UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT PUBLIC ADVISORY COMMITTEE MEETING

QUARTERLY MEETING

Alexandria, Virginia

Thursday, February 6, 2020

PARTICIPANTS:

PPAC Members:

JULIE MAR-SPINOLA, Chair

JENNIFER CAMACHO, Vice Chair

STEVEN CALTRIDER

BERNARD CASSIDY

JEREMIAH CHAN

TRACY G. DURKIN

MARK GOODSON

DAN LANG

JEFFREY SEARS

USPTO:

ANDREI IANCU, Under Secretary of Commerce for Intellectual Property and Director of the USPTO

KIMBERLEY ALTON, Deputy Director, Office of Governmental Affairs

SCOTT BOALICK, Chief Judge, Patent and Trial and Appeal Board

JACKIE BONILLA, Deputy Chief Judge, Patent Trial and Appeal Board

KAL DESHPANDE, Lead Judge, Patent Trial and Appeal Board

ANDREW FAILE, Deputy Commissioner for Patent Operations

PARTICIPANTS (CONT'D):

JAY HOFFMAN, Chief Financial Officer

JAMIE HOLCOMBE, Chief Information Officer

STEFANOS KARMIS, Director, Office of Patent Quality Assurance

TIM FINK, Deputy Vice Judge, Patent Trial and Appeal Board

JANET GONGOLA, Deputy Vice Judge, Patent. Trial and Appeal Board

NICK MATICH, Senior Legal Advisor

LAURA PETER, Deputy Under Secretary of Commerce for Intellectual Property; Deputy Director USPTO

MICHELLE PICARD, Senior Advisor for Financial Management, Office of the Chief Information Officer

MARK POWELL, Deputy Commissioner for International Patent Cooperation

BRANDEN RITCHIE, Senior Legal Advisor, Office of the Under Secretary and Director

RAMAN SARNA, Portfolio Manager, PE2E

RICK SEIDEL, Deputy Commissioner of Patent Administration

DEBBIE STEPHENS, Deputy Chief Information Officer

COKE STEWART, Senior Policy Advisor; Acting Chief of Staff, Office of the Under Secretary and Director

PARTICIPANTS (CONT'D):

WILLIAM STRYJEWSKI, Patent Senior Information Technology Expert

MATTHEW SUCH, Director, Technology Center 2800

VALENCIA MARTIN WALLACE, Deputy Commissioner for Patent Quality

Other Participants:

BOB BAHR

KATHLEEN DUDA

DREW HIRSHFELD

DON WATSON

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P R O C E E D I N G S

(9:07 a.m.)

MS. MAR-SPINOLA: I would like to call to order this first quarterly meeting of PPAC. I want to wish everyone a happy new year. It's a good year. I'm sure it'll be a good year. And I also want to welcome our newest members of PPAC, and that is Tracy Durkin and Jeremiah Chan, and then Jeff Sears, who's been renominated and glad you're here.

Thank you, and the rest of the committee will introduce themselves in a minute.

But I just wanted to say that I am honored for -- to be the Chair of the committee. I recognize the importance of the PPAC's role to review the policies, goals, performance, budget, and user fees of patent operations. And the PPAC will do our best to collect input from our diverse users of the Patent Office to advise the Director and the patent agency on these matters.

The theme that we've chosen for this year is "20/20 Vision". In Optometry, 20/20 Vision

refers to the clarity and sharpness of vision measured from a distance. And so, the goal that we've set for this year's PPAC is to examine the U.S. Patent Office operations from a point in the future.

I believe this will help us identify the necessary financial, IT infrastructure, policies, and workforce metrics, needed for the overall objective of improving quality, which I refer to as the durability of the Patent Office's product, in this case, the patent,as well as to meaningfully increase the diversity of inventorship for our inventorship community.

To this end, the PPAC has formed two new subcommittees: The Artificial Intelligence Subcommittee, as well as the Innovation Expansion Subcommittee. And you'll hear about those things a little bit more today.

Regarding the AI Subcommittee, the PPAC wants to ensure that where AI technology tools are needed that we can support the Patent Office on that.

And then on Innovation Expansion, our goal is to support the efforts of the National Council that is led by Valencia Martin-Wallace, and you'll hear more about that later,and to identify and create incentivizing programs and tools for the purpose of significantly increasing inventorship among the less and under-represented inventors.

So, we share and are committed to the Director's vision and commitment to the utilization of AI technologies throughout the agency and to change the makeup of our inventorship community.

So, with that I'd like to turn it to the Director, Andrei, thank you.

MR. IANCU: Great, thank you, Julie, and good morning, everybody. So good to see all of you.

Julie, did you want folks to introduce themselves now or afterwards?

MS. MAR-SPINOLA: How about we go around the table?

MR. IANCU: Okay, so let's do that first.

MS. MAR-SPINOLA: Let's start with Cathy, please.

MS. FAINT: Catherine Faint, vice president NTEU 245 and a member of PPAC.

MS. DUDA: Kathy Duda, president of POPA on PPAC.

MR. CHAN: Jeremiah Chan, new member of PPAC.

MS. DURKIN: And Tracy Durkin, also a new member of the PPAC.

MR. CASSIDY: Barney Cassidy, PPAC.

MR. CALTRIDER: Steve Caltrider, PPAC.

MR. SEARS: Jeff Sears,PPAC.

MR. LANG: DanLang, PPAC.

MS. CAMACHO: Jennifer Camacho.

MR. HIRSHFELD: Drew Hirshfeld, Commissioner for Patents.

MR. FAILE: Andy Faile, USPTO.

MR. BAHR: Bob Bahr, USPTO.

MR. POWELL: Mark Powell, USPTO.

MR. SEIDEL: Rick Seidel, USPTO.

MS. MARTIN-WALLACE: Valencia Martin-Wallace, USPTO.

MR. IANCU: All right, great. Once again, welcome, everybody.

Let me start with swearing in the new members of PPAC, as well as the one returning member who has had his term renewed.

So, first of all, Tracy Durkin is the practice leader of the Mechanical and Design Practice Group, and a member of the Trademark and Brand Protection Practice at the law firm of Sterne Kessler here in Washington, D.C.

Jeremiah Chan joins our committee from Facebook, where he leads a team that works on IP transactions, dispute resolution, and other risk mitigation initiatives, as well as industry-wide efforts to promote greater diversity in innovation.

And as I mentioned, Jeff Sears. He was appointed for a second term on PPAC. Welcome back to Jeff as well. As folks know, Jeff serves as

associate general counsel and chief patent counsel for Columbia University.

So, Jeremiah, Tracy, and Jeff, would you please stand up and join me back here, and we will do the swearing- in.

What do we do about the mic? Okay, I'll hold this.

(Members sworn in.)

MR. IANCU: Congratulations, and welcome once again.

(Applause) Great. Welcome once again. And I also want to congratulate Julie Mar-Spinola and Jennifer Camacho who are now serving as the new chair and vice-chair of this committee, respectively.

As always, we have an impressive lineup of speakers and presentations today and from what I see here, a jam-packed agenda. So, let me get right to it.

In a nutshell, I anticipate a continued

emphasis on expanding the innovation ecosystem among each of the groups that were identified in the SUCCESS Act, including women, minorities, and veterans.

As many of you know, the USPTO issued a report to Congress on October 31 of last year about the participation rates of these groups. In that report, the Agency made a series of recommendations regarding legislation and initiatives that can help increase awareness among these groups of the importance of IP and facilitate their participation in the patent system. Beyond that, we also want to make sure that innovation is expanded geographically and economically throughout the United States in addition to demographically.

As I've said many times publicly, including in this committee, if the United States is to maintain its technological leadership, it cannot compete with one hand tied behind its back. In today's highly competitive global economy, it is critically important that we work to ensure

that all Americans have the opportunity to invent, to start new companies, to succeed in established companies, and ultimately to achieve the American dream. In short, we need all hands on deck.

To that end, the SUCCESS Act aligns perfectly with our ongoing focus on ensuring that everyone in this country has effective access to the IP systems. This emphasis is also in alignment with many USPTO initiatives, including our long- standing partnership with the National Inventors Hall of Fame, our educational outreach efforts, and the variety of stakeholder events, including the Women's Entrepreneurship Summit and many others.

Additionally, I anticipate that there will be a heightened emphasis throughout 2020 on the importance of enhanced IT systems and artificial intelligence, and overall, the importance of intellectual property innovation.

It is clear that there is widespread agreement throughout the United States that innovation is important. But it is also important

to emphasize the inextricable connection between innovation and intellectual property rights. Predictable and reliable IP rights are a necessary component of a robust innovation economy.

Last night -- yesterday, actually, the U.S. Chamber of Commerce, the GIPC unit of the U.S. Chamber of Commerce issued its 2020 report ranking the various countries around the world when it comes to intellectual property. And last night they had their presentation ceremony. I was honored to speak there briefly.

The results are extremely encouraging for the United States and I was very proud of the achievements. Among other things, the United States is ranked as the leader among all of the nations in the world as the number one for overall intellectual property, and our lead has increased in the past year. We are ranked first on trademarks with a perfect score. We are ranked second on patents in a four-way tie. You might recall that last year we were also ranked second, up from number 12 two years ago. But last year

for our second-place tie, there were, I believe, 10 to 12 countries. Now, in the second place, there's only a four-way tie.

We are first -- ranked first in enforcement. First in system efficiency, first in treaty ratification, and also in the leading -- or among the leaders in various other areas including first in copyright as well.

So, the work that the administration and American industry have done together is being recognized and we are very proud of that.

Before getting into more details about the operations of the PTO, let me mention that -- a few senior level changes at the PTO. Yesterday, we were very proud to announce that David Gooder will assume the role of Commissioner for Trademarks effective March 2nd.

For over 25 years, David has demonstrated a passion for IP and has a well-developed reputation as a dynamic leader of teams. He has worked in the IP community and dealt with a myriad of brand protection challenges

facing iconic global brands. Upon David's arrival at the USPTO next month, Meryl Hershkowitz, who has been serving as the Acting Commissioner for Trademarks, will return to her duties as Deputy Commissioner.

Additionally, you may have heard that we welcomed our new Chief Financial Officer Jay Hoffman last month. Jay joins us with more than 22 years of federal financial management experience, including 15 years as a member of the senior executive staff. For the last eight years, Jay served as the CFO for the U.S. Consumer Protection Safety Commission where he was the principal advisor to the CPSC, chairman on all aspects of financial management. You'll hear a lot more from Jay later this afternoon when he provides an update on the USPTO's budget. So, please stay tuned to that.

In other senior staffing news, John Cabeca, a thirty-year veteran of the USPTO recently announced that he will be leaving his role as Director of the Silicon Valley Regional

Office, but he will still be with us in a different role. He has accepted a diplomatic post as the IP attaché for South Asia, where he will serve U.S. industries doing business in South Asia and advocate for effective IP policies to support the strong and vibrant IP system globally.

During this time of transition, Chris Shipp, who was previously serving as my Chief of Staff, will provide leadership to the Silicon Valley Regional Office until the director role is permanently filled. As you probably know, that office serves as an innovation ambassador in the region, which includes Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington state.

Filling Chris' shoes on an interim basis here at the USPTO as Chief of Staff is Coke Stewart, who previously served as my senior policy advisor on a variety of patent policy issues. Coke has worked at the USPTO since 2011 in a number of important roles, including as associate solicitor, acting deputy solicitor, senior advisor

to the director, as I mentioned, and acting chief of staff.

So, we're very excited about the various folks assuming important roles and I think the agency and the United States IP community will be very well served.

Turning just briefly to IP policy, patent policy in particular, Section 101 of the Patent Code remains the top issue when it comes to patent policy in the United States. The PTO did our part, I believe, with issuance of guidance a year ago and then again updated guidance in October of 2019.

The results have been extremely good and in a variety of ways. We hear at least anecdotally the improvement that this has made in the examination process and with our 8,500-plus examiners. We know from our statistics that the results have been extremely good. The number of rejections under 101 in the areas that matter most is dramatically lower. The consistency of results between various examiners applying Section 101 is

dramatically higher. And all that is very, very good news for the American patent system.

Of course, our guidance is not binding on the courts and it remains to be seen what the courts will do. To the extent that there is a legislative process with respect to Section 101, as we know that there was in 2019, but to the extent that continues into 2020 and beyond, we stand ready to help as necessary.

Turning now to pendency issues. At the end of 2019, we achieved fabulous long-standing goals with first office action pendency to below 15 months and total average pendency to below 24 months. By 2025, the USPTO expects to meet 90 percent of all applicable patent term adjustment timeframes.

As this committee recommended in your 2019 PPAC Annual Report, the USPTO is focused on its transition plan toward the refined pendency measures based on patent term adjustment timeframes. This will reduce the need for patent term adjustments and give all applicants greater

certainty of the pendency of their own cases. And while we are moving towards the 90 percent compliance with PTA timeframes, we also expect to maintain first action pendency below 15 months and total pendency below 24 months, and hopefully improve even beyond those numbers.

This improvement in workflow and pendency is due in large part to a new process that will improve the routing and the signing of patent applications to patent examiners. More specifically, the process will automatically match each application to the examiner best suited to examine the application. In doing so, it will take into account the complete technological profile of each application, the work experience of each patent examiner, and the workload balancing needs of the agency. This is a capability that we expect will be fully implemented for the first time in October 2020.

Now, I know I don't need to remind anyone in this room that IP rights are an important element of the American economy and

contribute enormously to global economic growth. On that note, patent total serialized filings increased 4.6 percent in the first quarter of fiscal year 2020 as compared to the same quarter a year ago. As noted in the fiscal year 2021 Office of Management and Budget submission, the USPTO long-term forecast projects steady growth for patent serialized applications between fiscal year 2021 through 2025.

On another note, you may have heard that I traveled last week to Mexico City. I was there with United States Secretary of Commerce Wilbur Ross. We met with our respective counterparts and while there, I signed a new agreement with my Mexican counterpart, Juan Lozano, that will make it easier for those with U.S. patents to get corresponding ones in Mexico.

Under the new work sharing agreement, our two agencies, the USPTO and the Mexican Institute of Industrial Property known as IMPI, will implement a parallel patent grant framework that will enable IMPI to have access to USPTO

search and examination results when examining the application for a counterpart Mexican patent. The goal of the agreement is to dramatically shorten the application review time in Mexico and to use fewer institutional resources.

The USPTO strongly supports collaboration around the globe to protect and promote intellectual property. We have collaboration agreements with many offices around the world and we stand ready to extend our collaboration with other countries around the world interested in enhancing intellectual property rights.

We are particularly proud of our close collaboration with IMPI and we believe that the memorandum of agreement that was signed last Tuesday between the U.S. and Mexico stands as a model for bilateral cooperation. So, I'll leave it there for now. You will hear much more throughout the day. And, of course, throughout the process we welcome your comments, questions, feedback, and so on.

I'd like to thank each of you, not just on behalf of the Agency, of course, I do thank you on behalf of the USPTO, but also on behalf of our nation and its inventors. The continued collaboration between the USPTO and PPAC is enormously important and your insight and guidance are invaluable.

Thank you, and if we have time, Julie, I would be happy to answer any questions.

MS. MAR-SPINOLA: Thank you, Director. Are there any questions from PPAC? Okay, with that I know you have a tight schedule too. So, thank you and I believe that our next speaker is going to be Nick Matich, is that right?

Okay, hi, Nick. And Nick will be -- Nick is Senior Legal Advisor, Office of the Undersecretary and Director. And he'll be giving us an update on the Arthrex matter.

MR. MATICH: Thank you very much. Yes, my name is Nick Matich, and I have been asked to address the committee on updates regarding the Arthrex and appointment -- the Arthrex case and

Appointments Clause challenges that the PTAB has been facing in recent months.

So, as most of the folks in this room are likely aware, the federal circuit recently held that the administrative patent judges of the PTAB were unconstitutionally appointed.

The bottom-line impact from this ruling is that a number of PTAB decisions that are currently before the federal circuit will have to be remanded and reheard by new panels absent a change in the federal circuit's jurisprudence.

At the USPTO, we have been actively involved in these cases. We filed an en banc petition in Arthrex itself and as appellants before the federal circuit have been filing motions based on Arthrex or addressing it in their briefs, we have been intervening in those cases to continue to press our arguments.

So, to understand the case a little bit, it requires a little bit of con law refresher or maybe an introduction for those of you who aren't lawyers. The Constitution lays out who gets to

make decisions for the executive branch. And it says that important decisions have to be made by officers of the United States. And so, anyone who, as the supreme court said, "wields significant authority" under federal law must be a properly appointed officer of the United States.

The Constitution then lays out two mechanisms for appointment: One for principal officers and one for inferior officers. Principal officers must be appointed by the President with the advice and consent of the Senate. They are known in Washington speak as PAS officials. And then inferior officers are others and they -- Congress may vest their appointment in the President alone, the heads of departments, or the courts of law. Here what is relevant is the heads of departments.

So, what is the difference between a principal and an inferior officer? The supreme court has not laid out a definitive test, but it has used the word, inferior, to suggest that an inferior officer is one who has a superior. And

it depends upon whether or not they are directed and supervised at some level by someone who is a PAS official.

So, with that background, what happened in Arthrex? In Arthrex, the court held -- said that the director does not exercise sufficient direction and supervision over the APJs to render them inferior officers. Of particular concern to the court was the court's view that the director lacks the ability to unilaterally vacate or review a final decision issued by APJs, and that they have removal protections and career protections under Title 5 of the U.S. Code, which is basically your ordinary civil service protections.

Since the PTAB judges are appointed by the Secretary of Commerce, they are appointed in a manner consistent with being inferior officers, but not consistent with being principal officers. Since the court viewed them as principal officers, it held that they were unconstitutionally appointed. The remedy the court said was to strike the Title 5 removal protections as they

applied to APJs from the statute and then remand the case for a hearing before a new panel. So, we here at USPTO, as I said, have been involved in this. We filed an en banc petition with the federal circuit in December. The initial ruling came down at the end of October. It was a Halloween surprise. And we argued that the director does have adequate control over the board. We pointed to his general oversight authority, his ability to assign who -- which judges get appointed to hear particular cases, his unfettered, or mostly unfettered discretion to decide which cases to take in to begin with.

And then we also importantly questioned the remedy. In Arthrex itself, the petitioner had -- or the appellant had not raised the constitutional question before the board so in our view, the issue was forfeited. If we were to win on that argument, it obviously wouldn't affect the underlying holding, but it would substantially affect the workload on the remands that would affect the board.

And then we've been intervening in other cases as it gets raised. There have been a very significant number of those cases since October.

What has the federal circuit been doing? So, the Federal circuit has been addressing those other cases, each of which can raise unique issues that are slightly different from Arthrex and that's been defining the scope of what will be ultimately remanded, if anything, to the board.

So, for example, the federal circuit said you had to have raised the Arthrex issue in your opening brief so appellants whose cases were fully briefed up prior to the Arthrex decision are not able to take advantage of it. They have recently held that IPR petitioners could not take advantage of the Arthrex decision, and we've been getting other various decisions and requests for briefing on sort of the follow-on issues from Arthrex.

The en banc briefing is complete at this point. Actually, all parties to the Arthrex decision have sought en banc review and there have

been other parties that have sought en banc review of the same issue. We expect a decision in the Arthrex -- on our petition at any time, but obviously, courts don't tell us when they're going to render their decisions.

So, with that I'm happy to take any questions that the committee may have about Arthrex.

MR. SEARS: Hi, I've got a question for you. Other agencies have administrative law judges.

Patent Office is not unique in that regard. Has this issue been raised against any other agencies' ALJs?

MR. MATICH: So, other administrative agencies do have ALJs. Obviously, we're the only ones that have APJs. The possibility that similar challenges could be raised against ALJs is obviously something we have thought of, but how it would apply in another case is uncertain because the statutory scheme is different. The ability of other secretaries to review particular decisions,

decide the dockets, those are all not necessarily -- those are all potentially different. Additionally, the protections, the career protections that apply to ALJs are different.

So, bottom line, the general thrust may or may not apply, but the facts of the particular statues are going to vary. And also, those cases could arise outside the federal circuit, which, you know, would be another factor as well.

MS. MAR-SPINOLA: Nick, thank you. That actually was quite helpful and I appreciate that and I'm now refreshed on constitutional law. (Laughter) So, thank you. It's been a little while.

Can you elaborate a little bit on the Patent Office's specific position in this issue?

MR. MATICH: Yeah, so in the -- in both our initial briefing in the Arthrex matter and in the en banc petition, which raised basically similar arguments because it's generally frowned upon to raise totally new arguments in an en banc petition, we just walk through the statute and go

through the various controls that the director does have over the board. Which are the ones that I mentioned, the beginning of the Patent Act, I think it's Section 3, gives him general policy oversight over the whole office and the PTAB is obviously part of the Office. He gets to decide whether or not to institute a case.

And we talked about the POP policy and how he's been issuing presidential decisions. And significantly -- and this is one of the things that we talked about in our en banc petition, the panel actually recognized that those authorities are very significant. The panel apparently just thought that the Title 5 coupled with what it viewed as the inability to review a decision after it issued is -- overcame those. We, of course, pointed out that that's part of what the POP panel was about, but that was not persuasive to the panel. And we're hopeful that those arguments would be more persuasive to the whole court.

MS. MAR-SPINOLA: Thank you. Any further questions, Steve?

MR. CALTRIDER: Yeah, just to follow-up on that. If the court disagrees and maintains its holding that they are principal officers, did the PTO take a position on whether the remedy is sufficient that the federal circuit put in place?

MR. MATRICH: So, our position in Arthrex with respect to the remedy is that because the appellant in Arthrex didn't raise the issue below, they should be entitled to no remedy. And that would substantially limit the impact of the case and have, well, large benefits for the agency if the court were to adopt that.

As for a case where it was properly preserved, and there are such cases, we -- the court requested remedial briefing and we suggested a number of different alternatives below. I'm not sure and I don't think I should speak to what we may say if the court were to grant en banc about which remedy we might advocate for at that point because, obviously, at this point we've also gotten some additional experience and insight into the practicalities of it, which might affect what

positions we take.

MS. MAR-SPINOLA: Okay, any other questions? All right, we're going to move on. Thank you, Nick.

MR. MATRICH: Thank you very much.

MS. MAR-SPINOLA: That was very, very helpful and we look forward to further updates.

Okay, we are now going to have the PTAB Subcommittee. Jeff Sears is the Chair for the subcommittee for PPAC and then we have Scott Boalick, Chief Judge, and Jackie Bonilla, Deputy Chief Judge, Tim Fink, and Kal -- forgive me in advance, Deshpande?

MR. DESHPANDE: Deshpande.

MS. MAR-SPINOLA: Deshpande, thank you. And we have until 10:45, just to keep on the schedule. Jeff?

MR. SEARS: Thanks very much, Julie. I look forward to a good presentation today from the PTAB on AIA trials, ex parte appeals, and other proceedings before the board. I turn it over to the PTAB.

MR. BOALICK: All right. Thank you, Jeff. So, we have a couple of folks who are going to present on some things that are happening here at PTAB. So, we have our agenda, which is going to start out with an update on our motion to amend both the pilot program and the notice of proposed rulemaking. We'll talk about precedential informative cases, the area of multiple petitions challenges.

Then we're going to talk about a couple of new things. We have a new data visualization in our monthly statistics that we'll show you, and also just introduce a new to PTAB toolkit that we've got on our website.

So, the first item is going to be Deputy Chief Judge Jackie Bonilla to talk to you about the motions to amend area.

MS. BONILLA: Hi, good morning. We wanted to just give an update on recently back in October we published a notice of proposed rulemaking relating to motions to amend and specifically, the burdens of persuasion on the

different parties in relations to motions to amend.

In that notice of proposed rulemaking, we proposed to assign the burden on patent owner to show that a motion to amend meets certain statutory regulatory requirements as an initial matter. And also, to assign the burden of persuasion in relation to patentability on the petitioner in relation to substitute claims in a motion to amend. The rule also points out, however, that irrespective of the burdens that the Office, and particularly the PTAB panel in the interest of justice can actually step in and exercise its discretion to grant or deny a motion to amend for any reason supported by evidence of the record.

And as noted in the NPRM, the Notice of Proposed Rulemaking, this rule is consistent with what our current practice is right now. It's consistent with the burdens that are described in our precedential decision, the Lectronics decision that you see there. So that published back in

October. The comment period for that Notice of Proposed Rulemaking ended on December 13. Since that time, we had 18 comments. The comments were mixed. Overall, the comments did suggest that we should, in fact, engage in rulemaking on this issue. Other than that, they were quite mixed. We're reviewing all those comments now and we expect to issue a final rule some time in the near future.

As another update, we wanted to talk a little bit about the motion to amend pilot. That started back in March. Just to give everybody an update, it's been almost a year. And just as a reminder to everyone, this particular pilot offers two options that didn't exist before under the pilot in relation to the motion to amend.

The first one is that the patent owner if it wishes, can ask for the board to issue what we're calling preliminary guidance. This is information that's preliminary and non- binding in nature, just to give the parties after a motion to amend has been filed and an opposition has been

filed, to give some feedback to the parties about where the board thinks things stand preliminarily.

Whether they file -- whether they request preliminary guidance or not, the patent owner can choose after the due dates to file a revised motion to amend. So, for example, it could take into account what's in the opposition and the preliminary guidance from the parties and revise its motion to amend.

And just so we know where we are again, this pilot started back in March, so it was any case that was instituted after that date. The first time anybody could file a motion to amend under the pilot was back in June. The first time anybody filed a motion to amend requesting preliminary guidance was on June 25th -- yes, June 25th of last year.

So far, there have been 47 motions to amend that have been filed under the pilot. Out of those 47, 39 of them have requested preliminary guidance. So, it's the majority of them. We have the -- the board has issued 16 preliminary

guidances so far. And so far, patent owners have taken advantage of filing a revised motion to amend 11 times.

And as of -- recently, we have had hearings in relations to motions to amend. One related to where there was no -- they didn't ask for any information from the board. And then we just recently last week had a hearing in relation to a motion to amend that involved preliminary guidance.

So, basically, the first time that anyone who could take advantage of the pilot where a motion to amend would be -- excuse me, where a final written decision on the motion to amend would take place is in March. And the first time that we would see a final written decision where preliminary guidance has been requested would be in April.

MR. BOALICK: All right, and our next topic talking about new POP decisions, precedential and informative cases, our Lead Judge Kal Deshpande.

MR. DESPANDE: Hi, thank you. Let me start with a little bit of background. The board has a standard operating procedure too. In September of 2018, it was revised to sort of dictate how the board designates cases as precedential and informative. To quickly define the terms, precedential is something we determine to be a binding authority. It generally involves issues of exceptional importance. Informative cases, or informative designation, deals with something that's reoccurring at the board, just gives general guidance as to board policies and procedures.

Since we've revised the standard operating procedure too, we've had 19 cases designated as precedential and 13 as informative. The standard operating procedure identifies two different pathways towards designation. It has pathway one, which is the POP process, and a pathway two, which is our designation process. So, using the designation process, we've actually designated 16 cases as precedential and the POP

has dealt with three issues so far, and is currently dealing with a fourth.

In December of last year, the POP issued a new decision in the Hulu decision. It's the third one on the list. Just something to note from this list is the fourth case, Hunting Titan is still currently pending before the POP. It deals with the motion to amend process at the board and it is scheduled for an oral hearing on February 18th at 1:15 p.m. Here in the Madison building.

The decision in the Hulu decision -- the issue that the POP took up is the -- what is required for a petitioner to establish that an asserted reference qualifies as a printed publication at the institution stage. After receiving -- following the POP process, which involves receiving briefing from the parties, allowing for amicus briefing and having an oral hearing, the POP held the oral hearing on June 18th, and issued a decision in December.

The POP concluded that a petitioner must

identify with particularity sufficient evidence to establish a reasonable likelihood that the asserted reference was publicly assessable before the critical date. Importantly, also in the decision is the POP clarified that there is no presumption in favor of institution or in favor in finding that there was a presumption that something was a printed publication.

Using the standard operating procedure two, we've also designated three cases as informative in the last few months. The first one deals with 101. In this case, it was a speech transcription process where the board ultimately determined that the claims did not rise -- or sight a mental process or a method of organizing human activity. And even if it were, it was integrated into a practical application. Another version of the Hulu decision -- it's not the same one we just talked about. This is a different case. But this one deals with obviousness and rationale to combine. This is a final written decision. This is where the board determined that

by a preponderance of the evidence, the petitioner did not establish that there was a rationale to combine the references.

This is sort of another mixture of the same flavor that deals with obviousness to combine. This was an institution decision that the board found there was not a reasonable likelihood that there was a rationale to combine and this decision focused on a mere demonstration that if references are analogous and could be combined, isn't sufficient to actually determine that there was a rationale to combine by a reasonable likelihood.

MR. BOALICK: All right, thank you. And our next Vice Chief Judge Tim Fink will talk about the developments in the multiple challenge area of AIA trials.

MR. FINK: Yes, so this particular topic is really maybe more broadly directed at -- focused on what is -- how the Office exercises discretion in AIA proceedings. Whether or not to institute the proceeding. So, largely that comes

under the rubric of multiple challenges. There's a few other things that we'll talk about in here as well.

So, to start out, the serial petition topic, we included General Plastic here. Everyone has heard about it I think at this point. It's a couple years old. But we really included it for context because I think many recognize General Plastic as being sort of the -- if not the earliest, a very important case in exercise of discretion that talks about efficiency and fairness and really looks at system efficiency and fairness as part of the discretion inquiry under Section 314.

So, General Plastic itself, and you'll see, by the way, that that's sort of a theme throughout this particular discussion is the efficiency and fairness as a way of deciding whether or not to institute an AIA proceeding. So General Plastic itself set forth a multi-factor test to determine whether or not a serial petition should be instituted. Serial petition being there

was already one petition challenging a patent, along comes either the same or a different petitioner challenging the patent again. Sometimes this went on several times.

So, I think that with respect to the same petitioner challenging a patent serially, General Plastic has largely curtailed that practice and really requires a particular petitioner to kind of get it -- get their challenge right the first time. And not bring successive challenges as a way of fixing up the first challenge.

One thing that General Plastic was a little bit -- it's a little bit ambiguous on is what happens if it's a different petitioner? So that's where the Valve decision comes from. I happened to sit on the case with the Director. But the issue there was a first petition that was denied and then a second petition came along from a different petitioner. The first petitioner -- the second petitioner came in and tried to rectify a deficiency in the first petition.

And what the panel held there was that there was evidence of a close relationship between the two parties. They had been sued together in district court. They were a licensee and licensor of the technology. And so, based on that tight relationship, the panel viewed this as really a serial petition within the context of General Plastic.

Oh, we took time to point out that really the first General Plastic factor shouldn't be read to require identity of petitioners. So, really in the serial petition context, we have to look at the relationship between the parties. So that decision was made precedential.

Another decision that was made precedential last year was NHK. And NHK is a little bit different because it really deals with efficiency in the context of parallel proceedings in a district court. And so, it's recognized as being the case that says that where a district court is scheduled to complete first that at least there is a possibility that the board should not

be instituting a review, especially if there is significant overlap in the questions presented to the board and the district court, and especially if the district court is in an advanced state.

In the case of NHK, the district court had already construed claims, and the challenges were nearly identical. So, in that case the board held -- or the panel held that the advanced state of the district court proceeding, it would be inefficient to institute an inter parties review in that case, and so institution was denied. I should point out that 325(d) was -- which we'll talk about in a minute, was also a basis for denying institution. But I think it's important to say that we don't require -- we don't read NHK so narrowly as to say that has be -- that that has to be a fact that's an issue in other cases. So, in other words, don't read NHK so narrowly as to require a 325(d) argument. The advanced district court proceeding may be enough on its own depending on the facts. So, General Plastic, we talked about addressed the issue of serial

petitioning. Another issue that's been raised frequently is what about lots of petitions challenging the same patent at the same time. And not infrequently, we're confronted with three or more petitions challenging a single patent at once.

So, we took the opportunity in the July 2019 trial practice update to set forth a new procedure to address that. And what the Trial Practice Guide recognized is is that in most cases -- and in most cases, our experience is that one petition is sufficient to challenge a patent. However, there are times when either due to a large number of claims that are at issue or in some cases, a petitioner needs to compartmentalize their prior art due to priority date, questions, or claim construction questions, there may be a need for a second petition. But the experience is is that three or more petitions would be -- would be pretty rare.

So, what happens if a petitioner feels the need to file multiple petitions at once? So,

the Trial Practice Guide also sets forth a procedure, which is designed to help focus the dispute and determine whether or not two or more petitions are necessary. In the case of multiple parallel petitions, the petitioner should file a separate paper explaining the need for separate petitions, and provide a ranking of which are the best challenges or which it thinks we should look at first and why, and then what are the differences? And so, this provides some clarity to the panel as to whether or not additional petitions are necessary.

The patent owner gets a responsive paper where the patent owner is encouraged to point out whether or not it's really disputing some of the issues that may be driving the petitioner's concern. So, if the petitioner is concerned about the prior art being antedated, there might be an argument that the petitioner is leery of, the patent owner can take an opportunity to, if it thinks the argument isn't something that it wants to fight about, to narrow the number of disputes

before the board by saying this isn't an issue.

And patent owners have taken us up on that. In a number of cases, they have said we don't challenge this particular issue the petitioner's worried about. So, if you're going to institute, one petition is sufficient.

All right, this is a little bit unrelated to the multiple petition or the multiple challenge context, but it does come in under the idea of the emphasis on system efficiency. And so, this what we call here SAS-related denials really is an issue that comes up due to SAS. SAS says that an institution is an all or nothing proposition. So, what happens if there's one claim that meets the institution standard, but a whole bunch of claims that the board thinks don't meet the institution standard? Once it institutes, there's no narrowing of the dispute other than the parties deciding if they want to narrow the dispute.

So, the board under the Chevron and Deeper cases, which have been made precedential,

the board in these cases found that a large majority of claims or grounds in the dispute were not meeting the institution standard. And so even though a subset of claims, or a small subset of claims met the standard, the board in its discretion did not go forward. And so, as a matter of -- for the sake of efficiency.

So, 325(d) is as I alluded to earlier, is for just refresh memories, 325(d) is the statute that narrowly focuses on whether or not the same prior art or arguments, the same or substantially the same prior art arguments were previously before the Office. And if they were, the director may exercise discretion not to institute.

So, it is under the rubric of multiple challenges because in the case of 325(d), the argument is that the Office has already looked at this particular challenge or something that's substantially similar, and the patent is still here so no need to do it again. No need to redo on the same or substantially the same prior art.

And so, Becton Dickinson is a precedential decision that identifies six factors that the board uses in determining whether or not institution should be granted. And I think I'm going to avoid reading them all out loud to you the factors, but I think it's worth to point out two things about Becton Dickinson. And that is what the question really comes down to in this case is whether or not it's the same or substantially the same prior art that's been -- or argument that's been considered before. And if so, whether or not the petitioner is pointing to some error by the Office. So, with something that's compelling about this prior art that means that suggests that we should go forward anyway.

The other thing I'd like to point out about Becton Dickinson is although it's couched in terms of examination, it really applies to -- it really can apply to the AIA context as well. So, if a challenge was brought under the AIA and then a -- and ultimately not successful, and then another challenge comes along and it's pretty

close, the same or substantially the same, the board may exercise its discretion not to go forward in that context.

So, I'd just like to point out that the consolidated Trial Practice Guide, which brings together all of the updates and the original Trial Practice Guide includes, I think, all of these cases are either cited or discussed in the consolidated Trial Practice Guide, so one convenient place. I think it starts on page 55, but don't quote me on that.

MR. BOALICK: All right, I think maybe before moving to our next section, maybe we'll pause here and see if anybody has any questions on any of the topics presented so far.

MR. LANG: Maybe I missed it, but do we have statistics on the motion to amend program and how the new features are being used in the pilot?

MS. BONILLA: Those statistics aren't published. We haven't put that together yet in a presentation other than what you saw today. We've been telling people orally what I presented today.

We obviously will.

I mean, the idea is that the pilot would go on for a year and we would revisit it and figure out what's going on. We're waiting still to see. We have yet to even have a final written decision that takes it, you know, where somebody's taken advantage of the pilot. So, we want to get some feedback on that and then decide what we're going to do going forward.

MR. BOALICK: It does look like at least based on the numbers we have so far, that the pilot's been fairly popular, and a number of people have taken advantage of both the preliminary guidance and the chance to revise the motion to amend. As Jackie said, the results are still sort of forthcoming. So, we'll see how this all ends up. That'll play out over, you know, the coming months. We didn't have a slide with statistics.

MR. LANG: I may have missed, but is there an increase in motions to amend generally?

MS. BONILLA: Generally speaking, it's

been about the same as it was before in terms of the raw numbers of motions to amend filed.

MR. LANG: Okay, thank you.

MR. BOALICK: Any other questions?

MR. CALTRIDER: Yeah, just a question and really an expression of gratitude for the guidance on serial and multiple petitions. That was an area that was a great uncertainty for patent owners, and the need to have quiet title, if you will, and some certainty on how you deal with multiple petitions, particularly serial petitions, is very much appreciated. And I am encouraged that the PTAB to continue to take cases on their facts and when appropriate, issue precedential and informative decisions to provide even more clarity in that space.

MR. BOALICK: Well, thank you. And I know that's, you know, even know we've done quite a bit, you know, we're still, you know, continuing to look to give further guidance and just a nod to the presentation that Kal made. We're always on the lookout for nominations for more precedential

or informative decisions in either the multiple petitions or any other area.

MS. MAR-SPINOLA: Jeff, questions?

MR. SEARS: No, thanks.

MS. MAR-SPINOLA: Jennifer?

MS. CAMACHO: I have no questions.

MR. BOALICK: Okay, so we can move --

MS. MAR-SPINOLA: Great, thank you.

MR. BOALICK: -- move on to the -- right, (inaudible). So, the next thing that we wanted to present is a new data visualization. This is something that is now starting with the December statistics. It's going to be part of our monthly AIA trial statistics on the website. So, we just wanted to show you the new graphic and what it is. And so, this is attempting to help draw some things that we used to say verbally about our famous waterfall chart, the one that had the status of all petitions, but sometimes was a little confusing to interpret.

So, what we've done is we've pulled all of the active cases out of, you know, out of

consideration. And what we're showing you here are cases that have come to a conclusion in one way, shape, or another.

There's a couple of ways that the cases end. The major categories are that either institution is denied, they settle, either pre or post-institution. These two are lumped together. There's a request for adverse judgment by the patent owner. And then the last category is that they reach final written decision.

So, what we've shown you here is the orange are cases where institution is denied. That ends up of all of our concluded proceedings happening, you know, 33 percent of those we have the institution denied. The settlements, again pre and post-institution, were 30 percent. Four percent were requests for adverse judgment.

Then the remaining 33 percent, which are the three shades of blue that represents all the cases that went to final written decision. And then the blue shading indicates the outcomes in the final written decision.

So, the lightest shade of blue is where all the claims were found -- all the challenged claims I should say are found patentable. That was a 6 percent of the time of these concluded proceedings that happened. Six percent, there were mixed results, and then the remaining 21 percent were where we had final written decisions for all the challenged claims were found unpatentable. And you can see the blue slices in context of the overall set of outcomes.

Then what we did is we took a breakout just looking only at the final written decision, just to sort of show how this relates to the end of the waterfall slide. You can see that there in that rectangular area is what we used to show you with the outcome of final written decisions in the waterfall. And then you can see how the percentages change. So, the numbers are exactly the same. But the percentage if you consider it as part of only final written decisions, then you can see the percentages jump up so that its 19 percent found patentable, 18 percent mixed, 63

percent all unpatentable.

And if you wanted to consider it even a further way, if you were to take out the settled and the requests for adverse judgment part of the pie, and you were to look at it again, then what's kind of interesting is that exactly 50 percent had the -- would have institution denied, and 50 percent would go to final written decision. And your percentages of the outcome of final written decisions would be 10 percent all patentable, 9 percent mixed, and 31 percent all unpatentable. All of which is to show with the same numbers depending on what you consider the results, you know, can sort of change.

So, that's what we were hoping to show with this particular graphic. We still do have the waterfall, you know, in our statistics pack, but we just wanted to show this chart is one that we have kind of joining the traditional statistics.

MS. CAMACHO: Thanks, Scott. We appreciate that. Oh, go ahead, Jeff.

MR. SEARS: No, go ahead.

MS. CAMACHO: We all love your waterfall slides, but I --

MR. BOALICK: Oh, thank you, thank you. Well, the waterfall is still there.

MS. CAMACHO: Everybody loves a good pie though, Scott, so. (Laughter)

Thank you very much for putting something like this together. Is this available on the data visualization website?

MS. BONILLA: It's at the very end.

MR. BOALICK: So, it's actually on the PTAB website under our statistics page in AIA trials. There's a -- we have a monthly statistic pack that we put out. In fact, and it goes through, you know, all the trial statistics. This is now the very last slide of that on our website, which I'm, you know, happy to provide a link to that.

MS. CAMACHO: I think that would be great to provide a link. I also think it would be great to incorporate it into the main data

visualization page. You know, it's a little challenging to find, but once you find it, there is a lot of information there. And I think something like this is digestible by someone who doesn't do this every day, and that's important. They wouldn't be looking necessarily on the PTAB and go down the various levels to find it. But it's useful information to someone who is in this process, but not necessarily so steeped in it that they can find their way around the PTO website.

MR. BOALICK: Sure, and we'd be happy to, you know, provide a link on the data visualization page as well, so.

MS. CAMACHO: Perfect. Perfect, that would be great because then that pulls them into the waterfall slides.

MR. BOALICK: Yep.

MS. CAMACHO: And --

MR. BOALICK: That's right.

MS. CAMACHO: -- to the additional information that's available there. Thanks.

MR. BOALICK: Okay, sure.

MR. SEARS: Before you move on, I'd like to suggest some additional slides.

MR. BOALICK: Oh, sure.

MR. SEARS: This is a great one. To me, it would be helpful to see something like just the last 12 months. This is retrospective over seven years. Trends change over time so, just the same pie chart over the last 12 months I think would be really helpful. I'd be really curious to see what the FWD breakdown is. You know, what percentage, particularly are claims are still being held up, all unpatentable.

Also, on the institution denied slice, it might be interesting to see, you know, what the general categories are. Are there 325(d) denials? You know, what are the broad brushstrokes on institution denial?

MR. BOALICK: Okay, no, thanks for the suggestions. And that's something we can, you know, look to further develop. And you're right, you know, the time slice is something that we've been working on to define to take a look at just

because there have been changes and adjustments in the rules and case law developments and all that. So, you know, I agree, I think it would be -- it's something that we're working on to look at the last couple years.

And since we're a little ahead of time, I thought if we had a moment, maybe we'd do a quick call an audible here and ask Janet Gongola to present the next slide on our new to PTAB website because she's really been the one who is developing this. So, I'll pass the clicker on to Janet here.

MS. GONGOLA: Good morning, everyone. Thank you for giving me the opportunity to tell you about our new to PTAB toolkit as we're calling it.

Essentially, the toolkit is a webpage where we attempted to house a whole host of information for those who are new to our proceedings. So, particularly, independent inventors, start-ups, small businesses, those who haven't been involved in a prior appeal or an AIA

trial.

What we've done on this page is break out our types of proceedings into the most basic of terminology to explain the process and the opportunities that the parties have to participate in that process. We've included side sets, videos, along with a whole host of frequently asked questions. Additionally, we have a section about our hearing procedures because those are common to both of our types of proceedings, so that parties know how to more effectively appear in front of the board, both in their briefing, but most importantly, in their oral arguments. This page is a continuing development for us. So, we plan to update it with more information as time goes along. And, certainly, if you all have suggestions for us as to content that you think would be helpful, perhaps, Jennifer, as you indicated maybe including the pie chart at its very basic level on this landing page would be something that we could do to even make it a more useful tool for our newbie community.

So, I think that concludes -- I'll take questions about the new to PTAB toolkit if you have any. And please do help us spread the word about the toolkit because we want it to be a useful resource to the community.

MS. MAR-SPINOLA: So, Janet, thank you for that. Would you, since we do have some time, would you go over the topics that are available for the folks that are on audio?

MS. GONGOLA: Sure. Although it's difficult to see on the slide, we begin the page with an overview of who the PTAB is, who are the judges, what are our backgrounds.

Then the second section is all about ex parte appeals. What are the steps involved in an ex parte appeal? What are the briefings? What's the timing?

The third section is about AIA trials. Again, we walk through what is the process, what are entailed in each of the briefing documents, timeframes for responding. The fourth section is on AIA trials -- oh, I'm sorry -- on hearings.

And on the hearings page, we talk about what are the procedures for appearing in front of the board? What council should know about decorum in their presentations, and then we offer some tips to help parties make arguments to the board.

And then the very last section is an encyclopedia of frequently asked questions, broken down by those same topics.

So, we actually to compile these questions, we have four law clerks who are working for us this year. And I thought, well, they're new to the board, they're new to our proceedings. Let's have them draft up a set of questions for us and we will answer. They were probably pretty reflective of what new users might want to know. So, that's how we developed the frequently asked questions. And we try to capture from a very, very basic plain language throughout this page.

MS. MAR-SPINOLA: Thank you. Questions?

MS. CAMACHO: I don't have a question for Janet, but a question has come in for Scott. A request for some additional information at the

last -- for the next meeting.

MS. MAR-SPINOLA: Thank you, Janet.

MR. BOALICK: Sure.

MS. CAMACHO: This was from the public. How many patents have been reviewed in a final written decision? Is some information like for the next meeting? And how many patents have had one or more claims invalidated in a final written decision? Do you have that information now?

MR. BOALICK: So, I don't have the handy with me, but it is information that we do have. You know, the total number of patents, I mean, off the top of my head, I'm just not sure. I know we've done this, but I'd rather maybe next time --

MS. MAR-SPINOLA: Okay.

MR. BOALICK: -- give you the accurate information, rather than my probably faulty recollection.

MS. CAMACHO: That's okay, we can make an action item on that to make sure it's covered.

MR. BOALICK: Sure.

MS. MAR-SPINOLA: And one additional

request. If you would consider start reporting your results based on patents, rather than petitions.

MR. BOALICK: That is another thing that we're looking into, so that is another, you know, graphic that we are looking to develop. That one turns out to be a little trickier just based on the state of our ability to gather data, but it is something that we can do, although we may not be able to provide that monthly, but we could -- something we're looking to provide periodically.

MS. CAMACHO: Thank you, Scott.

MR. BOALICK: Sure. All right, any other questions, Julie?

MS. MAR-SPINOLA: Well, let me see. Let me ask, Lee. You put us ahead of time.

MR. BOALICK: Because we're going to stick around for the next portion too, so we're not really leaving, we're --

MS. MAR-SPINOLA: Yeah, yeah, yeah, I definitely will do that.

I don't know if it's ready for prime

time about young attorneys?

MR. BOALICK: So, it's something that we're looking into and I think we'll have, you know, a little bit more to report, but we are looking, you know, to efforts that are going on in certain district courts around the country on ways to try to incentivize, you know, participation and, you know, speaking roles in trials for attorneys who are newer to the practice. And so, we don't have anything concrete to report, but we are looking into that and to see what we could do especially in the AIA trials.

MS. MAR-SPINOLA: All right, you know, I have a little bit of experience in that and, you know, we do have a similar concern in the District Courts about how best to give young attorneys the opportunity and experience to appear and argue matters. It was a sensitive issue, right? Because clients need to be assured that whoever is representing them in oral argument is prepared. So, there are courts that throughout, I think, the country, district courts, who have adopted actual

rules, local rules where they encourage young attorneys to come and argue before their court. Some provide extra time for advocacy, and most requirements include having a senior attorney supervising or the extra time could be used to have the senior counsel maybe cover something that was missed.

The great thing that I've seen at quite a few of these proceedings are that the judges are really good. They don't quite hand hold the young attorneys, but instead they guide the attorneys on how to improve their presentations to the court; it's a great experience for all involved. So, I think that to make this available or potentially available for oral arguments before PTAB is a great idea and would support it fully.

I suspect that there will be folks who have been practicing for a while including patent prosecution counsel, but who have not had experience doing it and would like to build that practice. It would be a great opportunity for them as well.

So, we look forward to hearing more about that. I'm excited about it, personally, and I know you all are too. Any other questions? Steve?

MR. CALTRIDER: Yes, I wanted to follow-up on Jennifer's question because I think we may have been -- at least I wasn't understanding your earlier characterization, the data. The pie chart that you presented and the numbers that were recorded on that pie chart, that number is a count of the petitions?

MR. BOALICK: That's our -- that's right, I'm sorry if that was unclear. That is -- this is by petition, not by patent. So, there is some overlap when a patent was challenged more than once. That includes the sum of those petitions. So, this is not a by patent view. That's a view that we're working on, but we don't currently have ready to go, at least not an updated version.

In about 2017, we had done as part of a multiple petition study, we looked at outcomes by

petition and by patent. But we haven't updated those charts since that time, and so that's something that we are working on updating.

MR. CALTRIDER: Okay, just one additional follow-up. If you have multiple petitions that are consolidated into a single final written decision, is that counted as one or is that counted as how many petitions were combined?

MR. BOALICK: So, I believe that's what counted as what? Well, I think if it's one decision that's consolidated, I believe it's probably counted once because I think we looked at the final written decisions. But I will double-check to see. If that's not right, I'll update you next time.

MS. MAR-SPINOLA: Okay, if there aren't any other questions, I'm going to thank the PTAB for their presentation. And the new pie chart, loved it. And if we -- let's just make sure that we follow-up on some of the questions that were raised and get some answers to those for the next

meeting. I would appreciate that greatly, thank you.

So, we have extra time and we can either continue. Shall we do that? Everybody okay with that? Okay.

MR. BOALICK: I think that we were staying on to at least --

MS. MAR-SPINOLA: Yes.

MR. BOALICK: -- be part of the next presentation.

MS. MAR-SPINOLA: Okay, so let's --

MR. BOALICK: That's fine so we'll just stay here.

MS. MAR-SPINOLA: -- get the next subcommittee up and that is going to be Pendency and Quality.

The chair for PPAC is Steve Caltrider and on the panel we're going to continue with Scott Boalick, Jackie Bonilla, and then in addition, we have Andy Faile, Deputy Commissioner for Patent Operations, Valencia Martin-Wallace, Deputy Commissioner for Patent Quality, and also

Stefanos Karmis and Director of the Office of Patent Quality Assurance.

So, welcome, and we have until 11:20 for this section. Steve?

MR. CALTRIDER: Great, thank you. I'll start off with perhaps what's new. And that is that quality and pendency have been combined this year, which I think is terrific news because it's important to consider both quality and pendency together. A quality patent that's not timely isn't very helpful to the patent owner community. And the timely patent that doesn't have high quality is not very helpful to the patent community. So, it is important to consider those together.

And the Director really characterized what I consider to be a quality patent when he said it was predictable and reliable. And I would add to that timely, which I think most undoubtedly the Director implicitly was including timely as well.

Predictable and reliable really goes

beyond the examining core. And one of the reasons we have is our panelists and will continue to have our panelists when we talk about pendency and quality is the PTAB because from a patent owner's perspective, if the examining core issues a patent and the PTAB invalidates the patent, then there's an inconsistency there. The system is not predictable and reliable in terms of those patent rights.

So, today we're going to learn about how the PTAB and the examining core in the patents division are collaborating to ensure a higher level of consistency. And with that bit of introduction, I'll turn it over, I think, Stefanos, you're leading the discussion.

MR. KARMIS: Thank you, Steven. I appreciate that. I am going to lead the discussion today on some of the efforts that the PTAB Business Unit and the Patents Business Unit are doing together to collaborate. Thank you to Scott and Jackie here for hanging out to help answer any questions.

Let me advance the slides. Okay, so again, I'm going to talk about some of the efforts we do to collaborate, really with a focus on consistency within the Patent Office and overall, just continuous quality improvement. And the areas I'm going to touch on today really focus heavily on some of the training that we do together and how we learn from each other in training, some of the stakeholder engagement we do together, and also some of the data studies that we are undertaking together.

So, I'm going to start with training here and the first one on the list is probably a little bit bigger than just training. It's really more of a policy and training. And as Director Iancu noted earlier this morning, the revised subject matter eligibility guidance was one of the big initiatives over the past year. And one of the big things to come out of that was consistency between examiners. But when we were doing the guidance, we also wanted consistency between examiners and PTAB.

And so, throughout the development of the guidance and development of training, one of the ways that we collaborated was we had representatives, 101 representatives from PTAB and Patents working together on this training to help ensure that when it came out, we would have, you know, consistent decisions on 101 issues.

Another area that we are collaborating that started in 2019, is through our examiner quality chat series. What that series essentially is, it is run through our Office of Patent Training. It is for our examiners. It's basically a one-hour webinar with about a 30-minute presentation and 30 minutes saved for questions and answers. We present to them on various quality topics.

Last year, what we decided to do was partner with PTAB and try to develop some sort of regular appearance by PTAB at these trainings for our examiners. So, last year we started with two trainings. They were providing rationale under 103 was the first one that we did. And the second

one was just sort of considerations that impact success in appeal. And so far this year, we've done one that was an introduction to PTAB trials.

And in these trainings what we really see is the examiners like hearing that feedback from the board on how they can be successful when they get to appeal. It's a good reminder for examiners also that when they communicate with applicants, there is another party that may be reading their decision and making decisions based off that written prosecution record. So, it's a good training for our examiners and also what we found at the end was examiners are just very interested in the PTAB. The questions often deviated from those topics. They're very curious to learn about the things that PTAB are doing.

And so, we have three more planned for this year. We are going to talk with examiners about AIA trials and the institution standard. And also 35 U.S.C. 325(d), which was touched on in the last session. You know, our examiners now have access to the prosecution history of

post-grant trials when they have a case that is a continuation of a case that's undergoing a trial. So, they are looking at those prosecution histories now. So, the more that we can educate them on what is going on in these trials, and what is going on in the prosecution history, just the overall, you know, quality will improve.

We're also going to talk with them about the Precedential Opinion Panel process. It is a process they have heard about and maybe are not totally familiar with. And we are going to talk with them about precedential and informative decisions. And the PTAB is going to go through some of them and also lay out sort of what they expect with these precedential informative decisions should examiners be citing these when they go to the board or does PTAB expect to see that. So, that would be a great training for our examiners also through this series.

So, not only do we, you know, train internal for our examiners, but we also train the external in sort of similar formats, in that

webinar format where we do about 30 minutes of like a training and then answer questions. Patents has our own. We call that our Patent Quality Chat series. PTAB has the Boardside Chat, which is theirs geared for external stakeholders. And one of the things we do is that, you know, we will often be guest speakers at the other's chats for the external stakeholders.

So, you know, for ours PTAB has come and talked about the motions to amend pilot and they have gone over the AIA trial statistics. We have visited PTAB's Boardside Chats and gone over the subject matter eligibility guidance, and also talked about reissue and reexamination. So, it's another way where we are just trying to collaborate in what we talk about with our stakeholders.

I will give a plug. If you are interested in these, you can always sign up for patent alerts to find out when the next ones are coming.

Something that's been going on for a

long time, actually, is the technology center training from the APJs. So, a lot of the technology centers do have relationships where they will invite the APJs in to sort of, you know, give a talk on what they see, what some of the trends they see are, what the technologies, some best practices. And those have been ongoing for years where, you know, the APJs come in.

And another thing that's relatively new is hearings. So, you know, recently we made an effort to have examiners be able to attend various hearings that PTAB are having. We did a big one with the POP panel process. It was a small group that came, but it was a very high-profile hearing. PTAB was great in that they invited representatives from patents in, gave us a briefing of what was going on in the case, told us a little bit about the prosecution history, and then we went in and watched the POP hearing. I think there's another one, hopefully, coming up pretty soon along those lines.

And then also just our -- the regular

PTAB oral hearings that are going on in ex parte appeals. We have partnered with PTAB and our Office of Patent Training, and one of the groups in the Office that really works on engagement to figure out how to offer these things in a virtual way for our examiners to attend and watch and see what's going on in these virtual hearings to get a flavor for them. So, they can now go on our training website, sign up to attend a hearing virtually, and sit in and watch and see how these things go.

Still going along the lines of training, one of the things that PTAB does is they offer career developmental details to our examiners. And, essentially, what happens is an examiner will split their time, 80 percent with PTAB, 20 percent with examining, and they will go work under an administrative patent judge helping them, you know, with their day-to-day and various decisions that they make. This is a great learning program for examiners, something that I myself participated in back when I was a new supervisor.

So, I learned a lot on this detail. I think it was a great learning experience to have that, you know, even though it was only four months, the amount that I learned in that four months just, you know, working hand-in-hand with multiple APJs was a great learning experience. And they continue to do that program today.

In 2018, also PTAB launched a law clerk program, which is similar to the law clerk programs that federal courts use. We have had some examiners actually get -- or go into that program. They have a couple of former examiners in there. You know, the students that are part of that program are getting a great education on patents, and I'm sure we will probably be seeing some of them apply to the patents corps once they are done with their law clerk program.

Stakeholder collaborations, so, you know, we do have a history of going out and speaking together, and it's not uncommon when Patents is doing even a speaking engagement by ourselves that we get asked about PTAB questions.

But the more and more that we can go out together, obviously, our customers want to hear about all the things that are going on in the Office, not just the things that are going on in Patents.

With last year really being a lot going on within Patents, and as you heard over the last session, there's a lot going on in PTAB. We thought it would be great to restart some of these roadshows. So, we partnered with AIPLA and we went and did a few roadshows in Seattle, Houston, and Boston, and we are still looking to continue that and talk about, you know, some of these issues up here. We talked about our quality initiatives, incoming application quality, subject matter eligibility, the motions to amend pilot, AIA statistics also, and the POP process. So, it was a great discussion with stakeholders, especially in cities that we don't get to quite as often as maybe we would like.

One of the other ways that we collaborate is on data studies that we both have statisticians in our organizations, and we're

always trying to figure out, especially the way technology is now, it's not so mechanical and electrical. The lines are getting more blurred and we have switched over to a combined patent classification system.

We've been talking with PTAB about what is the best way for us to consistently present data to our stakeholders both internal and external so that it makes sense so that people understand it, and that it's consistent. We've also helped PTAB with, you know, some of the things that they're looking at. We have reviewers in our Office of Patent Quality Assurance that can help, you know, review file histories. And we've spent some time looking at things like 325(d) to help support their efforts.

And then another study that we've been working on recently is the AIA prior art study. So, you know, search and prior art have been a big focus in the Office recently, and we have never really done a comprehensive study on what sort of prior art is being used in AIA trials and what we

can take away from that and what we can learn from that.

So we're spending some time right now evaluating the prior art references that are used in AIA trials trying to compare it to what we find, you know, our examiners are doing here in the corps on a daily basis, figure out what gaps there are and maybe why there are gaps if there are gaps. And see what sort of improvements we can make. This is, you know, relatively new so we're still sort of churning through this data, but this is another way that we're sort of collaborating together and staying in discussion of, you know, not only just getting the data, but also anecdotal feedback from the judges on what they see what the prior art that is applied and how it's applied.

MR. SEARS: I've got a question for you about the 325(d) study. Do you have a sense of the timeline of when you will be ready to present it?

MR. KARMIS: I maybe would have to defer

to PTAB on that. We did a lot of the data collection for it.

MR. BOALICK: I think also that study was done, the data set we used this was done and in fact, we mentioned it in the annual PPAC report this past year. But the data actually is predating a lot of our efforts. It ended in April of 2018, and we've really -- right about the time where our, you know, renewed case law and guidance efforts on 325(d) appeared. So, I think that study was good to take a look at the early practice of 325(d), something that we might look at, perhaps renewing, you know, given that the practice has, you know, shifted and there's been a lot more guidance, you know, in that area. Jackie, other --

MS. BONILLA: And I was just going to add one of the outcomes of just the preliminary look of the study was that we probably did need to give more guidance to stakeholders about the parameters of 325(d), which did lead to us making Beckon Dickinson precedential and a number of

other decisions informative. So, in that sense, the data was probably too early to really be useful today, but the information that we got out of it in terms of next steps, I think, was very useful.

MS. MAR-SPINOLA: So, I would encourage the PTAB to continue that study to show current trend. It is an issue, I believe, that is going to stay in front of the questions from the external stakeholders. And it is something that I think we all can benefit from. So, if we can have that covered in our next meeting as comprehensively as possible, that would be appreciated.

We know that, you know, that being able to follow those studies and given the workload that the PTAB has, certainly given SAS and Arthrex I think, you know, you have quite a load. And I know this is an ask, but I would -- maybe we can prioritize what the asks are and see if we can continue. Since that study, which started in the Special Projects Subcommittee that we have -- that

retired this year, you know, we would like to continue to pursue that particular study and would appreciate it from PTAB. I want to go back to Stefanos -- Stefanos?

MR. KARMIS: Yes.

MS. MAR-SPINOLA: Okay, thank you. About the training, I applaud this collaboration of training because I think it's so important to try to continue to bridge the relationship, the access to information, and also just what both sides of the Office do; by sides I mean Examination and PTAB.

So, this is important and I like that cross- training. I think, and maybe I missed it, that the cross- training seems to be coming from Patents, where examiners are coming to the PTAB -- sorry, I misspoke. It's coming from PTAB where the examiners are able to observe and learn more about the PTAB process, right?

MR. KARMIS: Yes.

MS. MAR-SPINOLA: Is there reciprocal training where PTAB judges, and I know how busy

they are, but still -- and I also recognize that there are a lot of the judges who are former examiners. So, they may already be quite expert at those processes. To the extent there are judges that don't have that background, is there training the other way around?

MR. BOALICK: I guess one thing I would say is that, you know, as far as training on some of the latest, you know, procedures, for example, the 101 training and some of the -- the 112 training, and some of the other trainings. Examining corps is done. Has been, you know, made available to the judges so they've, you know, been kind enough to invite us to attend those examiner training sessions.

Also, the technology center collaborations that Stefanos mentioned, that's actually a two-way exchange. That's not just one way. There's feedback from the examiners, you know, to the judges as well. And I know that the examining corps has a program sort of a day in the life, if you will, you know, of an examiner, you

know, training that's available. Some of our folks have taken advantage of that, you know, especially those who weren't prior examiners. So, we have had people from the board go through, you know, that training as well. So, there are a couple of things that, you know, are still, you know, ongoing that are coming, you know, from Patents to PTAB.

MS. MAR-SPINOLA: So, and I think that's great. You know, I mentor a lot of young attorneys who are interested in the patent practice and I'll get some that say I want to prosecute patents. And I say, okay, go litigate, get some experience in patent litigation. And then those that say they want to practice in patent litigation, I advise them to do patent prosecution. And the reason is, obviously, it's the value of knowing the other side, how patents are challenged, how patents are decided, and so, I think it's important.

And maybe in the 325 context, if there is an addition or an expansion of the day in the

life of an examiner is more focused on the prior art search, the prior art consideration, what was cited in a prosecution, and how substantial that was because when there is a post-grant challenge, and when there are patents that are being asserted in the post-grant proceeding that were cited, maybe in the IDS or mentioned in office actions, it'd be nice to be able to have a full appreciation from both sides on how that works. And maybe it'll provide or inform or provide guidance on 325 decisions as well.

MR. BOALICK: I might mention sort of two other things. So, one in, you know, the examiner details. That's not just a one-way learning. The judges who work with the examiners who are here on detail learn a lot, even those who were former examiners learning a practices change over time, so they can kind of get a sense of what's currently happening.

We also have a regular judge training series that we hold, you know, at least once a week. And we've had over the past year, you know,

each of the deputy commissioners has come to speak to the judges about their area and then sometimes we've drilled down even a little further into the organization to have, you know, other folks come speak to the judges about what that area of patents does, so.

MR. HIRSHFELD: If I can just chime in at a very, very high level with a quick comment.

As far as my tenure in management goes, dating way back to, you know, well, upper management about 2008 or so, I think that the interactions between the patents corps and the PTAB are at an all time high. And, certainly, I think Scott and Jackie deserve a lot of that credit. I know that Scott and I meet weekly just even to discuss some of these issues, and at all levels we're trying to figure out how we can better collaborate. And it just -- it's really nice to be able to sit back and say, okay, look at all the things that we are doing. Would more be helpful? Of course, it would be and I think that's always a goal, but, certainly kudos to them

and the rest of the team for really working well together.

MS. MARTIN-WALLACE: Absolutely.

MR. CALTRIDER: A couple questions. First, is really a comment and it kind of echoes a little bit what Drew just said because the PPAC and the public certainly appreciate the level of collaboration because I think it improves the overall quality and it's a very important dimension.

The data study collaborations are terrific. I would encourage more of those. I'm going to ask a follow-up question to the prior arts study in it's the same one that was asked on the data consistency on 325(d). When do you expect that to be reported out? And then the second question is, you've mentioned a significant amount of training, and again, it's applauded to have that collaboration and cross- communication. Can you give us a sense of how much uptake there are in terms of the PTAB judges' participation as well as the examiners' participation? Is it

everybody's attending? Is it a fraction is attending? Can you give us some sense of the uptake on that? Topics.

MR. KARMIS: Sure.

MR. CALTRIDER: Completely unrelated.

MR. KARMIS: I'll start with the second question first. So, when we do those examiner quality chats, we have to cap it at around 700 examiners for each session. For each topic we do two sessions, and they always are completely filled. We have too many people trying to get into those sessions from our examining corps. So, what we do do though is we make the presentation available and a video of it available so that those that can't get in live can go back and watch it and at least see the presentation and hear what questions were asked.

You know, with respect to the judges that have participated on that, it has been, you know, a different group of judges each time, so we are getting -- I think you need perspectives with each one that we're doing there.

As far as the prior art AIA trial study that we've been doing, we have collected a bunch of the data. We are sort of validating some of that data now and looking through what we have found. And we're sort of putting it together in a way that makes sense so that when we present it it actually tells you, you know, the right story and people are getting meaningful feedback.

So, I'm not exactly sure on a timeline when it'll be presented, but, you know, hopefully next time. Maybe next time we'll see.

MS. MARTIN-WALLACE: So, I'll just add to what Stefano was saying on the AIA prior art study. Where similar to what Jackie mentioned about the 325(d) where the initial studies brought about a lot more questions that we really need to have answered and to dig deeper into in order to as Stephano mentioned, to have a responsible comprehensive report out on what we're doing. So, that' where we are now and hopefully we will have that for you at a future session.

MS. MAR-SPINOLA: We're through --

MS. DURKIN: May I ask one more question?

MS. MAR-SPINOLA: Oh, sure, of course, Tracy.

MS. DURKIN: So, another statistical question. I don't recall ever seeing statistics on the USPTO website the same way they're being capped on inter parties petitions on ex parte appeals in terms of outcome. Are they there? I've pendency, but I haven't seen really outcomes.

MR. BOALICK: So, as far, you mean, the appeal outcomes. We do have a slide I believe it's in our -- I'm not sure if it's in our monthly data set, but we do have a slide. In fact, one of the things we may do is present, you know, some more of the ex parte statistics, you know, if you'd like at a future meeting. I was just going to look through real quick to see if we had some backup slides to the last presentation. I don't know -- actually, we do have that. I don't know if it's possible to go back to the prior presentation, but we do have an FY '20 appeal

outcome slide.

But if it's not possible to back up, basically, the examiner was affirmed in nearly 60 percent of the appeals in FY '20 and they were reversed in about 30 percent, and there was a partial affirmance in 8.6 percent. So, and then there's a small number of administrative categories.

Yes, this is the -- yeah, just back a couple more here. Back up past the (inaudible). This one here. So, this is the appeal outcomes. And I believe we have this, but it doesn't change monthly, but we do periodically publish this appeal outcome statistic.

MS. DURKIN: Thank you.

MR. BOALICK: Sure.

MR. CALTRIDER: Julie, if time permits, perhaps I could circle back to some of the Directors' comments and ask Andy to comment a little bit further.

But he made reference to pendency and meeting the pendency goals last year. And

congratulations, again, to the Office. We talked about that last quarter and it was a significant accomplishment. And he made reference to the PTA pendency goals and the transition to that and I thought, Andy, if you could expand a bit more in terms of the plans there that would be much appreciated.

MR. FAILE: Okay, sure, I'd be happy to. So, flipping back to pendency, as the Director said, we had an agency priority goal for pendency for the last couple years, and it was to be less than 15 months to first action, less than 24 months overall. We hit those goals at the end of last fiscal year. And that was the two-year cycle run of that particular agency priority goal.

All the time kind of in the background we had been looking at PTA, patent term adjustment, as another dimension of pendency as well. The five different categories in patent term adjustment, 14, the 3-4s, and 36 seem to provide another way to look at pendency and how we're doing with respect to moving of cases

through the pipeline. So, we've always been looking at our performance in PTA and we wanted to kind of highlight more as a pendency measure the performance in each one of those categories.

So, you heard the Director say that we're looking at PTA as a goal framework for pendency and you heard the number 90. I'll explain what the 90 means. But by way of background, we have the traditional pendency, which is basically an average pendency. You know, you look at the case when it's finished in whatever particular timeframe you're looking at, and then you run those data points up and you have an average pendency of X. That's a spread throughout the corps. It can be, obviously, broken down per TC, per work group, per art unit, et cetera. But we're generally reporting out at the aggregate level of the pendency at less than 15, less than 24.

So, in looking at patent term adjustment timeframes, what we are moving towards is trying to look at the entire PTA performance across the

entire spectrum. And you heard the number 90, and 90 has actually two components to it.

So, the first is we want to have 90 percent of our total PTA in the actions that we do be compliant with those particular timeframes.

The second 90 percent we're looking at is the actual inventory. So, we're looking at the actual inventory, 90 percent of the inventory living under the patent term adjustment timeframes. And what this gives us is the actuals actually show where we've been. We've had performance in these particular categories at a certain number. In the inventory is our look internally on where we're going. An inventory stacking up in a certain way might have us react differently in terms of operations to move that inventory considering an inventory that might be stacked up in a completely different shape.

So, our basic framework is we have a five-year plan and it's by 2025, fiscal year 2025, we want to have a 90 percent compliant of our total PTA in the actual cases that we're doing in

those timeframes. And then we also want to have 90 percent of our inventory within those timeframes. So that's what we're marching to in FY '25.

We are also, as the Director mentioned, we are also still cognizant of our traditional pendency measures. So, we want to keep adhering to the average pendency goals of less than 15 and less than 24 during that timeframe.

So, we're kind of looking at pendency in a couple different dimensions, the traditional average pendency and then we're actually moving towards more of a patent term adjustment timeframe to gauge our operations internally and report out on our pendency measures.

MR. CALTRIDER: Thank you.

MR. HIRSHFELD: I'll just add, and I know this reiterating some of what Andy just said. But we think that this is a much more refined and more meaningful approach to pendency for our applicants, right? And so, when you have well over 8,000 examiners and well over 600 different

art units, when you report out an average pendency of what's mailed, you have art units all over the place, so is that really meaningful for the public?

It's somewhat meaningful, of course, and I think it was great to have these goals when we had very, very long pendencies as a way to drive down pendency in general. But now that we are making very good progress in the pendencies getting much more refined and trying to stick to the patent term adjustment and that five-year goal of getting to 90 percent compliance across the board of when we issue patent term adjustment, thus minimizing when we would actually issue patent term adjustment, we think is a much smarter approach.

MR. CALTRIDER: I agree completely, so kudos. Please continue the good work.

MR. HIRSHFELD: And, I mean, I know that PPAC has given us that feedback in the past so thank you for steering us in that direction. We know others have as well. I know also AIPLA has

weighed in and others have also weighed in and said, really, this is a better approach, so we've gotten input from many on this topic.

MS. MAR-SPINOLA: Any further questions on pendency quality from the committee? Okay, we are doing really well on time. I appreciate that. I feel like we're covering quite a bit, which is great. So, thank you to everyone on this last panel.

The next one is going to be the Innovation Expansion Subcommittee. You will hear Innovation Expansion and inventorship diversity used interchangeably; they have the same goal.

So, our chair for PPAC on this subcommittee is Jennifer Camacho. And we have Valencia Martin-Wallace and Kimberly Alton, Deputy Director Office of Government Affairs.

MS. MARTIN-WALLACE: So, because we're running a bit early --

MS. MAR-SPINOLA: Oh, sure.

MS. MARTIN-WALLACE: -- I don't believe Kim was able to get here yet.

MS. MAR-SPINOLA: Okay. Yes, okay, well then that allows us to take a break. Why don't we take a break until Kimberly comes. Thank you.

(Recess)

MS. MAR-SPINOLA: Okay, welcome, Kim. And so, I'm going to hand it over to Jennifer.

MS. CAMACHO: Thank you. So, Innovation Expansion. This is a new subcommittee. There's an awful lot of energy and excitement around this. It may have its roots in the SUCCESS Act, the report that the Patent Office prepared last year and the follow-up that was focused on women inventors. But this has grown significantly and so Valencia is going to tell us about the National Council for Expanding American Innovation, which is the focus of what this subcommittee is looking at as well.

There's a tremendous amount of innovative spirit in this country, and we have done a good job at tapping into many sectors of that. But there are large parts of our population that are underrepresented. Are they inventing?

Yes. Are they patenting? Maybe. Are they commercializing? Not as often. You know, we need to really be able to tap into all of that and bring people to the table and provide education on invention, innovation, entrepreneurialism, you know, being able to capitalize your business, build them up, provide jobs, get different technologies out into the world.

We need to do a better job at that and so this is a really big project we're starting. And Valencia has a great analogy about putting roots in the ground and growing from there, and we really need to do that at the very -- at all stages. So, we need to build out pipeline of innovators and that starts with our youngest generations. We've got to provide opportunities to our own generation and get the -- get our innovators out there and really building our innovation ecosystem. So, Valencia, please.

MS. MARTIN-WALLACE: Thank you, Jennifer. And, yes, you're exactly right. There's so much energy around what we're doing now

in the IP community as a whole. And I'm going to give a little bit of the background first as Jennifer mentioned that this really started with -- well, it started many, many years ago with a lot of initiatives and programs, but this particular initiative with the SUCCESS Act that mandated that the USPTO look further into the lack of underrepresented minorities, women, veterans in inventorship and actually having their names on patents that culminated in October 2019 a report that came out from the USPTO.

And as part of that report, we really set some initiatives for ourselves. But backing up to the report just on a very high level, the findings were that what I think we already know, but just further establishing that there really isn't a true representation within the innovation ecosystem of the citizens that make up our nation.

Specifically, with women we found that while we have made some strides in having them within STEM, having them as inventors, actually having their names on the patents, 12 percent,

which is not an accurate reflection of our country.

We also found that try as we may to find those statistics on minority groups, they really just aren't there. In the work we did -- excuse me -- in the women as inventors, we were able to use an algorithm, a name-based attribution algorithm that helped us in this. But really for underrepresented minority groups, that make up is Hispanics, African Americans, and Native Americans. Where really there was no such distinguishing factors that allowed us to get any kind of accurate numbers. There are some out there, but it's very, very hard to find. So, what we'll talk about a little bit later is some of the initiatives we're going to try and put in place in order to do that as well as get more accurate numbers on that.

So, as I mentioned, this isn't brand new. The PTO, all of the IP community, but here at the PTO, we have a number of programs that we've put in place and that have been in place for

many, many years and that we're quite proud of in assisting inventors. Our pro se assistance center is dedicated to helping brand new inventors navigate our IP system. We have a pro bono program that has been very successful and we're quite proud of to help the IP community attorneys to support new inventors of a certain income level to move forward with their inventions.

We have a law school clinic certificate program, as well as university outreach programs that really delve into not only IP, but also with STEM and awareness in education for those K through 12 in STEM and moving them through this process to get to a greater awareness of the science, engineering, mathematic fields, but then how to turn that into further innovation.

So, part of the SUCCESS Act report identified certain initiatives that the USPTO has decided that we are going to move forward on. So, those are listed here. First being the Collaborative IP Program where we're creating an IP toolkit that will help the citizens of our

nation really navigate the IP system, and how to move through it. We have a very complex, as it should be, complex system here that integrates technology with law. And that's not very intuitive to the layperson. So, this toolkit is going to help identify those areas and what's needed to help navigate that.

Also developing an award program that will recognize companies, individuals as well as organizations, who have made great strides in the field of more inclusiveness of the underrepresented groups. But not only that but recognizing maybe some organizations that haven't really been that successful in being more inclusive that are making great strides in trying to get up to where we want them to be, and making sure that we recognize those efforts and pull from those efforts the best practices that will help everyone.

So, the next is the creation of the Council for Innovation and Inclusiveness. And that's where I have my main focus right now is to

identify the appropriate organizations that will come together on this council to help build a strategy. And I will talk about that a little bit more, but just going quickly through some of the other initiatives that we're going through. The USPTO Educational Outreach Program where K through 12 we're going to expand upon the programs that already exist with the USPTO and also partner with other organizations who want to go into the K through 12 educational systems and bring more awareness, more education at that age to build upon in the future.

And next, a workforce development where we are combining with other government agencies to help obtain -- put sort of that same guidance of how they should be navigating through and obtaining patents and the opportunities there for their employees in moving forward in IP protection and greater awareness.

And the last being increase professional development IP training for educators. This is where -- and there are a lot of programs out there

now and we do this some ourselves, but just reinforcing how the educators can bring this on a daily basis to the students that they are responsible for and how they can better implement programs, as well as integrate into their training programs, their educational programs, intellectual property, STEM, so that this is not something that's brand new to any student. It's part of the normal curriculum of any student going through a school within the United States.

Okay, so getting back to the council that we are standing up. So, the purpose of this council is to develop a strategy, a national strategy, as well as an action plan for addressing the lack of certain underrepresented groups, and I used the term underrepresented minorities earlier, but moving to underrepresented groups. This goes back to what Jennifer was saying, what Director Iancu mentioned that it's not -- while the SUCCESS Act Report gave a focus of women and certain underrepresented minority groups and veterans, it really is something that reaches out

geographically, economically as well. And if we're going to make the impact that we want to make in this nation in this field, then it is being all- inclusive of awareness, education, and support.

So, the purpose of the strategy that the council will put together is to reach everyone in this nation. There shouldn't be a single person growing up in the United States that doesn't know our intellectual property system, doesn't know the brilliance of our STEM fields and that it should be something that everyone has an opportunity to partake in and to be part of. It should be just as -- I mentioned yesterday to the subcommittee, it should be just as popular as the sports teams and everything else in this nation, although I do have to admit I don't know much about sports teams. I know a lot more about STEM and IP. But it should be household conversations with families, and that's what we're reaching for.

Now, the council is going to be comprised of high- level officials from all

aspects of our IP and STEM communities. So, industry, non-profit, and professional organizations, government departments, and academia coming together to help us build this strategy. So, we are planning to have about 25, no more than 25, as part of this council, and it will include the Director of the USPTO as well as a representative from the Department of Commerce, the Office of the Secretary of Commerce, along with many others.

So, we are at this point doing our research and going out and identifying within those sectors who should be part of this council. So, I would ask that PPAC members, if you could help us in identifying who you feel should be part of this council as well.

We are hoping that by mid-spring that we will have our inaugural meeting of this council to get started on building this strategy.

MS. CAMACHO: Valencia, if we could go back for one second.

MS. MARTIN-WALLACE: Yes.

MS. CAMACHO: So, you list a number of different organizations where you're hoping to find representation in the council. One thing we spoke about very briefly yesterday, and I'm tying it back to your objectives, which is to get underrepresented groups as entrepreneurs. Do you anticipate having representation from financing sources, venture capital, folks who are in the business of finding innovation and getting it out there on the market, investment bankers, seed investors, folks who are focused, micro-investors on particular groups who fund, for example, minority-based companies and that sort of thing? I think that that's very important to have their voice at the table as well.

MS. MARTIN-WALLACE: That's a great point, great comment, Jennifer, and you're absolutely right. Yes, we are reaching out to all aspects of our IP community, and that is a very important aspect of our IP community and innovation ecosystem is the people who can lend the support and mentor and counsel our new

inventors. And helping them to understand how lucrative it can be to be an inventor, to be an innovator, not only for our nation, but for the individual. So, yes, we plan on also including that arena as well.

And while I mention that our council, because we do have to have certain limits even though I would love to have everyone on the council, we cannot. It will be no more than 25 in order to move this ahead. But we are asking all organizations to really be part of this effort. So, whether they're on the council or not, we're going to have some events and I'll talk about those as well as just meetings that I am taking that Director Iancu is taking, and several others are taking to make sure that everyone has a voice in what we're doing.

So, whether they're on the council or not, we're asking for everyone within the system to really give us their ideas, their comments, their suggestions of what they've done, what they haven't done that they feel should be done and

make this an inclusive process.

MS. CAMACHO: And is part of your long-term comprehensive plan, does it go as early as grade school? Is the National Council focusing from literally from the entire pipeline of innovators?

MS. MARTIN-WALLACE: So, you know, we've been talking about that and while we have not set a particular structure because we don't have the council together yet. That's one of the things that we're talking about that really this strategy is telling a story. The story begins from the very beginning, K through 12 on awareness and education of STEM. And not just STEM, but on inventorship at that point as well. And moving as they move through the educational system to high school, building on that education the entire time, and in college as well building on that education.

One of the things that really affects me a lot is when I go out and speak at universities and I have to start from the beginning with

engineering and science students on the patent process, and how important it is to them and what it should mean to them. So, it's building at that college stage as well. And understanding for us to have a better understanding so that we can give better guidance on students that start in science or engineering but seem to drop off during school. Or even may graduate in the field, yet when they go out into the working world then moving on to marketing or sales or something outside of the specific STEM field and moving on to inventor, finding out why that's happening and help guiding.

So, this strategy would work through that as well, and on to a start-up. And as you were mentioning, you know, with VCs and the finances and all, giving them the education there to show them that this does not stop. It just keeps moving. And not only that, how to reach back and help others to once they see the success of being an inventor, an innovator, and what it does for them bringing others along with them.

So, it is a complete story that we're

looking to have. And as you mentioned earlier, the roots. It's not just about putting a project together or a report together that's going to sit on someone's shelf and collect dust. It's about keep telling that story and keep building on it. And this is the time and this is the moment and these are the people to make a change, a cultural change, in this nation. And once those roots are set, just keep blooming far beyond any of us that are still part of this innovation ecosystem. It's going to keep getting stronger.

MS. CAMACHO: Thank you.

MS. MAR-SPINOLA: Valencia, I am so excited about this, what you're doing and the focus here, because it is so important and it's not exclusive. It doesn't exclude anyone. And I think that's important. You know, it's about making sure that those that don't have easy access to information, to money, to just even advice, but as you said, fundamentally it's even just to know about the patent system, about patents and other IP and what kinds of value those things carry for

someone, sometimes for a lifetime, you know?

You also mentioned that at the university or college levels, it's true that many engineers don't know much about patents, business folks don't know much about patents.Law students have a little more knowledge because the schools are teaching IP law, patent law.

So, when you get someone on the council from academia, it would be helpful for them to put together a multi-discipline program, right? Between the business school, the engineering school, and the law school where the students collaborate and they understand learn about IP and patents from that 3-point perspective.

Almost an entrepreneurial type of setting, right?

On the point of bringing patents and other IP into the household conversation, maybe we can think about developing a patent kit for the science fair kids.

But the bottom line is that I think our focus, your focus, this subcommittee's focus

should be on broadening the issue and looking at them differently.We should take what we know now and to find solutions that are different from the solutions tried before. We already know prior efforts, while well-intended, didn't move the needle, so identifying and implementing new, creative ideas could change the dynamic.

But to get back to your, I think, your first slide about -- your first slide with the various programs. One thing I would like to ask is if someone is interested in taking advantage of that program, where can they access it? How do they access it? Can you share that with us?

MS. MARTIN-WALLACE: Oh, absolutely. So, we actually if you go onto USPTO main page you can put in, depending on what you're looking for, if it's a STEM programming, if it's K through 12, you could put that into a search box and it will come up.

We have a SUCCESS Act report link as well that will link you to some of the things that we do. But on top of that coming in the near

future we're going to have a page on American Innovation Expansion and as soon as it is live, and that is something that Deputy Director Peter is closely working on with her staff is that page that's going to take you to toolkits and take you to the educational programs that USPTO is running, and to the Expansion Council as well that will be running. So, as soon as it comes out, I will make sure that everyone has that link.

But before that if you go onto USPTO and put in whatever it is that you're looking for. If it is a pro bono program, if it's pro se, it will link you to the appropriate page. But coming soon we will have that one-stop page.

MS. MAR-SPINOLA: And if you sign up for alerts, will notifications be given through alerts as well?

MS. MARTIN-WALLACE: Absolutely, thank you for bringing that up.

If you sign up for the patent alerts and every event that we have, you will receive an alert to that event wherever it is around the

country.

So, speaking of events, some of the next steps that we're doing is as we're doing the research and pulling the council together, we're going to have some roundtable events around the country to help us to build a collection of best practices. So, some of the events we're having is we will have an event on Capitol Hill coming in March. We also have a few roundtables, one in Puerto Rico in April, one in Palo Alto, California in April. We have an event coming in May in Dallas, Texas as well as an event in May in Las Vegas.

So, I'm going to be on the move.

(Laughter) Kim will run with me. I hope that these events or others that we will also put alerts out on that you will be able to make or you could please spread the word for us because we're trying to collect many of the best practices. Not only best practices, but what

didn't work so that others won't fall into those same traps to make sure that everything that we're doing, all the voices within this community will be heard through this strategy.

MR. LANG: Is the council, which is, I mean, this is (inaudible) a great, great initiative, by the way. Is there going to be a dedicated staff for it and budget associated with it?

MS. MARTIN-WALLACE: You at the USPTO will be supporting it through staff as well as through funds. So, yes, we will. And we will have a charter that we're still drafting at this point that will share those specifics. But, yes, the PTO will be supporting the effort.

MR. LANG: Okay. And will there be people full-time dedicated to it?

MS. MARTIN-WALLACE: So, we will have a staff that is full-time to it, but at this point we haven't really finalized how many that will be

or who it will be.

MR. LANG: Okay.

MS. MARTIN-WALLACE: At this point, I am working on this as I'm still doing my present duties. I do have my senior advisor, Tricia Bianco, who is full-time working on that. And also, just a great deal of very, very dedicated managers and executives including Kim who have been doing this along with their regular jobs.

And really I can't tell you the dedication; I can't properly explain the dedication that the USPTO staff has given to this effort so far that we are constantly moving and making sure that this is happening. It's responsible. It's strong and it will include everyone not beyond Tricia and I to dedicate a staff to it, but we're making up the difference with heart.

And just a last next step is we will be publishing this strategy the fall of this year. It is a very aggressive schedule, but it is something that we can't waste time on. We have

got to move and strike while the iron is hot. There's so much energy around these issues right now and we want to make sure that we're doing our part and getting the right guidance out to people as soon as possible.

MR. CALTRIDER: A question on your educational outreach, which I agree to really have be successful and move the needle, you really need to get embedded into the educational system. Which leads to the question, departments of education at the federal and/or state level, are you reaching out to those organizations just to get them on board and to partnership? Could you describe that reach out a bit?

MS. MARTIN-WALLACE: So, we are reaching out and working with Department of Education. We have in the past and we will in the future of this event. The local education we really have not set how to do that state education because each state does contribute differently to regulating that. So, that's something that we're going to have to look at as part of this council and strategy of

how to address that in an appropriate way. But you're exactly right. We have to reach out, not only on a federal level, but on the state and local levels as well.

MR. CHAN: So, I'm very grateful for your focus and attention on this very important issue. It's also an issue that's quite complex.

MS. MARTIN-WALLACE: Yes.

MR. CHAN: And I think about, you know, some of the studies in adjacent fields like studies they've done with resumés where you can associate certain names on the resumés with particular underrepresented groups and how those resumés are treated differently.

I know some academic institutions have looked at a similar observation with patent applications and names that are obviously associated with women or underrepresented groups and whether or not they are treated differently. And my question for you is the issue of unconscious bias and the training that we've now found is extremely important. What's on the

roadmap for that?

MS. MARTIN-WALLACE: That's an excellent point, and it is something that the committee has talked about and as I'm reaching out to the community, we have talked about unconscious bias in schools, but in businesses across the arena of STEM, as well as IP and innovation that not knowing that you have this bias and bringing that awareness to the people who are making the decisions and how they make the decisions.

One of the conversations we had yesterday was as we were saying as I mentioned more women in certain science fields, not as much in the electrical side and the computer as we have in pharma and that they are growing, that they are inventors. But somehow there is a drastic decrease of percentage of inventors that are women and inventors that are women that have their names on patents. And why is that? So, it is an area that we plan on exploring and having as part of this strategy as well.

As we're doing our research, I've seen a

great deal of programs that some organizations, universities, and companies already have started along the arena of unconscious bias and it's something that we are definitely going to tap into.

So, next is call to action of everyone in this room who's listening to us and in this nation. As I mentioned, this is now is the time, now is the place to keep going and moving forward and it takes everyone. Just quoting Director Iancu earlier today, "All hands on deck." There's no one that should not be part of this.

I can just speak as growing up an African American female in the deep south if not for the people who spent the time, my family, my teachers, the people in the first jobs that I had and their support, their guidance, I would not be here today. And there's not a single person in this country that should not feel that level of support in growing in sciences, in engineering, in math, and becoming everything they want to be, and knowing that the opportunities are there for them.

So, it is for us to do that. No one can say it's someone else. It's you sitting in that chair right now.

So, I am going to ask that all of your ideas, all of your suggestions, if you could please send them to InnovationCommittee@uspto.gov because as I mentioned, we want to hear every voice and we want that voice echoed in this strategy. So, please share with everyone what we're doing here and we're looking for advocates across this nation to make sure that the roots are set and this will keep going long after us.

MS. DURKIN: Quick question on that. To the extent that we or anyone involved today has suggestions on someone who might make a good member of the council, I notice there isn't anything on the PTO website yet other than the mention of it in today's agenda. Where could we direct people to get -- if they wanted to understand the time commitment or the expectations, where could we find that information on that?

MS. MARTIN-WALLACE: Absolutely. So for anyone listening, please send all of your suggestions, even if it's someone that you feel should be part of this on the council to InnovationCommittee@USPTO.gov. We're constantly looking there, but also -- I thought they were on there. They're not on there. Our emails you can send it directly to me. I want to hear from everyone and I'd love to hear the suggestions of who should be part of this council. If you just put a dot between Valencia Martin and then @USPTO.gov and the same with Kim, Kimberly.Alton@USPTO.gov. Please send them directly to us and we will make sure that we consider all of the suggestions that you bring in.

MS. MAR-SPINOLA: Maybe what we can do is update the presentation and when it gets posted it'll be also available.

MS. MARTIN-WALLACE: Absolutely. Thank you very much.

MS. MAR-SPINOLA: Okay. Well, so, thank you for that. We're looking forward to continuing

that discussion and not just touching on it or dancing around it, but really attacking it. So, thank you for that. We have the right champions on this. Champions not only Valencia and Kim, but the entire Patent Office starting from the top and you have our full support from PPAC too. So, thank you.

We're going to take a break and actually have a decent lunch time for us.

(Laughter) We're going to learn about ethics or

Be reminded about ethics during our lunch hour and we will resume at 1:00 p.m. to talk about our new Subcommittee Artificial Intelligence. Thank you.

(Recess)

MS. MAR-SPINOLA: Okay, good afternoon. Hope everybody got something good to eat and had a little break. It's 1:00 p.m. We want to stay on schedule. It's been good.

So, our next subcommittee discussion will be our new one, Artificial Intelligence.

We're excited about this. You've heard it from the Director, and Barney Cassidy and Jeremiah Chan are the co-chairs of AI. And we have Laura Peter here who is leading the AI front for the Patent Office, and we're excited to have Laura here to give us guidance, but also to help us understand along with Matt and Coke on the AI issues and how we can help.

So, let me turn it over to Barney and Jeremiah.

MR. CASSIDY: Could I borrow your microphone? Oh, it's working? Oh, there it is, thank you.

So, thank you very much, Julie, and welcome, everyone.

Obviously, artificial intelligence is an exciting topic. It's probably going to define in many ways the decade that we have just begun in many areas of commerce, in many academic disciplines, and many sciences. And we're very excited about the progress that's being made in the Patent Office on it both in terms of the

Patent Office policies and the way that the Patent Office is incorporating artificial intelligence tools to improve its operations.

In terms of the subcommittee, Jeremiah and I are co- chairs and today I'll be representing the artificial part and he will be representing intelligence. (Laughter) Oh, wait, no, that's not it. Oh, today I'll be chairing this meeting on behalf of the subcommittee and next time Jeremiah will be chairing the meeting on behalf of the subcommittee. We'll just take turns.

But I was fortunate enough to go to a talk last year by Dr. Siddartha Mukherjee who famously wrote the book, The Emperor of All Maladies: A Biography of Cancer. He explained that today there is an algorithm that can spot skin cancer better than the oncology department at Stanford Medical School. So, this is not a trivial development in medicine. It certainly is not in biotech where it's the hottest area.

People are using artificial intelligence

to find targets, to find gene sequences. There are things that can be done through algorithms that are impossible for individual humans or teams of humans to do. It represents a brand-new area that will no doubt yield great inventions and hopefully great benefit for our species and for our planet. So, we're looking very forward to your presentations today and how we can assist in our role to help the Office further develop in this area.

So, I think, Matthew, you're going to go next, or, Laura, did you want to speak?

MS. PETER: Let me just say a few words to set the stage.

As Julie has said, the theme for this year, it's Vision 2020, and with regard to artificial intelligence, this agency is very focused on how to deal with the new artificial intelligence technologies in two ways. One is how does the USPTO protect artificial intelligence technologies in a way that will continue to incentivize development in those areas so that we

get the next best cure to cancer or the next best tool to find -- solve different problems.

So, the other part of this is how do we use AI tools to allow our examiners to operate at their highest and best use of their intelligence and intellect and not be bogged down with some of the more trivial, mundane items that often are involved with processing a patent application.

So, it's all about making the patent system and the patents more reliable, more stable, and more predictable and to use Julie's word, more durable from cradle to grave.

On the AI tool front, as we all are aware, there has been an explosion of prior art that's available to be searched by every examiner for each piece of -- rather, for each invention for which a patent application is filed. So, there's been this explosion of prior art, and yet we still only have one lady or gentleman physically examining that patent application. And how do we get through all of that mountain of prior art in an efficient, timely way? We're

looking at AI tools to help with that. We're looking at AI tools to help with the manual processing to get the right application to the right examiner.

We're exploring many tools, but what we found is that AI technology is still in its nascency in that some of the tools may not be mature enough for us to do a lot with at the beginning. So, we're trying to find low-hanging fruit where we can extract some efficiency out of the system, implement those early on and then look at what else is out there that we may want to implement in the next five years or something along that timeline.

The other thing that I am very much involvement [sic] in is the balance of implementing some of the artificial intelligence tools with our other priorities, which include IT stabilization, with keeping a patent system process moving forward for our stakeholders while upgrading at the same time. What is it? Upgrading in flight I believe, Barney, you used

the word. And that's a challenge to do in and of itself because we're very aware that we are the patent system that most innovation in America relies on to protect their intellectual property and we don't want to do anything that would disrupt that process.

So, and on the policy side, we're definitely exploring many of these new issues. Not only how they impact inventors in America, but we're getting feedback on how what we do here in America may impact how the world views artificial intelligence inventions.

So, we have an amazing team at the PTO on both of these sides, the policy and the tools side. And I'm going to turn it over to two of our lead champions to discuss the details further.

MR. SUCH: Thank you, Laura. And thank you to PPAC for the opportunity to present on today's topic of artificial intelligence. I appreciate the comments from the Chair in regards to the potential of this technology for us over the next decade. And I think you'll find today's

discussion very helpful to laying a foundation for us to move forward in this new endeavor.

We certainly agree that artificial intelligence is a transformative technology. It holds the promise for tremendous social and economic benefits. AI research and implementation can advance national priorities on intellectual property by contributing to ensuring strong, predictable, and reliable patent rights, as was so eloquently put forth by Deputy Director Laura Peter.

We view artificial intelligence as an opportunity for us to leapfrog our capabilities for search and other use cases where the application of this type of technology may be appropriate. And Director Iancu and Deputy Director Peter have certainly championed the use of artificial intelligence for these types of endeavors. They've provided us the necessary leadership for us to focus our efforts in developing AI, and the USPTO has been very busy laying a foundation in order to rapidly implement

useful AI systems.

We are undertaking a shift in the way that we do business where we seek to couple the strengths of the artificial intelligence technology with the strengths of our employees. This is reflected in our strategic plan as you see on the screen, which supports leveraging artificial intelligence to advance our mission of fostering innovation. And today, I wanted to share some of the efforts that we're undertaking to leverage AI in making improvements to our operations and explain the strategies that we are using to navigate some of the challenges to actually operationalize these types of technologies.

Before I get started, I'd like to just comment briefly about a definition of artificial intelligence. There's a myriad of different definitions that you can read about in the literature and they can be expansive from philosophical types of definitions that talk about AI from a very high-level esoteric perspective

down to very, very, technical definitions that focus on specific capabilities or algorithms.

Today, we're going to be thinking about it from the perspective of an operations for patents. And I am a group director in the patent operations area and so, what you'll see is as I go through the talk, is how we're thinking about this technology so that we can find the best ways to leverage it within our business without, as was mentioned earlier, disrupting our operations or our quality.

So, the first thing I wanted to do is talk about a few things that we need to be mindful of with artificial intelligence. And, certainly, the successful introduction of AI into the USPTO can represent some challenges as it can represent a potential shift in the way that we do business. The USPTO being the sole owner of the complete U.S. patent data, and I'm referring to both the published and unpublished corpus of patent documents, uniquely positions this agency to leverage the information for the benefit of the IP

system. However, a clear understanding of the challenges that implementing AI systems face is necessary for us to make strategic investments needed to ensure that the USPTO keeps pace with these emerging technologies and realize sustained benefits.

And the most fundamental issue that needs to be understood about AI is that at the most basic level, they are trained as opposed to being preprogrammed. So, the outcomes of an AI system may not be entirely deterministic or predictable. And models underlying AI tools are critically dependent upon the underlying data. So, quality of the AI output requires quality in our underlying data sets. Additionally, models are frequently developed to address specific problems and may not necessarily be generalizable across all use cases. And as such, performance may not be uniform across different domains even within a single model.

Clearly, advantage of the approach of leveraging AI is that we don't need to explicitly

develop logic steps for every single decision with very complex systems and complex data sets. And that is not something that needs to be directly programmed into the machine, but rather we can leverage this capability to sift through that information and make some of those decisions easier.

The machine can sift through impossibly large amounts of data and discover patterns that would be very difficult or even impossible for programmers or business SMEs, subject matter experts, to reasonably accomplish quickly. However, this can contribute to the perception of AI being a black box where end-users have difficulty understanding the results. So, while AI solutions do not necessarily have to be completely transparent to a user and we have to explain all of the details about how the inner workings of the model actually operate, if it does not provide enough information in context for our end-users to be able to interact with that information, they may be either discount the value

of the results or overlook something that's of value in the result sets.

Furthermore, output from AI systems needs to have at least some level of intellectual validation to ensure that the models are reliable and ready to be deployed as value-added products or services. This can incur some expense and can also be a reoccurring expense if models are iteratively updated in order to either improve reliability or meet the challenges of a changing data landscape.

So, in order to navigate these challenges, we are using some strategic approaches to ensure that we deploy useful AI systems. And to that end, the USPTO has been investigating AI and machine learning in a variety of use cases for several years. The development of internally built proof of concepts allows us to understand how AI systems work and employ best practices into our production tools.

And we place tremendous value on the curation of high-quality data sets in order to

support the training of AI systems and AI models. And I'll give you an example. The term, virus, if we were to envisage a synonym type of approach where we have an AI system that would suggest synonyms to examiners to help them define queries, that term, virus, can mean something very, very different to an examiner who works in the bio-chemical arts as it does to an examiner that works in network security. And to be useful, an AI system would need to be able to account for those types of differences and recognize those differences across those different technology domains.

We have shown that they can. For example, recently published work performed at the USPTO explored using an AI prototype to automatically suggest synonyms for examiners and found that the F1 scores, which is a measure of accuracy, increased significantly when technology-specific models were trained, as opposed to training a generalizable model.

Additionally, prototype mechanisms that

incur an ability to capture user feedback can be coupled with the output and if by doing so we can improve the F1 scores or the accuracy of the models even further. This demonstrated that using from -- excuse me, learning from user interactions is more tractable than relying solely on automated word embedding-based approaches.

Furthermore, while AI is very data hungry, we demonstrated that we can lesson the heavy upfront data costs by designing tools and processes to enable constant learning from user interactions. And so, we view AI as something that requires in order to best leverage it both a technological component as well as a business process and operational component. And those two things should be designed together to work synergistically.

The USPTO continues to expand our practical knowledge of AI. For example, we are currently providing in- depth training on state-of-the-art AI tools and techniques, including machine learning in cloud environments

to key personnel across the agency. And not only does this include our IT professionals, but it also includes some strategic positions within the patents business such as those that are involved with business analytics and those that rely on our big data reservoir for improving patent quality. This strategy is not only expanding our capabilities to build AI systems from a technology standpoint, but also advances the ability of our business planners and end-users to recognize high value use cases and design processes to be synergistic with those use cases.

Oh, you can go back one, sorry, thanks. We conduct outreach to academia as well as other national IP offices, which gives us insight into new capabilities that may be on the horizon and contributes to increased harmonization of the IP system globally.

We actively pursue extensive market research on AI. For example, last year we issued a request for information entitled, The USPTO's Challenge to Improved Patent Search with

Artificial Intelligence. The response to this RFI was extremely robust and included submissions from across industry. A comprehensive review of the submissions has concluded and the findings have yielded very valuable insights that has critically informed how the USPTO can utilize AI more effectively.

Additionally, just last month the USPTO issued a request for information relating to AI capabilities to assist in the trademark business area as well. And those activities are ongoing as that RFI has closed.

For our examiners and our supervisors, we conduct awareness campaigns about the AI features that are already available to them and plan to continue to do so as we get further along this process and identify tools that are of use to our examiners for the purposes of search or support other business processes that we are investigating. And this is more than just training, but rather, it means involving users in the design of our features and the validation of

models in the validation process. And we emphasize an explainable AI as a core value in their design criteria. Again, to enable the users to be able to understand and contextualize the output of what an AI system is providing them so that they can best leverage that information and make more informed decisions, whether it be about patent search or some other use case.

So, our operational goal is to leverage artificial intelligence to improve effectiveness of the examiners in the agency. And we have a few use cases that we are very heavily focused on right now. So, the first is leveraging AI to enhance search. This includes, as I mentioned, awareness campaigns about tools that are available to examiners currently and making sure that we understand the scope of what they find most useful to them, as well as understanding ways that we can communicate with our examiners about how best to use these features and disseminate those best practices.

We're also investigating new AI

capabilities for search and that includes both the semantic or text-based search capabilities, as well as an interest in finding ways to leverage AI to assist with image searching directly. Image searching would have an AI system that could reliably provide us valuable input and valuable data back to an examiner about the -- patent images would be opening up a whole new way for our examiners to be able to access the prior art.

We're also looking at AI for our Cooperative Patent Classification, or classification system, to do auto- classification, and that is to do a couple of things. One is to improve the quality of the classification that we use every day in our patent search, as well as the quality of the classification that we use to assign work to our examiners and identify the most appropriate examiners for different technological aspects of applications.

And we have on the screen here two different items. One says full CPC classification and that's in reference to providing CPC symbols

to patent documents that represent the content of those documents as disclosed in the application. And then below that you'll see the symbol C* Detection, and that is a particular indicator associated with certain CPC symbols that provide us useful information for making determinations about how to appropriately route an application to an examiner when we move to a CPC-based routing system this coming fiscal year.

So, that concludes my comments for this afternoon. And I'm very interested to hear your feedback and to hear any sort of insight that you can provide us in terms of how we're looking at AI for the development of tools and how we're looking at developing strategies that it's going to support the best most efficient use of AI in our business processes and to support our examiners. Thank you.

MR. SEARS: Thanks very much, Matt. I have a question for you. I really appreciate the presentation and really laud the Office for its focus on AI priorities.

My question for you is about the CPC auto- classification. I understand that it's actually quite complex as there are over, I think, it's a quarter million CPC codes. Can you tell us what's involved in doing an auto- classification?

MR. SUCH: You're absolutely correct. It's extremely complicated. So, you're correct in that there's more than a quarter million codes that could potentially be applied to any single document and it becomes further compounded by the fact that the codes are identified as appropriate for documents based on the content of the document. So, that could mean that one code could be relevant or it could be dozens of codes, depending on the overall amount of information that's in any particular patent application.

And so, the exercise there requires, certainly, a component of being able to train an AI system to be able to recognize information that's available in patent documents that are associated with different CPC codes as they have existed historically. And so that corpus of

information provides the foundation for training an AI system to be able to do that.

But we have to be able to account for more than just that information alone because the CPC has in it a lot of rules that can inform the decision of a patent classifier in order to be able to make appropriate symbol determinations for a patent document. And so, incorporating those rules into the system, whether it be through a machine learning heuristic method or whether it be through logical programming that's incorporated on top of an AI system is going to be important for us to be able to navigate those complexities of the patent classification system.

MR. CHAN: I think before you had mentioned that the AI model is only good as the training set, and so in that regard, on this kind of in connection with the same question, have you found with so many different labels in the taxonomy that humans can actually consistently label it such that we can actually provide a clear training set to the models we're trying to teach?

MR. SUCH: So, you raise a very, very interesting point about classification generally. Classification is in some ways there's not necessarily a single right answer for appropriate classification on a document. And what I mean by that is there are multiple different ways that one may view through the classification rules which symbols are appropriate. And it can depend a lot on the state-of-the-art as well as some of the other items that are related to the content of the application and how much in depth that content gets in terms of its description in the patent document itself.

So, from the perspective of how we view leveraging AI for patent classification, we're looking at making sure that we are able to assign symbols that are correct, consistent, and complete, but reasonable within the realm of what we would expect from a I'll say a human classifier, right? And so that can mean a couple of things. First off, we recognize that because the classification system has some hierarchical

aspects to it, there may be multiple different symbols depending on the viewpoint of an end-user that could be appropriate. And they could be equally appropriate depending on again the content of application as well as the classification rules. So, being able to identify those types of flexibilities is going to be very, very important for us.

On the other side, there are certainly instances where very, very precise placement of patent classification symbols does not offer that flexibility due to maybe rules or maybe the depth of information that's included in a patent document. And in those cases, yes, the challenge is going to be making sure that we have a way to be able to identify what those are and a way to ensure that we're able to do that consistently. And at the precision level, that's necessary for appropriate classification.

MR. CHAN: You also mentioned the interest in image search, and I'm wondering kind of where that stands in terms of the exploration.

I know you talked about the RIFs going out around prior art search, but where is the Office on image search?

MR. SUCH: So, right now we're in the exploratory phases. We're trying to understand the scope of what the technology can offer. One of the challenges that we've discovered that we face with image search is that patent drawings are drawings, right? And so, we kind of have two different use cases before us. One is in the designs area where the drawings are -- they have more consistent requirements because of the intellectual property coverage is based very heavily on that drawing.

And then in the utility space, the drawings contend to be a little bit more conceptual in nature. So, that offers the applicants opportunities to be able to, you know, identify conceptual relationships between different elements in any manner that they so choose, and the consistency requirements are not as robust as they are in the designs area. And

so, that can introduce challenges because, you know, you could have for instance an engine and it could be displaying to an examiner the same thing but could be from multiple different perspectives. Or with different sorts of kind of I'll say pictorial nomenclature that are used.

Additionally, since the, you know, the patent drawings are they are that they're drawings, if you think about that as compared to say a photograph, there's a lot less information in a sense in a black and white drawing than there is in a photograph where you can take advantage of, you know, colors and shading and all of those types of things that can help an AI system to make determinations about a classic example of being able to identify a cat out of different drawings, or photographs that are presented to it. And so, we're at the point now where we're trying to understand where the technology can fit in with those particular constraints that we face in the patent drawings world.

MS. DURKIN: I have a related question.

So, you mentioned the design area and it does seem like this sort of image searching could be -- that could be a great place to test particularly comparing patent drawings to pending application drawings. And we heard yesterday that maybe there are some image search testing or piloting or whatever that's going on on the trademark side, and that to me also seems to be very similar. Is there any coordination that's going on there? Or is the patent side working on that independently from the trademark side, for example?

MR. SUCH: No, there's absolutely coordination. We speak with our colleagues in the trademark side about this issue, particularly as it relates to the designs question because we view the designs area as being a use case that would be a good stepping stone for us on the patent side in preparation to tackling the more technically challenging problem of the utility drawings.

MR. SEARS: Matt, I got another question for you. I understand that auto-classification will reduce pendency because there's a great time

savings involved compared to where we are currently with manual classification to auto. Can you expand on that? Like how quick will auto-classification be compared to what we're doing today?

MR. SUCH: So, there's a couple of different aspects to that, and I'll start this way. So, the -- we have a, you know, we have a series of processes that we go through when we intake an application. And classification is one of those pieces of those processes that we do before we release an application to an examiner. So, to the extent that an auto- classification system could potentially shorten that timeframe within that larger context, then, yes, I think that there may be opportunities provided we can have an auto-classification system that can meet the requirements in terms of quality that we would need in order to be able to go forward.

The classification processes that we use internally and in terms of those pre-exam processes, excuse me, for getting applications

ready to be put on an examiner's docket, again, are only one piece of that puzzle. And so, that's something that we would need to look into very, very carefully to understand the potential benefit that might be before us if we were to be able to achieve an auto-classification quality that would meet our needs.

MS. CAMACHO: Matt, thank you for the presentation. I have a question from the public and then a question from myself as well. So, we'll start with the public. There's a question related to the error rate of machine learning as compared to human classification. Is there a plan to track that or to compare the two to ensure that the AI has a lower error rate than what we experience on manual classification?

MR. SUCH: Yes. Thank you for the question from the public.

Yes, of course. Certainly, we would want to build in systems that look at the -- this error rate or basically look at the -- how effective the classification system is in terms of

providing us quality classifications to support our examiners in terms of search, as well as routing of applications regardless of the source of the data. And having the ability to capture that feedback that we get either through an explicit quality assurance process or through feedback we get from examiners could be very, very important for us in order to make sure that we're able to maintain but also advance classification quality in an AI system. And so, capturing that feedback and incorporating that into models is something that we would very much like to be able to do.

MS. CAMACHO: Great, thank you. The other question I have relates to the comparison of our office with other IP5 offices on our state of readiness to implement AI across our systems. Have we -- I assume that we've had chats with our counterpart offices. Are there opportunities to collaborate, or leverage, learn from what others are -- have been able to implement or learn?

MS. PETER: Well, since you kind of

looked at me I'll just jump in here in that we definitely are having discussions with all of our counterparts as to what their AI implementations are. And I think the general consensus is everyone is in exploratory stages and not always willing to share everything that they're doing because I think like us they're struggling with what the right application for AI is and whether it's good enough to actually put into production.

So, yes, we're talking to them, but we're all kind of jockeying for who's going to be in the lead. And we're feeling confident that we are at least in the head of the pack as to looking at AI tools and how we actually could get them to production some time in the foreseeable near future.

MR. CASSIDY: Thank you. So, as Chair, I want to step in here and I want to make sure we have enough time to hear from Coke. There may be more questions, Matthew. Maybe we could reserve those for after Coke has a question or present -- time to present and answer questions herself. But

I do want to thank you for an excellent presentation.

MS. STEWART: Good afternoon. So, as Laura said we kind of divide the artificial intelligence strategy in the Office between tools and the policy issues that we're working on. And I think it's helpful for those on PPAC and the public to understand how important AI is across the entire government. I think we tend -- or I sometimes tend to think of it as an issue that's unique or particularly special to the USPTO, and in many ways it is because of our role in the IP system.

But AI policy is actually a huge part of the discussion across the entire administration at the highest levels. And those who are following this area should be familiar with those kinds of discussions that are happening, for example, at the White House, with the National Science and Technology Council, the Office of Science and Technology Policy, the Chief Technology Officers. We also have, you know, our other IP agencies, the

Copyright Office. We have NIST. And there's a huge interest in this area, and there's a huge regulatory potential in this area that the White House is trying to oversee.

So, they issued an executive order in February 2009 to kind of set some basic principles as to, you know, where the administration should be going or where the government should be going with this. And I think an important thing for our stakeholders to understand is that the main priority from our perspective at the government is to make sure that we are not overregulating in this area in a way that's going to kind of regulate it out of existence or slow down the progress that we're having.

And after this executive order came out just recently, the OSTP that I referenced earlier issued this draft kind of regulatory guidance memorandum with 10 guiding principles on the regulation of AI. So, I recommend those interested to take a look at that draft document and I believe the comment period -- the comment

period is still open so you have an opportunity to provide feedback on that.

But again, the overarching goal of that document is to ensure that we're not -- we're removing impediments to private sector innovation and growth.

MS. MAR-SPINOLA: Coke, where is that available?

MS. STEWART: I can send a link out to that. But it's easily obtainable and it's been -- obtained some news coverage as well so we can find the link if you Google it as well.

So, turning to really what the USPTO's piece of this puzzle is, you know, one of the points that I think Andrei and Laura have been trying to make is that AI is a priority for this agency, but AI has been something that this agency has been dealing with for decades. I mean, it's certainly the expansion of AI has been radical, but it is something that we're familiar with. You know, we have art units that are focusing on AI and have been focusing on AI for a long time.

So, what we're trying to do as an agency is to make sure that we're kind of keeping pace with the growth in this area, that we're constantly evaluating whether we need more policies, any new regulations, and even if you've taken a look at our RFC, which I'll discuss later, you know, we want people thinking, you know, in alignment with what Julie is saying about the future, you know, do we need new forms of intellectual property or new types of protection to ensure that we're encouraging innovation in this area? And those are the kinds of topics that the USPTO is helping to advise the government on.

So, I thought this was an interesting statistic just to see the growth. This is patent applications growth from 2000 to the present. So, you can see, you know, over the past several years it's really taken off. And then if you look at grants, you could see a similar curve in this area. So, you know as stated, we've been dealing with it, but just the growth is so radical that we want to make sure that we're staying on top of it.

MS. MAR-SPINOLA: May I ask a question right there?

MS. STEWART: Sure.

MS. MAR-SPINOLA: From these two charts, are these pure AI inventions or is there a human element to these? On these patents?

MS. STEWART: Right. Well, that's a great question. So, I think when we're trying to evaluate which patents are addressing AI, we're looking for ones that are touching on AI. And we'll talk a little bit about AI as an inventor, but these are really applications where they are trying to patent some aspect of an AI tool, AI being used as a tool. And so, that's what it's part of this study that we're doing internally is to try and figure out the impact of AI on our existing body of patents and patent applications.

But we're going to move to this question, you know, as Andrei was saying, you know, what seems to be the hot topic today, Julie, is just what you've stated, which is what about AI as an inventor, as a creator, as an author? And

this is Andrei speaking at CES just recently in January about this topic.

I posted this picture, which is kind of funny and a little bit charming about the monkey selfie photos because it really raises a lot of the issues in an interesting way that we have to deal with, which is the subject matter in the litigation that ensued from these photos were really -- was really two-fold. One, did the photographer inject enough of his own creativity into the making of these photographs to be able to obtain a copyright on them and own the copyright? And then the other question was to the extent one can say that's a non-human, whether it be an artificial intelligent machine or an animal, is itself injecting creativity into the process? Is there a mechanism for that to be recognized?

And these are very interesting questions, difficult questions. In the case of these particular photographs, the Copyright Office found that -- and it was litigated by PETA if you followed it. But the Copyright Office found that

works created by non-humans are not eligible for copyright protection. And I don't think the question was actually ultimately resolved about whether the photographer could obtain protection because if you remember the news articles, the monkey actually was clicking on the remote device to stage and take his own photograph. So, it was a very interesting question.

So, we're looking at this question about -- we may not be there yet, but we're trying to look ahead. You know, as the artificially intelligent machines are taking more and more responsibility for conception of inventions, we want to make sure those kinds of inventions continue to be recognized. And we want to make sure we're recognizing the human contributions and how to measure and recognize, if possible, any other contributions.

MS. MAR-SPINOLA: So, and I appreciate that. And I don't practice in the copyright space, so I don't know if there's the equivalent duty of candor for copyrights that there is in

patents. And so, one of the -- there's two questions always in my mind when I think about inventorship for AI, pure AI created innovation, and that is, you know, how do you satisfy the duty of candor? And also, how does it surpass or overcome 101 rejections? So, I think those are two things that maybe copyright doesn't quite address and that could be addressed.

The ownership issue my guess is whoever owned the AI is the owner, but that seems to me to be a different question. But the duty of candor and 101 patent eligibility seems to me that those are things that we need to get a good handle on.

MS. STEWART: Yes, actually we were at the copy -- Andrei and I were at the Copyright Office yesterday. They had an all-day symposium on artificial intelligence. And Andrei reminded me that, you know, when digital -- not when digital cameras, when cameras first came out, there was a lot of litigations and questions over whether photographers -- whether one could even obtain a copyright of in a photograph. Because

what exactly was the human contribution to that? Now, we take that for granted. Of course, photographs are copyrighted and it's a well-recognized form of intellectual property. I think that same debate is probably something that we're going to be dealing with in the future.

And in terms of, you know, the duty of candor, I think it's fair to say the way the Office is seeing it at this point is they see AI as a tool, much like a surgeon and a scalpel or a photographer with a camera, that's being used to conceive of inventions. We're not really seeing artificial intelligent machines spontaneously creating. I don't think that's where we are as a society quite yet, but it may be in the near future. Yes?

MR. CASSIDY: We are intruding into the IT group at this point. Maybe we could steal five minutes more if you can finish your presentation in that time out of deference to the other groups.

MS. STEWART: Yes.

MR. CASSIDY: Thank you.

MS. STEWART: So, this part, I think, is going to be -- move a little bit more quickly because really what we just want to do is recap the efforts to engage with the public on this question.

So, we had a conference last year, which was very successful and I have a link to some of the remarks that the Director made there. We've issued two sets of requests for comments late last summer and then in the fall. One focuses almost exclusively on patents and we've received a lot of responses in response to that first RFC, and a lot of interest. And there are a variety of questions. It's very short so, I would recommend those who might be interested to pick it up. It's only a page or two. And then the second set that we issued in October was really focusing on the breadth of IP, patents, copyrights, trade secrets, data protection, and all different ways that artificial intelligence can impact the IP community.

And then really the next steps as we've

been hearing a lot from the public and you all probably have as well, is, you know, what's going to happen with the comments? When are you going to make them available? The USPTO is working on a report that we hope we'll issue some time in the spring and when we do that, we'll make all the comments available.

But the feedback has really been incredible. We've gotten almost 100 individual comments with respect to the -- from different patent agencies across the world, from corporations, academia, individual practitioners. The feedback has really been incredible. So, we're processing all that. We'll issue a report and then we'll make those comments available to the public. That's all I have.

MR. CASSIDY: Are there any questions? Thank you both very much.

MS. STEWART: Thank you.

MS. PETER: Thank you.

MS. MAR-SPINOLA: Okay. So, next we have IT to follow and our Chair for PPAC -- thank

you, Laura.

MS. PETER: Thank you.

MS. MAR-SPINOLA: Our Chair for PPAC on this, Mark Goodson, could not make it today.

So, PPAC will as a whole try to conduct this and let me just introduce Jamie Holcombe, Chief Information Officer, Debbie Stephens, Deputy Chief Information Officer, Raman Sarna, Portfolio Manager, PE2E, and William Stry (phonetic) (Laughter) I'm so sorry, you're not the first one that I've had trouble, and it's my fault. Stry --

MR. STRYJEWSKI: Bill is fine.

MS. MAR-SPINOLA: Okay. Well, all right, Bill. I got William right though. Okay, and Patent Senior Information Technology Expert. So, thank you, and we look forward to the discussion today.

MR. HOLCOMBE: Well, I'd like to start off -- wow, you can blow that out.

I can do a little segue in between the AI and the IT. And I say that because I've been

involved with artificial intelligence almost 30 years myself. So, I actually programmed in the Lisp programming language, L-I-S-P, which turned out to be a real big dud. Nothing happened.

The other thing I'd like to say is from the '90's there was this thing called fuzzy logic. Do we remember that? And where is it now? It's embedded, okay? So, one of the things I've been forcing in my crew is to say artificial intelligence what? What does it mean? What is it really about? And for me right now it's about super algorithms. Another words, taking what we know and learning. The machine learning part of AI is real. That's training a bot to do something over and over again to recognize patterns. But it all depends upon what we program and what programming language we're using to do that.

So, we have a lot of initiatives underway right now with robotic process automation, which some people call AI, but I don't. I just call it superscripting. So, from the reality of, you know, from AI and all its

promise that's great, but we have to make it real, and that's what IT does.

So, in order to make it real, I'll turn it over to my Deputy -- or to Bill? Sorry. I'll turn it over to Bill so how he's making it real for us.

MR. STRYJEWSKI: Can you go to the next slide? Oh, there you go.

So, despite the fact that I work with Matt Such every day, we didn't coordinate the slides that well because he certainly covered most of my talking points, so.

Auto-classification is clearly something that was talked about in the last agenda item. And we are doing machine learning for classification for incoming patent applications as we receive over 600,000 a year. And right now, as it was mentioned earlier, we do them manually with a contractor.

The transition of CPC for us to assign work to the examiners or to provide docket information is targeted for October 1 of this

year. And we're looking to do the auto-classification prior to that and prove it out in small segments within the scheme and schedule of CBC.

During that we're going to create a thing called C*, which is going to address just the claim subject matter to help the docketing. And the auto-classification is going to address both the full classification of the application and the C* information. And that, like I said, is progressing through the summer and hoping we're going to have some strong results into the next fiscal year.

The other place we're looking at using AI is to help with search in finding information for the examiner to consider. We've been conducting surveys based on in-house tools that we already have in our scientific libraries in which they have AI capabilities to assist in finding information. One of those is image-based so we're kind of working through that and getting surveys and feedback. Some preliminary discussion on is

this information valuable to the examiner and are these capabilities valuable to the examiner? We're continuing to explore the AI-based capabilities to assist in prior art search and integrating that with our new search system. So, a lot of this is kind of the beginning stages of understanding the impacts, understanding the change management and the value that can come from this. Any questions related to AI?

MS. STEPHENS: Sorry, slides are being agile. Okay, so stabilization, obviously, stabilizing our system, as well as making sure they're secured in order to support, not only the patents business operations, but enterprise-wide is very important to the mission of the USPTO and CIO, particularly. And what we've done to support that is to take a look at the infrastructure across the enterprise and better understand what the hardware and software that we need to update to minimize outage or any risk to operations moving forward and on a day-to-day basis.

So, what did we do? We had a vendor

come in and conduct like a 90-day assessment on our mission critical systems. They've developed a plan for us that essentially took around 25 systems to ensure that we recognized the, I'll call it out-datedness of those and how we would go about updating them in due course. So, that is where we are today. We've done the assessment. We've selected the vendor to start some of that work. We've also divided some of that work into our own internal teams to take over some of that stabilization effort.

So, next steps for us, certainly, looking at stabilization of -- for the vendor specifically, so as I said, we did our internal teams are already completed some of the work and still have some work to do through the summer. But the vendor coming onboard has begun to look at one patent system to stabilize and one trademark system to stabilize. So, we're looking at that work and how it has its interdependencies amongst all of the other work we're doing.

And then finally, this is not just a one

and done type of effort. We look at this ongoing now and we're looking to our next set of systems for FY '21 and determining which set of systems we need to update and secure for FY '21 IT planning. So, that's in a nutshell stabilization update. Any questions?

MS. MAR-SPINOLA: So, yes, thank you. And again, and I apologize that Mark's not here, but I'm informed that there were discussions from our external stakeholders about the Private and Public PAIR and the issues that are, I guess, the slowness of the system or the disruption to external practices. Can you address that?

MR. HOLCOMBE: Yes, I can.

MS. MAR-SPINOLA: Thank you.

MR. HOLCOMBE: One of the things that was discerned or revealed in our research for stabilization is the fact of security, ensuring that all of our vulnerabilities are resolved. And in doing that, one of the vulnerabilities was allowing a lot of the Private PAIR query to be automatically scraped, or for bots to take over.

And so, because that was a vulnerability, we resolved that by taking that feature functionality away. So, only if you have the customer number or customer numbers can you do the Private PAIR query. That forced a lot of people to go to Public PAIR, which is not performing very well as we speak.

MS. MAR-SPINOLA: Because of that?

MR. HOLCOMBE: It's just a volume thing at that time. Although Public PAIR does what it's supposed to do, it's been bogged down by a lot of volume.

And besides that, people don't really like it because it's designed as a single manual interface because of the security software we put in front of it called CAPTCHA. In essence, it prevents bots from actually getting in without a lot of effort. I'm not saying that bots don't do it. I'm saying that there's a lot of effort required in order to get that done.

What we would like to see is people go to PEDS, which is the bulk download of electronic

information. The problem with that is, as I found out, it is not a fully baked solution from a customer support point of view. There's a lot of things that customers want from it. So, we have an immediate short-term and long-term action plan for PAIR. Private PAIR immediately. The performance issues need to be found out. We really do need to know what's going on and we have folks right now gathering that data so that we don't address ghosts. Because there's a lot of internet ghosts out there. I'm not going to resolve ghosts, but I will find the real problems and then we'll resolve those problems. That's immediate.

The short-term thing with Public PAIR, we'll try to figure out a better way to anticipate load and take care of load. And then the long-term we'll find out those requirements from the customer, from the public, on the public dissemination of bulk data.

In doing that we actually invited folks to come and speak to us and gather information on

requirements. So, there has been a lot in the press about that meeting and what was described because at the time, we were unaware of a surge or a large problem with Private PAIR. So, because that was brought to my attention, we have taken those actions to do immediate actions on Private PAIR.

So, given that are there any questions?

MS. MAR-SPINOLA: I think you provided a good roadmap for what you're going to do. How about a timeline for near-term and long-term?

MR. HOLCOMBE: Sure. So, the Private PAIR is immediate. As soon as we can find it, we're going to resolve it. And those problems will be taken care of as we find them. The Public PAIR, however, I think we at least need to go out to the public and find out what they need. So, we'll probably hold a couple of seminars in the future, three to four months out, and with an idea that in six months we could get something actually into operation. Now, the PEDS example we may be able to do something within six months. That

actually takes the load off of Public PAIR and puts it on to PEDS. I'm hoping that that's what we can do.

MS. MAR-SPINOLA: So, what advice, if any, can you give to the external stakeholder about what to do in the interim?

MR. HOLCOMBE: Please tell us what your -- performance issues you're having first of all by defining in exact detail with specifics so we don't have to find ghosts. Please just give that information to the help desk. Make sure all that technical information is there so we can actually solve something. And then keep your ears open and so forth for announcements of those public meetings that are going to be upcoming.

MS. MAR-SPINOLA: Would it make sense to have maybe like a questionnaire for those externals to provide specific information, pinpointing information to you to help identify the problem or the solution?

MR. HOLCOMBE: Unfortunately, it seems like everyone has their own customized case and

every little detail is different. So, I don't have a general form other than tell me exactly what happened.

MS. PETER: If I can just --

MR. HOLCOMBE: That's a good idea though.

MS. PETER: If I can just chip in real quick. I mean, we are all very aware that our stakeholders are very dependent on Private PAIR and this is a huge priority. I think what we're -- what I'm hearing from the IT team they're struggling with is having something that's reproduceable. So, if someone's saying I'm getting into PAIR and I'm getting bounced out, we don't have the exact sequence of events that led to that. So, we're looking for the stakeholders to provide the details so we can reproduce the problem so we can solve it. And if we went to some kind of a survey, I think we'd get some high-level, you know, information that could be helpful but it would take too long for doing what we need to do, which is to fix this within weeks

not months.

MS. MAR-SPINOLA: I was thinking more of for reproducibility. You know, what kind of -- or to make sure that whoever has that problem, the ghosts, you know, and I don't know if they're ghosts, but the individuals that have their particularized problem to make sure that they are providing enough details to you so that you can reproduce it.

And sometimes I think people need guidance on what information do you need so that you can reproduce. So, not so much a survey, although I think a survey in the end might be, you know, that'll to the extent that there are overlapping issues that can be fleshed out, that's great for the survey. But if you want to reproduce something in particular, I'm sure that there's certain information that you might need, right?

MR. HOLCOMBE: Yeah. I think what we could do is -- it's not the first time you experience it that you get really frustrated.

It's usually the second or third time that it's bad. So, if you do have a PAIR instance of bad performance or errors or whatever it might be, if you could send that in and then we'd know, and make sure it's characterized by PAIR problem, then we could send back something, well, what happened in this? So, the next time it happens to you, we could capture all those fill in the blanks. If that's what you're suggesting there. Look at that, that's agile at work. Awesome.

MS. MAR-SPINOLA: Mine or yours?

MR. HOLCOMBE: No, yours. That was (Laughter)

MR. CHAN: So, this question goes back to stabilization. Debbie, you talked a bit about the nine critical systems that are kind of in the works on being stabilized. What was the -- I think I might have missed the timeline for the --

MS. STEPHENS: Sure, so --

MR. CHAN: -- for the nine.

MS. STEPHENS: So, again, we have the vendor on board.

MR. CHAN: Yes.

MS. STEPHENS: And they are in the process of discussing the plan with our technical team. And so those systems we're hopeful to have them kind of in rolling order of, of course, completion, but the target date is end of September for the totality of them. But, obviously, much like our systems that the internal teams are working on, they're in stages of completeness. So, but ultimately end of September.

MR. SEARS: A question for you about Global Dossier. I'm a frequent user. It's a fabulous program. It makes life so much easier for the IP5 jurisdictions, if you're looking for information. I have a question for you. Occasionally and intermittently, I will get an error from Global Dossier that says the solar servers are unresponsive. Are you familiar with this error?

MR. HOLCOMBE: Not personally, but I can take a guess at what it is. In essence, we're

experiencing a lot of bots that are screen scraping, and so someone will sign in and just let a bot run forever. And, unfortunately, that's not fair to the other folks.

So, we're going through a lot of different alternatives on ways that we can have people cue up. First come first serve, you know, there's a lot of different ways we can do this. But it all requires some public comment, not for consensus, but actually for some resolution points. I do apologize, though, it's frustrating as heck.

MS. CAMACHO: We have a couple of questions from the public that relate to the same topic, and that's with respect to the changes that were made recently on Private PAIR for security reasons. There's an awful lot of frustration in not being able to access Public PAIR accessible information while on Private PAIR, and then having to go to Public PAIR, which is -- can be incredibly slow if you're able to get into it. And so, there's a question of whether there's a

plan to make the Public PAIR accessible information accessible on Private PAIR.

MR. HOLCOMBE: Myself, personally, I do not see a time when we will go back to that. And the reason is is because it's not designed the same way. But in doing so, we do have an obligation to ensure that Public PAIR performs a lot better. So, no, and, yes.

MS. MAR-SPINOLA: Okay, I think we have, let me see, we have about eight minutes left.

MR. WATSON: Good afternoon. The protection of intellectual property and business operations from a systems infrastructure perspective is important to us. I'm going to talk real briefly as the cybersecurity state that we're in currently and some of the planned enhancements that we have in the works.

We have defense in depth deployed everywhere for every level from our top-level architecture down to our applications or end points. We've deployed role-backs -- role-back, which is role-based access control to do our

authentication and authorization of users. We do have a very robust annual security and risk assessment of all of our USPTO systems to make sure we assess the security controls we have in place and to make sure that we are remediating any vulnerabilities discovered as they emerge.

Penetration testing is important, especially for external facing applications and systems to detect and remediate vulnerabilities and to ensure that bad actors can't do harm and we're fixing those holes in those vulnerabilities before they find them.

Data encryption within our data centers, critically important. And just having a great robust number of security controls and security monitoring and instant response for our infrastructure applications, our network through a 24/7 operations that we employ that's called the CIL Command Center.

Some of the planned enhancements is although we do have our back for providing our identity access management capabilities, we are

looking at improved solutions for both our internal and external users. And the improvements would be to help us automate and manage a life cycle of accounts. So, when people depart or there is an account that's stale, that those things are taken care of through an automated process.

Zero Trust Architecture is an approach. There's different ways you can implement this. But that concept arised [sic] because most people assume that if you're defending your network perimeter, it's enough and that everything already inside the perimeter is not a threat.

We do segment our systems within the data center to ensure the right people have the right access to the right systems at the right time. But we will start on a roadmap to, and on a journey to improve this through micro segmentation both in our data center and in the cloud. It's an approach to ensure that our applications are in secure zones so we can isolate workloads and we can improve security. That's all. Any questions,

please?

MS. MAR-SPINOLA: Thank you for that. I'm glad to hear a dedicated presentation on security. I'm always asking about it and I appreciate that detail. So, you know, obviously security is everything. Yes.

MR. HOLCOMBE: One of the things I'd like to say is if you'd like a fuller brief on exactly what we're doing, we can actually go into the skiff and talk about different things that we plan to do, so.

MS. MAR-SPINOLA: I think so. Maybe we'll talk to Mark and you'll talk to Mark and we can expand on that, right.

MR. HOLCOMBE: It's great because we have an attitude it's not if, it's when.

MS. MAR-SPINOLA: Yeah, that's right.

MR. HOLCOMBE: So, we need to mitigate all exposure.

MS. MAR-SPINOLA: So, we have just a few more minutes, five more minutes.

And I want to ask this question, which I

think is very important, which is about the failure over system and the status of what we're doing to protect that going forward. What's the roadmap to the extent you can share it? If you can't that's fine too. But, more importantly, the timeline.

MS. STEPHENS: I'll start and then I'll pass it over to Jamie.

So, I think we're taking I'll say a web-like approach in terms of our resiliency in terms of our local failover. That's just on-site on prem in our data center. Partial failover and what does that mean in terms of our data, our application layer? And then finally, how do we achieve the full failover to perhaps an alternate site?

So, our fearless leader here has set a goal for July 2020 to test some of that capability. So, I won't go into all of the details, but it will be testing some of that capability across those we'll call them three levels of opportunity to prove out our resiliency.

MR. HOLCOMBE: Yes. I'd like to give Debbie the chance to speak about all the work that she's been doing in the past eight months, and we have another five months to go. But she's very excited about the opportunity to actually failover. What she said was, of course, failover in place first and then failover to our alternate site.

So, we have not said what site or what sites we'll pick, and there's a reason for that. Maybe nobody should know. In fact, it should all be behind the scenes and in an infrastructure way, we will be moving to the cloud, but we're going to be doing it very smartly.

And what do I mean by that? Many agencies have gone to the cloud without the good business case, without the good sense to figure out what their costs will be, or at least their anticipated cost. In many cases, agencies have found that they're running out of money half-year because they never understood the actual amount of ingress and egress that it would create because as

soon as you make something available, it gets used, i.e., Global Dossier, et cetera.

But, I mean, the fact of the matter is is that we have a lot of systems that everybody wants to use. We only have what we know right now so we will make good educated guesses and good -- put a good business case together before we actually go out into the cloud.

But before then we have to have resilient systems. And in order to do that you have to practice, practice, practice. And what the folks have done and what Debbie's very humble about is the fact that we've done some failover exercises already in our labs, and to the chagrin of a lot of people because, oh, I can't do work anymore. We took down our entire lab earlier in January and brought it back up. And that was the first time that that was ever done and they didn't know if some of the systems were going to come back. They all came back.

So, it was a very good exercise and I think people are developing more confidence. That

doesn't mean to say there's not hurdles, you know, we're finding new things every day that surprise me, so. But that's good because it makes it challenging and makes it fun.

MR. CHAN: In order to get to that July aspirational goal and cross that finish line, what are some of the big -- you talked a little bit about hurdles, Jamie, what are some of the big ones that you anticipate needing to accomplish in order to get that July -- to cross that July finish line?

MR. HOLCOMBE: Well, we're not going to go off-site until we can do it on-site very well. So, the failover in place is very big. And in doing that, the people practice for how they can do it. And just because you're failing over from one server to another, what's the difference between that and an alternative site other than a big network? Now, that big network, however, has a lot of petabytes of data that it'd have to go across. So, in doing our research and everything, one of the big hurdles will be network. We'll

have to make sure we have enough network if we want to do it en masse failover. That has proven to be a large hurdle.

The other hurdle we'll have, of course, is facilities. If we're not going to just lease something for a little temporary time, but we're going to do it permanently, we don't want to put into a data center that we don't know what the scalability is. So, a big hurdle will be the facility sizing in both power, pipe, and ping. Sorry, that's data center terms for just ensuring that we have the right scaling to go from one place to another.

Eventually, we would love to have a hot, hot architecture. In other words, be load balanced across the nation, one site near the west, one site near the east. And, you know, west could be Nebraska, east could be West Virginia. It does matter, right? What matters is that people can get to their applications when they need to get to them.

MS. MAR-SPINOLA: Is there a reason

those two efforts can't be done in parallel?

MR. HOLCOMBE: They are being done in parallel.

MR. CALTRIDER: I'd like to circle back to AI just for a moment because we've heard presentation on kind of the strategic focus at the strategy level. And we've heard about the two projects that are near-term, but we haven't heard much about what's next after that. What's your two, three, four, five-year vision for AI in terms of -- what's the intermediate plan look like beyond classification and search?

MR. HOLCOMBE: So, we're going to use AI to our advantage. Search and classification are great. There's also image on the trademark side and we could use a lot of AI internally. As an example, we're using robotic process automation to look at server thresholds and once they exhibit a certain amount of failures on processes, they seem to break. So, we're doing a little machine learning in that regard. And before they go down or before they cause us an outage, we'll reboot

that server based on the machine learning. So, we're doing that right now. So, the current immediate step is to make sure we have those small wins and we can scale on what works.

In the intermediate term, we're only going to scale on what works. There's a lot of hype about AI, and I'm not going to -- I'm not going to fall prey to it. But in the long-term, of course, we have a position open for artificial intelligence in my shop. And we're looking for the right candidate to lead us to that next step because I think it'll be an innovation and creativity position more than just AI.

MS. MAR-SPINOLA: Okay, no further questions, but a great discussion. Thank you very much.

MR. HOLCOMBE: Thanks a lot. Have a great day.

MS. CAMACHO: Okay, moving forward to the Finance/Budget section. We have Jay Hoffman and Michelle Picard and Dan Lang, who is the Chair of the Subcommittee for the PPAC.

MR. LANG: Sure, I think the main thing is to welcome Jay to the OCFO and his what I think will be a very fruitful cooperation with the PPAC. And I'm very excited about Jay's arrival, looking forward to the update. I think we're going to get great visibility into the checkbook and the financial state of the Patent Office now and what's projected to happen over the next few quarters. Thanks.

MR. HOFFMAN: Great. Well, Dan, thank you for that warm introduction.

I am happy to be here. I've been here a grand total of four weeks now, but I won't let that stop me. I'm going to give you an overview today of the budget status for the USPTO that will include the current year execution, which is the fiscal year that we're in, fiscal year 2020. I'll give you a preview of our FY 2021 budget and we'll end with a recap on our patent fee rulemaking that I know has a lot of interest.

FY 2020, the USPTO like all federal agencies, began the year funded by two continuing

resolutions. Fortunately, those were resolved on December 20th. The USPTO received a full-year appropriation of $3.45 billion. The appropriations bill that was passed provided the agency with the authority to use the Patent and Trademark fee reserve fund. This is the fund where any fees in excess of the amounts appropriated are parked in essence for future use by the agency. It also provided direction to transfer $2 million to the Office of Inspector General for audits and investigation.

The full year appropriation also directed federal agencies to provide federal employees with a 2.6 percent pay raise. For many employees in the Washington, D.C. area, this equated to a 3.52 percent pay raise with the locality pay. I would note that while this was not an assumption that was included in the FY 2020 budget because of some policy direction, it was a risk scenario that the agency anticipated. We were able to cover these extra budgeted, I will call them, expenses and there'll be no impact to

operation as a result.

I would note that last fiscal year was the first time in a number of years that the agency actually collected fees above the appropriated level. As a consequence of that we did need to go to the Congress and request access to those fees through a reprogramming. The total amount was about $28 million. And, of course, the majority of that, $24.7 million was patent-related.

Do you want to take over the -- yeah. Sorry, I don't have enough hands.

(Laughter) Let me give you a recap on our FY

2020 status here to date of our fee collections. Through December 31st we had planned to collect 787 -- $789 million in patent-related fees. We are just a hair over that by about $3 million. As of the end of the first quarter we've collected about $790 million in fees.

The actual spending is slightly ahead of those fee collections. In patents we've spent

about $900 million. That's not really cause for concern. I'll describe the bar chart here on the side real quickly. So, what you see here on the right-hand side of the slide is the blue bars represent the fees collected. The solid part of the red bars represent obligations or amounts that we have committed to spending. And then the fuzzy red part are what we call accounting commitments. And these are funds that we're planning to spend or getting ready to obligate.

We do have, as you know, a reserve fund and the purpose of that reserve fund is to balance out some of these asymmetries that happen throughout the year. Expenses don't perfectly match revenues quarter to quarter. First quarter tends to be a little bit higher expense quarter than the subsequent quarters. So, there's no cause for alarm in terms of the way the numbers are coming in.

Next slide. In terms of the FY 2020 status, where we expect to be at year-end. As I mentioned, we have a year-end estimate of total

fee collections of $3.769 billion, which is $320 million net over the appropriated level of $3.45 billion. As a result of that, they'll be a fairly substantial amount of funds in the patent/trademark fee reserve fund at the end of the year. And we will need to go through that congressional reprogramming process as I mentioned before to have access to those funds at the end of the year.

Now, the reason we're going to be having funds that are substantially higher than the amounts appropriated are due to the fee rulemaking. We predict or project that they'll be an acceleration of fee collections in these third and into the fourth quarter as applicants file ahead of those fee increases. And, essentially, we'll be collecting money in advance. We will be collecting money we probably otherwise would have collected in the first quarter of FY 2021. And so, when we do our cash management, we'll account for that in the next fiscal year budget. Next slide, please.

MR. LANG: Can I just interject a comment maybe for the benefit of the public that the patent/trademark in reserve fund that's been mentioned it is the mechanism that assures that there is no fee diversion.

(inaudible) fees are collections that exceed what PTO spends are deposited -- what the PTO is authorized to spend I should say, are deposited into this fund, which can't be used for other purposes. But nonetheless, is only reauthorized for use by the PTO by the programming resolution. And so far as I understand it every time that a programming resolution has been requested, it's been obtained.

MR. HOFFMAN: That's correct. And we've already been giving some advance notification to our Congressional Oversight Committees that this is a likely scenario at the end of this fiscal year and into the beginning of the next fiscal

year. So, they're well aware of it.

Just very quickly, this is a status of our FY 2020 fee collections. As you can see in the top table, we are planning to collect $3.4 billion in patent-related fees in FY 2020. This is 11.3 percent higher than we collected in FY 2019. The table below shows a quarter by quarter comparison. So, in the ending of the first quarter, which ended end of December of this past year, collections were $790 million, which was 2.3 percent above where we were in the prior quarter.

The chart on the right basically shows that the plan and actuals are nearly a perfect match so, that's consistent with the tables that I just showed you. So, we're about $3 million ahead of schedule at this point. And, again, we expect that to accelerate in the third and fourth quarter.

Next slide, please. Actually, the entire federal government along with the United States Patent and Trademark Office is preparing to submit their President's budget requests on

Monday, February 10. Usually they're submitted the first Monday in February for those budget watchers out there. So, the government's about a week behind this year. We do anticipate that the Hill will be reaching out to schedule hearings with the agency either later this month or certainly into the spring. We've already had some initial inquiries from the House and we plan to be meeting those next week. So, the budget will be available and made available to the public on Monday.

Next slide. And then lastly, just an update on the fee rulemaking. As you know, the USPTO is currently finalizing its patent rulemaking package. A final rule is expected to be published in the Federal Register in late spring or early summer, and the proposed effective date for the fee changes is anticipated to happen some time in the time period July 2020 through January 2021. There's a number of external approvals that are out of our control, so we don't have an exact date.

So, that concludes the presentation from the Financial Management team. If there's any questions we would be happy to try to answer them.

MS. CAMACHO: I have a couple of questions that came in from the public, the same general theme.

It's about the budgeting for AI, and whether it's -- there's a specific budget for AI on the both the tools and on the policy interest as well as is it all part of IT? Is there a separate budget for what's actually being implemented in the IT? So, there's a bit of concern about whether or not there's sufficient funding for AI.

MR. HOFFMAN: Right. Well, what I can say about that is that the artificial intelligence work we're doing right now I would characterize that work as at a pilot scale. These are specific projects. And as Jamie was talking in the prior session, we're looking to see how those play out. The executive team will look at those and budget appropriately in future quarters or future years.

But right now, I would characterize those as fairly small line items that principally rest, you know, in the IT area.

MR. LANG: Can you comment on the evolution of the operating reserve throughout the year?

MR. HOFFMAN: Can you be a little more specific?

MR. LANG: Well, do we anticipate that we're on a trajectory towards more fully funding the operating reserve on a long-term basis?

MR. HOFFMAN: Do you want to take that, Michelle?

MS. PICARD: Sure, I can take that one. So, I think as we -- as Jay had talked about that are fee collections are going to be higher than originally anticipated with the shifting of perhaps the date of the implementation of the fee rule. Our operating reserve will grow commensurately with that. We are above minimum and on a trajectory to remain above minimum. We are starting to kind of set our sights towards how

are we getting to optimal so we can start, you know, using the funds on some more strategic things and simply not just keeping the trains running.

One of the things, as Jay had mentioned, with the timing of the fee rule we look at cash flow and he showed in -- because we're going to collect fees in 2020 sooner than planned, we would have originally planned for them in 2021, some of those fees are operating reserve we're planning to end the year relatively high, but mostly carrying us into 2021 to fund our 2021 requirements.

So, even though the timing of those fees are looking asymmetrical as Jay said, I do think that it's just balancing out our requirements over two years. So, I think that our operating reserve is strong at this point in time.

MR. LANG: Thanks, that was very helpful. We do look forward to the operating reserve growing over time.

(Laughter)

MS. CAMACHO: Are there any other

questions? Thank you. (Pause) Okay.

So, we'll move forward into the legislative section. And we have Branden Ritchie and Kim joining us as well. So, Kim Alton. We look forward to the update on the legislative side. There's a considerable amount of interesting things going on. We had a good discussion yesterday.

MR. RITCHIE: Well, thank you for giving us this opportunity. There are a lot of IP-related issues being talked about on the Hill right now, and that's been the case for the past -- for the whole past year.

This Congress, there's been a lot of interest. Some of those reasons are because they reconstituted the Senate IP Subcommittee and so there is an additional subcommittee that's focused on IP issues. We had a record number of hearings last year with PTO witnesses we believe. And a lot of work went into that and it was good because all the witnesses did a wonderful job and represented the USPTO well. It was good to have

that opportunity to have the voice of the PTO there.

So, let's see here. I guess I'll -- thank you, Kim. So, some of the hearings since we last met that we've been helping with and participating with. The House Judiciary Committee IP Subcommittee held a hearing on the Appointments Clause issue, basically on the Arthrex opinion. And they had a number of witnesses and we attended that and reported on that. They also, the Senate Judiciary IP Subcommittee, did a hearing on the fraudulent trademark submissions from oversees as a follow-up to the House hearing. They did one where Mary Denison, Commissioner Denison, testified earlier in 2019 and this was the Senate's hearing on that matter.

And then most recently in January, the House Small Business Committee did a hearing on the SUCCESS Act report and enhancing patent diversity for America's innovators. And we were able to talk with the staff of the committee and get them information in preparation for that

hearing, and then followed-up with information that we sent to them after the hearing. And I think their jurisdiction typically doesn't cover patents, but they're going to be a partner in moving forward, which is great.

Let's see. Legislative activity, again, there's a lot of activity on IP issues. A lot of bills introduced. Some bills having hearings, some bills having discussion behind the scenes. Part of the reason for that is that the IP issues don't break down along traditional party lines. They're more -- they break down more based on industry. So, these are issues that the Congress can work on, even in times of, you know, heightened partisanship or in not as heightened partisanship times. So, we've seen a big uptick in that.

So, some bills worthy of note at this point are the Inventors' Rights Act that was introduced and that would create some relief for independent inventors with respect to certain procedures in litigation procedures. That's been

introduced. Another bill is the Patents for Humanity Improvement Act. So, the Patents for Humanity program allows accelerated examination to winners of -- who win awards for things that improve the -- what am I looking for here, Kim?

MS. ALTON: The humanitarian --

MR. RITCHIE: The humanitarian inventions, and they can get an accelerated certificate for the next time they patent. And this Improvement Act would allow that to be transferrable. So, that's another bill that's being talked about right now.

The Counterfeit Goods Seizure Act would allow customs to seize infringing products that infringe on design patents at the border. And then, of course, we're -- we do a lot of work monitoring the patent-related drug pricing legislation to make sure that any legislation that affects drug pricing or the intention is to affect drug pricing, does not have damaging impacts on the patent system and the incentives of the patent system to encourage innovation. So, we've done a

lot of work with Congress to do briefings, answered a lot of questions, just getting information out there about how patents generate innovation in -- broadly, but also in the drug context. I'm going to defer to what Jay -- Jay covered the federal budget issues, I'm sure, in detail, so we'll skip over that.

Arthrex decision, so there is an interest it seems like in Congress to address the Arthrex decision. This hearing that they held last year toward the end of the year they had witnesses that had a broad spectrum of recommendations of what -- how we -- how it could be fixed ranging from clarifying the authority that the director has to conduct sufficient oversight of the PTAB, all the way to other ideas including new presidentially appointed chief patent judges. So, I think right now they're just considering options, and I would expect they are considering options in the spectrum of what the witnesses said, among many others. But there's interest in it, they're looking into it, but we

haven't seen any draft text or anything like that yet.

Section 101 reform. So, that was the big topic, of course, last year on the Hill, especially on the Senate side. It has gone to a different -- I'm trying -- different context now. Right now, it's more, I think, organic. I think more people are looking into what possible fix is there, possible reforms that could work. Stakeholders are getting together and having discussions about that as well. But it's less directed from Congress right now. It's more outside groups trying to work out differences and see if there's a way to get consensus. There are still many differences of opinion on how to do it, but there is still a desire to do it, but to do it the right way. I think that's the best way to summarize what's happening with Section 101 reform right now. And, of course, we're monitoring these and reporting as needed on all those issues.

Let's see here. So, you guys heard from Kim and Valencia on the SUCCESS Act activities

already. There's a lot of interest in these. As we mentioned, the Senate -- I mean, I'm sorry, the House Small Business Committee hearing. A lot of interest all around, and that's a good thing because there's a lot of partners to work with on this issue and a lot of stakeholders that are working on it too. So, we're looking forward and we think the SUCCESS Act helped bring the conversation to the national level even more and hopefully even more in new partners will come in and help us solve this problem and get more people inventing from the underrepresented groups. So, it's a really great opportunity right now for that issue.

Let's see. Some of the things we're working on, some priorities of the USPTO. A lot of these deal with continuity of service. We want to make sure that we have the tools available to make sure that we do not have to shut down operations whether it be for outages, whether it be for funding lapses, and the like.

We are also working to extend the TEAPP

program, that's the telework program that allows employees, examiners to work virtually anywhere in the country. I believe the updated stats are we have examiners in every -- in 48 states and Puerto Rico, maybe 49. And so, a very popular program, people stay longer, it saves the agency fees. It's great for the employees. We've been working with Cathy and her team on this as well just to lock in these benefits. And so, we've had some talks with various committees on the Hill that have oversight over that and we'll continue that. And it's set to expire on December 31, 2020. The goal is to authorize it permanently.

And then, of course, the -- we have an interest in fixing the Arthrex decision as well. So, we're actively monitoring and providing feedback to the Hill as they consider that issue.

And, thank you. With that we'll throw it open to questions.

MS. CAMACHO: I have a question or a request. Kim, maybe you could go over the legislative recommendations that were made in the

SUCCESS Act report and whether you've gotten any feedback or a sense from the Hill where they might move.

MS. ALTON: Right. So, one of the major legislative recommendations related to data and the USPTO's authority and ability to collect the --

MS. CAMACHO: Kim, could you turn your mic up?

MS. ALTON: Sorry, I'll repeat. Sorry about that. One of the major recommendations, legislative recommendations in the SUCCESS Act dealt with the USPTO's ability to collect demographic data on our applicants, on our patent applicants. And there's legislation that's been introduced, the IDEA Act. It's been introduced in the House and Senate. It stalled in the Senate, but it's something that we are continuing to have conversations with Capitol Hill offices on how to go about collecting the data and what's the best way to sort of get that response. If it's through the application process or through a survey tool.

So, we're doing a lot of sort of thinking within the agency, talking to stakeholders and others just trying to figure out the best way to do this. Because as Branden mentioned, the hearing last month in the House Small Business Committee really touched on data and the importance of data. There was a witness there and that's all that he focused on in his testimony of how if you're going to address a problem, you've got to have the data to back that up.

And so, that's something that I know Valencia and the council that they're working on, something that we included in the SUCCESS Act of how do we go about obtaining that? How do we not -- how do we do that and not have a chilling affect on our applicants and on the process, but really get a really good accurate as possible count, voluntary count of those who are applying for patents here at our agency.

MS. CAMACHO: Thank you.

MS. MAR-SPINOLA: What did I miss? Can

we start all over? Sorry. (Laughter)

MR. CASSIDY: I have a question. On the telework sun setting, you know, it would be awful if that happened. So, how much concern do you have about it and in the ordinary course of the coming year, how many members of Congress will you ping about that and when do you think you'll get a sense of whether that's truly worrisome or just something else that'll be included in an omnibus bill and taken care of?

MR. RITCHIE: So, we're trying to touch on all the congressional stakeholders that would, you know, make this decision that would be responsible for making these decisions and also as many as we can. We're trying to be strategic and use our resources wisely. And the meetings we've had so far have been very positive. You know, nothing promised or anything like that, but a lot of interest in it. A lot of education about the benefits of the program seem to be well received.

It's always hard to get things passed. But I'm optimistic that there is support -- that

there will be support once we have educated everyone about it. And if we run into concerns, we'll address them as we go. But the fact that the PTO is unified in asking for a permanent extension has been really key to -- from both the employees and management has been really key in showing how much of a no-brainer this is, and that it should be. Nothing's a no-brainer when it comes to legislation, but the benefits are just they're obvious. So, I'm optimistic. And, but, you know, expect the unexpected in D.C., so, we'll see. We're going to work really hard on it.

MR. CHAN: I think yesterday you distinguished between the TEAPP program and Telework.

MR. RITCHIE: Right.

MR. CHAN: And they're not the same thing, so maybe --

MR. RITCHIE: Right.

MR. CHAN: -- for the benefit of the folks listening on, you could kind of distinguish the two.

MR. RITCHIE: Right, that's a good -- thank you, thank you.

So, TEAPP is -- stands for the Telework Enhancement Act Pilot Program. And we have Telework at the PTO and then we have this program, which was there was a statute in 2010 that was called the Telework Enhancement Act. It created the opportunity for a bunch of test programs on Telework and then it required the PTO to do one. And so, there were 10 slots for discretionary programs and PTO was required to do it. And basically, it allows employees to change their duty stations to their home office or remote office and work from anywhere in the country and it allows the PTO to ask that in exchange that for a reasonable number of trips back to headquarters, the employees cover the travel costs.

It's a voluntary program, nobody has to join it. But it's been very popular and the demand is high to join it. And it has been one of these -- a test program that has been tremendously successful. So, it's -- we think it's an easy

sell to go to the Hill and talk about all the benefits. There's virtually no drawbacks that we've encountered yet. But that's the difference between the regular telework and the TEAPP program, yeah. Did I miss anything? Okay.

MS. MAR-SPINOLA: Well, thank you. I appreciate it and I didn't miss anything by the way because we had a comprehensive discussion yesterday. I thank you for that.

You know, legislation as a topic is trending now just like everything else whether it's IT, or finance, or quality or pendency, and post-grant challenges; everything matters to the users here. And, you know, legislation sometimes is the last stop to get clarity. So, your role in what you report to us is just as important as everything else. So, we appreciate it, thank you.

MR. RITCHIE: Thank you, and if you ever have thoughts that you'd like to share, you know, of course, in addition to the other folks you work with on a routine basis if it involves legislation or things going on in the Hill, please, please

reach out to us directly. We're happy to field those and relay those.

MS. MAR-SPINOLA: Thank you.

MR. RITCHIE: Thank you.

MS. MAR-SPINOLA: Okay. So, we're a little early, which is -- I appreciate. And so, let me thank you, thank everybody.

For closing remarks I just want to say that, you know, for this year's theme of PPAC 2020 Vision, we are looking at not only the consistency, predictability, and reliance on the examination process, but we are also -- doing that with the specific goal of helping to ensure the durability of the Patent Office product, the patent. Folks put great investment into that product. And while some inventors, may be satisfied with hanging a plaque on their wall, others depend on that issued patent for the value of their companies, their livelihood, and all else.

So, I thank the PPAC and I thank the Patent Office for working with us and being

patient with our questions and helping us understand more about the needs and the limitations and maybe where we can help best to advance or to facilitate the Patent Office goals. But we are here to listen to the outside stakeholders, and try to convey as much as we can to the Office, as appropriate. Importantly, we look for the stakeholders' comments to be constructive. So, that's what we're targeting for this year, and would like the stakeholders' help in defining those issues and proposing solutions for the Office to implement.

So, we'll follow-up next time and maybe we'll be shifting more time I think for other committees so that everybody is -- we can speak more deeply about their topics.

I want to mention that we have Rick and we have Mark and we have Bob here who have been sitting here through the whole day. And we need to acknowledge that and thank you for -- and Andy and for being -- I didn't forget him. Andy spoke so. (Laughter) So, but anyway, I want to thank

all of you for your dedication, for your service, and we will see you in May.

MR. POWELL: I want to just add that I actually don't mind sitting here because, you know, I learn a lot myself about other parts of the Office such as the board and the activities in the legislative area and what not. So, it's a lot of fun.

MS. MAR-SPINOLA: Thank you, Mark. Okay, so vote for adjournment?

MS. CAMACHO: (Indicating)

MS. MAR-SPINOLA: Second?

MR. CALTRIDER: (Indicating)

MS. MAR-SPINOLA: Thank you.

(Whereupon, at 2:51 p.m., the PROCEEDINGS were adjourned.)

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CERTIFICATE OF NOTARY PUBLIC

COMMONWEALTH OF VIRGINIA

I, Nathanael Riveness, notary public in and for the Commonwealth of Virginia, do hereby certify that the forgoing PROCEEDING was duly recorded and thereafter reduced to print under my direction; that the witnesses were sworn to tell the truth under penalty of perjury; that said transcript is a true record of the testimony given by witnesses; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this proceeding was called; and, furthermore, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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Notary Public, in and for the Commonwealth of Virginia