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2A Patent Law Session. Subject Matter Eligibility

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**TWENTY-EIGHTH ANNUAL CONFERENCE
INTERNATIONAL INTELLECTUAL PROPERTY
LAW & POLICY**

Thursday, April 8, 2021 – 11:45 a.m.

**SESSION 2: PATENT LAW
2A. Subject Matter Eligibility**

Moderator:

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Antonin Scalia Law School, George Mason University, Arlington

Speakers:

John B. Pegram

Fish & Richardson, P.C., New York

Let's Seek a Better § 101

David J. Kappos

Cravath, Swaine & Moore LLP, New York

The Long Road to Section 101 Reform — Prospects for the New Congress

Shimako Kato

Abe, Ikubo & Katayama, Tokyo

What Is the Proper Approach to Patent Subject Matter Eligibility in Japan?

Michael Williams

Gilbert + Tobin, Sydney

***Not Eligible Downunder: How Computer Software Inventions become
"Abstract Ideas" in Australia***

Panelist:

Trevor Cook

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* * *

ADAM MOSSOFF: Welcome everyone to our panel on patent eligibility or subject matter eligibility as it is sometimes referred to as. We all know this is a topic that has come screaming back into patent policy and law over the past decade, beginning with the United States Supreme Court's return to patent eligibility doctrine under Section 101 of the U.S. Patent Act¹ in 2009

¹ 35 U.S.C. § 101.

with *Bilski v. Kappos*.² Former USPTO³ Director David Kappos, will be joining us shortly as a panelist after we resolve some tech issues.

We all know this recent history quite well, and you don't want to hear me speak, you want to hear the panelists speak about the recent developments and proposals. So, I'm just going to give quick introductions. Following the list of panelists in the conference brochure, our speakers today are John Pegram, an attorney at Fish & Richardson, David Kappos, who will be joining us following the resolution of the technical snafu, a partner at Cravath, Swaine & Moore and the former Director of the United States Patent and Trademark Office, Shimako Kato, a partner at Abe, Ikubo & Katayama, and Michael Williams a partner at Gilbert + Tobin. Trevor Cook, a partner at Wilmer Hale, will be a faithful commentator, responding to and expanding upon our panelists' remarks. All of them, of course, are very distinguished and have lengthy careers and many accolades. For those interested, I encourage everyone to google them and to embrace our interconnected world of which the format of this conference is an example. Without much further ado, John, why don't you kick us off?

JOHN PEGRAM: The topic today is, "Let's Seek a Better Section 101." I'm going to talk about patent eligibility in the United States. At the bottom of this slide, I point out Hugh's favorite, "Learn, debate and have fun," and I hope we will all at least have fun today. I know we will learn and debate.

Yes, it's a mess.

Senator Thom Tillis, who until recently was the chair of the Senate Committee on IP,⁴ now is the ranking member, meaning that he's the Republican in a Democrat-dominated Senate. He has said, "Our patent eligibility jurisprudence is in shambles." Our former USPTO Director recently spoke about the situation and he said, "The most important technologies of the future are being impacted including diagnostics, bioinformatics, artificial intelligence, digital processing, and many more." We can see just how important this is, and to be a nationalist somewhat, how the United States is shooting itself in the foot in this area. It all goes back to the American Constitution, Article I, Section 8, Clause 8, and as parsed down to take out the copyright portion. It says, "The Congress shall have the power to promote the progress of useful arts, by securing for limited times to inventors the exclusive right to their discoveries."⁵

What I want you to note here, in particular, is it says that Congress shall have this power, not the courts, and it refers to discoveries. This is a very broad term. Our current patent law is based on the 1952 Patent Act, and it's titled 35 of the United States Code. This was a post-World War II complete revision of the United States patent law. Congress relied heavily on the patent bar and the Patent Office to come up with the wording of this statute. There was a national coordinating committee of patent attorneys, you don't actually hear too much about it, but it had leading corporate and private practice attorneys. Basically, it was a group of people that were on both sides. They sometimes were plaintiffs, and they sometimes were defendants, and they all had a belief in a strong patent system. In particular, two people were chosen. One from the Patent Office, and one from the committee. Giles Rich, of course, was the president of the New York Patent Law Association, and then the immediate past president, and P.J.

² 561 U.S. 593 (2010).

³ The United States Patent and Trademark Office.

⁴ Senate Judiciary Committee's Subcommittee on Intellectual Property.

⁵ U.S. Const. art. I, § 8, cl. 10.

Federico—known as Pat—was from the Patent Office. The result of this whole effort was a broad neutral patent law. In particular, there was a very detailed legislative history, which is helpful, although not always referenced.

In the resulting 1952 Act, Section 101, which I have on this slide says, "Whoever invents or discovers any new and useful process, machine manufacturer or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore subject to the conditions and requirements of this title."⁶ The phrase "this title" means the Patent Act.

Now, before the revision in 1952, the whole question of novelty and the right to a patent was all included in a single section. In the 1952 Act, the requirement of novelty and the new requirement of non-obviousness were placed in different sections, 102 and 103, respectively.⁷ A lot of us thought for many years that what Section 101 did, was it said that "If you're going to write claims in a patent, you have those claims directed to a process, a machine, a manufacturer or composition of matter."

The congressional intent was restated by the Supreme Court in the famous *Diamond v. Chakrabarty* case in 1980, as follows: "The committee reports accompanying the 1952 Act, inform us that Congress intended statutory subject matter to include anything under the sun that is made by man."⁸ My thesis for you today is that we should move back to that standard.

Today, it's a mess. I won't go into all the detail, but since 1952, the Supreme Court has really narrowed the patent eligibility. We're all responsible, at least in the United States. That means the judges, the attorneys, businesses, academics, and the public-interest groups.

One of the issues today is whether patent eligibility should be a threshold question. Patent eligibility was described as a threshold question at least as early as *Diamond v. Diehr*⁹ in 1981. This has led the Patent Office to examine patent eligibility first. When he was the USPTO Director, David Kappos suggested that examining first under other sections of the Patent Act might be better, and I think David's going to have some thoughts on that subject today. Many court cases have addressed patent eligibility on an early motion to dismiss. Some in the tech industry appear to like this, for patents of others at least but that is really inconsistent with the long-term general preference of judges for avoiding motions to dismiss.

Some judges have suggested that patent eligibility involves questions of fact, precluding their early dismissal by motion. Patent owners have flocked to the courts holding to that view. The cure must come from Congress. Remember, the Constitution says that Congress shall have the power, and also that the Supreme Court agreed in *Chakrabarty* that it is, of course, correct, that Congress, not the courts must define the limits of patentability.

The legislative efforts have stalled, most members of Congress like patent legislation, but they seek a consensus from affected groups before they act. It all stalled in the summer of 2019 because there was no consensus, the different interest groups wanted to include different limitations. My proposal is we should return to the 1952 Acts' intent to include anything under the sun that is made by man, and not be tempted to deviate from that.

⁶ 35 U.S.C. § 101.

⁷ 25 U.S.C. §§ 102, 103.

⁸ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

⁹ 450 U.S. 175 (1981).

A good start is the draft proposal by Senators Coons and Tillis in May 2019.¹⁰ I've set it forth here and in Section 101(a) in particular, they took out the new and in two places, but otherwise, that section is the same as it is today, they added the definition of useful in Section 100. They said in 101(b) eligibility under this section shall be determined only while considering the claimed invention as a whole, without discounting or disregarding any claim limitation.

I move toward the closing by saying, "Lead us not into temptation." Let's try to avoid the temptations to address perceived problems by limiting patent eligibility. We should limit patent law to patent issues; we should address other issues in other ways. Avoid the temptations to tack on limitations, both in and out of Congress because compromises may restrict eligibility and create more litigation. The devil may tell us compromise is the way it's done, but I ask, is that the right way for an effective patent system? That's the end. Here is my disclaimer, blame me for all that I have said and then not anyone else. Thank you very much.

ADAM MOSSOFF: Thank you, John. Do any of the panelists have a reaction or, while we're waiting hopefully for the tech issues to be resolved and for Dave to come into the panel presentation in this online conference system, I'll just go quickly to our commentator, Trevor, to see if you have any reactions to or thoughts on what John said.

TREVOR COOK: Thanks, Adam, and thanks, John. It's ironic when I think of how in the '80s and '90s, Europeans were looking at U.S. patent law, and thinking how simple it was, or at least the whole question of subject matter eligibility was so simple in comparison to the mess we had then in Europe. This was because, in Europe, we have everything can be an invention, apart from certain specific excluded subject matter. This includes computer programs "as such," whatever that means, but it came as a surprise then to see how everything turned around in the States.

I don't know to what extent that was a consequence of perhaps the procedural posture of the cases which got to the U.S. Supreme Court. I don't know to what extent the only issue open to them was Section 101.¹¹ There weren't these other issues, Section 102, 103.¹² The way things happened in Europe and the way we got out of this, was not to amend the law, well, not in any significant way, to address this in EPC 2000.¹³ What happened was an EPO¹⁴ Technical Board of Appeal in 2003 came up with this clever fix of taking away this separate analysis of subject matter eligibility.

We avoided this almost philosophical discussion of what is a computer program "as such", and instead, the EPO, which could do this as a patent granting authority, cut to the chase. It said, "If a thing is implemented on a computer, it's technical. However, nontechnical subject matter cannot be used in determining inventive step." You deal with the whole question of subject matter eligibility in the analysis of inventive step.

¹⁰ See Press Release, Sen. Thom Tillis, United States Senate, Sens. Tillis and Coons and Reps. Collins, Johnson, and Stivers Release Draft Bill Text to Reform Section 101 of the Patent Act (May 22, 2019), <https://www.tillis.senate.gov/2019/5/sens-tillis-and-coons-and-reps-collins-johnson-and-stivers-release-draft-bill-text-to-reform-section-101-of-the-patent-act>.

¹¹ 35 U.S.C. § 101.

¹² 35 U.S.C. §§ 102, 103.

¹³ European Patent Convention, Jan. 2000, 10th edition.

¹⁴ European Patent Office.

I think that addresses to a large extent, the underlying objection to many such patents, which was, really a feeling that the patent system was protecting trivial inventions, or inventions which didn't merit protection. Yet, for whatever reason, and that's why I say, I think it's maybe a consequence of procedural posture or whatever, the U.S. Supreme Court weren't able to look at it under Section 102 or Section 103.

The place to get rid of trivial inventions is the analysis of obviousness. If you wrap up eligibility into obviousness, and into that analysis, then you don't have to worry so much about what is a computer program "as such." Certainly, John was right in the introduction that so much of today's technology is implemented on computer. The EPO has put out figures that over 50% of the patent applications out there now are implemented on computer.

That's the way we've done it in Europe, and it's held good since 2003, in the COMVIK case back then.¹⁵ The EPO Enlarged Board of Appeal handed down its judgment, G1/19, the other week, which is about a computer simulation, and they confirm the COMVIK approach in relation to that.¹⁶ That's the first time the Enlarged Board of Appeal has really had to address that in a contentious framework. I wonder if there's some way of doing that here and if there's some way of getting your courts or your USPTO to look at inventive step before they fret about eligibility. Is eligibility really a threshold analysis, or is it just something to be put into the mix?

ADAM MOSSOFF: Thank you, Trevor. I think you put it well that our current patent system, thanks to the U.S. Supreme Court, has gone down the metaphysical rabbit hole. It has made the "inventive step" part of the patent eligibility analysis whereas, as John rightly identified, this was cabined nicely in § 103 in the 1952 Patent Act.¹⁷ Whether we can recover this original statutory division between § 103 and § 102 is the hope and the goal. David has not yet been able to join us due to the ongoing technical snafu, and so we're going to jump to the international perspective on the patent eligibility debate. We'll then bookend the panel with David at the end, and he'll bring us back to the U.S. Shimako will now discuss how patent eligibility is being addressed in Japan.

SHIMAKO KATO: Thank you. Hello everyone. It's my pleasure to have a speech again this year in the Fordham Conference. Today, I will present the Japanese situation which may be different from the United States.

In the Japanese Patent Act there is a definition of an invention. Article Two stipulates that invention means a creation of a technical idea of a high level which utilizes the law of nature.¹⁸ Also, industrial applicability is needed to be a patentable invention. Examination guidelines stipulate what is not deemed as an invention.

Here on this slide, you see that item two says that mere discoveries are not patent-eligible but natural resources which are artificially isolated from the natural resources are deemed an invention. As you see in item four, those which do not utilize a law of nature is not patent-eligible. For example, mental activity or artificial arrangement is not patent-eligible.

As to computer software-related inventions, there is a special test. The first step is a general test and it is examined whether it is a creation of a technical

¹⁵ Decision T 0641/00, ECLI:EP:BA:2002:T064100.20020926 (Sept. 26, 2002).

¹⁶ Decision G 0001/19, ECLI:EP:BA:2021:G000119.20210310 (Mar. 10, 2021).

¹⁷ 35 U.S.C. § 103.

¹⁸ Patent Act, Act No. 121 of 1959, art. 2 (Japan).

idea of high level which utilizes the law of nature. If the answer is unclear then you move on to the next step. Here it is examined whether information processing by software is realized by hardware resources. If the second test is passed then the patent is deemed as eligible. I think the test is not so strict in Japan.

Now I move on to important decisions and recent tendency of judgment. The decision of “method for consulting bilingual dictionary” case¹⁹ is an important case in Japan in which the court ruled generous approach for determining the subject matter eligibility. In this case, the idea of the invention is to provide a dictionary which enables to find the English word by using the combination of consonants. It's because for a non-native English speaker, it is easier to find consonants.

In this case, the Board of Appeals of the JPO²⁰ decided the claimed invention is not eligible. It's because it was deemed as human mental activity or artificial arrangement. The IP high court decided it's eligible and the court took “as a whole approach” for determining the claimed invention and said, upon taking all account of claims as a whole and the specification, if a creation of technical ideas utilizing the law of nature is recited in the claim as main means to solve the problem, the claim recites an invention. After the decision, the “as a whole approach” became standard for determining patent subject matter eligibility in Japan.

Three years ago, the IP High Court²¹ rendered a surprising decision. In this case, the invention is the system for providing steaks in a stand-up dining restaurant to provide a favorite amount of meat with a reasonable price. In Japan, the applicant succeeded in business but not in New York. In the invention a tag with a table number and a weight scale which measured the weight of meat and seal which is output by the weight scale and describes the amount of meat and table number are included in the claim. The Board of Appeal of the JPO decided that the claim is not patent-eligible because the invention is directed to economic activity. The IP High Court decided the claimed invention is eligible.²² The court decided a tag, a weight scale, and a seal have a technical meaning for avoiding confusion of meat of each guest and they are deemed as a technical meaning for solving the problem of the invention. This decision invited a welcome discussion regarding patent subject matter eligibility in Japan. Most of the opinions were negative and they said that the High Court decision is too generous.

However, we could see a swing back in the decision over the last year. The invention, in this case, is directed to a settlement method for electrically reported claims but actually, the method is merely for a debt to bear a discount fee so as to follow the revision of the law.

In this case, the Board of Appeal of the JPO decided the claim is not patent-eligible, and also the IP High Court upheld the decision.²³ The court decided in this case, taking the whole description into account that the heart of

¹⁹ Chiteki Zaisan Kōtō Saibansho [Intellectual Prop. High Ct.] Aug. 26, 2008, 2008 (gyō ke) no. 10001, https://www.ip.courts.go.jp/app/files/hanrei_en/103/000103.pdf (Japan).

²⁰ Japan Patent Office.

²¹ Intellectual Property High Court.

²² Chiteki Zaisan Kōtō Saibansho [Intellectual Prop. High Ct.] Oct. 17, 2018, 2017 (gyō ke) no. 10232, https://www.ip.courts.go.jp/app/files/hanrei_en/327/002327.pdf (Japan).

²³ Chiteki Zaisan Kōtō Saibansho [Intellectual Prop. High Ct.] June 18, 2020, 2019 (gyō ke) no. 10110, https://www.ip.courts.go.jp/app/files/hanrei_en/770/002770.pdf (Japan).

the invention is solely directed to artificial arrangement itself for transaction settlement.

At the end, I will summarize my speech and give some thoughts. Since the decision of “method for consulting bilingual dictionary” case, subject matter eligibility has been examined based on the “as a whole approach.” Even based on the approach, in some cases, a patent was found to be not patent-eligible but the number is not so big. Very small. The decision of the “system for providing stakes” gave us a shock and thereafter invited a lot of discussion in Japan. Personally, I think the decision is not reasonable and too generous. On the other hand, I would say that the decision of last year was reasonable. It seems that the court went back to the right decision.

These days especially in the field of business or IT-related invention, it became difficult to find prior art and because of this, many trivial patents have been granted. Actually, the granting rate in Japan as of now is very high. This is a bit problematic situation in Japan.

Basically, it is not ideal to put strict upstream control or limitation of subject matter eligibility but thinking about the situation as of now, I will say a bit tighter upstream control will be needed in the future in Japan. Thank you very much.

ADAM MOSSOFF: Thank you, Shimako. That was very informative and interesting to hear how Japan has tried a little bit—just dipped its toe into the water—of what the United States has jumped in with both feet into the deep end in the doctrine of patent eligibility. There has been only a case or two in Japan. I'll just take moderator privilege to ask a question unless one of our panelists or someone from the audience has a question to ask? Michael or John? Okay, are there any indications that there will be ongoing or continued cases of this sort in Japan? You talked about how these first few cases have raised concern in Japan, and we've now experienced hundreds of cases in the United States.

SHIMAKO KATO: Actually, could you please say that again?

ADAM MOSSOFF: The United States has had lots of cases applying patent eligibility doctrine now. Japan sounds like it has had just one or two cases. Are there concerns that the cases will expand and that you're going to see lots more invalidations of patents as ineligible subject matter, or do you think it's just cabined into the one or two cases that you talked about?

SHIMAKO KATO: In Japan, there are more cases but as you say, compared to the United States, the number of cases is very low. I think in the future, the number of cases, it will be stable. It's because, in Japan, it is considered that subject matter eligibility, it's a very basic matter. Examination standards are not so strict as well at the JPO and there are not so many cases seeking cancelation of the JPO decisions. The number of the cases will not be growing in the future.

ADAM MOSSOFF: I see that Trevor has a question. Trevor, go ahead, please.

TREVOR COOK: Yes. I see that you do not approve of the system for providing steaks. I'm wondering, looking at the description of the invention in that case, and it may have been oversimplified, but surely the real objection there is that it's obvious.

SHIMAKO KATO: In this case, there were not so good prior art. That's why probably the JPO tried to deny the patent based on the patent matter of

subject matter eligibility but the High Court did not uphold. As I said recently, sometimes, it's very difficult to find prior art, especially in IoT-related inventions or business inventions.

JOHN PEGRAM: This is a classic issue with anything software-related. It's one of the concerns that many people had, that the USPTO, for example, did not have adequate software prior art. When I saw this claim, I thought of the German restaurant I went to in Munich after a successful decision in the German Patent Court. The waiter brought out a tray, and on the tray, there were a number of pieces of meat, which had a little pin tag on it, with a number on it.

He made a note to co-relate that number to the table and the position of the person on the table and in due course, my piece of meat was delivered to me. I'm not sure that this invention, so-called, that was involved in this appeal was any different from what waiters all over the world have been doing for years.

SHIMAKO KATO: Yes, exactly.

ADAM MOSSOFF: But that's just a novelty issue, not an eligibility issue, right? It's not in the "nature" of being a wait staff, it's just an old practice

JOHN PEGRAM: Exactly. That takes us back to what Trevor was talking about, a moment ago, and what David is expected to talk about.

ADAM MOSSOFF: Yes. That is the hope. Shimako, do you have any remarks or reactions to anything that was said, or should we move on with the next panelist? Okay, you say we should move on.

Michael, we'll next turn to you. You'll give us the report from down under on the issues of patent eligibility that are developing in Australia. Please take it away.

MICHAEL WILLIAMS: Thanks very much. Just while those slides are being uploaded, I'd like to be able to report we're doing as well as we are with the pandemic but it seems that developments in Australia are moving in a similar negative trend on patent eligibility for software. I've titled the presentation, "Not Eligible Downunder" and the subtitle, the alternative is, "Or Where is MoM?"²⁴ That's what we often called out in our childhood. We wanted our mom. In our case, there is a particular reason for it, which is part of our eligibility test.

In Australia, the eligibility framework is extremely straightforward, if not very antiquated. We'd like to hark back to the 400 years, to old English legislation, to identify what is sufficient for a patent-eligible invention. It's not demanding. For a very, very long time, it has been assumed that patent eligibility is largely in the realm of an extreme case to invalidate patents. Patents are typically invalidated on traditional grounds of novelty, and their obviousness. There are no legislative exclusions except in the case of, for example, human beings and so there is no exclusion for software.

In a world in which, as previous speakers have mentioned, John said at the outset, there's an increasing dependency on software, it might be assumed that there would've been a greater recognition of eligibility of software inventions and computer-implemented inventions in the last 10 years but the experience has been anything but that.

The trend in Australia has been even more dramatic perhaps than in some other jurisdictions. The real standout feature is that in all but one of our

²⁴ Manner of Manufacture.

Federal Court decisions since 2014, every single computer-implemented invention has been invalidated based on a lack of manner of manufacture, what I'm calling MoM. That's quite a shocking statistic as we'll see because it's one thing to say that there are, it's often said, unsuitable patents come before the court, and the court is there to invalidate but, in this case, seeing such a trend which is almost a 100% takes one into the realm of wondering whether, in fact, it's less a trend and more a rule.

What was also detected from these cases, some of which we've been in ourselves, is that the courts have struggled to identify a consistent line in terms of explaining why the invalidation occurred. It seems to be clear that [unintelligible] requirements for eligibility but try to pin those additional requirements down is another thing. Now, the highest appellate court, the High Court, recently passed up the opportunity to consider this issue, which was unfortunate, even if what it has done is it has certainly put a stamp on the line of Federal Court decisions that have been sending patents down.

At a high level, one can, as you can see on this slide, I'm trying to present, basically, a comparison between computer inventions that were found to be eligible and those that weren't, and with a very brief description about the claims. The standout feature of it, which should be fairly obvious, is the date of the relevant decisions. Decisions that were 30 to 20 years ago are ones where patents were allowed to progress as having the relevant eligibility but the ones that have taken place in more recent times have generally been struck down. The one hope at the moment, perhaps within the industry, is that the last item on the left-hand column, which refers to a case called *Aristocrat*,²⁵ in which a single instance judgment found it was eligible, is currently the subject of an appeal. It's been outstanding for a while and might well, move from the left-hand column, unfortunately, to the right-hand column.

What can we say at present about the rules that apply to computer inventions? Unhelpfully, the first one is that there doesn't appear to be a rule of general application. I think this sort of echoes some of the other comments the speakers have made. It's difficult for practitioners, patent attorneys, and even the courts to determine exactly how to approach these issues without a well-set out set of guidelines. It might have been assumed going back to the very first slide that such guidelines are not required because it should be a relatively undemanding test.

The second thing is that one of the consistent disqualifying factors is the use of the generic computer, which, of course, begs the question with computer software, is it necessary for the invention to deal with a brand-new way of using a computer using, say, nonstandard code to achieve something? It certainly seems to be the case that our courts are treating anything that can be done on an ordinary computer that hasn't been enhanced or developed as a falling foul of this requirement.

Nonstandard computer implementation, on the other hand, outside of, for example, apparatus claims is also not clearly going to pass muster. I think the final thing which is trying to discern effectively crumbs from some of the decisions is to try and identify whether there's some kind of technical element. Now, one might think if we're dealing with computers and computer networks and associated systems that there are many, many technical issues and technical

²⁵ *Aristocrat Tech Austl Pty Ltd v Comm'r of Pat* [2020] FCA 778 (Austl.).

problems that are being solved, but it seems to be a very elusive idea to be able to identify some technical characteristic.

In the most recent case, the one that I've said is subject to appeal, what's interesting is for the first time, the Australian courts have approached the issue of eligibility in a two-step test. There is quite a degree of similarity to the test in *Alice*.²⁶ Perhaps in one sense, there's a rearguard action to move us closer to the U.S. position. Basically, that may or may not be a poisoned chalice from what we've heard.

With all this excitement, one might ask, what's the Patent Office doing about it? Regrettably, nothing helpful. In fact, what is a remarkable feature of the Australian legal system is the Patent Office is the most aggressive litigant in seeking to invalidate patents. Where patents have been granted, it's emerged later to seek leave, to intervene in cases. In many other cases, it has actually been the key litigant challenging or defending its decision not to permit a grant of a patent.

The APO²⁷ manual has become a very unhelpful and extremely technical document, which applies what is its own interpretation of the law. One might think that in Australia there are several different interpretations, and one of which is the Patent Office's alone, even though it purports to follow the decisions of the courts. As a final comment, and this brings back this rather unusual concept of technical in nature and how that might actually be applied, the Patent Office seems to believe that this is some criterion that can be used in some workable way.

An interesting example of this, and we won't dwell on it, is one of the very, very few grants of a patent in this space for Facebook.²⁸ Facebook applied years ago, delayed the examination of this patent, and then was able to get it through to grant. Interestingly, this is the description of the relevant invention, which involves a quick analysis, it appears to be spyware for enabling a Facebook application to be able to see what other applications are doing on, say, a mobile device like an iPhone or an Android phone.

The concept being that the hardware manufacturers and their operating systems have increasingly blocked tracking between applications on phones. This is one of those rare examples where a patent was granted that hasn't yet been challenged in court, which would permit effectively extraction of information between applications based on what appears in shared memory on a mobile device. So where do we end up?

Arguably, our approach is even stricter and more negative than the US and the EU. We think that is having and will continue to have some negative effect on filings, certainly, in relation to Australia. Legislative reform is a long way off and certainly not on the agenda in any meaningful sense. Patentees are now looking very, very closely at how to try and introduce tangible elements or some technical element or technical problem that they can say that the software invention will solve.

I'll just add three more points in conclusion. I think, as already been mentioned by John and by Trevor, this is consistent with some of the observations about the US courts and even the European courts about the

²⁶ *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014).

²⁷ Australia Patent Office.

²⁸ Facebook, Inc. [2020] APO 19, <https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/cth/APO/2020/19.html> (Austl.).

suspicion that courts seem to have about computer-implemented inventions. Trevor described it as trivial inventions that perhaps should be struck down. What is unusual is that in a number of the cases we've found in Australia, challenges based on novelty or obviousness have failed.

In other words, these are novel and inventive patents or inventions, and yet they are being invalidated on some threshold ground. It's always been a question of characterization. John mentioned early on, *Diamond* and *Diehr*, and that's a very good example of the way in which a court characterizes something as inventive and meeting the eligibility threshold because it was a patent relating to the process for molding rubber, rather than a patent relating to a computer technology that was used in that process. Then finally, really with the attitude of the APO in Australia being very hostile towards these types of patents, the big question remains, who is the advocate for these types of patents in our jurisdiction? Thank you.

ADAM MOSSOFF: Excellent. Thank you. Do any of our panelists have a reaction?

By the way, before anyone speaks up, I just want to remind the audience that they can also ask a question, and you should ask a question if you have one. Professor Joshua Sarnoff has been posting some very interesting reactions and comments to the speakers' presentations and also to the ensuing panel discussions.

I just wanted to do some quick housekeeping, and then kick it over to any of the other speakers or to our panelist, Trevor, to see if anyone has a reaction to what Michael just said?

TREVOR COOK: Yes, in a sense, the Australian Patent Office's attitude to these things is not unlike the UK Intellectual Property Office's attitude to software-related inventions. They, I think, share Professor Sarnoff's view that the EPO approach is too simplistic, too glib, and really you have to knuckle down to actually identifying what is excluded subject matter and you can't get away from it.

That has meant that the UK IPO and the courts, up to the Court of Appeal level in the UK, do not follow the EPO approach. You get the sense that there is a similar, perhaps not as great, but at least similar antipathy towards these sorts of inventions. So in a sense, you're not alone. I was fascinated by that Facebook claim, but you still have, in Australia, "generally inconvenient" as a ground of invalidity, don't you?

ADAM MOSSOFF: The focus on a method or process of manufacture seems to be similar to the machine or transformation test that was presented to the U.S. Supreme Court in *Bilski v. Kappos*,²⁹ and which the U.S. Supreme Court said shouldn't be the only test for determining patent eligibility because it limits eligibility to only 19th-century innovations, not 21st-century innovations. That seems to be what Michael and Trevor are saying about how Australia takes a stricter approach to these matters, but that it remains a challenge for computer-implemented innovations in the 21st century.

MICHAEL WILLIAMS: It does, yes. Exactly.

ADAM MOSSOFF: It is a real problem because, as the famous aphorism says, "Software ate the world." I think, Trevor, you pointed out that something like 50% of the patent applications have some type of a claimed

²⁹ 561 U.S. 593 (2010).

software element in them. This is just like in *Diamond v. Diehr*,³⁰ in which everything was old in the art in the patent except for the software program. Then the question becomes, how do we accommodate this type of innovation?

Courts seem to remain very skeptical of these types of innovations. Does anyone else have any thoughts or should we move to our last, but certainly not least, speaker, Dave Kappos? Seeing no objections, the floor is yours Dave.

DAVID KAPPOS: Yes. Thanks, Adam. My apologies, we have been struggling mightily to get me connected. It's one of those things where it suddenly works, but we don't understand why, so put this in the category of a miracle. I don't have any slides today, but I have been able to listen in to everyone else. I feel like I'm up to speed on the panel.

Let me just actually start with something that Trevor mentioned, and it's a topic that John Pegram and I have talked about in the run-up to this conference which is the need in the U.S. and given the ditch we're in, I think you guys have all made that pretty clear and how backwards the U.S. has become on subject matter eligibility, vis-a-vis Europe and Japan, and basically, everywhere else in the world.

Maybe one way, at an administrative level, to reset the mess up here is to change the order in which we examine patent applications. Trevor, thank you for mentioning that. John remembered a while ago when he and I were talking, getting ready for this panel, that it was something that I had suggested was a possible solution, way back when I was at the Patent Office.

Indeed, the reason I came to that conclusion was that examiners at the Patent Office, when I was there, had come forward and said, "We're actually using this approach when we think there's going to be a 101 issue, we've been reaching out to applicants informally. When they agree, we examine on 102, 103, and 112 first. We don't initially examine on 101."

Then after they've amended claims as necessary, at the end of the examination process, we come back to 101, and these examiners said we virtually never have to give 101 rejections because, by the time all the other issues are ironed out, the obviousness issues, as Trevor pointed out, the trivial claims, those kinds of things, the claims we examine on 101 and we don't have a problem with them.

We concluded at the time that this could be a real actual time-saver for the Patent Office. I know there are some purists who are probably watching right now and are saying, "Oh my God, compact examination. We have to use compact examination. We've been using it since the 1970s. Nothing else could possibly work."

Well, stay calm. It turns out that the examiners who were using this approach actually save themselves time and save, more importantly, applicant time and expense because they didn't have to work with a random number generating machine of Section 101, where you actually can reject every claim on any basis whatsoever and it'll never be resolved until it goes to the Supreme Court.

The Supreme Court spins the random number generating wheel and gives you a decision because we all know that the cases are hopelessly in conflict with one another. There isn't any legally based, lawful principle-based way to resolve Section 101. That's one thing that's come around again. Many of

³⁰ 450 U.S. 175 (1981).

you know, I know Adam, you're aware, Senator Tillis thoughtfully sent a letter to Commissioner Hirshfeld.³¹

Drew well knows about this method because he was my Chief of Staff when we first discovered it. Drew has responded saying, "Good, we'll go try this. We'll actually run a pilot and see if we can test this approach. If it makes sense, we can implement it at the PTO." I think that's tremendous, and it's a way that added an administrative level of workaround to the problem.

I think more importantly, it'll help point the courts in the right direction because it'll help set an example for the courts to say, "When these cases come in front of the district courts and the Federal Circuit, don't just dismiss the claims on some notion of abstractness. Instead, review them on Section 102 for obviousness, or for anticipation. Review them on Section 103 for obviousness. Review them on Section 112 for a written description and enablement before you just casually throw claims away on the basis that they are abstract." That's a really great approach that is now back. So that's staged examination.

The second thing that I wanted to mention, also a good move by Senator Tillis in the letter that he sent, I think he might've co-signed it, I forget if it was with Senator Hirono or who, also this time to the Secretary of Commerce Raimondo and to the PTO saying, "We really think you should study the effect of Section 101 on an important driver of employment and innovation in the U.S., which is small business. Because it may be that Section 101 is having a disproportionate negative impact on our nation's important small business sector." They're putting together a study on that as well.

This is all ways to get more headlights shining on the mess that is Section 101 in this country so that we can either get help from the Supreme Court in resolving it, or we can get help from the Congress in resolving it. That's going on now as well and I think that's a positive move.

Then lastly, I know time is short here, Adam, I'll mention that as you well know, there's a tremendous continuing effort to work with our champions in the U.S. Senate, in particular Senator Tillis and his staff who've been absolutely great on these issues. Senator Coons, of course, who's been great on these issues, and his staff who've also been great.

Now, Senator Leahy who is back on the scene leading the Senate Judiciary's IP Subcommittee. Senator Leahy is also well aware of 101 from various conferences that he's been to, conversations, a number of us, including myself have had with him. Now, the goal and the mission is to continue to build awareness with other Senators and their staff to continue to alert them to cases coming up like *American Axle*,³² which many of you know, recently came up and I co-signed along with Senator Tillis and Judge Michel an amicus brief, very much on a policy level calling for the Supreme Court to get involved.

There are new approaches that we're using that are trying new and different ways, both at the legislative level and at the judicial level and at the administrative level to bring attention to what everyone's pointed out on this panel, which is the U.S. has fallen woefully behind in terms of how it thinks

³¹ Letter from Thom Tillis, United States Senator, to Drew Hirshfeld, Commissioner for Patents, USPTO (March 5, 2021), <https://www.tillis.senate.gov/services/files/04D9DCF2-B699-41AC-BE62-9DCA9460EDDA>.

³² *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 966 F.3d 1294 (Fed. Cir. 2020), *petition for cert. filed*, U.S. Jan 5, 2021, (No. 20-891).

about eligibility in patent protection. I'll stop there. I'm happy to participate in the discussion if there's any time left.

ADAM MOSSOFF: Do any of the other speakers have any reactions to the points made by Dave? Yes, John?

JOHN PEGRAM: I just want to point out that David has been very modest in this.

DAVID KAPPOS: Right, John. That goes to the point about small business and tying this issue to national security, which I should come back to and mention. Probably, some people are aware of the National Security Commission report that recently came out³³ that the PTO seconded or detailed a judge from the PTAB,³⁴ a very talented judge, to help put that report together. That report has definitively come out and said that subject matter eligibility has become a matter of national security concern for the United States of America.

To John's point, we're trying to take this to a different level. This isn't about patent draftsmen and draftswomen with green eyeshades and plastic pocket liners. This is about national security. This is about jobs. This is about innovation. It's about artificial intelligence. It's about quantum computing. It's about COVID vaccines and diagnostics, and things everybody cares about.

JOHN PEGRAM: David, I haven't had green eyeshades for years.

DAVID KAPPOS: I still have mine.

ADAM MOSSOFF: I like how you refer to pocket protectors by their descriptive terms: plastic pocket liners. Trevor, you look like you had something to say?

TREVOR COOK: I suppose one point about small businesses in particular, and it was something I was conscious of in Europe in the '90s, is that national prejudice against certain types of invention at the local Patent Office can rapidly seep into the unconscious of small businesses.

I feel there were lots of inventions in this area which people missed out on because the approaches of the UKIPO³⁵ and the EPO in those days were so problematic in relation to computer-implemented innovations. They could have got patents in other countries even if they couldn't have got them in their own country. I wonder if that's going to be a problem, from Michael's point of view, for Australia, or increasingly a problem in the States.

DAVID KAPPOS: I think it is already, Trevor. Capital interest investment effort will go to where there's an opportunity for economic advantage, and economic advantage is only present if there's patent protection for an invention. I think it already is moving. By the way, the problem goes now even deeper. We've seen a study, probably many of you are aware of, that individual inventors, so this is smaller than small business, are disproportionately affected by eligibility, rejections, and invalidations in the U.S.

Since it's those startups, if you will, and individuals who've historically been the great disruptors and challenge the status quo and build the great new enterprises here in the U.S., it's a real shame to see them getting denied patent protection. Because if they get denied patent protection, they're not going to get funding to build the prototype, which means they're not going to get funding to

³³ National Security Commission on Artificial Intelligence, Final Report, March 2021, <https://www.nscai.gov/wp-content/uploads/2021/03/Full-Report-Digital-1.pdf>.

³⁴ Patent Trial and Appeal Board.

³⁵ UK Intellectual Property Office.

take it any further than a prototype. It's like you're saying, Trevor, you wonder how many ideas are just dying because patent protection isn't available.

TREVOR COOK: I think we should [crosstalk].

MICHAEL WILLIAMS: I'll just add that that's our observation in Australia as well, precisely those things. Capital is moving away from the small inventions and startups for that precise reason. In fact, picking up on what David said that, interestingly, capital is moving in the direction of users piggybacking on other people's technology.

No one wants to be that startup seeking to invent in the computer space if all you're going to do is invest your time and money and get humiliated by the Patent Office or when you get to court, and be treated, really, as something of a bit of a terrorist or a pirate when it comes to trying to advance yourself in a market where, in fact, in the past 10, 20 years ago, you would have been regarded as a hero for trying to bring change to a market with some amazing new invention.

DAVID KAPPOS: Of course, what we're seeing in the U.S. in that regard, and interesting if you're seeing it in Australia, is a move toward trade secrecy protection at the margins and a reduction in relevancy of the patent system. The data is showing that while, of course, the Chinese patent system is growing very fast, and in Europe and other countries, there's a good sort of a solid increase in use of the patent system, 3%, 4-ish%, the U.S. patent system has become very stagnant in recent years.

What's unfortunately not really well reported is that if you take out the dramatic increase and filings coming from China, subsidized by the government, of course, you'd find that patent filings in the U.S. are actually falling pretty significantly. That creates a number of problems.

I don't believe it's because innovation is decreasing in the U.S. I believe it's because the innovation is being at the margins, decisions from advisors like all of us on this Webex or this Remo Conference are advising our clients not to seek patent protection, but instead, to keep their innovations as trade secrets in the diagnostics area, in the software area, et cetera. That has a whole set of different incentives and disincentives when you're relying on trade secret protection.

ADAM MOSSOFF: We are at the end of our designated panel time. As concluding remarks, the points raised by Dave about the impact on investments and startups is a really significant part of the puzzle that we as lawyers should always keep in mind when we think about the larger legal and policy issues and implications of the resurgence in the doctrine of patent eligibility.