of the higher levels, and I think he can continue to do that even on 101. And obviously on PTAB, he has very broad authority. There are eight or ten things that the STRONGER Act would fix procedurally in the PTAB and there are only two things it can't fix: standing and burden of proof. So he can fix 80 percent of the problems with the PTAB and I think he can fix about 30 percent of the problems with eligibility.

DIRECTOR KAPPOS: Well, I agree with that, Judge Michel. I would just add in the 101 area there is a big opportunity to use the platform of the PTO directorship to continue to do what's already being done, which is to call out the problem. It really is a problem, and while we could talk about solutions, we need to start with accepting that it's a problem and to have the Director of the PTO saying that is very, very helpful—calling for ideas, calling for suggestions, convening meetings, telling members of Congress, telling the Administration this is about American competitiveness. This is about the future of our country, health care solutions, jobs, and opportunity for our children. That is really important that's something that is uniquely within the authority of the PTO director to be competent and persuasive and potent at doing.

MR. THURSTON: Related to what David just said, I think that he should, as part of his advisory council, really take a very close look at what is being done by some of our competitive countries—whether it's China, whether it's Korea,

whether it's Israel—and having a much better understanding of what is really happening in some of these areas of law. Whether it's software, or also as far as the patent process that is being quite advanced. I think, related to that, where I found a hole is also looking at prior art, where the Chinese and the Koreans are doing a very sophisticated job of getting to databases that I'm not sure that I see accessing here, so more money that would be dedicated to looking at what's out there. But certainly understanding what China, Korea, Japan and others are doing.

JUDGE RADER: I'd have two quick points. One is on that Hatch-Waxman point. You could simply not institute PTAB proceedings where there is an alternative available in court through the Hatch-Waxman system. So an institution directive. The other would be where a court has already acted on validity, it seems to me that ought to be binding on an administrative agency and, therefore, it's a minority of just a few cases, but where a court has acted, that should be binding on the PTAB, perhaps putting an end to their proceedings.

MR. JOHNSON: So that leaves us with some things that I take it you have some agreement on that need to be done by Congress and so I'm going to ask you very quickly as our closing round what is it that you think Congress must do and what do you think would be beneficial for Congress to do? And, in this context, I'd like you to keep in mind the stability that would be created—the relative stability that's created by statutory change versus a rule change in the Office versus an administrative directive and the need of the IP community to have reliable and predictable patent protection no matter how it comes out. So whoever wants to start jump in. We have about three minutes and then I think we have a little bit of time for a few questions after that.

JUDGE MICHEL: Well, I think the question almost answers itself. Where you need permanent and reliability for long term R&D expenditure decisions, a statute is the best. A regulation is the second best. Some kind of informal guidance is the third best. They all have value.

I think what Congress needs to do is to take back control of innovation policy in America, which is not the proper function or within the competence of the Supreme Court, so I hope that Congress will nullify all implied exceptions to the four categories in Section 101.

DIRECTOR KAPPOS: And just adding to that a little more granular I would say two things that seem that they're right in front of us right now. One is Congress needs to take up and pass the STRONGER Patents Act. That starts with hearings and then committee markups and the like. There's no reason why that can't be done essentially immediately. And then secondly, on 101 we're a ways behind that point with 101. Congress needs to start convening hearings and getting discussion going and raising the temperature of the issue on 101 in this term, which would lead to the possibility of introducing legislation next term.

MR. THURSTON: And then in addition, I think Congress needs to make sure it keeps the proper levels of funding and we don't see any temptations of

diversion of funding going forward, which has always been—I remember going back to talking with Bruce Lehman, where he was particularly challenged at that point in time. But I think we can't lose sight of that because that temptation is always quite significant.

JUDGE RADER: An amendment to 101 to protect the statute as it has been written and should be enforced would be at the top of the priorities. Then beyond that I think we could look at trying to reclose the second window.

AUDIENCE PARTICIPANT: Recognizing the powers of the forces of evil with respect to attempts to legislate or influence the judiciary through the fourth estate to effect these 101 changes, might a compromise be something in the nature of a petty patent that eliminates the 101 criterion for this petty patent that retains the 102¹³⁴ and 103¹³⁵ criteria and as the quid pro quo shortens the term of the petty patent without otherwise compromising it? I mean I've been a patent lawyer for 60 years and this is against all of my better instincts, but I see and hear everything that's been going on and it sounds great, but whether it's going to do anything is a separate question. And so my question is is there a compromise along the lines of what I'm suggesting possible in the legislative sense?

MR. JOHNSON: I'm going to take the moderator's privilege here for a second and say as long as you're happy not making progress on the Alzheimer's treatments or personalize medicine or diagnostics, all of the long lead time types of things that are being impacted then I suppose you can talk about that. But you reduce the patent term—the patent term is already too short for pharmaceuticals, biopharmaceuticals, and many other areas and —

AUDIENCE PARTICIPANT: I don't know of any pharmaceutical companies that are losing money wildly because of too short patent terms, do you?

MR. JOHNSON: Well, actually, I do. But that's a topic for another time. But I'll turn it back to someone on the panel if you'd like to comment further on the question.

JUDGE RADER: I don't think that would be a very good idea at all. The one infection I see in the Chinese system, which is working so well, are these utility models which are kind of petty patents and then infect and degrade and discount the system.

MR. THURSTON: Yeah. I agree. Randall, I was going to make the same comment. I think that's a real disadvantage that we're facing over there.

MR. JOHNSON: Do we have other questions? Rob?

MR. STERNE: My name is Rob Sterne. My question is about the elephant in the room. U.S. industry in Silicon Valley believes, in my experience, that we don't need our patent system as a practical matter. That we can compete on the global stage without any serious legal protection because we can out-innovate, we can out-think, we can out-market the competition globally. And now we see

134. 35 U.S.C. § 102.

135. *Id.* § 103.

the Europeans and the Chinese who are following their lead, strengthening their patent systems. So my question to everyone is how do we convince the titans of industry in Silicon Valley that they need a strong U.S. patent system?

JUDGE RADER: I think competition will convince them on their own. I can tell you right now that 5G technology is not controlled by the United States. And that means the Internet of things won't be controlled by the United States. And one more anecdote: I have a tremendous cancer-curing type of technology with a small biotechnical in Boston, a biopharmaceutical firm. We're going to China to get a joint venture with the assurance that we can get clearance there within a year or two to market our drug, whereas we'd have to wait here for ten to seven years.

AUDIENCE PARTICIPANT: So we talked a lot about 101 and what the Director can do as far as the 30 percent. I can appreciate that. What can he do about 103 and guarding against hindsight subjectivity, given the preponderance of evidence standard?

MR. JOHNSON: Who would like to take this one?

DIRECTOR KAPPOS: I'll comment briefly on that. So I think in aggregate in general the PTO is quite good at handling 103. Examiners are trained extensively on it. We have the best rules, I think, of any system on the planet relative to examination under the obviousness and related doctrines. Not to say everything goes perfectly every single time, but I think we've got a pretty good system in that regard. What's needed, and it's a constant sort of like lifetime dancing lessons kind of thing, is to keep up with the state of the law and for leadership that encourages examiners to make the right decision. And that includes the right decision not only to deny the grant of a patent that shouldn't be granted, but to promptly grant a patent that should be granted. Because the mistake, right—the false negative, if you will—that denies a patent that should be granted, has at least much marketplace damage as the false positive of granting a patent that shouldn't.

So I think it's really about continued training, which the PTO is very good on, following the case law, redoubling efforts with examiners, providing the backdrop and management and supervision that picks up issues and corrects them. So I don't see 103 as being some kind of a magic bullet. You're going to just put out some edict and cause examiners to radically change their behavior because I don't think you need to. I think it's the kind of thing that's very much in the details, very much in the nuance. And that means training, support—those kinds of things.

MR. JOHNSON: Okay. I'd like to thank our panel. We are out of time. I appreciate your attention.

MR. LANGER: Thank you very much, Phil. A couple quick housekeeping announcements. If you are thirsty and need a drink, we have restocked, so please help yourselves. We're going to be circulating index cards in a minute here. These are for questions. If you have some already that you would like to pose to any of our fireside panelists. In order to try and keep that panel moving as

quickly as possible, we'd prefer not to pass mics. And I will start circulating those in a minute. There will also be some back in the back of the room.

So thank you to the Honorable Paul Michel, Honorable Randall Rader, the Honorable David Kappos, Dr. Dick Thurston, and special thanks to Mr. Phil Johnson for moderating this last panel.

PANEL II: STORIES FROM THE TRENCHES—REAL WORLD EXPERIENCES

MR. LANGER: Going to our next panel, and you are welcome to start coming up as I call you. We are honored to have Laurie Self, Vice President and Counsel of Government Affairs at Qualcomm; Manny Schecter, the Chief Patent Counsel at IBM. I believe Bryce is here—Bryce Pilz? Am I saying your last name correctly, Bryce? Bryce is the Director of Licensing at the University of Michigan. Jeff Cicarella, who has joined us from the Cleveland Clinic today. Aaric Eisenstein, VP of Personalized Media Communications, and Kim Chotkowski, CEO of LES, will be moderating.

If I could ask everyone to please return to your seats or if you'd like to continue your conversation, please step out to the hallway to do so as we are going to stay on track. Great. And with that, I will turn it over to you, Kim. Do we have enough seats for everyone? Excellent? Thank you, Kim.

MS. CHOTKOWSKI: I guess, good afternoon. My name is Kim Chotkowski. I am the CEO of the Licensing Executive Society. I'm sure many of you are familiar with that group in this room. I'd like to first say thank you to the IIPCC for inviting me to moderate. LES, as you know, represents members from the entire ecosystem from the intellectual property value chain, and, as such, obviously these topics are extremely important to our members. In addition to also having our representation of our members, I believe, as CEO, it's important that we partner with groups like IIPCC and others that share the same concerns so as a collective we have a greater voice on the Hill and in the forums that we're looking to do.

So I'd like to first just introduce my panel and what we are going to really do is talk about the war stories. You're going to hear from the trenches really how IP policy has impacted organizations and the real world effects of that. So we have Manny Schecter, who probably does not need an introduction, but he's the Chief Patent Counsel and Associate General Counsel at IBM. He leads IBM's worldwide intellectual property law organization on patent matters and advises on intellectual property strategy and policy. And he is located in Armonk.

Aaric Eisenstein is the Vice President of Licensing Strategy for Personalized Media Communications. PMC is a ten-person company started by its inventor, Chairman John Harvey, of which I've had the pleasure to get to meet and know

and is an amazing gentleman. The company was founded in 1981 and licenses only its internal intellectual property that actually was created by Mr. Harvey.

Jeffrey Cicarella. Jeff is Corporate Counsel for the Cleveland Clinic. We had some reference to that a little earlier today, so you're going to get to really hear the story from somebody who knows from the inside. And he is responsible for managing the legal affairs of the Cleveland Clinic Innovations and Cleveland Clinic Ventures, which is the IP commercialization and corporate venture arm for the Cleveland Clinic. As Chief Counsel for both CCI and CCV, Jeff handles various corporate strategies, the strategic focus, technology commercialization transactions, and advises on a variety of other legal and business matters.

And we have Bryce Pilz. He is currently the Director of Licensing for the University of Michigan, Office of Technology Transfer, which receives 500 new inventions from UM researchers and 150 new patent applications every year. He's formerly a faculty member at Michigan Law School and was an attorney at Kirkland & Ellis.

And last, but definitely not least, Laurie—I put you actually, sorry, in the wrong order there. But, Laurie Self is VP and Counsel for Government Affairs and she oversees IP policy for Qualcomm. So we have quite a knowledgeable panel here.

What I really want to do today is have the opportunity for our panel to share their stories. So I'm really going to start right here and ask Manny if you would give some of the views of the impact from the trenches.

MR. SCHECTER: Okay. Is the mic working okay? Sounds like it is. I'm going to talk a little bit about the intersection between artificial intelligence and Section 101, so some of the things you just heard on the prior panel on Section 101 will be in play here. But, let me just start by reminding everybody what we mean when we talk about artificial intelligence. We're talking about machines that don't just crunch digitized information, but understand natural language and think and learn. In short, they are mimicking human behavior. And that is for us, not only cutting edge technology, it is R&D intensive. It is one of the most important future directions of information technology and it benefits everyone. It's not just about information technology. It intersects with just about everything we do. And when I say we, I don't mean IBM. I mean we, mankind.

Looping back to Section 101, I don't want to repeat it but all of the uncertainty that's been created by the Supreme Court just boils down to one thing. Artificial intelligence intersects with the judicial exception on abstractness and the Supreme Court has never ever told us what abstractness means. We don't know what it is. So I don't care how many steps you build around the test, if, at its core, the word is undefined, which they've expressly declined to do, then it's always going to be an uncertain test. So how does that play out for me?

Well, first of all, just generally, advising clients in this space has become incredibly difficult. We are met with disbelief amongst the executives. What do you mean the thing that I'm investing all this money in—that is so incredibly high-tech—can't be protected by patent? It doesn't make sense to them. When

we get to the Patent Office—there was some discussion of this already, but let me put it in a slightly different light—we file a patent application. It gets rejected. That’s not uncommon, of course. But we’re used to going into the Patent Office and having a collaborative discussion with Examiners to help identify just what is patentable in the patent application. The Examiners now refuse to have that discussion. They admit they don’t know how to advise or to engage in that discussion. In fact, they actually ask us to appeal the case so that they can get some guidance from a higher authority. And, of course, that higher authority doesn’t know anything more than they do. They’re all trying their little hearts out, but they’re all in the same boat. So at the end of the day, they all point their finger at the other and we’re just left with the uncertainty.

When you finally do get some patents, where does that get you? Well, you want to enforce the patent? Great. The senior executives come in and ask you, “Can I count on this? Can I count on the patent? It’s going to be there for me? We’re going to win, right?” Can’t advise them very well on that. Met with more disbelief. They want to collaborate with a partner. Great. We want to have patents on that which we’ve already developed to ensure that it’s protected so that when we go talk about it with a potential partner, we can rely on the fact that that partner is not going run away with what we show them. Can’t rely on it there either. Same problem. Really, really a big problem for us.

So what do you do? Well, you rely on wherever you can get the protection: other GOs, other forms of intellectual property. But it’s just not the same. And what you’re seeing in artificial intelligence are a lot of companies, including IBM, who aren’t selling a product. We’re not selling a system that has artificial intelligence built into it necessarily. We’re not selling software that gives the capability of artificial intelligence to another system. We’re putting the system with all the smarts behind the firewall, and we’re marketing a service in which others can get the benefit of artificial intelligence from systems that we have.

But where does that get you? It restricts your ability to go to market. It inhibits your ability to collaborate. Frankly, it inhibits the ability of the customer or the end user to distinguish one artificial intelligence system from the other because they can’t understand the difference in the systems. So at the end of the day, something has to change or this uncertainty is going to break it. It’s going to break the system.

MS. CHOTKOWSKI: Thank you. Do you want pass the mic on down and introduce yourself?

MR. PILZ: Hi, everyone. Bryce Pilz, Director of Licensing at the University of Michigan Tech Transfer Office. I’m going to talk about the issue with 101 with medical diagnostics, but first I thought I’d talk a little bit about academic tech transfer and the importance of it.

So we’re the second largest research campus in the country. We do \$1.4 billion of research each year. The majority of that comes from federal agencies like NIH, NSF. Like every other major research university, we have a tech transfer office. And our job is to work with our inventors to identify inventions,

secure intellectual property protection, develop the technology, and then find a partner in industry, either an existing company or a new start-up, to invest significantly in R&D to advance that early scientific discovery to a product or service that can actually help people in the marketplace.

Tech transfer has been around for a while: Google search engine, Vitamin D. I read an article recently that suggested 30 percent of all new drugs and medical devices have come from academic tech transfer. So it's a critical part of America's economic engine. This only works if there is a strong patent system.

So the technologies that come to us are extremely early stage. No one comes to our office with a product or service. We are going to industry asking them to invest millions, sometimes billions of dollars, to take this early scientific discovery and advance it to the point where it can reach the marketplace and benefit the public.

So in the case of medical diagnostics—and when I say medical diagnostics, I'm talking about a device or a method that has a scientifically proven way of predicting a medical condition based upon the level of a biomarker in the body—these have a huge potential to vastly improve the healthcare system. You can detect diseases earlier. You can make sure there's proper patient monitoring. And you can predict more effective outcomes for patients.

We have had significant problems getting issuances on medical diagnostics. I have two examples. One is in 2009, there was an invention reported to our office—a collaboration of U of M researchers, Penn researchers, and Mayo researchers—using significant NIH funding. It's a diagnostic for predicting the onset of age-related macular degeneration. We licensed it exclusively to an international molecular diagnostic company. They opened up a genetic testing facility in the state of Michigan, and started creating the type of jobs that we really need in that state as we still recover from the recession.

The first patent was issued in February of 2012, a month before the *Prometheus-Mayo*¹³⁶ decision came down. The subsequent continuations, which were focused on critical aspects of the technology allowing you to predict the right way to treat this condition, have all been rejected under 101 and have since been abandoned. The company is disinclined to invest further in developing technology, disinclined to hire more employees, and we believe will eventually shutter the project before it ever makes the market.

Another example was a more recent invention: a diagnostic for detecting graft-versus-host disorder. So graft-versus-host disorder is when the immune cells in a transplant specimen, such as bone marrow, believe the host body is a foreign entity and they attack it. The ability to predict the onset of this, obviously, vastly improves outcomes and expensive transplant procedures. We licensed this to an existing biomedical company. All the patent applications filed on this technology have been rejected under 101 and have since been abandoned. There's a product on market starting to get some traction, but

136. *Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012).

they're not investing in further developing this technology. They're not investing in hiring new employees because they believe as soon as they get significant traction, large companies will just come in and copy it in the absence of patent protection.

So it's a critical issue for these companies. These are just two examples. We have many others. The problem is particularly acute in the world of start-ups. So as existing companies have really scaled back their R&D, academic tech transfer is happening more and more through start-up companies. Existing companies sit back and wait for these start-ups to validate the product, validate the market, and then they acquire these start-ups.

We're hearing significant stories from start-ups about the problems with 101 for diagnostics impeding their ability to raise capital. They're not talking about it publicly because they don't want to admit it. They don't want to exacerbate the problem and point out the frailty of their IP portfolio. So we believe that the negative commercial consequences of the current status of 101 for diagnostics is being vastly underreported and it is a real issue.

So, up until recently, the policy discussion on medical diagnostics has centered around patient access and that's critically important. But unless you have the right incentives in place to bring medical diagnostic innovations to the marketplace, you don't even get to the question of patient access. And there are probably more precise, lighter-touch ways to address the patient access problem, making sure there's broad and equitable access for all patients, without wiping out patent protection for an entire class of medical innovations.

For example, you could explore compulsory licensing. You could look for a limited exception to infringement for certain types of patient care, but you don't have to wipe out patent protection for all medical diagnostics. And that's the worst thing happening at the University of Michigan, and we believe it really is stifling innovation.

MS. CHOTKOWSKI: Aaric?

MR. EISENSTEIN: I work for an individual inventor. We've got close to 100 patents, which, for Manny, would be a bad week during Christmas time. I'd like to talk about the legislative and regulatory fixes that we're seeing proposed and how we need something like that in order to preserve the opportunities for individual inventors. We're very, very hopeful that these things are coming and they can't come fast enough.

Let me tell you about our experience at a very micro, micro level in the grand scheme of experiences that we've had where, ostensibly on paper, things look very reasonable and fair. But let me tell you how it actually plays out.

So our little company is involved in litigation after trying to negotiate a license with a tech behemoth. They decide to invite us to the PTAB. So, you look at the PTAB, and the analogy that we always use is that a grand jury indicts and a regular jury convicts or doesn't convict. But the point is that there's a two-step process there, because what are the odds that the grand jury says they probably

ought to go on trial and then turn around and say, “No, it’s alright. He’s innocent.” Right? It would never happen, except at the PTAB.

So at the PTAB, there is not a two-step process. The same panel institutes review and then subsequently rules on it. Now you can argue about whether or not that makes sense. It’s faster. It’s more efficient. They already know what’s going on—blah, blah, blah. Okay. If you’re talking about one panel or one opportunity, bad enough. Well, we had the opportunity to participate in seven IPRs. How many panels did we get? One. So that’s 14 bites at the apple. Okay?

So we get through that process. Eighteen months later we’re invited back to the PTAB. Another five patents of ours are being challenged in IPR. Guess who we get to sit in front of? Same panel. Alright? So you now get the same panel looking at you 24 different times. If you were a petitioner—if you were somebody challenging a patent—and you were going against somebody who had had their patent validated by a panel 24 times in a row, you don’t need fancy money ball software to tell you whether or not you’re going to get that judge to help you. Right?

That’s the situation that we’re dealing with when we deal with the IPR. Okay? It’s not right. I’m not a lawyer, so I won’t try and parse whether or not it’s legal or good or what have you. But it’s not right.

So you then go through the process of trying to amend the claims, working through the issues that you have. And Manny referenced kind of the normal process, which is when you typically apply for a patent, what you do is you write down your idea, you send it to the Patent Office. A year or so later, they get back to you and they say, “Okay, these are the parts that are good. These are the parts where we have some questions. And here are the parts where it’s probably not right. But either come meet with us or let’s get on the phone and we’ll kind of collaborate iteratively and we’ll work it out.”

That’s not how it works at the PTAB. Instead, what happens is we lob a brief over to the PTAB. The other side lobs a brief over to the PTAB. And they look at it without us being able to participate in any kind of discussion. And you get one shot. And then the judges rule on whether or not the amended claims come into effect.

So, shockingly, this is only less than 10 percent of the time. And I would argue that that number probably even overstates the case because most people aren’t foolish enough to even try like we have. Alright? So, again, it might look fast. It might look efficient. But it isn’t the way that the PTO is directed to. What is the Patent Office directed to?

Well the Patent Office is directed to issuing valid patents. That’s what it’s for. Okay? Lobbing briefs at each other, not having the collaborative, iterative process of moving towards the outcome that we’re really looking for is not the way to run the circus. And, unfortunately, that’s currently the way it’s organized.

So, again, STRONGER Patents Act has, I believe they call it an off ramp, where you actually get to sit down with somebody, have a real conversation,

work through the issues and see if you can get a patent fixed if it's defective. I don't think anybody that is a patent owner would legitimately object to trying to fix something if there is actually a problem with it.

So let's talk about the third issue. Kim's organization, the LES, has started a standards process in which our company is very much involved. And we are very excited about the opportunity to hold ourselves out as a reasonable, responsible, legitimate business. Because, historically, there have been abusive behaviors for all kinds of reasons. On one side of the table, you've got the folks that were mimeographing demand letters and sending them to mom and pop coffee shops and saying, "Pay me \$25,000 or I'm going to sue you for offering Wi-Fi to your customers." That's abusive behavior.

The flip side is if you're a big company, or a small company, and you read Colleen Chien's article in the *Wall Street Journal* telling you that if you get a demand letter, the thing to do is just ignore it and you ignore it. I would say that is abusive behavior. What we do is we put together a package that the postman can barely carry—it's so big with all the history of our patents and explaining how it works and explaining why it reads on a particular technology that somebody owns and we ask to sit down and have a conversation. And instead it's ignored.

So what I like about the last piece of the STRONGER Patents Act is that it deals with abusive behavior. By all means, deal with deceptive demand letters. By all means. But what I'd like to see is that judges, whether they're administrative judges at the PTAB or Article III judges in district courts, the very first question that somebody is asked when they come to one of the tribunals to deal with a patent issue is "did you two sit down and try to work this out using the standards that LES has adopted as best practices?" And if the answer is "no, we haven't talked to each other. We just rushed to the court house because that seemed like the right thing to do." "Get out of my courtroom. If efficiency is really what this is all about, then good. Get out of my courtroom and you all go work it out using the best practices that LES, representing a wide range of industries and participants, has defined as best practices. Sit down and be reasonable with each other."

And that kind of activity could work. So let's get away from patent trolls or efficient infringers, good patents, bad patents. Let's talk about abusive behavior. And let's make sure that whether it's regulatory or legislative action, it addresses abusive behavior. Because there's nothing wrong with the business model of owning a patent and licensing it. Nor is there anything wrong with using a patent. But people on both sides can find ways to be abusive. And that's really what really needs to be stamped out.

MS. SELF: So I would like to speak to the international implications of the changes that we have been making to our patent system over the past 10 to 15 years. Just to give you a little of context, Qualcomm is today the global leader in the foundational cellular technologies that have driven the evolution of 2G, 3G, 4G and now on the cusp of 5G. And so if you think about the changes in

terms of what you can do with the device in your hand or in your pocket, the incredible transformation of your phone as a powerful computer in your pocket that has seamless connectivity, incredible data capacity, incredible data rates. All of that has been driven by huge investments in the R&D that drives improvements to cellular technology. It's an incredibly R&D-intensive technology space. Increasingly only a handful of companies are really making big investments in this space. Of course, the ecosystem that's enabled by these technologies is huge and we can only imagine what business models will emerge under a 5G cellular foundation. If you think about a business model like Uber that was enabled by 4G, Uber could not have existed in a 3G world.

So we are really on the cusp of a transformational change in cellular communications that will drive enormous productivity, competitiveness, job growth, advances in mobile health; really every aspect of our lives will be impacted by 5G as everything becomes connected to everything.

Each generation of cellular technology takes about 10 years of R&D, billions of dollars in investments, which take place well before any kind of commercialization. And to the point that Director Kappos was making about standardization, standardization is the proving ground. It is the convergence of the best engineers in the world to determine which companies will lead in 5G. Qualcomm, historically—because of our incredible commitment to the cellular space and R&D—we have led over time and we are confident that we can lead in 5G, but only if our patent system is strong enough to justify those huge investments in R&D. And the revenue engine for making those investments is our patent licensing model. And it has been since the founding of the company 30 years ago.

If you think about the implications of this gradual erosion of our patent system, over the past 10 years we have seen this sort of, not only just the changes in policies that undermined certainty around subject matter eligibility or validity. There is a fundamental erosion in the confidence of our patent system in the ability to enforce your patent rights, not only in terms of surviving a PTAB challenge, but in terms of getting a user of your technology to the bargaining table. And we hear that a lot from smaller inventors. But even a company the size of Qualcomm, which has over 100,000 pending and issued patents, we still are feeling the brunt of that uncertainty in the United States and worldwide.

And I also want to speak to how this erosion of our patent system bleeds into other sectors and has fueled, in our case, really an attack on the company's patent licensing model in particular through antitrust actions in Asia, where we saw this kind of growing skepticism of patent licensing business models originating in Congress, bleeding into our antitrust authorities, resulting in statements, speeches, policies that really cast a kind of harsh light of skepticism on licensing models, which were in turn leveraged by foreign antitrust authorities to justify what were essentially technology grabs using the language of antitrust to justify essentially compulsory licensing.

It started in China and moved to Korea to Taiwan—and if you think about the concerns that we’re hearing through the trade disputes over compelled technology transfer—just think for a moment the power these antitrust authorities have to essentially dictate pricing of U.S. technology in some cases with an explicit statutory right to use antitrust to protect domestic champions, national champions. It becomes an incredibly lethal tool against U.S. technology leaders. And in our space, again, it’s an increasingly small number of companies that are making these huge investments, with Asian companies quickly on our heels looking to leapfrog our leadership. And that becomes all the more possible when patent rights are suddenly subject to intense antitrust scrutiny, which becomes essentially a price regulation tool.

MR. CICARELLA: Unfortunately, David stole my thunder and told the Cleveland Clinic story earlier today, so I really don’t have anything else to add. No. I’m kidding obviously.

I think it’s great that David mentioned the Cleveland Clinic story about our NPO patents that were invalidated because it was an unscripted ad hoc mention. I think it really underscores the issue. On a micro level, we think it was an awful outcome that these really groundbreaking detection and diagnostic medical tools were ultimately deemed not patent eligible. And on a macro level, the idea that we’re sort of facing a crisis of innovation in the life science and medical diagnostic field because of the inconsistent application of 101 and the Federal Circuit’s expansive and expanding interpretation of *Mayo*.

And Bryce, in his description of University of Michigan’s team—very similar to what Cleveland Clinic Innovations does, so I don’t need to describe what Cleveland Clinic Innovations does now—he stole my thunder on that. Except I will add: instead of tech transfer, we like to use technology commercialization because really the goal is not just cultivating ideas for new inventions and then funding the research that’s necessary to validate those inventions, but ultimately commercialize those inventions and create products and services that are going to improve patient care and treatment outcomes. That’s really what our mission is. It’s not just getting something on the market and make money. That’s great because our CFO would say, “If there’s no margin, there’s no mission.” We reinvest our commercialization proceeds into that early-stage development that’s necessary to actually sort of validate something before institutional investors are really interested.

I will add a few more things about the NPO patent story. So, again, these groundbreaking detection and diagnostic tools that were disclosed in the patents were the result of years of research, millions of dollars, and intense scrutiny by the PTO. I think it took over a decade before the patents actually issued.

In one case, the claims were rejected on Section 101, 102, and 103 grounds. One patent went through two reexaminations. So these really were intensely scrutinized by the PTO and, ultimately, some investors funded the development of a clinical NPO test that could be offered for sale. And that was the company that was ultimately sold. We thought somebody was infringing, so we filed a

temporary restraining order. They responded with a motion to dismiss that was granted. So at the pleading stage, these patents that went through a decade of review by the PTO, intensely scrutinized, were invalidated at the pleading stage. So there was no claim construction. There was no expert witness testimony. They paid lip service to the idea that they reviewed the prosecution history, which they couldn't have done because that involved realms of data and so they absolutely did not do that.

And so, where are we now? Well, Cleveland Heart Lab is still selling the NPO test kit, but so are other people. So Cleveland Heart Lab, unfortunately, is not making as much money as they were because now you've got people who are cutting into their market share. The Cleveland Clinic isn't making any money now off of the NPO test kits, right? Because the claims were invalidated, so there's no royalty income, right? That's how we profit off of the commercialization of these inventions.

So, again—no margin, no mission—because we're not receiving the commercialization of royalty income. We can't reinvest that into the early stage research and development of these life-saving innovations. And the inventor—this was his life's work, right? He's not rewarded because it's actually the Cleveland Clinic IP; under our IP distribution policy, the inventors actually share in the proceeds of the commercialization that we receive. So we're not receiving anything. So he's not receiving anything. But in the meantime, people are making millions of dollars off of the NPO test kits.

So that's sort of the micro result of this. But, again, on a macro level, we really are facing a crisis of innovation in the life science and medical diagnostic field because of this inconsistent application of 101. And even if we do get patents issued, you can get them invalidated. It's just having a really chilling effect on the inventors and the investors. Investors are risk averse and there's just so much uncertainty around 101 that life sciences and medical diagnostic technologies are really not high on their priority list until you can give them some assurance that they're absolutely going to get some return.

MS. CHOTKOWSKI: Thank you, Jeff. I appreciate it. Obviously, I'm sure everybody in the room has a war story that they could share, myself included, but after the panel, we'll have an opportunity if you'd like to talk to them at length on some of those more details. But, what I wanted to do was—actually similar to the last panel—if you could state one thing to Congress or the USPTO, what is it that you would like to be able to say to them directly today? Want to start off, Manny? Jeff?

MR. CICARELLA: So our NPO patent story is actually incomplete because we strongly disagree with the outcome and we've filed a cert petition to the Supreme Court that's currently pending. So hopefully the Supreme Court takes the bait and reigns in this expansive interpretation of *Mayo*. But we're obviously not optimistic that's going to happen.

MS. CHOTKOWSKI: Okay. Thank you.

MR. CICARELLA: So if we can I think—stronger patents.

MS. CHOTKOWSKI: Excellent. Laurie.

MS. SELF: I would say to restore the property rights foundation of patents and the right to injunctive relief. If you think about the role of an injunction in terms of incentivizing users of patented technology to come to the negotiating table as opposed to stealing the technology and potentially paying damages five, ten years down the road, at the end of litigation, it is an incredibly important tool in terms of ensuring that our patent system functions as intended and becomes an incentive to invest in R&D and to achieve a fair return on that investment. And, unfortunately, in the United States it has become incredibly difficult for companies to obtain injunctive relief, even for large companies. And we now are in a strange dynamic where it's easier to get an injunction in China than it is in the United States.

MS. CHOTKOWSKI: Thank you.

MR. EISENSTEIN: I would say it's time particularly for the legislature to look at the patent regime in the United States and recognize that that is just as much a competitive positioning statement as the regulatory regime for our capital markets, as it is for our democratic process, our election process, as it is for currency, trade policy. It's right up—I know patent stuff is boring. I get it. But it's just as important on the global stage. And passing the STRONGER Patents Act would be a huge step towards saying that we are going to compete on a level playing field with our global competitors.

MS. CHOTKOWSKI: Bryce.

MR. PILZ: I like the idea I heard in the first panel about the legislative revision to 101 to do away with the exceptions to create clarity. I think we can all deal with figuring out 102, 103. There's sufficient foreseeability and predictability under those regimes. But 101, right now, is the significant problem at the early stage.

MS. CHOTKOWSKI: And Manny?

MR. SCHECTER: So I agree. Legislation is going to be where it's at here. The uncertainty that's been created with respect to Section 101 at the USPTO and the lower courts—that's not the fault of any of the fine people in those organizations and they're not going to be able to fix it. We've seen some steps already that the new director has taken with respect to a Federal Register notice on having examiners document what it means for something to be conventional or routine. All good. But at the end of the day, I was taught that when you get a disease, you want to cure the disease, not cure the symptoms. The disease is the test—the judicial exceptions and the test that is supposed to be able to identify them. But they can't. We need to legislate them away, or at least bring some certainty to the test.

MS. CHOTKOWSKI: Very good. Thank you very much. We do have a few minutes—maybe two—if somebody has a question.

AUDIENCE PARTICIPANT: So we've got two really good big companies here representing the forces of goodness, in my humble opinion. So what can be done because the legislature is affected by lobbyists and contributions and

things like that? And you guys know who I'm talking about when I'm talking about the forces of evil. I don't need to name any names. What can be done, practically, because you're confrères in certain respects? What can be done to bring those companies in line for legislation? And how would you amend 101 to avoid the problem?

MS. CHOTKOWSKI: Why don't we have—does one person want to take that from the panel? I think we're running out of time.

MR. SCHECTER: Well, the first thing I'd say for some of those companies that you're calling the forces of evil—when they have a crisis and they realize that they've been ripped off, some of them will get religion in this area. But the other thing that I think that needs to happen is—I think Dave Kappos mentioned this morning, earlier—the need for a public dialog, the need to start raising awareness. And that's absolutely true. And that needs to start, I think, with a dialogue that occurs between the associations that have been backing legislation, Congress, and the new Director to all start talking about what needs to be done. If we get enough consensus, and enough momentum, we can do this.

MS. CHOTKOWSKI: Well, thank you very much. I know we're out of time. And I appreciate the panel and your words and thank you again for this great conference.

FIRESIDE CHAT WITH IP AND INNOVATION POLICY LEADERS

DIRECTOR DICKINSON: I think we're honored to be joined today by the Under Secretary of Commerce for Intellectual Property and the Director of the USPTO, Andrei Iancu. Mr. Iancu, I think, as most folks know, he's been in the job—what? About six?

DIRECTOR IANCU: Three months.

DIRECTOR DICKINSON: Three whole months.

DIRECTOR IANCU: The anniversary was yesterday.

DIRECTOR DICKINSON: He's gone from a—

DIRECTOR IANCU: Anniversary was yesterday. But there was no party. It was—

DIRECTOR DICKINSON: Well, you put out a rule, right? Or that was a good birthday present. I think most folks also have noticed that things are starting to really happen there at the PTO. Just a little background: Director Iancu came to us as the managing partner at one the most important litigation firms in this country, Irell & Manella, where you spent your entire career I think.

DIRECTOR IANCU: Most of it. For a couple of years, I was at Lyon & Lyon.

DIRECTOR DICKINSON: And we welcome you back here to the east, to the swamp since you've moved. And is a graduate of UCLA, both I think undergraduate and law school. Aeronautical engineering, did it get that right?

What we're going to do this afternoon is we're going to have just a brief introduction. Andrei has a few remarks he wants to make. And then I've got a couple questions you've sent in, and a couple questions that I have and, hopefully, we'll use up all the time doing that.

Just to sort of set it up a little bit, we have a recent quote at a recent speech you gave, if I can find it, that I think set a few years to set up what appears to be your initial tenure. "For too long, the words surrounding our patent system have been overly focused on its faults. A successful system cannot be defined by its faults. Rather a successful system must be defined by its goals, its aspirations, and its successes."

I think many people would notice you're off to a quick start in a number of these things, and I think, philosophically, I'm assuming this derives from that as well. So why don't you tell us a little bit about your goals and aspirations and where we're going.

DIRECTOR IANCU: Great. Thanks, Todd. I'm going to stand up so I can see you all better. I will address that exact point, but let me begin a little bit elsewhere.

First of all, thanks for inviting me. Thanks for all of you to be here—a very distinguished crowd,: former judges, the Senator is going to come, and Congressman, former Directors. It's humbling.

One of the things that makes our profession so great, one of the tremendously exciting parts of why we all do what we do is the inventors we interact with, the inventions they make, and the excitement of all that. Right? So on a daily basis, in different respects, we encounter these folks who I believe are the individually little engines of our economy. And we interact with them, we encounter them alive, and we encounter historical figures. So for today let me talk about a historical figure: an inventor who did most of his inventive work in the second part of the 1800s.

So in 1870–1871 or so, this particular inventor got completely tired of the suspenders he had to wear. So he invented removable and adjustable suspenders for different types of garments. He got a patent on that in 1871. He didn't make much money with that. But then he invented a self-adhesive scrap book. Got a patent on that. I actually don't really know how you open up a self-adhesive scrap book, but that probably was the genius of the invention. He actually made significant money on that.

On a going forward basis, he actually had some other patents and he ultimately became one of the most famous Americans ever. With that in mind, Mr. Dickinson, who am I talking about?

DIRECTOR DICKINSON: Oh, God.

DIRECTOR IANCU: "Oh, God" was his answer. The other former director? No idea. The judges? No idea. Wow. Sorry?

AUDIENCE PARTICIPANT: Edison.

DIRECTOR IANCU: Edison with suspenders? He did wear pants, yes. I'm speaking about Samuel Clemens. Actually Mark Twain had patents and he did make significant money from that, actually, from the scrap book. Comparable, in fact, with the money he made from his books. Ultimately, later on, he wrote a book, as you all know, *Connecticut Yankee at King Arthur's Court*. His main character achieves power, as you probably know. And the first thing he does when he takes office is he establishes a Patent Office. And he says—he emphasizes—that a country without a Patent Office and good patent laws is like a crab. It can only move backwards or sideways. And then he goes on to emphasize not only that he established a Patent Office, and not only that it was the first thing he did, it was on the first day he took office.

And, in fact, if you look at American history, it is the same story with our founders. They establish the country and James Madison, in the first Congress—one of the first acts was the Patent Act of 1790. And the first patent issued very quickly thereafter in July of 1790, signed by George Washington.

They recognized the same thing. And to candidly assess what has happened ever since is that the results not only have been remarkable for the United States and the world. I am absolutely certain they were completely unpredicted—the extent of its success—to the founders themselves.

In just a few weeks or months, we're going to issue patent number 10,000,000. You're all going to see it. And it's a remarkable achievement. And it's not just numbers. It's not just 10,000,000, it could be any number. But it's not just that. Think about the actual accomplishments with those 10,000,000 patents. When Mark Twain wrote his books and invented suspenders, they were riding around this town still on horses. We're talking just 150 years ago. Flight was but an absolute dream on imagination. Medicine, surgery were just as primitive as ever. And that's only 150 years ago.

Put that in the context of human history. Humans have been on this planet for tens of thousands of years at least. It depends how you count the beginning. Modern civilizations have been around for thousands of years. The Egyptians, the Hebrews, the Greeks, the Aztecs, the Mayans—you can go on. And yet it's only within the context of this country and its Constitution and our patent system that these remarkable technological and scientific advances have been made in the past couple hundred years. Put that in context.

Now, is it all the patent system? I'm sure there are a whole lot of issues that have created this environment, but I would not take my chances without it. So we, as leaders, have a responsibility to take care of it—of the patent system, that is. To nurture it, to guide it, to make sure that it stays on a straight balance path that it has been meant to be. And to make sure that the environment we have for it is for the future, enabling the same kind of progress that has been made that will continue on our watch and on our children's watch.

So to the question of what our responsibility is that if we like the patent system, we certainly must fix its errors, but we must principally advocate for advance and praise its many, many, many, many successes. And I caution folks

that criticism, relentless criticism on one side, is just as damaging to the patent system as relentless criticism on the other side. In order for the system to be successful, the community needs to have confidence in the system and relentless criticism of the system from any side reduces the industry's confidence in the system. We can accomplish the same things in the same goals by focusing on the inventor's successes and on the amazing benefits of their inventions.

So in everything we discuss, I caution balance and an even-keeled approach. Madison, in *Federalist 43*,¹³⁷ said that the constitutional power granted to Congress to establish the patent system will hardly or scarcely be questioned. "Why?" he went on to say. Because the public interest is equal to the expectations and the claims of the individual. From the get-go, the founders believed that there needs to be a balance in the system inherently for the system to work. It needs to be balanced on many, many different planes, but in Madison's view, as between the owners and the public, and that is certainly the case.

Let me leave you with this and then we'll go to your questions. In that balance, we must have our hand firmly grasping the rudder and course correct, of course, is needed in a steady way. And with that, if we do that, then we will ensure that our country is not a crab, that we will only be moving forward.

And I was going to get into my remarks about what we are doing nowadays at the PTO, but I expect you will have questions on that. So I will stop there. Thanks, all, for listening.

DIRECTOR DICKINSON: Let me take off on that point for a second. I think those are great remarks and I think extremely appropriate and I think that they've been applauded in most courts as a matter of fact because they're exactly right. But, Washington and the public policy agreement, generally, has been pretty partisan, pretty at war with each other. Now our partisanship is not necessarily political partisanship, but we have our own partisanship. How do you see yourself drawing these sides together—the people with different views on things—particularly when you've actively said you're taking a hard look at things like PTAB rules and how they operate over there and what about 101 and that sort of thing? How do you bring the parties together?

DIRECTOR IANCU: Well, look, I think it is important for myself and PTO leadership to meet with as many stakeholders and stakeholder groups as possible. And we've had an open door for them. And we want to hear them out. And we actively engage them. For those of you who have come to our offices in the past three months, you will know that we are not a laidback panel just listening to you. We are actively engaging with you and we want to hear you. And we, from all aspects, really do take everything that's being said to us in those discussions into account.

My own background—I have practiced in all sorts of—as a practicing lawyer—all sorts of industries, plaintiff-side, defendant-side, different courts.

137. THE FEDERALIST NO. 43 (James Madison).

So I really do understand the various points of view and the answer is not always on one side. And I think certain things will go one way. Different things will go a different way and we'll take them one issue at a time.

DIRECTOR DICKINSON: Do you see your role then as being proactive in this regard? I think it seems to be so far. The question came up in an earlier panel. For example, a number of the reforms that are being talked about at the PTAB—let's take one example—are things that might be able to be done administratively or through rule-making, which is within your ken as opposed to coming to Congress. Some not. Do you have a view on that?

DIRECTOR IANCU: Why did you mention PTAB? Is that being discussed in this conference? I don't know.

DIRECTOR DICKINSON: No comment.

DIRECTOR IANCU: So, yes. Well, certainly, at least as far as the PTAB is concerned, there is significant discretion built into the statute to the PTO to implement the appropriate rules, regulations, approaches to its AIA actions. And there is certainly quite a bit that has been and will continue to be done from the PTO itself. Obviously, you have seen the notice for the claim construction standard that was published today that is within the PTO's discretion. That's something that can be done from the PTO.

There are a handful of things that cannot be done from the PTO. For example, the standards of proof, which was legislatively inserted into the statute and that's the law under which we operate. But when it comes to AIA proceedings, the statute did give the PTO significant discretion.

DIRECTOR DICKINSON: The Supreme Court just came down with a couple of cases and, I'm not going to ask you the specifics of the cases, but one justice in dissent and then in the majority in back-to-back cases, made a rather strong point about the independence of the judiciary—the Article 3 Judiciary—and the fact that agencies of the federal government are heavily influenced by politics and political processes, and that they have all this discretion and that all it takes is a change in administration for the heavy pressure to come to bear by lobbyists that are probably sitting here in the room. I was a little taken aback by that as someone who had your job and I remember pressure, but I don't remember politics coming into it too much. Do you think it's a fair comment? Do you think it's accurate? Just part of the Chevron deference shtick?

DIRECTOR IANCU: Well, they are Supreme Court justices and they have a right to say what they believe. I'll tell you that I think that there is significant, in many respects, different statutory authority granted to the PTO and I'm certain you and Dave and everybody who came before me—Michel, Lee—we take our jobs very, very seriously and whatever we do, we do it very carefully. And I'm sure you will attest, things are being thought out thoroughly.

So I, personally, don't feel political pressure. I understand that there are different points of view from different members of the industry. And we listen to them carefully. But I wouldn't say that that's the same as, you know, political pressure in the normal sense.

DIRECTOR DICKINSON: Let me ask a sort of mildly technical question someone has posed: Is the gap between prior art that's discovered before a patent is granted, and that is then uncovered later—presumably in a post-grant or in a litigation—is the fact that, I guess, you don't discover it early—is that a technical problem or a process problem?

DIRECTOR IANCU: Well, it is a problem.

DIRECTOR DICKINSON: You've only been here how long?

DIRECTOR IANCU: It is a problem that can be addressed both technically and with process. There are things that we do with process at the PTO that can help in that regard: a different way to staff some matters, different ways to search and so forth. And, in addition, it's a problem that can be addressed with technology. It's a problem that can be addressed with technology that we have currently and we can implement currently and some steps are going in that direction already. And it can be addressed with new technology, perhaps artificial intelligence that yet needs to be developed, although it's foreseeable.

So it is an issue that we are addressing and we are working to address in a whole host of ways.

DIRECTOR DICKINSON: Okay. Another thing that sort of came out of the opinions was at least the Court's recognition that they're one big happy agency and they regarded you as an agency with the PTAB and the examiners and everybody. Someone pointed out though that sometimes examiners examine to one standard. I would say this most recent memorandum on 101 you put out. And the PTAB may not follow that and may operate on a different standard. Shouldn't the agency all just have one standard that applies across the board or is there a reason for differentiation?

DIRECTOR IANCU: Well, it depends on the exact issue. There might be times where you need to differentiate. But, overall, just at the very high level, it is one agency. And one thing that is already beginning to happen is that there is crosspollination from the PTAB to the core and from the core to the PTAB. So when the PTAB issues decisions, both in *ex parte* and *inter partes* proceedings, we want to make sure that the relevant decisions are filtered to the core and it becomes part of the training and the judges can go and train the examiners and so forth. And vice versa. The examiners have a lot of experience with what they see in the examination and what's needed for a proper examination. We want to make sure that the judges understand what examination is all about. So working together is critically important.

DIRECTOR DICKINSON: Maybe we're winding it up, I guess. One more question. Like a good moderator, I'll toss up a softball for the ending if you don't mind. You're talking a lot of reforms. I think people are hoping for even more reforms coming down the pike. The question is how can folks in here who believe in those reforms—what can they do to help you out?

DIRECTOR IANCU: First of all, I don't consider any of your prior questions not to have been softballs. I'm just saying.

DIRECTOR DICKINSON: Ouch. Then I have one more question then.

DIRECTOR IANCU: But they have all been very good questions. Thank you.

Look, I just think, as I said in my opening remarks, that all of us as leaders have a joint interest and joint responsibility to go out and advocate for the innovation ecosystem, to advocate for the intellectual property system, to make the world learn, understand, remember how important it is what we all do, what our clients do, and the incredible advances this entire ecosystem is responsible for historically, culturally, and economically. And I think if we all do that together in an even, balanced way, without overhyping one side or overhyping another side, I think overall we will see great benefits from this incredible patent system that we have been so blessed to inherit. Thank you.

DIRECTOR DICKINSON: I hope you will join me in thanking the Director for his comments and his candor.

MR. ARONOFF: That was excellent. Thank you very much. As the Director departs, we're bringing up Senator Coons. We are privileged to have the Senator join us. Todd will take it from here. The Congressman will be here as soon as he can.

DIRECTOR DICKINSON: Good to see you, Senator.

SENATOR COONS: Thank you. I frankly think you've covered it all.

DIRECTOR DICKINSON: Let me also extend a warm welcome on behalf of the conference as well to Senator Coons. By way of introduction, Senator Coons is a Senator from Delaware, my ancestral home. He was just recently reelected in the last 2014 election. He's, among other things, the former Council Executive for the New County Council, which includes Wilmington, I guess? Yes. And was also, I think, Deputy General Counsel for Al Gore. So he understands a lot, I think, of the stresses and the strains on big business, understands the patent system from that perspective, which I think is very valuable. He sits on the Judiciary Committee, the Appropriations Committee, the Foreign Relations Committee, and the Ethics Committee, and Small Business. How do you get anything done? That's a lot of committee work.

But I think one of the things you're most passionate about and have shown that is IP policy and how it relates to economic development and jobs, frankly, in this country. He went to Amherst and Harvard Law, I believe. And as most folks know, this Congress introduced what's now called the STRONGER Patents Act, which would make a number of particularly good amendments, or particular amendments to the PTAB process as well as a few other processes concerning the patent application process in how it's managed and also things like the alleged troll problem and that sort of thing.

So why don't I first just start off by asking you why are you interested in this and how do you see this all? We sometimes pay lip service to the idea that intellectual property and innovation policy are important to economic development. How do you see it in reality?

SENATOR COONS: At the company for which I worked for eight years and which I've known or been associated with for decades, the company would not have survived but for patent protection. Like many other innovators, it

developed a new product that really challenged existing, settled industrial interests and was infringed regularly in a variety of different applications from medical devices to outerwear. And so one of the things I heard over and over and over while I was there was that 90 percent of the value of the company was its intellectual property and that that intellectual property was always at risk and was only as good as the last case. We probably lost as many cases as we won, but because it was a material science company, patent litigation was a regular part of the business at all levels. It was not some obscure issue area of interest only to attorneys or to the C-Suite. It was something that everybody got training in and was engaged in. And IP of all types, not just patents. But trade secrets were also a regular concern as well as trademarks.

That's just one little keyhole through which I see the world and one of the things I try to do as a senator is make sure that I don't over-privilege my own experience. And so I set about visiting a lot of other companies in my community and Delaware, large and small. But, I happen to come from a place where chemistry has been dominant for a long time and where patents and patent protection for innovation played a pretty big role. My Boy Scout troop master has nine patents. My high school chemistry teacher had 26 patents. My brother-in-law has four patents, and my step-father has more than 40 patents. So I grew up around people who, I think, justifiably bragged about being patent holders. There is, by the way, in the Senate, a senator who I am friends with whose father and grandfather have patents, who were not engineers or researchers. They were mechanics in the most common sense of the term. And that's Senator Merkley. And I keep trying to get him on this bill.

Before Congressman Stivers comes and before I get hauled out—forgive me—let me just say at the highest level how grateful I am to all of you and, in particular, to PTO Director Iancu for understanding and grasping the power and the significance of intellectual property. The Delaware District Court just happens, both through geography and recent decisional law by the Supreme Court, to now be the busiest patent district court in America. And I take seriously my obligation to try and make sure that we have highly-qualified, relevantly-skilled, federal district court judges, and that we have a supportive community of the bench and bar. I have been a member of the Delaware Bar since 1992.

I have a sense of the impact of intellectual property from my own family, from my immediate community, from my broader state, from my work experience, and from my legal environment. So I'm not sure why this matters to me, but I think that's probably enough to get us started.

One of the real challenges I have found is engaging with folks who genuinely disagree, who have completely opposite views of patents. And it was when I was running in 2010, I was in San Francisco at an event where a guy just sort of came up to me and said "I think patents are a bunch of crap." Why he thought I was the right candidate to accost with that, I don't know. But he sent me a whole book. I think it was entitled *Patents are a Bunch of Crap*. And he was someone

who had made a significant fortune in technology that is a component part of cell phones and his whole technology frame of reference and his whole background was in an area of very rapid iterative innovation, where propagation of a new invention was almost immediate and global because it was purely electronic and where the expected lifetime of any new disruptive invention was 18 months or two years at most.

And it took me a couple of years to process how different that is from growing up in a community where Kevlar and Teflon are sort of the iconic inventions, which take years to be displaced or challenged, which cost billions of dollars to scale up and manufacture, and which to propagate across the world as a new product takes years or decades and a global sales force.

So anyway, I have a view about where a competitive perspective on intellectual property comes from, from different industrial sectors that are no less important to our competitiveness and no less to our robust economy. But, as I have repeatedly argued with my friends on the other side in the Senate Judiciary Committee, to tear up the entire patent litigation system, to benefit a small but very significant slice of our innovation, misses the role that patent protection has played since its creation in the Constitution and misunderstands where our greatest future benefits lie.

So, thank you for a chance to be with you, and I see the good Congressman has joined us. I was delayed a great long—

CONGRESSMAN STIVERS: I'm sorry I'm late.

SENATOR COONS: Well, I was delayed a good 45 minutes, so, we'll take a few quick questions jointly and then I'm going to have to go.

DIRECTOR DICKINSON: Well, the two big issues I think that we talked a lot about today that are on the table are, first of all, the STRONGER Patents Act, which you've both introduced now, and 101. But let me start with the STRONGER Patents Act. Well, maybe I should actually introduce Congressman Stivers first.

CONGRESSMAN STIVERS: That's all you got to say. You just introduced me. Great job.

DIRECTOR DICKINSON: Congressman Stivers represents Ohio's 15th District, western Columbus and on out to the suburbs in some rural counties, so a lot of colleges and universities. And "the" Ohio State University?

CONGRESSMAN STIVERS: And Ohio University as well, Harvard on the Hocking.

DIRECTOR DICKINSON: Very good. And you were just renominated last night. So congratulations on that.

CONGRESSMAN STIVERS: Yes, I was.

DIRECTOR DICKINSON: You serve mostly on the Financial Services Committee, which is very interesting here because financial service and patents is a very interesting and kind of complicated issue. So the fact that you're situated and are interested in this issue I think is pretty fascinating.

CONGRESSMAN STIVERS: I think it's because of the fact that originally they couldn't get anybody on the Judiciary Committee to sponsor it, but we've made a lot of progress on that.

DIRECTOR DICKINSON: Well, I'll turn it over maybe to both of you to talk about the STRONGER Patents Act. Tell us a little bit about it: why you were interested in it, what you think is important about it, what we can do to help you with, and that sort of thing.

CONGRESSMAN STIVERS: So the STRONGER Patents Act, basically, stole a lot of the Senator's great work and created a House companion to his Senate version of the Patents Bill that brings back property rights to patents, makes that absolutely clear, brings back injunctive relief, tries to fight bad patents by empowering folks at the FTC on demand letters and things like that. And it limits the number of back-to-back claims you can create. By the way, the new Director of the Patent Office, just yesterday, instituted that part of the bill. Thank you. So that's a great start and it's a great acknowledgement that we do need to do something. So thanks for your work and that's—I think that's great and it's a good acknowledgement that we've got some issues. I'll let the Senator talk a little more since it was originally his bill.

SENATOR COONS: Thank you for covering the majority of its beneficial provisions. Harmonization of standards between PTAB and district court is the only remaining one of significance. This has been a labor of love over several Congresses now. I am thrilled that we have a strong bipartisan team of cosponsors in the House. And I think in a recent hearing in front of a committee in which I served in the Senate, Director Iancu had a whole lot of questions on a whole lot of topics about the Patent and Trademark Office, but I may have been the only one who raised the STRONGER Act, and a potential competing act wasn't really raised at all.

So—I'll put it this way—the whole tone of the conversation around patents is completely different from two to three to four years ago. The word “troll” wasn't even used and I didn't just use it now.

CONGRESSMAN STIVERS: And one of the things about the change in tone that I think is really important as illustrated is that they had to go to a guy on Financial Services originally to sponsor this bill, but now the Judiciary Committee has acknowledged some of the issues. When we passed the America Invents Act, it was sold as something that was going to make the patent system more efficient, cheaper, and faster. Unfortunately, it's done the opposite. And, in the meantime, our system, according to the U.S. Chamber of Commerce, a pretty reliable and unbiased source, has said that our system dropped from 1st in the world to 10th in the world to, just a couple of months ago, now 12th in the world. And so we're still sliding a bit.

I think that what Director Iancu has done is going to start to move us back in the right direction. But there's a piece I left out that is important: the harmonization with the courts will create a lot more certainty. And speaking as somebody who was on the Financial Services Committee, when you create

certainty, you can better value cash flows and the property that is intellectual property. And that's why certainty is so important.

DIRECTOR DICKINSON: Let me ask maybe, I hope it's not too tough, but we're inside the inside of the beltway it says here. I looked down the list of co-sponsors. It's a nice list. And I don't think I saw anybody on the Judiciary Committee on the list, if I'm not mistaken. How do you go about getting folks on that relevant committee enrolled in this process?

CONGRESSMAN STIVERS: So we've been meeting with people on the Judiciary Committee. Met with Chairman Bob Goodlatte, who has promised a hearing on the issue, not necessarily the Bill, but I'll take that. It's time to have that conversation. Just a few years ago, you couldn't have even gotten anybody on sort of this side of patents as property rights to get an opportunity to have a hearing. So, I'm excited about that.

I've had great meetings with a couple folks who could be the next Chairman, as you know Chairman Goodlatte is term-limited. Assuming that we hold control, I've met with a couple people who could be the next chair. And assuming that we don't keep control, I've met with some folks that could have serious senior positions on the Judiciary Committee. Either way, we're trying to work this in a bipartisan manner, trying to work with Republicans and Democrats. It was introduced as a bipartisan bill with Foster from Illinois, who is working as hard on the Democrat side as I am on the Republican side. And he is a rocket scientist, yes. Patents and STRONGER Patents is not a partisan issue, as you can see up here.

SENATOR COONS: It's really not. My next door neighbor in the hallway in Russell, but my extreme opposite in the ideological spectrum, Senator Tom Cotton, is my lead co-sponsor in the Senate. And his passion for the Constitution and for property rights led him to an enthusiasm for it. My life experience and the importance of patents and IP led me to it. We come from different perspectives, but we share a deep concern about what had been sustained to undermine the strength of the patent litigation system.

I'm happy to talk to you about hearings. We had a hearing in the Judiciary Committee a couple years ago that was, I mean, wow. As Durbin said at one point, the only witnesses that were allowed at this hearing today were those who hate the patent system and those who really hate the patent system. And it was—

DIRECTOR DICKINSON: The whole spectrum.

SENATOR COONS: —it was just wonderfully maddening. We did have two really good hearings in Small Business that actually had, relatively speaking, representative groups.

DIRECTOR DICKINSON: So that leads us to the question of prospects. Probably not this Congress, I'm assuming, with everything else it's time to get reelected, right? And there's a lot of other things that have to go on, and we're used to kind of long-term processes in the IP world. Any sense of what that process looks like?

CONGRESSMAN STIVERS: I always tell people who want to build a plan on a two-year planning horizon, like two to three years, it's probably not going to happen this year. It's already the silly season. If you didn't know, we had our silly season in Ohio last night and it went okay for me. But the primaries are here and soon enough the general election. By then, we'll have just a little time, a potential lame duck session, but not enough time to really move anything. That's why we're trying to build momentum. We're still in the momentum building stage right now and we're meeting with people on the Judiciary Committee because last year, if you remember what happened in the House Judiciary Committee, the bills they were doing would have cut completely against exactly what we're doing. It would have gone the opposite direction of the way I'm going and we stopped that bill and now we're trying to go back toward property rights and injunctive relief and some type of system that is giving people a system that they can count on between the PTAB and the district court.

SENATOR COONS: In talking with members of Judiciary and other colleagues, in pushing back against a competing bill in previous Congresses, most of them I simply succeeded in persuading them this is a really complicated issue that doesn't deeply interest them, and that has—

AUDIENCE PARTICIPANT: These are not the drones you're looking for.

SENATOR COONS: Exactly. And that has highly motivated and incredibly angry people berating them about why they are or are not on my bill or the competing bill. And, as is the case in most legislative fights like that, it was successful in fighting to a draw what seemed to otherwise be a juggernaut of forward movement. Having fought to a draw by having a group of senators who go "this is really complicated and it makes people angry and I don't want to take the time to learn it," it is now difficult to poll them and say "not only should you be more interested in it, but you should actively legislate on it."

So I do think in the Senate Judiciary Committee we need to have new leadership on the committee for me to be optimistic that we're going to get out of committee. On the other hand, there was a bill regarding the Special Counsel that I would have told you when it got introduced it would never get a hearing. It would never get a markup. And it got voted out of Committee last week 14-7.

DIRECTOR DICKINSON: You got the Trade Secrets Bill through in a manner of months, didn't you?

SENATOR COONS: Yep. And in the bill that I have with Hatch, which is the Big Data for IP Act—I always get the name wrong—it is both extending the fee-setting authority for PTO and helping PTO have access to big data, machine learning, and AI. I think it's possible we could get that done before the end of this session, partly because of Hatch's leadership, partly because it is noncontroversial.

DIRECTOR DICKINSON: I promised I'd shift to the other topic in the room, 101 patent eligibility, which has gotten so complicated and confusing. The way

the Supreme Court's played it out, you really wonder if they really are paying enough attention when they're writing those particular opinions. But I think the consensus has come around that where once we thought the courts might be able to straighten it out, that consensus seems to have gone away and the belief is now that that may require a legislative fix. And you have addressed it before. I don't know if you've addressed it, Congressman, but I know that you said you want to see a consensus approach from the stakeholder community and I know that there is work going on there. Is that the case? And do you want to comment on 101 at all?

SENATOR COONS: It's a mess. The Supreme Court jurisprudence here—they haven't just wandered into a cul-de-sac. They've sort of wandered around the whole neighborhood and sort of left thread in between trees and tied people up and I don't know how; maybe I'm just not that good of a lawyer. I can't tell you; I could not draw a straight line between their most important recent cases and so I don't know how as an examiner you would apply this, so I think Section 101 jurisprudence is in a real mess as a result.

It will be difficult to legislate around this because it is a complex area that has competing interests. But as there is greater and greater cohesion amongst AIPLA and the American Bar Association IP and IPO, I am optimistic that we can get to a legislative proposal. We'll see whether we can get it moved through. I'm always happy to take up and run things.

DIRECTOR DICKINSON: There's an old cliché that says if a bill gets introduced like this, that would look like it would overturn the Supreme Court opinion—

SENATOR COONS: Yes.

DIRECTOR DICKINSON: —the Supreme Court starts to take a look at it.

SENATOR COONS: That's correct. The Supreme Court is not—although they do function in a sort of temple-looking, removed building. It does have windows. And they do take judicial notice as they say of what it is that we do. And so I don't think it would be taken as a needlessly hostile act to craft a bill that would say this is the direction that makes sense to us, and they may well begin to move their jurisprudence even in advance of legislation.

I don't think just the mere filing of a bill moves them. But in an area that has so widely been—I mean, almost uniformly—criticized as being incoherent, I think it really could have that effect.

CONGRESSMAN STIVERS: I haven't been particularly active in this space, but a spider web of confusing Supreme Court decisions is a great motivator for legislators because to a hammer everything looks like a nail and to a legislator everything looks like a bill. So we're ready to go and I'm sure we will take a look at it. But a consensus from the community would make it a lot easier. I mean it would grease the skids in a meaningful way. So I hope people work on that.

DIRECTOR DICKINSON: Maybe too inside, but the House just recently had a hearing in the Judiciary on whether they can extend the civil CBM process, the

Covered Business Method process, which had a sunset in eight years. Other than the Chairman and the Chairman of the Subcommittee, both of whom are lame ducks at the moment, there didn't seem to be a lot of enthusiasm for that happening, if reading the hearing correctly; although there were witnesses that would really like it to happen. Do you have any sense from the inside of when you think that's going to happen there? Is there going to be an extension? Any broadening or anything? Or is it just going to let it die of its own accord?

CONGRESSMAN STIVERS: I don't know that it will definitely die of its own accord, but for sure the leadership change in the Judiciary Committee with the Chairman moving on and with the Subcommittee Chairman—I think that was Darrell Issa—moving on, is going to impact the outcomes because they have very strong—Darrell, especially, has very strong feelings as many of you in this room know. So I think that will change prospects a bit depending on who takes control of the House and who is the Chairman of the Judiciary Committee as to whether there is a chance to get that renewed or whether it's going to sunset.

DIRECTOR DICKINSON: Senator, any appetite for that?

SENATOR COONS: [Inaudible]

DIRECTOR DICKINSON: Where's my timekeeper? Are we alright? It's 2:00. You guys ready to go? Okay. Keep going. Well, they have other things that they have to move on to. I haven't gotten any more cards. I'm getting five minutes, but I think the Senator, particularly, would like to get moving.

SENATOR COONS: I'll take a last question.

DIRECTOR DICKINSON: Do you think it's ironic that the Trump Administration sent a large delegation, starting with the Secretary of Treasury, to China to try to lobby them hard on the trade issues of intellectual property protection and enforcement and yet in the United States thinks to be— it's weakening if anything—maybe going the other direction? Is that ironic or just—

SENATOR COONS: You know, a certain enthusiasm for irony is called for in this line of work. The ability to hold completely contradictory thoughts in one's head at the same time is essential to the role of an elected official. Look, I commend President Trump. After years and years and years of meeting with different administrations, different ambassadors, both in the private sector and now as a senator, trying to raise the issues of IP theft and get it up here for the seriousness with which he's taking the threat to the United States of IP theft by China and other countries, that's admirable.

I hope that it is carried out in a thoughtful and diligent way. I am worried about some of the other trade actions that are going on and that they may not ultimately turn out well. But I think we have been the victim of a massive generational theft of IP. And so we need to get a line where we are strengthening our own domestic IP infrastructure, laws, regulations, and system and fighting for strong IP systems and rights and protections overseas at the same time. And I actually think that's possible.

And then, irony of all ironies, this denizen of MSNBC would congratulate the Trump Administration.

CONGRESSMAN STIVERS: And I think the Senator brings up a good point. I was at Wright-Patterson Air Force Base not too far from my district about a year ago. It's something that Mike Turner was doing on defense policy and they showed an American fighter jet and a Chinese fighter jet and they looked eerily similar because they stole our intellectual property that is essentially a contractor holding government information as an agent of the government. And they had stolen that intellectual property. They steal a lot of private company's intellectual property as well. We need to take intellectual property theft seriously at home and abroad.

DIRECTOR DICKINSON: Thank you very much. I hope you'll join me with a hand. I forgot one interesting fact. Are you a Brigadier General? Is that correct? Did I get that?

CONGRESSMAN STIVERS: I am.

DIRECTOR DICKINSON: A Brigadier General. So that's leadership. Thank you very much, both of you, and to the audience.

MR. ARONOFF: Alright. Well, we want to thank everybody. We're actually going to do a quick wrap. We're going to do a quick wrap here.

On behalf of the International IP Commercialization Council, we want to thank you for joining us today for this great session. Thank you to the Senator, the Congressman, the Director of the PTO, to all of our panelists, all the companies, the former Directors of the PTO, former Federal Chief Judges and such. Thank you to the audience also. I want to thank our sponsors, not the least of which Catholic University for doing the transcriptions for us today. And, specifically, I wanted to thank Professor Megan La Belle and Professor Beth Winston who are here in the audience. Thank you so much for doing the transcriptions. Thank you to all our moderators. Thank you to our sponsors and we'll be following up with more information in the future. Thank you.