PARTICIPANTS:

Opening Remarks:

KATHI VIDAL, Under Secretary of Commerce for Intellectual Property and Director of the USPTO

DERRICK BRENT, Deputy Director of the USPTO

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JERRY MA

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PARTICIPANTS (CONT'D):

ANDREW FAILE
ROBIN EVANS
BOB BARR
KATHLEEN DUDA

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MR. CALTRIDER: Good afternoon and welcome to the August meeting of the PPAC. Just do a quick sound and video check, is everybody able hear me okay? Very good. I'm Steve Caltrider, I'm Chair of the PPAC. Other members of the PPAC, please introduce yourself as we call the meeting to order.

MS. DURKIN: Good afternoon, I'm Tracy Durkin, Vice Chair of the PPAC.

MR. CHAN: I'm Jeremiah Chan, it's my third year with PPAC.

MR. BROWN: I'm Dan Brown, this is my second year at PPAC.

MS. NEBEL: I'm Heidi Nebel, this is my first year with PPAC.

MR. DUAN: This is Charles Duan, I'm -- this is my first year with PPAC.

MS. HARRISON: Hi, I'm Susan Harrison, and this is my first year on PPAC.

MS. DUDA: Hi, this is Kathy Duda, and
I'm the POPA member of PPAC.

MS. FAINT: And this is Catherine Faint, I'm Vice President of NTEU 245, and a member of PPAC.

MR. SEARS: Hi, this is Jeff Sears, sixth year on PPAC.

JUDGE BRADEN: I'm Susan Braden, and I'm on my second year of PPAC, and happy to be here.

MR. CALTRIDER: Thank you, I think that's everyone. I would like to remind everyone that we're piloting a new format this year, and rather than the quarterly, nearly day-long meetings, we are trying to cover shorter topics in a deep-dive discussion, a focused agenda with more robust discussion on one or two topics. This is the third meeting with that new format, and we welcome your feedback. As we start to plan for 2023 and what the meeting cadence and schedule should be, and the format, we'd love to have your feedback on whether or not this short versions in second and third quarter, versus long, day-long meetings where we cover the full spectrum of
business, whether that's an improvement in our format or whether we should go back. So, please share your feedback.

Today's agenda includes a deep-dive discussion on artificial intelligence, and the subcommittee on the Council for Inclusive Innovation and the discussion of the office's diversity, equity, inclusion, and accessibility, or work in that subcommittee. These are two topics of great interest to the PPAC and external stakeholders. We'll open today's meeting, however, with comments from Director Vidal. So, Kathi, if you can start with comments and perhaps introduce the USPTO team that's joined us today.

MS. VIDAL: That is great. Appreciate being here today, and I will let the team introduce themselves, as I can't see everybody on the video. So, why don't, if you're a team member from USPTO, I see Andy there, why don't you kick it off?

MR. FAILE: Good afternoon, everybody. Andrew Faile, Acting Commissioner for Patents. V?
MS. MARTIN WALLACE: Thanks, Andy. Hi, I
am Valencia Martin-Wallace, Deputy Commissioner
for Patents.

MR. BARR: HI, I'm Bob Barr. I'm Deputy
Commissioner for Patents also.

MS. EVANS: Good morning -- good
afternoon, I'm Robin Evans, Deputy Commissioner
for Patents.

MS. VIDAL: That sounds like it may be
it for now. I know the Deputy is going to join as
well, and we may have a couple other people. So,
I will let them introduce themselves as they come
on. Steve, thank you for this, thank you PPAC,
and thank you everybody who's attending today. I
will keep my remarks pretty short so that we can
do a deep dive. I will say one of the benefits of
having these more frequent meetings is it does
give us a chance to dialogue more frequently, and
update on you on various goings-on. But again I
will keep mine at a high level, and then I will
turn things over to the Deputy for comments. So,

as you all know the process we've been following
within the USPTO is Interim and Final, and really looking for an opportunity to get public comment not only from the PPAC, but also from all stakeholders. So, just to give you a couple quick updates, we are looking for input right now on 101 guidance, so that is due by September 15th, so that is out there. We are still working on 101 guidance, even though there is now a bill that's been introduced by Senator Tillis. We will work on both of those in parallel, so certainly welcome your input on all of that. We also have a PTAB request for comments on director review, that closes on September 19th, so I wanted you to be aware of that. And then the one thing that we've stood up recently, and perhaps since our last meeting, is an engage the director website. We are going to populate that website soon with email addresses so that if there is a topic you see where we're taking action and you don't see a place to provide specific feedback, you can go to that page to find a place to provide feedback, and or there's -- any other topic you want to engage
with me on, you'll have an email to do it. So, I wanted to let you know that's coming.

Just a couple other topics that I want to make sure I cover. One is SEP policy. As everybody knows, we have withdrawn the 2019 policy statement. That was not at all a statement in itself, it was not suggest that we don't value SEP patents, that we don't know that SEP standard setting organizations are critical to the U.S., and we want to make sure we're at the forefront of that. So, our efforts on that will be continuing. We're going to have some roundtable discussions coming up. We certainly entered into an MOU with WIPO related to arbitration. Again, that's not a final resolution on all of this, it's just one measure we're taking to make sure that we support the U.S. when it comes to SEP policy.

FDA letter, I know I've gotten a number of comments on that. Where the U.S. sits with regard to pharmaceutical patents, et cetera, really is articulated in that letter, which is, overall we're looking at the entire system to see
if we can have more robust and reliable patents, and looking at measures to get there. So, if you look at the initiatives in the letter that I sent to the FDA, we are going to be doing a request for comment on that shortly. We've received PPAC input on that, and should be releasing that I hope by September 1st just to get additional feedback from the public on that.

We are also working on an ANPRM, that's an Advanced Notice of Proposed Rulemaking, related to discretionary denials at the PTAB. That is something that we are hoping to release in the next month or two. It's taking a lot of effort, given how complicated the issues are, and certainly we have the 822 comments we already received on that subject matter, and other input we've gotten from stakeholders on that. So, stay tuned for that.

Even with that and the interim guidance on FINTIB (phonetic) which we may again be updating shortly, again, it's not the last word, want to go through notice and comment rulemaking
on all of this. And when it comes to the PTAB, we're also focused on looking into amendment practice and real parties and interests. So, that will not be part of the first ANPRM, but that will be an additional effort. And then just to let you know, in addition to all the external outreach, so as I think everybody knows, when I came on board that's the first thing we did, we had a lot of stakeholder listening sessions, we heard from individual and ventures across the country, many stakeholders came into the office and did virtual meetings. In addition to that, we now completely launched an internal initiative as well, where we're hearing from people within the USPTO. Just by way of example, last week I had three such hours sessions where I heard from various stakeholders within the USPTO on how we can improve both inside and outside of the USPTO. So, really looking forward to doing that, I know Kathy Duda and I talk, at this point it's been every day this week it seems like, but definitely working with the unions including POPA and NTEU 245 on
improvements that we can make that will benefit both stakeholders as well as those within the PTO. So, very excited about all of that. We are going to have a meeting hopefully within Patents this month. We haven't announced it yet but I guess this is the announcement. We'll announce it within Patents, and then hope to make progress as part of that, which we'll report out.

So, with that, has the Deputy joined on?

MR. BRENT: I am here, I am here.

MR. VIDAL: Oh, perfect, then why don't I turn it over to our new Deputy Director?

MR. BRENT: Right. My name is Derek Brent and I was sworn in last week as the Deputy Director, and from the bottom of my heart I want to say that I'm honored and privileged to serve with the team here. And when I say team, I don't just mean the great folks here at the USPTO, but also the PPAC. We're all a team together and we're serving something greater. We're serving the mission of the Agency, we're also serving the country. So, I am excited about rolling up the
sleeves and getting into the hard work that lies ahead of us.

A couple of areas that we will be covering today, they're very exciting areas. Of course looking at AI we'll have a discussion on that. And it's a fascinating and rapidly growing area, but it's not just limited to just a court decision, of course we had an important court decision come down, but there's broader policy implications that we're working hard to -- you know, working hard here at the PTO to certainly look at the area, look at the technology, look at the policy, and make sure that we're staying ahead of it, and make sure that we're leading on this issue.

Also an issue that's near and dear to my heart which is Inclusive Innovation, and we'll hear remarks about our work in that area, the committee's work in that area, and again, it's very important, we grow richer when we grow. So, I'm looking forward to hearing about that. With that I will turn it back over to Steve.
MS. VIDAL: You're on mute, Steve.

MR. CALTRIDER: I'm going to -- I'll start again with my comments, and that is to thank Deputy Director Brent and welcome him to the USPTO, and the PPAC is very excited to work with him and serve to make the patent system better, so, thank you. And Director Vidal, I'd like to also come back to your comments just with a brief thank you as well. The outreach you've expressed and done, the number of comments from not only the PPAC but from the stakeholder community and from the public, has just been outstanding, and thank you, I think it's really better when we have an opportunity to listen to all the stakeholders in the patent system to get all the best ideas on how to improve and move forward, and it's absolutely been terrific in your tenure so far. So, with that, I will ask Judge Braden to -- who is the Chair of the AI IT Subcommittee to introduce today's topic and kick us off on our AI discussion.

JUDGE BRADEN: Thank you Steve,
Director, and our newest member of the USPTO, welcome, welcome, welcome. We are going to segue a little bit this time from some of the traditional panels that we've had on AI and IT, and we're going to talk -- hear from -- about the summer report of activities that have been taking place, both in Madrid, and we'll have a lot of reports from Oxford, England from our CIO Director Mr. Jamie Holcombe. Mr. Holcombe, are you on the phone now from England?

MR. HOLCOMBE: Yes, I am here in sunny old Oxford and ready to give my report. But I can't wait to hear about all the other great progress we've been going on with the patents team.

JUDGE BRADEN: We're going to start with Jerry.

MR. HOLCOMBE: Yes, why don't we start with Jerry telling us about that great trip to Madrid, Spain?

JUDGE BRADEN: Good, Jerry?

MR. MA: Sounds great everyone, and
thanks for bringing the slideshow up, and also
thank you to Dr. Vidal, Deputy Director Brent, and
Steve for kicking us off today. And hello to all
of our distinguished PPAC members and our guests
tuning in today. My name is Jerry Ma and I serve
as the Director of Emerging Technology, and
co-lead of the AI and Emerging Technology working
group here at the USPTO, and I'm absolutely
delighted to be able to kick off our August PPAC
meeting with a recap of our inaugural public AI
research competition.

Now, it's probably an understatement to
say that we at the PTO are absolutely thrilled
about this new channel of engaging the AI research
community to solve technical problems that really
lie at the heart of our innovation ecosystem. So,
this afternoon, I will start off by first
describing why we decided to embark on this
journey. I'm going to share with you how we went
from concept to reality, and finally I will
discuss the absolutely expectation-defined results
we witnessed, and how (inaudible) efforts.
Next slide, please. Many of the latest techniques are (inaudible) IP ecosystem. And if you go to the next slide, you'll see that our answer to this dilemma is really to look toward the public AI research community who possesses, you know, almost limitless reserves of expertise and enthusiasm, and then really bring those reserves to bare on the fascinating technical and business challenges in the IP space. So, that's really what the name of the game is all about, you know, taking the expertise, enthusiasm, and this willpower of all the great researchers and developers out there in the world and exposing them to a fascinating set of problems and challenges that, you know, we encounter day in and day out in IP.

Next slide. So, you know, in a nutshell, our goal with this line of initiatives is to enlist the communities that I just described to tackle difficult challenges in artificial intelligence, machine learning, natural language processing, and allied fields, for the benefit of
the office and the IP community at large. And the
way we're going to go about doing this, at least
with this first initiative, is to run a worldwide
AI competition based on annotated open data from
the agency that we made publicly available for
free to anyone in the world, and quantitatively
benchmark progress so that we have a good handle
on how the community is doing on the problems that
we presented.

Next slide, please. So, I'll now talk
about, you know, the nuts and bolts of how we saw
this to fruition, and the way we did so is
collaborating with a team at Google and Kaggle on
running a worldwide data science competition,
which we called the United States Patent Phrase to
Phrase Matching Challenge. So, this competition
ran from March to June of this year, and it had --
you know, of course, one of our objectives was
just to see how well this sort of initiative could
run in the first place.

But we also have the discreet AI
research objective, which was broadly to extract
semantic meaning from technical language and patent documents with the latest and greatest in AI natural language processing models. As many here now, you know, in patent prosecution, the applicant gets to be their own lexicographer, which presents, you know, both flexibility for the applicant, but also a unique challenge for IP offices who have to contend with a, you know, multitude of diverse language that can ultimately point to similar concepts. So, you know, in layman's terms, you can think of challenge as sort of a how to, you know, solve that sort of reverse induction problem, going from the words and the, you know, technical language in all the patents that we see, back to the underlying sort of semantic meaning and technical concepts that we're ultimately trying to capture.

So, the, you know, precise, you know, technical specification of this challenge is probably out of the scope of today's talk, but, you know, this is all available online, so, you know, for those who are eager to see exactly what
the parameters of a problem are, just search for
U.S. Patent Phrase to Phrase Matching in your
favorite search engine, and you'll come across all
the detail you need. But, you know, from the
business perspective, we saw both (inaudible)
submitting, both reporting 2000 unique software
source code submissions to the Agency through the
automated Kaggle platform, and ultimately, we
reached a top performance of almost 88 percent,
and an accuracy statistic which we call piercing
coordination (phonetic). But this really defied
all of our expectations, both in the, you know,
engagement we saw with this competition, but also
with the final, you know, quantitative result.

But, you know, one really interesting
trend we saw alongside this competition is, you
know, you think that with everyone trying to climb
a leaderboard and show, you know, the benefits and
the superiority of their approaches, you'd think
that people would sort of stay in their own lanes
and sort of keep their ideas to themselves, but
that's actually not what we saw with this
community at all. There was intense competition, but we also saw a remarkable groundswell of collaborative spirit across the world, with over, you know, 1,400 discussion posts in our, you know, competition forum, as well as -- here's something really astonishing, over 1,100 code notebooks that competitors publicly shared with each other and with the community. So, think about, you know, this competition, where people are climbing the leaderboard, trying to get the prize money, and despite that competitive atmosphere, people are still sharing really, really solid codes left and right.

So, you know, absolutely phenomenal, not only in the competitive spirit we saw here, but also in the, you know, just international collaboration that we saw, you know, folks from the U.S. team up with folks from Europe, team up with folks from Asia, to really try to collectively take a crack at this problem.

Next slide, please.

MR. CALTRIDER: Jerry?
MR. MA: Yes?

MR. CALTRIDER: Would you prefer questions at the end, or do you want us to ask as you go?

MR. MA: Questions at the end would be fantastic, and I promise I'm almost (inaudible)

MR. CALTRIDER: Sounds great. That sounds great, thank you.

MR. MA: Thank you Steve. So, you know, just a quick recap of our post-competition outreach. So, you know, just with this unprecedented level of engagement that we saw, of course, we had to, you know, do something to capitalize on it. So, on June 29th, we inaugurated our AI and Emerging Technology partnership at the Agency. And as part of the opening ceremony for this partnership, we had Director Vidal announce the results of this inaugural competition which was really fantastic to see, that was followed up two weeks later by a USPTO delegation sent to the PatentSemTech conference at SIGIR 2022 Madrid. That's the
special ACN (phonetic) special interest group and information retrieval, where we, you know, met our colleagues in person from Google and Kaggle, and presented this groundbreaking work to the AI and NLP patent research community.

And then, two weeks after that, we had our global winner calls, where Jamie, our CIO, myself, and other staff from the office of the CIO engaged and debriefed each of the top three contestants who one prize money through this competition. So, you know, we're eager to not only reap the benefits of this individual challenge, but, you know, really build this flywheel and, you know, set up the groundswell for future enthusiasm, future support for other similarly ambitious initiatives.

Next slide. So, you know, those are some quick takeaways from our experience here. Number one, there's tremendous untapped potential within the global AI community, from the perspective of us as IP offices, and this talent really comes from everywhere. It comes from
universities, it comes from business, both, you know, the large tech companies that we see on the news, as well as startups. It even comes from independent scientists and engineers just working, you know, in their home office, getting a crack at the data and applying their innovation and their new modelling expertise in this sets of challenges. And, you know, how can we at IP offices unlock that talent and bring it to bear on IP?

Well, there are four ingredients. We need to provide the community high-quality intuitive (phonetic) data sets that resemble the ones that they're used to encountering as AI researchers. We need to provide them meaningful benchmarks so that they can assess progress on their research. We need to provide a sort of prop environment that fosters both competition, so that we have this competitive dynamic of folks, you know, racing to, you know, achieve better and better results, alongside collaboration that can foster discussion and knowledge-sharing as to
folks' new ideas. And finally, we need to tap into folks' intrinsic motivation to really solve problems that have real-world impact.

And I think in the IP median (phonetic), we certainly have no deficit of such problems. You know, we have, you know, many AI benchmark, sort of, research benchmarks, I think, like classify cats and dogs, you know, which certainly are cool as technical benchmarks, like, Jerry, you know, we're presenting problems that ultimately bear upon the operation of the innovation ecosystem. So, taking innovation from outside and bringing it to bear to better foster innovation worldwide. So, that concludes this session of the PPAC meeting, and I'd be happy to take questions at this time.

JUDGE BRADEN: Steve, I think because we're running a little bit late, why don't we hold until the entire presentation is finished, is that okay with you?

MR. CALTRIDER: Yes, yes, that works.

JUDGE BRADEN: Okay, great. So, I'd
have to ask, Mr. Holcombe, how's your weather over there? We understand England has been under siege here by warming.

MR. HOLCOMBE: Yes, unfortunately, it is not its rainy self. In fact, it's almost in a draught, but that works really well for me, because it's sunny and beautiful out. People here are saying it's so hot, but they don't understand how hot Washington D.C. can get in the summer. So, to me, it's a pleasant breeze, and it's beautiful over here.

And I will say the biggest surprise was Wales. If folks didn't know, the UK patent and trades office is located in Wales, it's not located in London. And as such, this is the first -- although I've been dozens of times to London, I've never been to Wales, specifically Cardiff, and the people were so warm and friendly, and the UK patent and trade office was just, their hospitality was overwhelming. They have something here called Welsh cakes, which are excellent, like little croissants with raisins, and it's really
good.

But besides that, the real story is patents and trading, and how we have very similar needs and frustrations with monetization and remote work. We shared a lot of things in similarity about cybersecurity as well. And we plan to take some of these best practices that we've learned and share them in the future. We both share the fact that Log4j was a gaping hole in all of our systems. And because of that, we wanted to make sure that we were helping each other out in any and all cybersecurity vulnerability remediation exercises.

Now, the lady over here, her name is Shaniya (phonetic), and she is a fantastic counterpart, and I'm looking forward to working together with her. One of the great things I've found out is, the UK patent and trade office actually finances a police division in London to prevent fraud. And with that, I'm going to take back some of these best practices and figure out if we can do similar practices in the United
States. And like you said, because we're lacking for time, I'd like to go on and present the next author (phonetic). So, whoever up next, thank you very much, unless you have any questions. Judge?

JUDGE BRADEN: Jamie, I just wanted to have you, just, spend one minute and talk a little bit about your -- the work that you've learned about, search and enforcement capabilities in this particular program that you've been involved with this last week.

MR. HOLCOMBE: Yes. So, the search area is very difficult as we all know, and searching for specific fraud with patents is one of the things that Shaniya was also talking about with her crew. She is trying to do a minor transformation with old tools much like we are. But that shouldn't let us stop getting these newer tools in place beforehand. And so, what we're trying to do then is identify and enforce fraud almost before the dangerous results happen. In other words, we'd like to catch the criminals with
their hands in the cookie jar. And so, in doing that, I'll have to work more closely with some of our law enforcement brethren in order to affect such a seizure or a stopping of these damages before they occur.

JUDGE BRADEN: Thank you, that's very helpful. We're going to move on now to have Jonathan Horner, who is going to give us the very first public demonstration of the More Like This (phonetic) AI search capabilities. Jonathan?

MR. HORNER: Thank you, Judge Braden. So, my name is John Horner, I am a Patent Business Analyst in the Office of Information Technology for Patents, and I am very excited and pleased to be here today to present More Like This document, which is the first artificial intelligence tool that is directly integrated into the examiner's search tool, called PE2E search.

So, this tool has been directly released into PE2E search for a number of months now, and we have seen a lot of use of it. This tool is designed to assist examiners and give them new
documents related to their current search
strategy. So, much like you will hear from many
people talking about artificial intelligence,
artificial intelligence is not here to replace, so
we have -- we are giving assistive tools to
examiners because we know prior art is increasing
at an exponential rate, and we need to support
them as they are searching. So, this new tool
covers foreign and domestic documents. We update
this weekly, and to make sure they always have
access to the latest documents, about 64
countries' worth of foreign documents besides the
U.S. that the model has access to, and will return
results based on those models. And the models
themselves are updated multiple times per year to
make sure that we are always avoiding things like
bias and model drift, and be able to always have
improvements made to the models, so we're always
giving examiners the best tool that we can give
them.

The actual models themselves are trained
from publicly available measures of similarity.
What this means is there are -- everything the models are trained from is publicly available, it's public information that everybody has access to, so there is no secret sauce in these models, these models are fully explainable and fully transparent, so that the public and the applicant have an excellent view into exactly what the examiner was doing, and how the examiner was running their search to be able to get to their patentability decision. Results are actually shown in the printout of the search history for recordation purposes, and I will be able to show you that in a moment here when we get to the live demo.

So, I am going to go ahead and share my screen, and what you're going to see is a slimmed down version of the examiner's PE2E search. So, you can see over the left here we have our search history, which records for search recordation purposes, and for accountability. We have our search results, which show our results, and then we have a document viewer, which lets the examiner
actually read and understand the document.

So, you can see I've already run a search here. So, I have selected a U.S. document from 2022, and you can actually see that there is a button up here called More Like This Document. And this is our first artificial intelligence tool that is being put into PE2E search, so we wanted to keep it simple, we wanted to keep it straightforward, but just because it is simple and straightforward from an end user perspective, what's going on under the hood is very complicated, we have a very complicated infrastructure, and the models are very powerful, with many measures of accountability put into them. So, I am able to actually hit this button, and you can see in less than a second I get results, and it says More Like This Document, and it lists the documents that I get results for. So, the examiner in the normal searching fashion, are able to browse through these results, and you can see with this particular result, there is actually a Japanese document. You can see that
this Japanese document is published -- is translated into English. You can see the original document here, in Japanese. But we have all of these translated for the examiners, because most examiners are primary English speakers, and therefore we want them to be able to understand the document. But the examiner is able to easily browse for the documents using their normal search techniques, and even, if they want to, perform further More Like This Document actions on that. So, you can see once again I hit the button, and in less than a second I get another result. So, you can see in the search history that there is not much information here on the results. However, if you look at the actual printout of the search history, which I have an example here, you can actually see that we have the actual search queries, and then we specifically note when artificial intelligence is used so that it's clear to the public and clear to the applicant. We list the document, and then we list all the results from the search, so that there is full clarity as
to what the examiner did, and how the examiner went about their search strategy. And with that, it is a short but simple demo, but it is very powerful demo, and we are very excited to have examiners using these and citing references based off of this tool. And with that, I'd be happy to take any questions, but other than that, I will return everything to you, Judge Braden.

JUDGE BRADEN: I think this is just an amazing demonstration you've had so that we can see how much your office has done to help examiners search and wind up with really patents of durability and quality. I'm just curious, how many years did it take for you to put this whole program together?

MR. HORNER: We did start out with a prototype, because, as our CIO has mentioned many times, fail fast. We have found a number of successes through that prototype and we built upon those successes, so it was only a couple years in development. We know the models themselves have been developed over many years, so we are taking
advantage of an outside model provider who was able to provide us with models that have many years of research put into them.

JUDGE BRADEN: Well, it was nothing short of impressive, all I can say is great.

Steve, you wanted to ask some questions earlier?

MR. CALTRIDER: I have several questions now, so I may go in reverse order.

JUDGE BRADEN: That's what I thought.

MR. CALTRIDER: And I'll echo a bit what Judge Braden just shared in terms of the importance of this. One of the ways to a reliable and durable patent right is making sure the best prior art, or the closest prior art, is before the examiner so they can do the very best quality examination possible. And one of my questions, Jonathan -- while you have the floor, then I'll go back to Jerry -- is how do you measure success? How do you know that you're finding art that either wouldn't have been found, or you're finding art more efficiently so the examiner can do their job better? How do you measure success in this?
MR. HORNER: That is an excellent question. We use both qualitative and quantitative measures. We have measures, direct feedback from the examiners where we give them things like we let them give feedback directly to us. But then we also are measuring from the backend, how examiners are using the tool. So, our examiner is citing documents that appear in the office action, where are those documents sourced from, are they sourced from More Like This, are they sourced from their normal searches, so we do track and measure both, you know, examiner feedback and how they feel about the tool, and then the actual measures of, are they using documents in their office actions?

MR. CALTRIDER: Very brief follow-up and I'll turn to one of my colleagues, Dan Brown has a question as well. At what point will you be able to report out those data on those measures?

MR. HORNER: I do not have an answer for that right now, but we will definitely -- I will talk to my leadership and get back to you.
MR. CALTRIDER: Great, great. Dan, you also had a question?

MR. BROWN: I'll make it quick in time, but I'm interested in the process of the searches and search engines would be better matching with, you know, looking at different classes of patents that were identified in the patent. This is, I believe, we're using the sort of better matching of languages in this process, is that correct?

MR. HORNER: Yes, so, everything is done based off of translated documents, both foreign and domestic. So, we look at the application text, we turn that into vectors and things like that, and then we compare, we do mathematical comparisons on the backend. You know, this is where the models come in, and we do this over the 100 million plus documents that are part of our current corpus of documents, and then we find the top documents that are similar.

MR. BROWN: Well, my question as a challenge on that is, how do you account for the difference in meaning from -- used differently in
cultures as well, even within a language?

MR. HORNER: So, that is a very good question. We are working towards doing things in the original language of the actual patent document, so we are working towards that using translation models and things like that. But at this point, we are relying on the English version, so there could be issues, we know that those issues are there, but we do have metrics associated with the models that show how accurate and how successful they are. So, we rely on those measures, and then the feedback from examiners to be able to judge, are these models actually being successful, are we actually getting similar results? We also plan on building direct feedback mechanisms for examiners to give us direct thumbs up, thumbs down type feedback, so that, you know, the examiners can actually tell us, hey, this was a bad translation, this, you know, the content in here does not match the content of my document for X, Y, and Z reason, because when it comes down to it, the examiners are the experts, they are the
ones assessing the patentability of the document,
and they are the ones who understand the documents
most fully.

MR. BROWN: That sounds great. And then
I have one last question, are you comparing these
results to the old system of this better matching
on classes, and have you been able to see a
difference or improvement?

MR. HORNER: We have not seen any
specific improvements, or we have not measured, I
should say, any specific improvements. That is
something that we are targeting for the future,
and future I don't mean next year, I mean within
the next couple months. We are doing a heavy data
dive into the data that we have already collected
to be able to start to report out those sorts of
metrics.

MR. BROWN: Great, one (inaudible)
patent it's always my question, is this going to
be available to the public?

MR. HORNER: We are looking into it, but
I do not have any more information on that topic
at the time.

MR. BROWN: Great, thank you.

MR. HORNER: Absolutely.

SPEAKER: If we have time for one more question, I'm curious whether there's any image component of this, and whether there's any applicability at some point to design patent searching.

MR. HORNER: There is. We specifically only target text with these current models. We do have models coming down the line that rely on images, so we are looking at supporting our design examiners, and our mechanical examiners, and other image searchers, to the best of our ability using future technologies that are coming within the next year or so.

JUDGE BRADEN: That -- everyone who participated into today's presentations, thank you, thank you. And Steve, I think I'll turn the program today back to you, unless there are other questions. We've got more people that want to share what they've been doing.
MR. CALTRIDER: No, I don't know if we've seen some other questions, we may need to follow up on those questions offline for the sake of time so we get our second agenda item, but thank you, that was very, very informative, and I know I still have a couple more questions that I'll also provide offline as well. So, we will follow up and report out with the questions that we've received in the chat, from the public (inaudible). Thank you. Okay, let's move now to the next agenda topic, the Council for Inclusive Innovation and Diversity Equity Inclusion Accessibility subcommittee. I won't make any additional opening comments, other than to say that this is another very important topic, and I want to have as much time as possible for discussions. Dan, I believe as chair you were going to lead the discussion, is that correct?

MR. BROWN: Yep, I'm prepared. Valencia is going to carry the water. But I just wanted to introduce myself again, Dan Brown, I'm the chair, and working with Susanna Harrison, vice chair.
We're probably, I think, the members that have been really the most engaged with the new directions efforts, primarily because I've spent a lot of time, and Susanne has also, in working with and reaching out to the inventor stakeholders, and I guess to make a long story short, wish I could here, is that I'm very honored to have been involved in this, and I see an empathy for the small inventor community, and our particular needs is at the forefront, and really was a big part of, I think, directions post efforts, and getting our feet on the ground about this, and so what has been a number of listening sessions, and we work very hard to reach out to get to many different stakeholders involved in it, and there's a lot of feedback that the office is in the midst of processing right now, and I'm looking forward to real (inaudible), real efforts in proving our circumstances in the plight of the small inventor community.

With that, with the innovation expansion committee was what we started with, but this is
what I'm working into (phonetic) from new efforts, take to this committee in more focused areas, and today we're going to talk about the CI2, but also there's the efforts that we've worked on in primary broadening, expansion of innovation, the diversity equity inclusion, and obviously the CI2 initiative. Today, Valencia will be speaking on what's happening with CI2, but I just, suffice it to say, there's a lot of efforts going on, and rather than moving, I think we're bringing more focus in this particular area. And then I finally want to thank you Director for engaging me in this process, I feel like we're off under a very strong pathway to improving the inventors of the day (phonetic). Valencia?

MS. MARTIN WALLACE: Okay, thanks Dan. Can we have my slides come up? Great, thank you. So, thank you Dan for those words and all of the support that we've received. It makes a huge difference. So, today I am very excited to talk to you about the progress we've made and give you some updates on inclusive innovation here at the
USPTO, and I will start with talking about updates for the Council for Inclusive Innovation, and if we go to the next slide I think -- I'm sorry, go back one, you're -- yes.

So, just to give you a reminder that the Council for Inclusive Innovation, which Secretary of Commerce Gina Raimondo and USPTO Director Vidal, chair and vice chair respectively, we are working to unlock the potential of every American, especially to tap into the communities traditionally underrepresented in an innovation ecosystem. And while we are still working on the national strategy for expanding innovation, Director Vidal recently announced a number of initiatives inspired by the work the USPTO is doing, along with the Council and the working group members, in developing the strategy.

Go to the next slide. At the end of July, Director Vidal published a blog providing updates on the work of CI2, and here is the photos that went with that blog. We had been hard at work on new initiatives bolstering participation
in innovation, including invention,
entrepreneurship, and creativity. In the blog,
Director Vidal launched a first set of initiatives
to encourage, empower, and support innovators of
tomorrow. And the initiatives I am discussing
today with you are just a few of the initiatives.
We will be launching more initiatives as part of
the CI2 mission, and we are looking forward to the
time when we will be able to announce those as
well.

But for now, okay go to the next slide
and I can start talking about some of these. The
first being our innovation internship, which I'm
really proud to say we put out a vacancy
announcement out for, so the initiative is newly
established paid innovation internships at our
agency that will allow hands-on job training to
community college and university students. And
the internship was designed to target the gaps in
inequalities associated with students from
underrepresented and underserved communities,
allowing access to compete for paid internships in
their respective fields of study. It will be a remote work program allowing students who are unable to move near a regional office to still be able to participate in this program. It's designed to provide the real-world experience not only in patents and in trademarks, but across all of IP and the innovation arena.

And I'm very excited to say that the vacancy announcement posted on USAJOBS a little over a week ago, and since then has closed because we had, within the first week, 542 applicants. We are now in the selection process, and we are expecting to onboard the first cohort of interns this fall, and I think, you know, that that number in just a week validates why these paid internship programs across all of innovation are very needed.

We can move on to the next slide. I'll talk about a first-time filer expedited examination petition, and USPTO receives about 40,000 patent applications each year, that means at least 1 inventor who is a first-time filer. For first-time micro-entity filer speeding up the
time to secure a patent can accelerate their
ability to bring their ideas to impact, to begin
companies, to secure investment, and create jobs.
So, we are here to support their journeys.

Director Vidal announced this new
fast-track program that will provide expedited
examination and early indication of patentability
for first-time micro-entity filers. This program
will include additional support for filers such as
and including a basic patent training as a
prerequisite to participation in the program.

Please look out for our federal register notice on
this program that will be coming out soon. We
will expect it to launch in early fall, and it's
just added to let you know that this program is
open to any filer meeting the requirements, even
those who have already been put into the system,
will be qualified to participate. And this
program supplements the USPTO's other expedited
examination programs, which include supporting
COVID, cancer immunotherapy, and green technology,
and I encourage everyone to go on to our website
and take a look at the different expedited petitions that we have, and get more information about them.

And if we can move on to the next slide.

Next is our free legal services, and by expanding access to free legal services, we are assisting more under-resourced innovators, and protecting their ideas, and bringing them to market. The USPTO is expanding both its law school clinic certification programs, as well as its support of regional patent pro bono programs. And expanding our program to more law schools and students means increasing opportunities for more innovators to receive that important pro bono services, helping them bring their ideas to reality.

And we're very excited to welcome four new law schools into the program. We now also have George Mason University, Case Western University, Wake Forest University, and Brigham Young University as part of our law school certification programs. We also support 21 pro bono regions across the country as part of the
USPTO's patent pro bono program, and we're working with participating regional patent pro bono programs on plans to expand their work, including infusing more funding into their programs to help even more innovators. And by expanding pro bono practitioners, we support more Americans, including more veterans, and those having a lower socioeconomic status, those outside of our technology hubs, and those who traditionally just have not had the access to this innovation ecosystem.

And we are very encouraged by our latest statistics where we see approximately 13 percent of named inventors on U.S. patent being women. We see in this pro bono program 41 percent of applications are women. This based on the survey in our 2021 that we've done, identifying these women, as well as seeing in addition 30 percent identified as African-American, 14 percent as Hispanic, 5.6 percent as Asian-American or Pacific Islander, and 1.5 percent as Native American, showing that the innovators are out
there and we have to reach them.

Go to the next slide. So, our next, community outreach. The USPTO employees delivering community-based education and awareness programs, educating their local communities across the country on the importance of IP and innovation. We are affectionately referring to this program as our IP champions, working across the country, leveraging a diverse and widespread workforce across the United States that have them going into their local communities. We are working with local community organizations with programs at the K through 12 levels to begin this program, and we are looking that later in this calendar year we will be standing that program up as well.

If we go to the next slide. I know I only have a few minutes left, so I'll try and go a little quicker. So, I'd like to talk about some of the initiatives outside of CI2 that the USPTO is also participating in. First, I want to just say how excited we are about the inclusive
innovation page that has been created. And I really -- I would recommend that everyone go on and see where the office has this wealth of resources and information for inventors and entrepreneurs on this website, where they can go to find information on how to start with any IP system, how to apply for patents and trademarks, and how to get help, and much, much more.

Go on to the next. And today, we have an Office of Education program for young inventors, creators, and aspiring entrepreneurs. It is on our headquarters in Alexandria, one to four o'clock today. We have attendees participating online, and it is including inspiring students to code, interactive workshops, K-12 resources, young inventor roundtable that our Deputy Director Brent will be participating in, and we're looking forward to being able to give more information about how well that program went today.

Go on to the next slide. So, we're also having our invention count, so the Office of
Innovation outreach is hosting this Wednesday through Friday, 10 through 12, just to talk about a few of the agenda items for this three-day program. It's learning about advantages of protecting your IP, it's about learning about USPTO's pro bono program, conducting prior art searches, and filing trademarks with provisional patent applications, how small business owners are partnering with USPTO to ensure long-term success, how to pitch business ideas to potential inventors, how to obtain access to capital and other financial assistance, how to combat piracy and counterfeits, and much, much more. Very exciting three-day program, it's always been very successful. It is virtual, so we can have anyone across the nation, whether they can get on headquarters or not, be able to participate.

Okay, go on to the next. So, we also have a USPTO symposium that's happening August 26, the Chief Economist at the USPTO, Andy Toole, is hosting this. It is on advancing research on inventor demographics. It will focus on the
current research on inventor demographics from a number of leading scholars in the field, and looking to identify a community of practitioners building on common approaches in the area of inventor demographics. This, once again, will be virtual, and you can go on to our webpage and sign up to participate in the symposium as well.

We can move on to the next. We have some information on recent study from the Office of the Chief Economist, closing the gender gap, which goes on to speak on the use of a Pro Se Art Unit and the Pro Se Assistance Center, and how beneficial it is to have these programs, reaching out, working with pro se inventors and applicants, in order to promote, train, educate, and have them successfully moving through the patent system.

Then we can go on to the next, you can go over to one more. Now, I've gone through a lot of programs today, a lot of resources, so here is the page for everyone to go on to be able to go directly to some of the resources, some of the information that I've discussed with you today.
If you would like to learn more about all that we're doing, if you would like to learn more about how to partner with us and work on this effort. So, I will go on to the next, because I think we're just at two o'clock, so apologize for not being able to go a little bit quicker, but happy to take any questions, or if any questions come up after this, happy to follow up.

MR. BROWN: Because of time, I don't see a lot of questions here, just a couple good jobs, I feel grateful that you've really presented a lot of stuff there. So, I'll be sure if any questions come up -- anytime, anybody can reach out to any member of the PPAC or myself, if it's something related, or me particularly (inaudible) small inventors. Few things I'd like to say on the other (inaudible) this education for its new programs, (inaudible) particularly at the universities, and then finally looking at the life of, the durability and the reliability and the (inaudible) of an event that's having all this is dependent on the thought that we raise the level
of certainty that, once a patent is issued to an
inventor, that they have the ability to protect it
and move forward in the market as the (inaudible).
So, thank you Valencia, and I am looking forward
to taking all of these programs to the next level,
so, I appreciate it.

MR. CALTRIDER: Thank you, Dan. Thank
you, Valencia. That was a great presentation.
Note to myself that we'll make sure we allocate a
bit more time when we revisit the issues, because
I had a few questions that we'll just need to take
up next time. We've reached the end of our hour,
I want to thank the PPAC, and thanks everyone, the
office and staff, everyone who joined us today,
and I look forward to seeing you next month.

JUDGE BRADEN: Thank you all.

MR. CALTRIDER: Thanks, everyone.

(Whereupon, at 2:02 p.m., the
PROCEEDINGS were adjourned.)

* * * * *
CERTIFICATE OF NOTARY PUBLIC

COMMONWEALTH OF VIRGINIA

I, Mark Mahoney, 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.

(Signature and Seal on File)

Notary Public, in and for the Commonwealth of Virginia

My Commission Expires: August 31, 2025

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