COMMODITY FUTURES TRADING COMMISSION

TECHNOLOGY ADVISORY COMMITTEE MEETING

Thursday, April 28. 2005

1:00 p.m.

First Floor Hearing Room
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A G E N D A

P R O C E E D I N G S

WELCOMING REMARKS

CHAIRMAN BROWN-HRUSKA: Okay. Testing okay? It seems to be--sometimes it's working and sometimes it's not. Can you hear me? Let's see if it works. Okay.

Good afternoon, and welcome to this meeting of the CFTC's Technology Advisory Committee. I'm Sharon Brown-Hruska, and I'm Acting Chairman of the CFTC and Chairman of this committee.

As most of you know, this committee was established to advise the Commission on the impact and implications of technological innovation in the financial services and commodities markets.

Well, I'm very excited about our agenda this afternoon. The theme is intellectual property, and it's really my hope that the remarks of the magnificent presenters that we have today will facilitate further discussion on the issues concerning IP that could have an impact on the futures industry.

I'm very pleased that John W. Dudas, Under Secretary of Commerce for Intellectual Property, and Director of the U.S. Patent & Trademark Office, will be here later this afternoon to give a speech entitled "A View from the Patent Office." I'm especially grateful to Under Secretary Dudas for agreeing to speak this afternoon, despite the fact that he's scheduled to testify before Congress today at noon, so I imagine that's what he's busy doing right now.

And also, you know, we have--it's my hope that our industry will take steps to develop a resource center for prior art in the patents area, and I also want to hear from the industry about what role the CFTC should play in this area.

That's why we have advisory committees, to provide advice and counsel to us as an agency.

Towards that end, I'm also pleased to note that our first speaker will be John Love, who is Director of Technology in the Patent Office, and his presentation is entitled "What is Prior Art in Today's Environment?", which is--I especially like

it that I had this kind of topic in mind, and I really appreciate it, John, that you actually were prepared to our specifications in bringing this message to us so that we can learn. And the CFTC really wants to facilitate knowledge and awareness in this area, and to try to find a way again to be efficient in our understanding of how patents are changing our marketplace.

I will also note that I'm speaking--of course, it wouldn't be a technology advisory committee meeting if I weren't having trouble with my technology. And, in fact, all of our table mikes, which we had checked, you know, yesterday, last night, late, and this morning, which worked fine, for some reason when we go to snap them on--I guess a couple of hours ago--we find that they're not working.

So we had to go back to I guess this is probably, you know, Lotus 1, 2, 3 or, you know, Fortran technology.

Anyway, well, so what we'll have to do is we're going to have to use lapel and wireless

microphones, and this what I'm holding is a wireless microphone. The reason--that's the reason, you know, but that's why we really need you, so we can continue to study technology and advance in the process.

And I would mention also that we do have some committee members who are participating by teleconference. And those who are doing so please make sure that your telephones are muted when you need to speak, because any noise that you make will be picked up in the meeting.

The committee members I have are Ron Hersch, from Bear Stearns, John Foyle, from Euronext.liffe, a very technology savvy exchange, Brett Paulson, from The Clearing Corporation--again very much moving in the positive technology space, Jack Gaine, Managed Funds Association, and Pat Gambaro, from the New York Board of Trade, who has really paved the way for that organization.

So let me just pass it over to my fellow commissioners for their opening remarks, and I thank all of them for coming and especially thank Walt

who's been very interested in this area and has provided some assistance as we put this together, and I appreciate that very much. Walt?

OPENING REMARKS BY COMMISSIONER WALTER LUKKEN

MR. LUKKEN: Thank you, and welcome to everyone here today. I want to thank our Chairman for putting this session together. This is subject matter that I think is very important for our industry, something I personally thought about and spoken on in the past.

I'm not going to give formal remarks here, but this is something that, as an agency, we need to figure out what indirect role we might have in the patent process, and I'm certainly glad that the Patent & Trademark Office is here today to speak on several levels, and welcome John Love and Director Dudas when he arrives here later on.

But I think the primary role for our agency is to serve as a liaison on educating not only the industry, but our own attorneys here so that we're able to handle intellectual property issues the best we can and facilitate that intellectual property,

when it's granted to certain property holders, that it's a valid patent, it's not questionable, it's not vague.

So I'm interested in hearing all the comments and what things we need to be looking at and how as an agency we can serve as this liaison to the industry.

So thank you for coming, and I'll pass it to our--my fellow commissioner, Fred Hatfield.

OPENING REMARKS BY COMMISSIONER FRED HATFIELD

MR. HATFIELD: Madam Chairman, I want to thank you for calling and organizing this meeting and all of you around the table for taking time out of your busy schedules to participate.

Innovation has been in the forefront of the futures markets, and has touched every aspect of the business in recent years, from contract development to methods of trading and the organizational structure of exchanges. With technology becoming such a driving force in the financial services industry in general. As demonstrated by the announcement last week of the merger between the New

York Stock Exchange and Archipelago--the issues on today's agenda will become more important for market participants and regulators to understand, so I look forward greatly to the discussion today, and I thank you again for all being here.

I pass it to my commissioner on the left, geographically, if not politically, Commissioner Dunn.

OPENING REMARKS BY COMMISSIONER MICHAEL DUNN

MR. DUNN: Thank you for that distinction. I am extremely pleased to be here this afternoon to take part with this advisory group, and I welcome the members of the Technology Advisory Committee. I want to thank them for their work advising the Commission on this most important matter. Issues of market surveillance and intellectual property have been very much in the forefront recently, and today's agenda provides a snapshot of some of the more challenging topics facing the futures industry.

I am looking forward to the presentation of our panelists, and to hear from our advisory committee regarding their perspectives on this

matter. I am told by the Chair that you are not a bashful group, and I am sure we'll be hearing from you in-depth. Lastly, I would like to thank our Acting Chairman Brown-Hruska for putting together this very timely agenda. Thank you.

CHAIRMAN BROWN-HRUSKA: So I'll just remind everyone after John gives his discussion, we will-- and then if you want to ask a question, we'll have to ensure that you have one of these mikes in your hands. I think there's going to be one on that side of the table and one on this side of the table, and we'll just have to make do with this technology.

John, I'll turn it over to you, and again thank you so much for coming. We're just delighted to have you.

WHAT IS PRIOR ART IN TODAY'S ENVIRONMENT?

MR. LOVE: I'll test to see if this technology works here. Can you hear me? Thank you. Thank you, Sharon, for that introduction, and welcome. I appreciate it.

It's a pleasure for me to be here today to give a face to the Patent & Trademark Office for all

of you and give you some information on how we operate and what we're doing currently at the Patent & Trademark Office, and I'm sure Under Secretary Dudas will have some very interesting information for you on where we're going and what we've been doing recently to help carry out our mission and issue valid patents in a timely fashion.

To get going, I'd like you to--I passed out a handout here that has on the top of it "patent laws." Just to show you that the IRS has nothing on the PTO. We have a little rivalry as to the number of regulations and the wording that we can put together in our statutes.

Section 101 describes--some of you may have heard, and I heard some conversation about patentable subject matter--what's patentable; should business methods be patentable? The section that deals with that is very short. As you can see, Section 101, Inventions Patentable. And it's very broad, and, of course, it has been interpreted by courts over the years. And pretty much we're at the point where the Supreme Court has said that anything

under the sun that was made by man is patentable, except for abstract ideas, laws of nature, and naturally occurring matters.

Now, having said that, we are led to Section 102, and the really--a basic fundamental truth I guess that we have to live by at the PTO is the first sentence there, and that is a person shall be granted a patent unless. It's not that they have to prove that they're worthy of it or that they have to meet some test of patentability. It's you, an inventor, shall be granted unless any of the following conditions apply.

And it was really--we're up through A through F; G now. We keep adding to those, but the answer to what is prior art today is basically anything that can be used by the Patent Office or the examiners to negate, if you will, a patentee or an applicant to a patent under Section 102. So if we can get the slides up on the--technology. It's not up yet. They were going. Okay. Here we go.

So rather than--you know, it takes a law course to go through--three credit hours of a

semester to get into the details of what 102 means, but I've tried to summarize it for you. Basically, what we commonly use to negate patentability are issued patents, published applications, published articles, or published information.

Now, that's pretty traditional. We know what that is. It's kind of--something you can put your hands on. You can look at, and you can read.

Another condition of patentability, though, which is considered to be prior art, is a public knowledge or use in the United States by others. So if the office or a defendant in a infringement suit can establish that the invention was either publicly known or in use in the United States, and it doesn't limit it to the United States, then that could be a condition upon which patentability can be negated.

A third issue is on-sale or in public use in the United States more than one year prior to the date of the application. Any invention or material or any article that was in public use or on-sale more than one year is what we call a statutory bar and that, no matter what happens, if it's more than

a year before the filing date of the application, that's a statutory bar and that invention or material is forever dedicated to the public.

Then we have under Section 103, if you'll just turn the page there. This talks about non-obvious subject matter. And, of course, this is a section that makes many attorneys wealthy in arguments about whether or not the invention is obvious over the prior art. And that is obvious variations of the materials in Section 102 that can be used, an obvious variation of that. In other words, something that is not--that only differs by what we call to subject matter that would be obvious to one with ordinary skill in the art. If that's the case, then we can also use that as a basis to refuse to grant a patent. So anything that qualifies under 102 and, in addition, this obvious standard under 103 is the two main statutory provisions that deal with whether or not we should grant a patent.

Now, there's another section called the 112, which has to do with the patent has to be--the

invention adequately disclosed so that one with ordinary skill in the art could make or use the invention. And there are some issues about that, but typically the idea behind the patent, of course, is that the public gets the benefit of the public disclosure of the technology, and the inventor gets the ability to exclude others from making, using, or selling the invention. And the important part of that is the public disclosure of the invention in full and concise terms so that we have an idea of what the invention really is.

An overriding principle of anything in 102 is that it has to be publicly accessible, and again here's a summary of the types of documents or activities or information that we could use under 102. I'll go into each one of these a little bit more in detail.

Pictures and drawings, although not normally used, they can, in fact--a picture in a newspaper, in a magazine--or drawings even in Popular Mechanics, things of that nature, can be used, but they're very limited because typically

they don't come with a text. So pictures can only be used for what they explicitly show. A picture of a complicated machine, for example, wouldn't be of any value for anything that was hidden or that was deep inside the mechanism. So the picture wouldn't be of very much value, and the drawings also can only be used to--for what they explicitly or would suggest to one with ordinary skill in the art.

Now, up until recently, the vast majority of materials that examiners would use in examining an application under 102 and 103 would be the patents--U.S. and foreign patents. And, of course, we've issued--now, we're up to over six million patents. We used to have these all in paper form at the PTO. We would go through them by hand, and that would, you know, a very laborious process. We'd have the foreign patents. We'd do the same thing. And, of course, over the last several years, we have automated all this information. We've put it on searchable databases and the examiners now pretty much work from a desktop and do all their searching electronically, and it's text searchable also, so.

But up--even now, in many technologies the major source of the prior art for us is to go through what we've issued in the past and what we can take from those patents and--is not only what and this is sometime a misconception--we can use those patents for not only the claimed invention in the patent, but we can use it for whatever it discloses in that patent application.

For example, it could be non-claimed subject matter that's in the specification. It could be what we call non-preferred embodiment. Sometimes the inventor will say, well, I've tried this, and it's not as good as this other way of doing it because you get these drawbacks. Well, what they described is not so good. It's still a prior art. It's disclosed. It's workable. It's just not the preferred embodiment. So that, in addition to the disclosed examples, the subject matter that sometimes is incorporated by reference into a patent, and the patent will say I refer to this publication or this document, and we can go into that reference document and use the material

there. And again, we have this proviso that we can also use obvious variations of what's disclosed in these U.S. and foreign patents.

Now, I say traditionally because we're in a new age now, in the information age. We have given the examiners access to the Internet, to search engines, and now we're--the database is virtually world-wide, and that's the challenge we have now at the PTO. We're no longer going into our rooms and going through these documents by hand. We have the Internet. We have the--we have all the resources. We have commercial databases that we search, and in my area particularly, the business methods area, when State Street came out in the late '90s, up until then, many people had thought that business methods were not patentable subject matter under 101. So there was a very small amount of patent literature dealing with these issues. The people that we had hired to do examination were electrical, chemical, and mechanical engineers. They weren't economists or financial people or anything along that line--and they didn't have MBAs. Okay. So

we’re immediately hit with a problem. Now, all these applications are coming in the door--the trading techniques, the finance techniques, banking--things of this nature.

We really have a little information gap here. We have a little problem.

So we tried to as soon as possible gear up the people with the backgrounds, but the majority of examiners, though, we had to develop guides for them to go into what we call non-patent literature core databases--and also databases that related to the specific industry that they were examining patent applications in. So right away, we weren't--the amount of information available in patents was really scarce, and we were forced then to seek information in these other areas--commercial databases, non-patent literature, the Internet, and just hire people and get people with the backgrounds in these areas that we needed.

Another major change--a major, major change in the patent laws occurred in 1999. That's when the law provided for publishing of U.S. applications

while they were still pending. Up until then, pending applications were secret, were held in secrecy, and if, for example, the application went abandoned, it would never see the light of day. It would be stored in some warehouse, and that would be the end of it. In other words, hopefully, it would never see the light of day. But in the--try to get a little bit more in line with the other major patent systems of the world, we do publish their applications before they're granted.

The--what's called the American Inventors Protected Act provided for publishing U.S. patent applications while they're still pending, and that's after months of the date that they're filed.

So now, these are all electronically available and text searchable by the examiner. So this is a very significant and growing database, particularly for the business methods area because we did experience quite a spike in the late 1990s after the State Street decision of pending applications. And now, of course, we have to wait 'til we get cases that are young enough that we can

use these for their dates, but eventually this will be a very, very fruitful source of data that our examiners can search, too, when they're doing their examination.

And foreign patent applications that have been published, and foreign patents also like the U.S. application and depending on the laws of the different countries when they're published, they can be available as of their published date just like any other publication for what they disclosed.

The--now in our area, this was also very important. What a printed publication other than a patent or a patent document, it can be prior art. Now, this--a printed publication can be basically any--it can be a manual. It can be a sales brochure. It can be a warranty information on a product, newspaper articles, Popular Science, journals--you name it. Anything that is public--is printed and is accessible--the key is that it's accessible to the public. And that it--and, of course, we have to make the electronic analogy. Now, we're also dealing with, you know, what is in

the modern day and age, what is this term printed publication. What does that mean in terms of the electronic age? And we'll get to that in a little while. But prior to the electronic age, if you will, one of the cases that came up was a doctoral thesis that was done in a college, and there was one copy of it, and it was put on a shelf in the library, but it was catalogued and identified and retrievable, and I don't know who found that, but somebody did and used it as a basis to invalidate a patent. The court held that that was, in fact, a printed publication because it was accessible, it was catalogued, and it could be retrieved by a member of the public. So that's probably, you know, the extreme, the poster child for the extreme case in what a printed publication can be.

Another common example that would come up is--at a seminar o a conference, scientists and engineers would present a paper and would have copies of their paper or their research, and, you know, leave it on their--or pass it around. And if you did that and didn't put any restriction on the

use or further dissemination of that information, that has been held several times to be, in fact, a publication within 102, a printed publication, so that could be used as a material under Section 102.

Now, this is a double-edged sword, and it depends I guess what your perspective is. If you're a potential inventor and you don't want something to be available against you as a 102--let's say you go out and you eventually want to get a patent on it. You'd better make sure that you don't disclose this or make it available under 102, and if you do, you'd better file within that year, because that's the statutory bar. If you don't--once your invention has become public or on-sale or in use, the clock starts running. And you'd better get to the Patent Office within a year or you're going to lose your rights, period. There's no salvation there.

But the other side of the coin is--and I hear this a lot from industries, such as your own, and they said well somebody is getting a patent on a technique that we've been using for five or 10 years. Everybody knows about that in our industry,

and, you know, it's in this training manual for our people, and it's the dah, dah, dah, dah, dah, dah.

Well, the other edge of the sword is if you want that to be available to us or someone else to use as prior art, then you want to make sure it is a printed publication for purposes of 102. And, in fact, I don't know if many of you know, but IBM, at least in the '80s, they used to publish what they call the public disclosure document. They would every month round up all these inventions that they didn't want to file on, and they would publish them. They would publish them. And, you know, send them off to libraries and so forth, and the purpose of that was so that this--it was now a printed publication the examiners and the PTO and other people could use as evidence that these--that this technology was known by others and so it could negate--that's why it's a double-edged sword. If it's your own and you want to get a patent on it eventually, don't--make sure you don't publish it until you get to where you want to file. But if you have information that you want out there to stop

others from patenting the same thing, then you want to make sure it is printed, that it is accessible, it's catalogued, and it's available, because once that's out there for a year, then you're pretty safe, you know, in the future.

And that's why IBM--some of these documents, they were internal, but rather than--they wanted them to be considered prior, so they just published it. They got to say, hey, you know, let's get this out to the public. We don't want people getting patents on these things and coming back and trying to enforce them against us.

Again, this is another--if you--a little quirk here. If you give information to the government agencies and there's some requirement of confidentiality, that may not be pub--turn it into a publication, but if you distribute it to commercial companies without restrictions on use, then that does become printed publications.

CHAIRMAN BROWN-HRUSKA: Can I interrupt you a bit?

MR. LOVE: Yeah.

CHAIRMAN BROWN-HRUSKA: What if the--this is sort of a legal question, but what if the information is FOIAble? In other words, if--we have a vast amount of information--applications on contracts and market methods and methodologies, if it's not protected under the laws that would normally make it confidential, in other words, you can request that information through the legal process, would that sort of help bypass that point that you just made, that it's--the government--submitted to government is not prior art?

MR. LOVE: Yes. I don't know of a case that dealt particularly with the issue of, you know, what the effect the FOIAble nature of it is, but my guess is that yes, that would tend to indicate that it is available to the public and would be a publication.

We have one slide here, and, in fact, many of you are probably involved in this: submissions to the SEC--what they call their EDGAR database. We do go--our examiners do go in and search that for information. Yeah.

A magazine or a flyer or anything that is distributed by mail, the date that's at least one member of the public receives it is the date of the publication.

Again, this goes to the applicant's own work. If--now, if it's more than one year prior to when the applicant files the application, then it's prior art to everybody. It's prior art to the world, and it's prior art to the applicant. If it's within--if you file and you're an inventor and even though you've disclosed it or put it on sale, if you get into the PTO within 12 months of your disclosure, you're safe. But it still can be used against others during that one-year period.

This is another form of prior art, and it does happen. Many times when an applicant files a patent application, they will set forth the environment of their invention, and they will describe what the state of the art was when the invention was made and what their contribution was so that we can use the statements that they make during the prosecution of an application and

statements in the specification. We can hold that as to be prior art against the applicants.

Many times they will refer to applicants, and the specification will say figures one and two represent the prior art, and my invention--it will be like a fuel injector, for example, and they'll say, now, my invention is I've got this really nice hard valve seat that doesn't wear out, and it's made of tungsten. Now, how many--do I have any patent attorneys in the audience?

[Show of hands.]

MR. LOVE: Okay. Oh, oh. Well, I'll say this anyway. In spite of indicating these prior art drawings as prior art, they will I guess just by accident draw claims that happen to read on a prior art. But that doesn't happen too often. But if they do that, then we can--we will reject the claims based on their admission that figures one and two constitute prior art.

And then there's a third way an applicant can admit something as prior art, and that's by the type of claim that they chose. We call it a Jepson

type claim. It's a formal matter of the claim. It typically starts out by--and for those of you--I guess many of you don't want a claim is then. The claims, of course, are at the end of a patent. And they're--the claims legally define the scope of the invention. And the last--and it literally starts with "I claim." And then you'll have claims--you can have as many as you want basically. But typically, 10 to 20 to 30 claims in a patent application, and they will say, I claim. And that's where all these analysis and you know whether or not it's obvious, or whether it's novel. That's where all, you know, the discussion centers around. But one way you can claim an invention is to say in this following environment or the car, gasoline engine, transmission, the improvement comprising and then they use that word, "the improvement comprising." So anything above that statement is taken as admitted prior--it was a presumption that it's prior art. It can be overcome. And then what follows is the improvement. So, for that reason I think it's

not used too frequently, but it is provided for in our rules of procedure.

I mentioned these submissions to other government agencies that are made public, and I presume that can be FOIA--or that are FOIAble. That's a good question. I think I'll look into that.

If it's available to the public or made available to the public can be used as prior art under Section 102.

MR. ROSEN: John, can I just ask a question about that. There is a difference between information that has been submitted to the Commission in connection with an application and materials, for example, on EDGAR at the SEC in the sense that you can go online and access immediately the information that's published in the EDGAR database. You have immediate access to it.

MR. LOVE: Right.

MR. ROSEN: If you want to get the materials that I think Sharon is adverting to that are not restricted by confidentiality protections,

you actually--you have to know or suspect that materials that are germane to your interest exist at the Commission and request them either specifically or with a broad enough inquiry that they would be captured, and then in response to that request, if the Commission determines that they are not protected by confidentiality, they're then released. Would that affect your analysis?

MR. LOVE: I think so, because that sounds like a fishing expedition. And part of this accessibility is that we talked about the doctoral. It's catalogued. You know it's there. It's easily accessible to one in the art to which it pertains. So if it's--yes. If it's hidden in the material, and you have to have some sort of clue or something to ask for, and that wouldn't be available to the general public, I would--yes, that would certainly mitigate then that it's not a printed publication.

The public use--it's pretty much, you know, it's--you know it or--it either is or it isn't. There's an exception to the public use doctrine which is called the experimental use exception. If

an inventor is trying to perfect the invention and in order to do that needs to get it out there in the public use or try to perfect it, that's recognized judicial exception. But once it's perfected and ready to go then the clock starts ticking with respect to the inventor.

With respect to a sale, what's important to note that is--it doesn't have to be physically reduced to practice. If you--if someone has invented a new pump, and it's described in brochures and drawings and you just haven't built the commercial embodiment of it, if you go out there and even offer to sell it, if it's a completed conceptually finished, then that could be considered to be a sale within Section 102 of the statute. So it doesn't have to be a physically embodied end result.

And as I spoke a little about earlier, typically we use, you know, in the past hard copies of patents and publications. Now, we're going into NPL, the Web, Googles, all--you know, we have to expand on our searching techniques.

I better hurry up here. This is--I mentioned earlier, this--one of the difficulties in the business methods area--and certainly that would include exchanges and methods of trading is but people tell us, well, you know, that's common practice. That's the, you know, that's been done in this industry for years, and the problem is that it's the know-how and the tricks of the trade sort of thing, but going back to the statute. We have to grant a patent unless we can document that they're not entitled to it. So we need hard evidence. And that's why we ask, you know, when we have partnership meetings with different industries, we ask them do you have some databases that we could have access to. Do you have some really basic reference materials that will be useful for us, that our examiners could search, because we do want to--it's in everybody's interest that the best prior art be located and found and discussed while the patent is pending, while the application is pending.

So we really want to find out what these techniques and what these--the common knowledge is

in an industry. It's just that it's hard to get it dated and documented.

But we do go to the net. We--one of the things that we, in our--the electronic shopping, of course, is, you know, E-bay and that's hundreds of patents over electronic auctions. And one of the things that our examiners do regularly is go back to what we call the way back machine, which I didn't even know existed until I got to this. It sounds like some futuristic--but it's a web site where you can go back and look up what web sites used to look like. So we can go back and search through the way back or if we get a copy of a web site that, you know, doesn't exist anymore. Okay. It was a version in 2001, but now they've gotten three updates and nobody knows what the first one looked like, and it may have a feature that we're interested in or that somebody is trying to get a patent on.

So we can go back there and take a look at it and get a date as to when it was actually up on the net.

And it's the same concept. Now, we're really throwing out, you know, printed doesn't mean physically--a printing press or whatever. Now, it's just--the key is that--was it at one time existing in either electronic format, a stable format, in a database or on the Internet and was it accessible--widely disseminated or was it accessible to persons to that art to which it pertained so that they would reasonably be able to find it. And that's basically--you know, the analogy--it doesn't matter if it's, like I said, whether it's from a printing press or whatever--it's--that's the key. Is it information that existed in a temporal time period and was accessible to the public.

And that's basically what this next slide is saying.

And again, anything that's posted on the net, it's the date that it was put up there and made available or in a database on--you know, there's a lot of databases in the--as you know, on the Internet, and all those--assuming it's categorized

and accessible and any of that information in the databases can be used.

I mentioned the web sites.

Software products. Of course, for many years, software wasn't even patentable subject matter, but the law evolved there that a program or software that is embodied in a physical medium, like a CD or whatever, as long as that program would give you--would meet the State Street test--so I won't bore you with the legal tests, but, we now--you can get a patent on a software program that is physically embodied in the storage medium.

And conversely, then it's fair to use that as prior art against these applications, and the date that you can use these are would be when it's first installed or released.

So in conclusion, although each one of these things are 10 or 12 major court decisions around the subtleties of whether or not it's a printed publication or not, but I've tried to give you an overview. It's basically anything that qualifies as evidence to use against an applicant

under 102 in terms of negating patentability. Accessibility or dissemination is a key factor when you're talking about a printed publication. When you're talking about a knowledge or use or on-sale, it could be a single event. And it doesn't even have to be--I forgot to mention one of my favorite examples. Someone had invented an improved bearing, and to try it out they put it in an engine, in a car, and sold it. Of course, you couldn't see the bearing, but that was--tried to get a patent on it two years later, and they said, no that was public use. Nobody could see it. You couldn't--but, you know, it was out there in that car, and it was being used.

So that's--and that's depending on what type of prior art you're talking about a single instance in a not so public environment can be considered to a bar to the patentability. And the third point is the electronic information now. All this is also available prior art. Our examiners are searching it. We have to be more diligent in identifying and exploring new databases, places to

search for these materials. And we welcome--we have, by the way, on our--we have a web site on our--in the business methods area, and on the PTO web site, and we have identified the core databases and also the auxiliary databases that we search, and, you know, I'd ask you to look at that or have your counsel--patent counsel--look at that and if you know of any other areas that you think we should be putting down there--journals, publications. Give me an e-mail. We'll look into it. We'll put it on our mandatory search list, and we'd be--because we--like I said, the most important thing in our perspective is to get--identify the best prior art, and that's in everybody's interest. It's in the interest of the public. It's in the interest of the Patent Office, and the interest of the patentee that they get a patent that's solid, and that they can rely upon. So that's what all our efforts are geared to.

Having said that, I thank you very much, and I hope I've given you some useful information.

MR. DUNN: John, just as a perspective, how many requests for patents do you get annually and what percentage are granted?

MR. LOVE: Globally, the office gets 370,000. Intellectual property is alive and well. And typically, we grant about 150,000. In the business methods area, we are--after the State Street decision, we--well, prior to that, we were getting about 2,000. We spiked to around 9,000. And now, we're leveling off at about 8,000 in the business method area, and we grant about 500 a year.

CHAIRMAN BROWN-HRUSKA: Let me just ask the question that's on my mind, and if one were going to try to create one of these databases, as I said, we have a lot of information. For example, over the years, many applications have come in for new contracts, new ways of doing business where they needed regulatory approval, and so, but a lot of this is probably not in the right format or the right, you know, in terms of--a lot of it is up on the Web, and we have a significant--I don't know when we first established our web site, but it has

become a very important way for us to communicate what we do and what the industry is up to. And so, is there any--have you given any thought to that and what makes it sort of a database, a very useful one, from your perspective?

MR. LOVE: Well, the--if it's in digital form or text searchable that's--that would yeah. Text searchable and it's--I have to look at the exact nature of it, though, to determine whether or not it would, you know, to be legally determined to be actually prior art. If it's--if there are restrictions on access to it or whatever, but if you can give it to us or we can work out, you know, we can take a look at it, and if it's available, and easily text searchable, we'd love to know about it, if we're not already doing it.

MR. LUKKEN: John, I had a question. You had mentioned partnership meetings that you get together with certain industries to talk about the specific nature of their intellectual property issues. Can you describe those a little more and

whether that might be a useful exercise for the futures and derivatives industry to think about?

MR. LOVE: Yes. Well, we currently, actually, as coincidence would have it, we're--our next partnership meeting, we have them annually as next Wednesday, and we just share information. We give update information on what's going from our perspective. We get information from--and this is in all the business areas. Now, we have worked individually, for example, with BITS over time. We have worked with them, and--their concerns, and they've given us some data and some information. So we're willing to work either on an ad hoc basis with any group, and we also have these formal annual meetings now at our Carlisle facility where we just get together and talk about points of mutual interest.

MR. HATFIELD: Excuse me. As a follow up to that on business method applications, everything you've sort of gone through today seems to be very driven by publication and some sort of printed material or data that you can reference. To what

extent, on a business method application, do the comments of the industry matter as to whether or not there's prior art. I mean, is that sort of input--is that something that you spend a lot of resources on, and does it have an impact, or does it all still have to come back to what you find in writing?

MR. LOVE: I'm sorry you--what the industry--I guess I didn't hear that particular point. Is that--oh, what did you want us to rely upon?

MR. HATFIELD: No, I mean, I'm asking to what extent, if you're looking at a business method or a business model, do you guys meet with industry? To what extent does what other people say about what's going on impact your decisions?

MR. LOVE: Well, of course, we don't consult with respect to specific applications. And so we, for example, can't go out and say to the finance industry what do you think about this application in terms of, you know, is this really a new process or a new trading mechanism. They can direct us to databases that they're aware of.

Now, having said that, all applications now are published after 18 months. So if you have a specific interest in a specific application, any member of the public can file information in that file. You can actually submit a paper, identify the application and say please place this information in this application.

MR. HATFIELD: But if somebody--sort of coming in, you wouldn't be able to meet with them and ask them?

MR. LOVE: No. No.

MR. HATFIELD: You wouldn't be able to actually sit down--

MR. LOVE: No. And we can't consult them and say, hey, did any of the--no, we can't do that kind of consultation.

MR. ROSEN: Clearly, the publication element of prior art is very important. I'm just wondering whether there might not be relevance in contemporaneous or pre-existing practice that's not public that might bear, for example, on really how innovative something is or how obvious it was, and

the extent to which examiners might find that information useful, even though it's not--it can't be demonstrated to have been in the public domain at the relevant time.

MR. LOVE: That's our dilemma. And that's why, you know, the practices that people say are known. It's common. We ran into this in the surgical area, where doctors would say, well, we've been--that technique has been going on for years. But due to the secrecy part; of course, the secret is not so much a problem anymore, but unless it meets the legal requirements of the 102 statute that I handed out, we cannot go seeking other people's opinion or ask--and even, you know, it's just not something we can utilize.

MR. ROSEN: But independent of the patent prosecution process--

MR. LOVE: Okay.

MR. ROSEN: If there was evidence that there were four systems that utilized similar technology prior to the date of a patent application, or claimed date of first use, and those

could be demonstrated, even though they may not qualify as prior art and may not have been taken into account in the application review process, are they nonetheless potentially prohibitive of whether or not the claimed invention was, in fact, obvious or not at the time?

MR. LOVE: Yes. In an infringement suit, a defendant could raise those issues, and there would be an issue of public knowledge, and affidavits, evidence, could be considered along those lines, certainly.

MR. KELLY: First, I'd like to make a--oh, I'm sorry. This is Matthew Kelly from the CME.

I'm actually setting up a meeting with the Patent Office to deal with a training session for the examiners for exchange-based technologies. Right now, it's targeted for July, and so anyone that wants to participate in it, please let me know. We're still deciding between one or two days to help train the relevant examiners on things that are germane to the exchange side, and I imagine some other people would be interested in doing the same.

I know BITS has done it as an organization, but you can also just kind of do it more ad hoc as the exchanges are trying to pull together.

And then a question for you is a little bit technical, but do you feel that the Patent Office should focus a little bit more on director--Commissioner directed re-examinations in the business method area?

MR. LOVE: I think I'll let Director John Dudas answer that question, since they are--the horse's mouth will be here at three o'clock.

One of the things that's being debated in Congress as we speak, as you know, is post-grant opposition.

MR. KELLY: Yes.

MR. LOVE: And that would mean that any member--once a patent is granted, any member of the public could ask for--could oppose the grant after it has been granted. And that's one I think way of addressing the issue of what do we do with patents that should not have been issued. We have re-examination, and, John, two forms of re-examination

now that are rather limited and have some procedural setbacks or procedural pitfalls I guess for potential defendants. But it's--I would say let's see where the Congress goes with post-grant opposition and see how that--what particular form that takes.

MR. KELLY: Okay. As I recall from the last roundtable, the PTO Roundtable session I was at, the Patent Office is actually supporting that legislation; is that correct?

MR. LOVE: Again, I would prefer you to direct that question to Director Dudas.

MR. RAPA: [inaudible]. Mr. Love, considering that most of the focus of the audience here is financial services derivatives industries, what's the type of challenges that the PTO faces when people come in with patents in terms of that the type of experience that your examiners have to understand that the latest new patent application for an encrypted funds transfer algorithm, how do you understand what that is? What kind of expertise

do you have, and how challenging is that going forward?

MR. LOVE: Well, in the beginning, as I mentioned, it was very challenging, because here we were dumped with really a new category of invention or at least one that was thought prior to that to not be patentable subject matter. And it was quite challenging.

Now, fortunately, cryptography, we had a group in the--well, it used to be our technology center 2600. We have about 15 examiners who were very experienced in cryptography. They would just act on cases that would generally involved encryption. They now work with us for processes or embodiments now that are related to business methods or business techniques. So we do have very--in that particular area, we do have highly skilled technological examiners who were double E's, and this is what they used to do.

The challenging part, though, is to learn about trading techniques. And what we did there is we--first we combed the examiners in the U.S. PTO

for anyone who had experience in business or anybody who had an MBA alone--and we were able to get about 20 examiners right away who had some sort of either an additional degree in finance or banking or economics or something or who had an advanced degree MBA.

Since that time, we have been successful in hiring people who not only qualify as a patent examiner, a traditional patent examiner, but do have either significant--like we had members--we had examiners that were members of the New York Stock Exchange previously, so they knew the trading techniques. They were there. So we hire now--are able to hire people with either industry experience or academic experience in the business areas, in addition to engineering.

Now, that doesn't mean that we have people who are out there in the cutting edge, you know, and there's going to be a hiatus here until we see and when we get enough examiners to go through these applications and do see the cutting edge, because actually that's where the cutting edge is. It's in

your patent applications that we filed. So I think eventually, it's going to take care of itself. We're in a transition period, but I think we're getting much better.

CHAIRMAN BROWN-HRUSKA: Ed, are you ready? I think I want to thank you, John, very much for your remarks and I think that we've learned a lot, and now I want to sort of hand it over to Ed Rosen, who is heading up the committee for the FIA on intellectual property. Let's see. Are we getting him a mike or is he going to hold this thing here?

FIA PERSPECTIVES ON THE EMERGING SIGNIFICANCE OF PATENT CLAIMS

MR. ROSEN: Thank you. It won't come as a surprise to those assembled around the table that there have been a lot of recent significant patent litigations that have caught the attention of the industry. There was the patent litigation involving the Wagner patent. There was recently E-Speeds' patent for work-up in the government securities, electronic trading market. And now most recently, we have the trading technologies litigations

involving their static ladder, single action execution patents.

And the industry reaction to these developments is very reminiscent to me of the reaction to the issuance of the first business method patents in the financial sphere in the '90s that John adverted to earlier when he referred to State Street, which was a software patent, business method patent, involving the allocation of fees in a hub and spoke funds structure that would allocate costs and expenses of the group to the various satellite special purpose vehicles.

The reaction at that time was very similar. There was a great deal of consternation. There was a great deal of indignation, and there were very strongly held views that the relevant claims were not novel or that they were obvious; that the technology was obvious. And I think I have at least anecdotally witnessed a very similar reaction in connection with these trading patents.

It's clear that we have a steep learning curve in the futures industry on patent law. It's

not generally well understood, and in addition the ability of a patent to emerge two years later and sort of surprise everybody gives an added edge of surprise and can interfere with significant ongoing development efforts because the lead time in technology development is so significant.

And I think that as observers of these developments and the litigation, I think we are beginning--only beginning to appreciate how enormously powerful these patents are, and I think one of the things that seems clear, and I'm interested actually to hear that the aggregate number of patents that you're seeing in this area is actually leveling out because at least my perception in the financial sphere is that all indications are that this activity is going to accelerate and continue to accelerate because people are not just seeing the strategic value and power in these property rights, but people also see a need for defensive purposes to accumulate whatever they can in the way of valuable intellectual property patent rights in order to have something possibly to barter

with as others emerge in potentially overlapping applications with patents that they may not be currently aware of.

Some related observations are that defending a patent case, as some are learning, is an extraordinarily expensive proposition. I mean the cost of preparing, getting witnesses, looking for prior art, evaluating it, in addition to the overhead just of being in a U.S. court as a general matter makes it a very daunting financial prospect.

And that means that the issuance of patents conveys enormous economic leverage, because independent of the ultimate merits, the costs and the distraction to management, particularly in relatively small organizations, is so significant that the pressure to settle and to resolve is enormous.

When patents are issued and they're successfully parlayed in the marketplace, it can profoundly impact costs of access to the market, and it can fundamentally adjust the competitive balance and other competitive forces within a marketplace.

So looking at this from an industry perspective, it's clear that the stakes are profoundly significant, and we've only seen I think the tip of the iceberg because we have all heard about quite a number of patent applications that are still pending whose force and impact we'll only come to understand once the patents are issued or at the publication date.

So given this, the FIA Board had in its planning session devoted a fair amount of time to thinking about these issues, and the challenges.

And in light of this enormous economic leverage and the potentially transformative effect of the patents, it seems clear that it is vital that the PTO and the courts get it right when they're deciding about patents, because if you think about it, the balance of benefits and hardships is a little bit asymmetric in the sense that you get a very enormous property right if the patent is issued.

On the other hand, if the patent isn't issued in the technology sphere, it doesn't deprive

you of a leverageable and valuable commercial asset. You can still rely on trade secret law and copyright law and contractual rights in order to exploit and commercialize your technology.

But it seems clear, though, given the asymmetries and the importance of making sure that these decisions come out right that the industry needs to be sort of a willing partner, John, to the overture that you've made in terms of the interest that the office has in getting access to data and cooperation from the industry, and so the FIA I think is committed to trying to evaluate how it can play a role in promoting precisely that result and as the Acting Chairman Brown-Hruska indicated, the FIA Board has formed a committee and is working to try to pursue some defined I should say and pursue some initiatives because some of the initiatives are not intuitively obvious as to how they should be accomplished and some are really a challenge to accomplish.

Some of the specific initiatives that FIA--the FIA Board at least--has identified as of

interest to it in pursuing include first, sponsoring--and this is sort of one of the simpler objectives--sponsoring continuing education in FIA-sponsored conferences on the subject of patent law and other intellectual property rights. FIA believes that through its members and its connections with exchanges in the United States and outside the United States in ISBs and other technology providers that it is well positioned to participate in an effort to systematically accumulate and archive relevant prior art as well as contemporary art as it evolves.

In thinking about that initiative, there are a number of challenges that we've been thinking about. One is the sponsorship, the ownership, and the funding of the technology. I think it is heartening to hear that the Commission would like to play a role. I think there are some limits to the extent to which I think the Commission can, on its own, provide a comprehensive database, both because of the nature of the filings that do and don't come in, because in some cases filings, particularly

those that are technology-related do often make FOIA claims or include redactions at the time they come into the Commission. There are significant issues of where the facilities will be located. What kind of hardware and data storage can be committed to it. The funding of that is significant. Database design and taxonomy. What is going to be the method for systematically collecting the data, entering it, and storing it on an ongoing basis, and the support and maintenance of the system and access to it. Those are not trivial challenges. I think FIA is not sure that it is an institution in its own right that can be the source of the solution, but it is something which is worth exploring, both in terms of the definition and trying to identify participants who--and other organizations--who could contribute to such an effort.

I think FIA is also committed to exploring ways in which it can--I think much the same vein as Mat described in connection with the exchange initiative to try to contribute to the education of

PTO examiners and provide sources and access to literature that includes prior art.

We have talked extensively about how can we monitor both issuances of patents, publications of patents, and related litigation or judicial developments that bear on patents that are relevant to the futures industry.

And there are really two challenges. One challenge is the challenge of monitoring and collecting that information. The other challenge is that not everybody wants all that information. Even people that are interested in theory in being apprised of developments are concerned about the implications of receiving that information precisely because under the statute if your infringement of a patent is a knowing infringement, the economic consequences are significant because of the treble damages, so people are concerned about coming into possession of information that might put them in that category of being engaged in a knowing infringement.

We are very interested in monitoring the legislative developments. There are some proposals on the table--one John adverted to in his remarks on the post-issuance opposition opportunity. I think FIA will follow those developments very closely and on the legislative sphere and in the judicial sphere look for--I don't know that I want to describe them as opportunities, but situations in which it may be appropriate for FIA to participate or play a role of some kind.

And most importantly, I think--and I think this is maybe the key to getting a lot of this done--is I think FIA would like to reach out to other trade associations, organizations, agencies like the CFTC to try to determine whether on a cooperative basis there may be a more--a better prospect for a successful outcome because I actually think that trying to accomplish some of these larger exercises are going to be a test of will, commitment, organization, and sponsorship.

CHAIRMAN BROWN-HRUSKA: I wonder if there are any questions for Ed? John McPartland. John, say your name.

MR. MCPARTLAND: Hi. I'm John McPartland. I'd like to revisit the access issue, Ed. I could envision where no one but the Patent Office had access to such an archive, especially if inventions are sacrosanct for 18 months. What other alternative of access might you envision when you put that on this outline?

MR. ROSEN: Well, if there is to be an archive of contemporary and prior art that's in the public domain other than thinking about concerns like database integrity, security, and maybe funding, I'm not sure that there would be an interest in limiting access, and it may be of interest to market participants to have access to that database for development purposes, for purposes in connection with ongoing, you know, litigation. I'm not sure that that database would be of relevance only to the examiners in the PTO.

MR. KELLY: And actually, it would have to be a publicly accessible database for it to become prior art.

And there is probably quite a few documents and systems that you may not be filing patents on, but you'd want that information out there, and you'd want that out there for a couple of reasons. One, to help the Patent Office determine if another person's patent on that similar technology should be allowed to the Patent Office or not, and so you want to start building that archive now. And there are many documents that we have, you know, speaking for the CME, that we've never released publicly that describe how our systems work, and maybe even describe how our old systems that we no longer use used to work back then. Having a facility where you can make those public at the appropriate time would allow the Patent Office to reference them and would give the CME an easy way of making those documents public.

MR. SABO: I'll give this a shot. Can everybody hear me?

CHAIRMAN BROWN-HRUSKA: Introduce yourself. This is my good friend, Jack Sabo. I've known him for many years. Before I became a government official, I was a professor at George Mason University doing research, and I have the great pleasure of looking around this table and seeing some people who have helped me do my work back then and sort of taught about markets, one sitting right across from me--Mat Andresen from Citadel, who I had the pleasure of visiting when he was at Island, and we fought the good fight on many issues, and I thought we had lost, but he told me today that, in fact, we really won. And the other person that was very, very helpful to me and taught me about market data services was Jack Sabo, and took me out to the New York Board of Trade and showed me how data is collected and how it enters into the tape, and it was really fascinating and very encouraging that these markets, even though their open outcry, were still very up to the minute and contemporaneous in the way that they got that information out there.

So I just want to welcome Jack, who's my good friend, and he is going to talk about an issue that's rather troubling and that is the market data that exchanges have been producing for all these years as a result of their price discovery mechanism have recently become of interest to those who would steal it. And so, Jack, welcome.

PIRACY OF MARKET DATA

MR. SABO: Shucks. Thank you, Sharon.

I'm really happy to be here. At the same time, it's been a long time since I've done any public speaking. It might be as long ago as high school, and I'm not going to tell anybody how long ago that was. I don't even want to remember.

So if I studder and stammer a little bit, just please be patient.

First of all, our general counsel has asked me to let you all know that some of the opinions or actually all of the opinions I am going to talk about or provide you are my opinions and not necessarily those of the New York Board of Trade.

She didn't really ask. She sort of threatened. But, you know, only kidding, of course.

I have the job of being in charge of market data services at the New York Board of Trade. And it's a really terrific job. It's terrific because you get involved in so many different facets of the business. You have to be really involved in technology. The old technology. The current technology. And you got to keep an eye out for all future technology. That makes it exciting. Of course, there's the financial aspect of it, and there's a little bit of marketing.

The really good part is that you get involved in long-term planning and short-term planning, and all of it, all of it, has a huge impact on your exchange.

Additionally, I get to deal with my counterparts at the other exchanges--the people at the vendor firms, the large traditional vendors, the smaller vendors, and, of course, our end-user firms. And they're all a pretty good bunch of people to

deal with. You know, we're really very, very fortunate.

Let me give you a little background about how exchanges get data out to the world. Traditionally, years and years ago, everybody--you had your large vendors and those vendors had proprietary terminals. They had permissioning to those proprietary terminals, and everything was very, very, very controlled.

Nowadays, of course, you have Internet access, which is not a bad thing. The exchange, of course, provides its data directly over the Internet via a web site called NYBOT Live. And if you want to get our data, go to www.nybotlive.com. And this web site provides information to a lot of people that wouldn't afford to get the data if it weren't at a reduced price directly from the Exchange.

But most importantly is the way our data is provided to our vendors. The Exchange provides private lines, leased lines, out to the vendors, and those vendors provide data directly to other sub vendors and to user firms. They do this today very

often by means of data feeds. So there are thousands of data feeds out there with information from all the derivative exchanges. And that makes it liable. It makes it potentially difficult to trace.

It's these data feeds that I'm going to talk to you today about.

Because of these data feeds, you have to realize, that in any--can people hear me? That in any part of those data feeds a leak could exist. Are we okay? Do I have to hold it closer?

Just hold it? Just place it down? Everybody hear me? Okay.

So leaks could be anyplace. But understand all the parties, all the licensed parties have a vested interest in having no leaks. No vendor wants a leak. No user firm wants a leak. You know, and that's never going to--well, theoretically, it's possible that a leak could occur. Let's say a rebel employee, you know, somehow provides the data outside for some particular gain. But that's--but

all these firms have a vested interest in protecting that data.

The exchanges protect their market data by contractual agreements with our sub vendors, our vendors, and with subscriber agreements. We also conduct vendor audits. These are primarily accounting type audits, comparing permissioning versus reporting systems. I do remember at one time someone telling me that they could do a foolproof audit of a vendor's system. That's not really possible, not unless you're going to scope out every cable, under every computer room that that vendor has.

But again, nobody really wants a leak.

Additionally, we also do refined Internet searches, using specialized software to discover pirates redistributing data over the Internet.

Lastly, we do a little detective work.

This short story is about the last item. A little detective work.

I don't really remember what prompted me, but years ago I started thinking that, you know, in

China, they pirate software. They pirate music. They pirate videos. I wonder, you know, they got to be pirating market data.

One of the people in our New York office is a very intelligent young woman from Beijing. So I asked her to give her brother a call and find out who the largest information provider of financial information was in China.

He did a little research with his friends and discovered a very well-known Chinese firm that sells real-time market data via their web site. It's not a fly by night company. It's not somebody in a garage someplace copying a disk. Not at all. As a matter of fact, they have this big brand new office in the middle of Beijing. It's also owned by, it’s a subsidiary rather of a larger firm traded on the Hong Kong Stock Exchange. Its chairman and CEO, in fact, graduated from a university here in the United States.

So what we did was we subscribed to real-time data from every derivatives exchange in the world. It probably should have cost us somewhere

between I don't know $10,000 and $20,000 per year. We got it for the bargain price of--I'm sorry. It should have cost around $10,000 to $20,000 per month. All right.

But we got it for the bargain basement of $600 a year.

Now, sometimes when we do our searches we find that the web sites say, oh, yeah. We'll give you real-time data from every exchange in the world, and it's all BS. All right. They don't really have the data or it's delayed data. It's still our data, but it's delayed data, which is not quite so hurtful. All right.

So we had to do our due diligence and prove whether or not it was delayed data. So we got on the system, tested against NYBOT Live, against CBOT data, against CME data, and NYBOT data. All right. And it definitely was real-time data.

When it comes to piracy issues, we work pretty closely especially with Glenn Madeja of the CME and Steve Dickey of the CBOT. This is something that we all have in common. We all belong to an

organization called the FISD. It's probably the largest and most influential market data association in the world. After discovering the Chinese pirate and proving it out, we demonstrated the site to the other exchanges during one of the FISD meetings, and we've kept them in the loop throughout the investigation.

FISD stands for Financial Information Services Division, and as you might guess from that name it's a division of the Software and Information Industry Association, the SCIIA.

Another of SIIA's divisions is its anti-piracy unit. Those are the people that have pursued software pirates over the last couple of decades. Last fall, the anti-piracy division notified us that the United States Trade Rep was conducting an out of cycle review to determine if China was making any progress in combating piracy, apparently that was one of the requirements in China becoming part of the WTO.

USTR was looking for feedback. Working with the SIIA and with NYBOT's Washington

representative, Ellen Levenson, we provided USTR with a letter detailing the Chinese piracy. USTR's Paul Mendelson and team were gracious enough to meet with us and told us that Chinese piracy such as this definitely, definitely concerned the Administration. He also stated that the USTR would have to coordinate this issue with the Treasury Department and with the Department of Commerce. We've met with the Treasury Department, and they have agreed with that.

Of course, Chairman Brown-Hruska and the CFTC have also helped in dealing with the other government agencies.

While we were asking the Administration for help in this area, we are also pursuing a somewhat more direct approach. The SIIA has just hand delivered a letter to the pirate company's chairman's office. The letter notifies him of the piracy, asks him to contact us, and to help resolve the problem. Even though, he graduated from a U.S. university, all right, we sent the letter in both English and in Chinese.

That's where we stand today. And nobody wants to barge into China like a bull in a China shop, although there are people in my organization that will tell you I frequently do do that. But because there's so much potential with China.

What we want to do is somehow legitimize the distribution of market data in China. Our next step will depend on what response we get from the chairman, the pirate's chairman. And that's where we stand. Thank you, all.

CHAIRMAN BROWN-HRUSKA: Thank you, Jack. I appreciate that very much, and I don't know if anyone has any questions or any--

MR. HATFIELD: Jack, first I'd like to say if that's the first speech since high school, you did an actually amazing post high school job.

MR. SABO: You mean you couldn't see me shaking?

MR. HATFIELD: No. You did great.

MR. SABO: Oh, good. Great.

MR. HATFIELD: On the data that the Chinese company has, is there any way of us finding out who

else is getting access to that data, and how it might be being used.

MR. SABO: Who their customers are?

MR. HATFIELD: Yes. And how it's being used?

MR. SABO: Yeah. No. Not really. Although we've had the--the SIIA belongs to a technology association in Beijing, in China, called the U.S. ITO, the United States Information Technology Organization, and they've done some research and actually, you know, been part of our investigation team, and they're trying to determine things like that. How many users they have? I don't know. NYBOT Live actually has some subscribers in China. Why they would pay us a legitimate fee, subscriber fee, rather than get it from Chiwa.com, I'm not sure. Maybe it's because it does come directly from the Exchange, and they're interested in only one of our products, like cotton specifically.

But, you know what? We have to find out more. And, you know, that's one of the problems.

We know so little, so little about doing business in China. Years ago, I lived in Rome, Italy, for three years--years ago. And I lived in a dormitory with people from Madagascar, from obviously Italy, France, the Philippines, and at that time I actually played on their soccer team because they needed one extra person and they convinced me that soccer was like basketball. You just used your feet instead of your hands. Well, so I proceeded to embarrass myself as part of their team.

But what I did learn is that with the best of intentions, when there is so many different cultures, you have to tread lightly. And you have to go slowly. You have to keep moving. You have to keep moving. You have to make some progress, but you have to understand how little you know.

MR. ROSEN: So out of curiosity, this Chinese company, were they taking legitimate [inaudible] and then just redistributing ad nauseam or were they scraping your site?

MR. SABO: They're not scraping a site. Scraping a site is not really a practical way of

getting the data. It takes too long, plus we could see it. We could see it.

Now, it's somehow--they've got a pipe, a data feed pipe, with all the Exchange data. All right. So, there's no doubt about that. Where it's coming from, we don't know. We actually--the CBOT shut a sub vendor off--oh, I guess last fall. And we thought that sub vendor may have been providing the data to this pirate. And so what we did is we conducted a test to see if the pirate still had CBOT data. Yes, they did.

MR. ROSEN: Is it possible to encode or tag the data for different distribution so that you could surreptitiously evaluate what route that data took to come back to you?

MR. SABO: Well, actually, I've had many plans in front of our general counsel to try to do something, send out--just stop a broadcast to a vendor. Well, we can't do that. All right. You specify a vendor that you thing may be suspect. And mind you that--or a user firm or something like that. That's completely against our contracts with

those firms. All right. In the future, you have something where we're hoping, and the SIIA people could talk better about this than I can, there's something called the digital object identifier that may be on our horizon or it could be one of those things that's on our horizon forever. All right. But what it's talking about is putting that type of tag to every bit of your data. All right. So every piece of your data would have a tag to it. It's almost like a bar code when you're checking out of the supermarket. And you're going to check it out, check it out. You're going to take coffee. Or you're going to take U.S. dollar index, and you're going to pay a fee for that. And that I think has tremendous possibilities. At the same time, it's tremendously complex. You're talking about setting up something more complex than the current URL set up, which is very, very controlled on the Internet. All right. Which is an amazing feat.

So, yeah, Mike. Matt?

MR. KELLY: Jack, have you run across the problem of foreign countries not recognizing your

rights in the data as opposed to your contractual rights with your market data vendors. Just like with patents and copyrights and trademarks, certain countries recognize them and certain ones don't.

MR. SABO: Well, as a matter of fact, they started this process before China was in the WTO. You know, we started looking into it. And basically, everybody told me, China just does not recognize your rights here. And that's what we're looking into. There are people at the U.S. embassy that are very knowledgeable in the Chinese law, and through the U.S. Trade Rep, we're going to be talking to those people.

CHAIRMAN BROWN-HRUSKA: Well, I just want to thank you very much. I mean I think what really inspired me to look at this area and how I got to know Jack was that I was very interested in market information. I think it was a few years ago that the SEC was seeking to regulate the way that the networks and network A, B, and C in the securities market space priced the market data that they distribute to investors and to firms, and so I did

an exhaustive study and, but one of the things that inspired me to think about this and is sort of theoretical, you know, market, the information--market for information, and my view that there is a market for information, and it's fundamental to the competitive process; that people invest time resources; companies invest time and resources to collect information and then they trade on that basis. And the exchanges are, and the firms that implement those transactions are at the--are part of the process that contributes to creating prices, to producing prices, and I was brought along on that way of thinking by our next speaker, Jim Overdahl.

He's our Chief Economist, and he had written probably one of my favorite papers a few years back in '91 that looked at the price discovery process and looked at trading as part and parcel to production of prices and the view that at least where the market data is concerned that exchanges and those who produce prices have some expectation of revenue from that process.

So without further adieu, let me turn it over to Dr. Jim Overdahl, Can Prices Be Property?

CAN PRICES BE PROPERTY?

DR. OVERDAHL: Thank you, Sharon. Thank you for the invitation to speak today, and the usual disclaimer applies. And in addition to the usual disclaimer, I need to fully disclose that I am not an attorney and what you're about to hear here today does not in any way represent a legal opinion. It does cross the line between economics and law. But it is--I am not an attorney. There may be one or two in the room here today who would be wiling for the right price to offer you their opinions, but that's not what I'm about today.

What I want to do today is steer away from any of the sort of hot legal issues because I don't really feel qualified to speak on those matters, but to step back and get a broader look at some of the--how these issues have evolved through time. I think it is interesting when you look through history to see that a lot of these issues are not new, that they arise time and time again and to look at

perhaps some of the reasons why that happens. And then the second thing I would like to do is just a brief review of the scholarship that's related to this subject. And finally, to review some of the policy issues that are posed by intellectual property disputes over prices.

Now first of all, if you go back you see there's an interesting book that I would recommend to you who have interest in this subject by Ronald Coase, The Firm, The Market, and the Law. And in there he goes back and actually looks, reviewing some of the scholarship related to medieval fairs and markets and how they actually had restrictions on the prices that were used that were discovered in the markets. And what you can do with those prices as you left the marketplace and traveling to and from the market. So it dates back a long time.

Certainly in the 19th century here in the United States there was extensive litigation involving the right to ownership of quotations and transactions prices from stock exchanges and futures exchanges, and going into the modern times in the

1970s with the National Market System Act and the consolidated tape. A lot of issues arose out of there, including some of the ones that Sharon just mentioned about the role of the SEC and the regulation of the pricing of that data and the format of that data.

We have also seen price data disputes in the government bond market, the municipal bond market in the 1990s, and an issue that perhaps wasn't cast as a settlement or a pricing issue, but certainly had aspects of it that were related to the question of ownership of prices back in 1994 with the CME and issues related to the back-month Eurodollar contracts.

One illustration that I would like to give as to how these disputes are not new is to look in one particular instance, and that's with the Chicago Board of Trade and the process by which they establish property rights to their real time prices and quotations. I mention real time because I know one of the big issues today is related to settlement prices. We could argue I guess about how broadly

the historical record and the analysis from that applies, but the disputes through history have primarily been over real-time prices because that's been where the value has been.

And in particular in the 19th century you had advanced trading technology of that day, the telegraph, which I know one author wrote a nice little book called The Victorian Internet, about the development of the telegraph and how it revolutionized trade and so forth. But it was the big advanced trading technology of its day and it posed a lot of the same challenges at that time to existing contracts and led to a lot of disputes over prices, very similar to the things that we've seen in later history and in the modern day with the Internet and other related technology.

But one of the things that happened is that this new technology made price quotations more valuable and made them of course worth fighting over, and it also, for the exchanges, posed a dilemma. On the one hand it allowed them to distribute their quotes widely and enhance the

volume of trade, made it easier and less costly for people over a wide geographic area to trade at the exchange, but at the same time it facilitated off-exchange traders, who would use the exchange generated quotations without contributing to the price discovery process at the exchange. And of course, some of the things that Mr. Sabo just mentioned sounds like it's a similar issue then that he faces today.

Over about a 30-year period there was disputes over just what the strength of the CBOT's property right was to the price data that they had produced, whether in fact there was a property right to that data at all, and at one point during this dispute there were a number of court opinions throughout this process, but at one point the courts ordered the Chicago Board of Trade to furnish their quotations to everybody on the same basis or to nobody at all.

And to prove a point, the Chicago Board of Trade decided, well, if that's the choice, we'll put the plug on everybody, and there was the period that

lasted about 20 months that's known as the Baker Blackout period, named after the president of the exchange at that time, where the telegraph operators were tossed out, the windows of the exchange hall were soaped to prevent the transmission of price quotations to outsiders through hand signals, and you had an instance of what I would call literally opaque markets. We're so used to talking about transparent markets, but this is one in which prices that were discovered were available only to the people standing on the exchange floor.

And actually you had similar instances at other exchanges. The Wall Street Journal a few years ago ran a story--it was on the 100th anniversary of the Wall Street Journal--looking back through time, and one of the things was about how people used to drill through the mortar of the exchange halls in New York to peek inside to see what the prices were so that they could use them.

The upshot of all this was that in 1905 there was a Supreme Court opinion, actually written by Justice Holmes, that established this property

right to the price quotations and allowed the Chicago Board of Trade to protect their price quotations from unauthorized use, and one quote that stands out from that opinion is the one that I have put up here, that, "The [CBOT's] collection of quotations is entitled to the protection of law. It stands like a trade secret." So we are not talking about patent or copyright or those type of issues here, but on the basis of trade secret.

At one time when I was working on the paper that's in your packet, I did a lot of work in the archives of the Board of Trade, and pulled a lot of copies of interesting little artifacts. This is just one example. It sounds, I guess from what Mr. Sabo says, very similar to what's done today. This is from 1888, the Committee on Market Reports, where they would actually go through the list of correspondence, the people entitled to receive the quotations, and they would approve those who could get the quotes, and then you see here on the bottom, Mr. Pride of Baltimore was judged to be unworthy of receiving the quote. So he was disapproved. And

there was records like this periodically as the committee met.

I like to tell this story because I think some of these stories are rather colorful, but it also reminds us that these disputes are not new.

If we look to the scholarship on the issue, there's of course in general terms a broad literature related to the role of property rights and facilitating market transactions, and this has been an area of interest to both economists and lawyers, and most of the scholarship I guess can be traced back to the University of Chicago Law School with Ronald Coase. If you read his paper that was published in the American Economic Review, that is actually the speech that he gave upon receiving the Nobel prize in 1991. One of the things he focuses on is the rules and workings of financial exchanges. And I think in a lot of ways he was thinking well ahead of the modern disputes, but it's certainly very applicable.

Yorem Barzel has a nice little book called The Economic Analysis of Property Rights that

summarizes the whole scope of this literature, and of course many other people have been working on this same area. If you go specifically to scholarship related to intellectual property issues related to prices, there is a small literature. One is the paper that Sharon referred to that I wrote with Jeff Netter and Harold Mulherin back in 1991, and there's actually a couple of papers flowing out of that, but--the one that we've distributed in your packet today, and then Chairman Brown-Hruska, some of her own work that she did.

Robert Webb, who's at University of Virginia actually wrote a nice little piece in the Journal of Futures Markets a couple of years ago on transitory property rights, trying to look at some of the areas of intellectual property law dealing with--he traces it back to like Old England rules over what happens when a wild animal walks across your property. Do you get the ability to hunt that animal while it's on your property? Kind of traces a lot of the issues related to prices and property

to some of these legal opinions related to transitory property rights.

The literature related to property rights and prices I think also is closely related to the literature on price transparency, economics of information literature and also Richard Epstein, University of Chicago, wrote a nice paper that was actually dealing with the evolution of law, but actually focuses on the Christie decision.

What's the upshot of this scholarship? I think one of the main points that's come out of it is that prices do not just spontaneously appear. They're not dropped from heaven, that they are the result of a production process and this process involves considerable investment and expense, and also that one of the things that--one of the features or attributes of these prices, it isn't just the price itself but it's the quality of the price. So that's why I've qualified this by saying high quality prices is the result of a production process.

Exchanges are the firms that produce these prices. They are the creators of markets, and you can think of them as they are the creator of prices, just like GM is the creator of cars. The exchanges exist and if you take--stand back and take the 30,000 foot view of why exchanges exist, it's because they provide an efficient means to economize on the transactions costs that are associated with trading. This comes out of Ronald Coase's work.

One of the things that the ability of the exchanges to establish and enforce the property rights over their prices and quotations is that it helps solve the externality problem associated with the price production of having non-contributors using the prices without contributing to the price discovery process, and it I think is essential to allowing exchanges to perform their cost-reducing role in the trading process.

The other thing that the establishment and enforcement of property rights to these prices and quotes has done is it's helped improve, I believe, the quality of prices that are discovered at the

exchange by helping to concentrate trading in a central venue.

Also, I think the scholarship shows us that there is nothing new about new technology. Technological innovation is continual, but one thing we see is that every time something new comes on the scene, that it has the ability to compromise existing contractual relationships by introducing new opportunities that were not foreseen at the time the contracts were written, and that this innovation in trading technology also has the feature of making prices more valuable and worth fighting over, and we've seen this continually with the development of the telegraph, the telephone, the ticker tape, the Internet, electronic trading platforms.

And I would also include a new technology, new financial innovations such as the rise in dealer swap markets as part of innovation in trading technology.

What kind of policy issues are posed by intellectual property disputes over prices? I'm sure this is not an exhaustive list. It's just what

I can come up with in one afternoon of thinking about this, but one thing that of course comes up is property restrictions versus monopoly restrictions--I'll go into each of these in details, well, not detail, as time permits here--market transparency issues, public good issues and efficiency issues.

The first one, property restrictions versus monopoly restrictions--I guess this really gets to the heart of the matter of what property rights and monopolistic restrictions can exclude or restrict, and how do we tell the difference? They can be confused, and I think for a long time people would look at these restrictions and just assume that they were monopolistic restrictions, but I think one of the things that we've learned from looking at how these property rights have evolved, that there really was an efficiency explanation for why a lot of these restrictions evolved, and it wasn't just out of a monopolistic motive but an efficiency motive that actually helped lower the cost of trading and expanded the volume of trade.

Market transparency issues. Years ago when Corinne Brofman [ph] was working here we wrote a little paper called "Will the Invisible Hand Produce Transparent Markets?" And I guess that really is one of the big issues here, is whether or not there are sufficient incentives for organized exchanges to offer the data that they had to the public, and in offering that data, I guess the question comes up as to what price, and of course, that's something that Mr. Sabo and his colleagues have to deal with all the time, what's the right price that will expand the volume of trade, but at the same time protect the use of that data or the production of that data for the exchange.

We've seen different transparency regimes. The SEC has very detailed requirements on disclosure, quote vendor rule, and also on the pricing of the data. I know years ago when I worked at the SEC, Howard Kramer, who a lot of you know, was the guy who got to decide what the right price was, and he was the guy who got to decide what a reasonable price was, and he had his own little

formula for figuring that out, but it gives you an idea of the extent of the detail of those type of regulations.

CFTC-style transparency requirements actually stem from the Commodity Exchange Act, and now with the Commodity Futures Modernization Act Core Principle 8 for designate contract markets, talks about daily publication of data. One of the issues of course is publication of data, but what does that mean in terms of control of its use? Which of course is part of what defines the strength of that property right.

Issues that also come up related to information producers and consumers, in other words, things that can benefit one group might directly harm the other. And let's go on to the next one.

One issue that comes up with are prices a public good? And economists have a test for determining whether something is a public good, and one of them is the nonrivalrous consumption criterion; the other is the nonexcludability criterion. I can argue I think that prices do not

meet this test. In addition, if you look at the work of Ronald Coase on public goods, one of the things he asks is, he says, well, you can really recast a public goods problem as a costly contracting problem and is there a way to contract for the use of prices, and in fact, it seems to be that we see a thriving market for information from data vendors and from the exchanges.

And one thing I think from the literature on public goods and contracting is that one of the dangers is that fuzzy property rights, in other words, uncertain property rights, can raise the cost of this private contracting.

And then the last thing I'll leave you with is that I think one of the issues that is posed by property issues is that any policies that can affect the strength or certainly of property rights over price information, one of the things we have to be careful with as policymakers is being able to distinguish between efficiency effects, in other words, those effects that on average make everyone better off versus those effects that are really what

economists call wealth transfer effects that just benefit one group at the expense of the other.

And I think I am one minute over, but sorry for rushing, but I'll quit right there.

CHAIRMAN BROWN-HRUSKA: Thanks James. Actually, I was going to thank you for rushing, so thank you very much.

This is a lot to digest, but I think it's very interesting and I also would say, again, this is a nice paper and it's included.

Laurie?

MS. FERBER: Laurie Ferber. I'm not sure, looking at this, whether you are focusing on real-time data, real-time and delayed feed of data, or equally--or whether your comments would apply equally to settlement prices. And I would distinguish between the two when I think about them as a business matter. And I think, I guess I think all these points are very intellectually interesting and probably important, economically interesting, but I also think of this from a business point of

view, and think that the markets have really addressed a lot of this.

You know, I think about how I'd treat this from a business point of view, you know, market data vendors charge me a lot of money, and in turn pay a lot of money to the exchanges, piracy and things like that aside that everybody has to deal with, but you know, we pay a lot of money for real-time feeds and you pay a different amount or you have different rights of using delayed feeds. And you know, we've built indexes and other things off of that. You decide your rights, but you know, our traders desperately need real-time data so you pay a lot of money for those things and build markets off that.

The OTC markets have developed very active trading in today's settlement prices, and that is I think, with the encouragement and the support of the exchanges who know that all of that trading finds--a very large amount of that trading finds its way hedged back to the exchanges.

So I think, you know, economically, I think those things have really, you know, found a balance

and I think there's been a lot of knowing acceptance of how those prices are used. So what you charge for real-time whether they vary a major effect on a trading value at the time, and then a kind of acceptance on how end-of-day settlement prices are used, and kind of--you know, that's the way it's been treated over a large period of time. So I think this is the overlay of that, but I guess I'm trying to figure out sort of, you know, where we go from here, and want to make sure there's that overall business perspective of where we've gotten to.

MR. OVERDAHL: Well, I mean, that's a good point, that clearly settlement prices and real-time data are different. Traditionally it's been just in their value, but I think from the exchanges' point of view, as an academic look at the exchanges' point of view, that probably the externality problem to them conceptually is the same.

Now, obviously, there are differences, but I think one thing I might point you to is a paper by Robert Webb that was in the Journal of Futures

Markets--Robert actually is an alumnus of the CFTC from years ago--that talks about transitory property rights and whether that model might be more appropriate for futures data.

MS. FERBER: [Inaudible] -- maybe be expensive, and I just would note that those who have not lived inside a trading business and hundreds of--you know, agreements and all the other ways that contract rights are defined and how you track those things, to think that it's as simple an answer as, no, there's been thriving markets of price information, and, yes, fuzzy property rights add expense. I mean, that's an economist's answer.

But thinking about how things are done, settlement prices and how you might license and pricings and track them, and the complexity of that, as opposed to a perhaps much more sensible answer of you make your fees by those things being in the public domain, and realizing trading value comes back to the exchanges, you know, without going into all the other reasons that transparency has mandated in the Commodity Exchange Act. So just to say if

you're ever going to start thinking about the expense and the difficulty of contracting, I think we need to look at the markets much more and understand the effects on them.

MR. OVERDAHL: Useful perspective.

CHAIRMAN BROWN-HRUSKA: I want to get John going here, but, Tony, you'll have the final question.

MR. LEITNER: This is Tony Leitner. As I take it, a key question for the CFTC, if you compare what the current legislative attitude and regulatory attitude of the CFTC is in Principle 8, compared to the latest chapter of what the SEC has done--and it's only the latest chapter in several and this is proposed in the Reg NMS--where the debate has been the desire to try to keep data costs at least current, you know, last sale prices, as broadly distributed and as cheap as possible to the user, versus I guess--because in part there's been the policy that those revenues that come back to the exchange from those data prices get used in the regulatory process to fund regulation.

And so the sort of, if you will, over regulation of market data at the SEC level has had this potential tradeoff that is maybe distorted, created several kinds of distortions in the marketplace. And it seems to me that the issue for regulators is to see how technology alters these distortions. The securities markets perceive distortion because the way data revenue was paid back to exchanges was based upon how trades could be--what trades were sent to the exchange by some of the execution venues, which then got rebates. And the SEC's view about that was that that distorted the exchanges as real price discovery sources. That may be less of a problem where you have monopolistic markets where there's only one price discovery mechanism, but looking at the future, that's something I think the Commission would want to take a look at.

CHAIRMAN BROWN-HRUSKA: All I'd like to say is that I think from our perspective we try to be objective about this, and I think the point that I would make, having written extensively and thought

about this a great deal, is that those contractual relationships that have been established in the futures markets have worked very well and without the CFTC being involved. And the mandates in our Act are very minimal in this regard, and that's been our approach and I imagine that we will again try to the extent possible to step back and let the markets for information work, and that these parties can work out their contractual agreements and their differences in the courts without our intervention to the extent possible.

So I'm going to quickly turn to Jon Dudas because we are so delighted to have him here. I hope you don't mind, but I'm going to skip the refreshment break in the interest of time, and also some of you, many of you are invited to some refreshments after our meeting.

So without further ado, I would like to introduce Jon Dudas, who is the Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office. He is here I think as an emissary of the Patent Office and

Department of Commerce to show that he in fact is a friend, and is very interested in educating and interested in learning from us about our industry. So I would pass the baton to Jon.

MR. DUDAS: Thanks very much, Sharon, and thank you all for having me here.

I just came from testifying on Capitol Hill about issues that are probably important to all of you in light of the conversation here, and I thought that was a lot of pressure until I realized that I was going to be the person replacing your refreshments break.

[Laughter.]

MR. DUDAS: So I'll try to make it as interesting as I can, and what I find most important is to get to your questions so I have an understanding of where you are and can answer questions that you might have there. So I'll give a little bit of a background. It's relatively basic. If it's too basic, let me know either by raising your hand or just when we get into the questions.

But we've run into the issue that you're facing several times at the Patent and Trademark Office and I start with--we've had this on Capitol Hill just today--maybe a misunderstanding sometimes or a difference of opinion on what a patent is. A lot of people think patents are rights to sell products or a patent is a right to a product. It's not that. You can patent a nuclear bomb. You can patent an assault weapon. It doesn't give you a right to sell it.

And in fact, what it really is is a right to exclude others. It's fundamental in the Constitution. It's the right to say there's basically a contract between society and the inventor that says: You go out and invent something that's new, useful and non-obvious, something that no one else has done. You put the investment in there and we'll give you for a limited time the right to use that exclusively, and you can exclude others. And that's where a lot of the issues come up, that it's a right to exclude others, not necessarily the right to go forward. So some of the

market-based ideas that go along with the idea of owning a product are not the same as what a patent is.

Why is that the case? Why is it a right to exclude others? It's basically a right to exclude others because you own that and can do with it as you see fit. You can go to the investment markets and try to get venture capital, but it's yours. For 20 years it's yours. The idea is not to make inventors rich; it's a nice byproduct of it, it's helped our economy, but the ultimate goal of the patent system is to get ideas out and disclose ideas, but it's the incentive that's put in there by giving 20 years of exclusive rights to use that idea. So anything that's new, useful and non-obvious is something that's subject to a patent.

The theory in the United States has been--and it's proven successful throughout--has been not to ever be prejudiced against a certain technology or a certain area. We're technology neutral in the United States. And the reason I say that theory has worked out is because several decades ago when the

biotechnology industry was at its infancy, many nations decided this isn't an area that they felt that patents should be granted. In the United States the theory was patents should be granted. It's turned out to be a tremendous boon for the United States. The same is true for software. The same is true for other technologies, and there are still fights going on throughout the world, is it appropriate or inappropriate to patent in certain areas? It's worthy of debate and might be worthy of debate right here.

But generally, by and large, the idea has been not to exclude any particular technology, but to have patents available for all technology, but to make sure that you get it right, to make sure that they are truly new, that they're truly useful, and that they're truly non-obvious.

So we've seen that in areas of business methods patents, which is largely the concern that you might have here. And the good news is we've had experience with industries going through some of the same issues, same concerns that you're going through

right now that I think are the subject of some of today's meeting.

What we find is that originally industries are surprised. This is an area where patenting is occurring that they've never seen it before. So what seems like an unusual business practice enters into the industry, and we saw that soon after the State Street Bank case when the Supreme Court ruled that business method patents are indeed patents that are allowed.

I don't think our office is necessarily taken by surprise, but at moments like that we find an influx in patent applications as well, and we're now operating in a technology that's relatively new, in an area that perhaps--I think John will know, how many examiners did we have with Business Method Patents before the State Street Bank case?

MR. LOVE: We have about 8.

MR. DUDAS: Had 8, and we now have what?

MR. LOVE: 130.

MR. DUDAS: 130. And you also see a change in the way things go. We learn the technology

better at the Patent and Trademark Office. The applicants learn the technology better. I don't think that rejection rates are the equivalent of quality, but I do think that in certain areas you'll see when a new area of industry, a new area where patenting occurs, you'll see at first people are trying to get a sense of what is patentable and what isn't. And our allowance rate, those that were considered patents from the applications we had early on was over 50 percent I think. It's now at 11 percent. So the market, if you will, is bearing out what it patentable, what isn't patentable, and that comes to fruition throughout the process.

In addition to originally being surprised--and industry will say, "I had no idea these were patentable"--then there's a flood of questions and issues about, well, do I need to file defensive patents? Do I need to make sure everything I have that looks like an idea along these lines is something I need to file a patent on? Obviously, that's a decision that needs to be made industry by industry and company by company, but it is something

that adds to the system and an issue that you may want to address.

But the issues that basically come up, first and foremost, one question is, I can't believe this is patentable. And what I can tell you there is don't think in terms of the average person off the street wondering what a patent is and thinking of Thomas Edison with the light bulb. New, useful, non-obvious are terms of art, they're legal terms of art, and there's volume upon volume of legally what that means and what it can. So often we see a disconnect between what someone would generally think is patentable and what is actually patentable. And often things that seem obvious are only obvious after they're invented. The paper clip, I've seen the mansion of the guy that developed the paper clip. It seems obvious to me. I could have done that. But I didn't. So there are a lot of things that seem obvious later.

The next question--that is an issue to grapple with, it's one to understand. That's a little more philosophical.

The one that's less philosophical is the question of, are the patents that are being issued of the highest quality? Is the Patent and Trademark Office getting all the art and background? Is there something that really is obvious to all of you, but for some reason we're unaware that that's obvious now. Or is there prior art out there? Is this something that's been written about and out there day in and day out that is available, and for some reason we're not unaware of it? And that's probably the most fruitful area, and I think John probably went much more in depth about that.

I'll be done quickly so you can ask questions or get your refreshments.

The issue there for us, the good news is we have, again, been through this before on business methods patents, et cetera. There was a time when what our examiners looked at was primarily other patents, and that makes a lot of sense for traditional mechanical, chemical and electrical engineering areas. In the last 15 years our examiners are looking at three times the amount they

used to. We've broken a record every year in the United States. This is good news for economists and for people who follow the U.S. economy. We've broken a record every single year for the last 20 years in the number of applications we've received in the U.S. But it means we have more to look at.

Other good news is our examiners are much--it's much more common for them to look at non-patent literature, not just looking at patent examination, which of course is critical if you start seeing patents coming in in an area where there haven't been patents in the past. There won't be much to look at. We now have advanced search tools looking at other literature, and that's a fruitful area for us to discuss, and we've entered into partnerships in the past--John, I don't know if you talked about that. So I won't go into the details of someone who can more expertly go into those details.

One of the things we want to be able to do with you and have done with other industries is make certain that we bring your experts in to help train our examiners, to let our examiners know what you

know. Where should we be looking? What else can we be looking at? What are the areas where you think we might miss something or areas of publications that we're not reviewing?

We also have an opportunity to submit prior art after a patent application is published, for about two months. That's one of the discussions on Capitol Hill right now, is how can that be expanded, the ability to get appropriate prior art for the office, but without allowing the opportunity to harass or delay the application the patent applicant is seeking.

The other issue that I can tell you that is critically important, that's something we can do specifically together and open up that dialogue. We can tell you what's worked in our office. You can tell us what's worked as far as informing us and informing other people of these issues.

The second thing that's important is the legislation that I testified to today and that others testified about. We're also looking at a post grant review process. You can litigate now.

The other good news--I keep saying there's all this good news, but there's a lot of solemn faces--

[Laughter.]

MR. DUDAS: The other good news is if there's a mistake that's made or there's perceived to be a mistake, there are options. There's a reexamination of the patent. It's based on prior art. It's a fairly simple way to do it. It's inexpensive. It can be done at our office. It's done all the time. We're actually in the process now of really bolstering our reexamination process, shortening the timeframe, making it much better than it has been in the past. So that's one option.

The other option of course is to go to court. It's costly or it's at least more expensive. There's a question at times about whether or not you're before experts when you're before a District Court judge or a jury. Are they going to understand the issues that deeply? What's the likelihood of success in that type of an arena?

What we're trying to do with the post grant opposition system is basically say, we can get the

best of both systems. You can have the protections of litigation but you'll still be before the experts. We think we can conclude it in one year. So your thoughts on areas where you think a patent shouldn't have issued, we can talk about that, and also what we can do to make sure that we're better informed on your industry, and then finally, whatever we can do to let you know what happens at the Patent and Trademark Office and what we see coming down the road, we'd be happy to do.

So I'll leave it at that so that you can ask any questions you might have. If you don't have questions I'll take that to mean that you're really interested in the refreshments, not that you were turned off by the presentation.

[Laughter.]

MR. DUDAS: Thank you.

COMMISSIONER HATFIELD: John, thank you. I wanted to ask you on--you mentioned the number of staff on the business method patent applications, that you'd ratcheted up to 130. But Mr. Love previously talked about the immense caseload

increase over the years. What's the length of time that an application would be pending there? And also, how many hours would your officers, your examiners put in on a single application?

MR. LOVE: Right now the applications we're working on the average pendency is three years, and we're working through the bubble, what we call the bubble that was filed after the State Street case, which is Decision '98. So the peak years were '99, 2000, 2001. We're working through that. We've gotten over the hump and we're on the down slope now. With the number of examiners and resources that we've been given we can make significant inroads to the first action pendency.

COMMISSIONER HATFIELD: And how many hours does your staff actually put in on a case?

MR. LOVE: A typical case, depending on the experience of the examiner, 22 hours.

COMMISSIONER HATFIELD: 22?

MR. LOVE: For an experienced examiner, yes.

MR. DUDAS: One point to make on that, or two points actually to make on that, one of the things that John talked about, getting past the bubble, it's very important how we measure in our office. This is an area that we've turned the corner which means we're actually getting to the backlog. And so pendency varies. To give you some perspective, from 9 months to a first office action which is meaningful, or 14 months for pendency, all the way up in some areas to 7 years.

But the one key element for those who think, "Three years before I learn what's going on," is that there is a provision in the law that after 18 months all applications are published. One of the most important--and John, I don't know if you talked about that--that's one of the most important things you can do to become informed, is to look at those published applications.

COMMISSIONER LUKKEN: Secretary Dudas, it's good to see you. Sharon and I have been down to bug you a couple times on some of these issues. But as we've stated in the past, one of our missions is to

promote innovation and competition within our industry. We sort of mentioned a couple of the roles that we might play today. One is facilitating education, which we're doing today. One that Sharon mentioned is sort of a passive role, providing a website or some type of database that can be searched. But what about a more proactive role by agencies and what has your experience been as to agencies submitting prior art that they might have access to? Not just a passive role of sort of putting it out for public viewing, but actually in one of its mission statements of making sure that these are legitimate patents and promoting innovation, actually supplying prior art to your office, and have other agencies done this?

MR. DUDAS: I wasn't aware of any agency that we've worked on with, but we are working with the IRS. Patent donations have become a big issue and some of the databases--well, actually, that's really a separate issue, but some of the databases at the IRS are being made open.

Now, clarify one thing. Do you mean if you see a particular patent application and then submission of prior art or general education?

COMMISSIONER LUKKEN: [Inaudible].

MR. DUDAS: Or both? I think in the case of a particular application, that's something that is being discussed right now. It's not in the committee print that's before Congress. But there is an opportunity now again after 18 month publication, after it's published there's an opportunity for two months to submit prior art, but not a relevancy statement or anything along those lines, again, the idea being that it would be what's considered a pre-grant opposition system, which we're precluded by law from engaging in, where you'd be able to oppose a patent before it was granted.

You have to oppose a patent after it's been granted. But you can submit prior art within that two-month window. Just don't comment on the prior art. If you comment on it, we'll destroy it or send it back. But if you think you've got something

that's a smoking gun, that can be done. I'm not aware of any agencies doing that.

CHAIRMAN BROWN-HRUSKA: Do we have any other questions? Ed, surely you've got some.

MR. ROSEN: I was just going to ask whether--is the office supportive of the post-grant opposition proposal?

MR. DUDAS: Yes. Not only are we supporting, we believe we're the first ones to come up with the idea, but we've been supportive for over three years now, and the good news, everyone who's watching the patent system, from the FTC to the NAS, anyone who's done a study pro or con, and most of the major industry groups, and it seems that every member in Congress on both sides of the aisle, both sides of the Capitol, are supportive of that. So I think it's something that is likely to occur fairly soon as long as it doesn't get bogged down in other issues.

MR. ROSEN: Which rarely happens in Congress.

MR. DUDAS: Exactly.

[Laughter.]

MR. KELLY: I actually have two questions. One I posed to you when you were in Chicago a couple months ago. I'll pose it again. One of the problems with--from a business standpoint, now that I'm in-house counsel, is trying to figure out what the patents mean, what other people's patents mean. Is there anything within the current Patent Office structure not requiring new legislation that could help define what the patents truly mean, what the claim scopes cover?

And last time when we talked about this, we talked about the reason for allowance, and perhaps making it more of a--you know, anything from a dictionary definition of what the examiner thought he was looking at, so that the applicant could confirm or modify that so that they could define the terms better or come up with some mechanism within the existing structure to better define what the scope of the claims are from the Patent Office standpoint without doing litigation, without doing a

post-grant opposition, that the patent as issued from the Patent Office is as clear as possible?

MR. DUDAS: What was my answer in Chicago?

[Laughter.]

MR. DUDAS: No, I'm kidding. It will be better this time because I have a fantastic group director with me. I'll give a short answer, and then I'll go to--it's actually an issue we have within our office on defining the scope of claims. I think there are ideas we have on how we can better define the scope of claims and ways that we can do that. It's a huge challenge for our examiners. We talked about how much time an examiner gets. We're trying to make the whole system make more sense. Somebody who applies and has 15 claims versus someone who applies and has 1,900 claims and a patent application will pay a different price now. That wasn't the case a few years ago.

And then how we actually go through the process of defining what the claims mean, it's difficult to some degree because we're not certain what we're going to be getting, how people's claims

come in, and quite honestly, what technology, what kind of invention is this? Is it a minor improvement so they can be very specific about it, or are they claiming much more? That's what our examiners have to do day in and day out.

There are ways that we're looking at right now--I'll let John talk a little bit more specifically about theoretically what we can do--one of the things I will tell you that's very important for our office, and you won't hear it anywhere else probably but our office, is that we're very concerned about application quality. So it's how we define claims in the office. We have a duty to do that. We have a duty to get it to the right point. But we're very concerned now, our system is so incredibly flexible, and we want to maintain that flexibility to a degree, but there's a sense that the applications coming in sometimes are intentionally vague, the claims are intentionally vague. It makes it very difficult on the process.

If they're hard to understand, it's almost--if things don't come in the office nicely, it's

difficult to put them on the right track. I think our examiners have the responsibility to do that and do it well. But one of the areas that you'll see us coming back is on application quality, and I think we discussed that a little bit.

At some point we may come out with some proposals about how we can tighten up what comes into the office, and we'll probably be looking to industries for support on those. There will be some people who--well, just traditional patent watchers that would not like to see any flexibility gone, but we're at the point now where we think we need to bring some of those in.

But for a better answer than you got in Chicago or just now, I'll give you to John.

MR. LOVE: You did very well. I don't know if I could--I'll just add a few comments.

Unfortunately, it is a difficult task and there's no shortcut. You really need--if you truly want to understand the scope of the claims, which we talked about earlier, the last part of the patent, you really need to go through the entire record, the

specification, description, in some cases the office actions and the attorneys' remarks about the prior art. These all have potentially an effect on the scope of the claims.

There is a requirement in the statute, 112, that requires the claims to be specific enough, particularly point out and distinctly claim the invention, and the idea behind that is precisely what we're talking about, so that the public knows when they would infringe the claim. So presumably, every examiner and every claim that has been allowed has passed that test. The examiner is satisfied that the claims particularly point out and distinctly claim the invention with enough certitude that members of the public know when they would infringe that claim.

There's no shortcut to arriving at that understanding, and part of that is with the Amazon.com single click patent, people focused on, oh, single click. But really what's being claimed there is the technology and the software to accomplish all of that. So it's really not a

simple--there's no simple fix on having to make it an easier--or to allowing the office to make it easier for the applicants and the public to know exactly what's being claimed.

The other principle here that we're dealing with is that the courts have consistently held for decades that applicants can claim their invention any way they want to. There's no magical words, there's no prescribed form, so any way they want to describe it in those claims they're entitled to. So until we have some more restrictive type of format, like the Jepson claim I talked about, where you do lay out the improvement, or more structure in formalities in how you lay out the claim. It's simply a very difficult task and I don't see any way out of that. It's almost a legal necessity.

MR. KELLY: I have one kind of related one. In areas such as the business method group, which is kind of in its infancy still, coming up to maturity level from the patent office, do you think that there's a heightened need for Commissioner-directed reexaminations in that area?

MR. DUDAS: I don't think there's a heightened need for director-ordered reexaminations because reexaminations are available to any and all. In other words we do have heightened quality mechanisms in areas that we think are newer technologies or we identify certain areas, including business methods patents was the basis for the second pair of eyes, which was basically saying, let's have a second examiner just take a look at patents that are coming out of that area, make sure we just haven't missed something that might be obvious to another examiner, et cetera. So there are ways we're doing that.

Director-ordered reexaminations in particular I think are most useful when within the office we find something that we think is problematic and equity suggests that we look at it. But I do think that reexaminations by and large are just as easy to come about from outside. So I wouldn't argue that there needs to be more director-ordered re-exams. Maybe what you're suggesting is

that there's more reviews within there, and that's already occurring.

CHAIRMAN BROWN-HRUSKA: Do my colleagues have any additional questions, or any other issues?

[No response.]

CHAIRMAN BROWN-HRUSKA: Well, wonderful. Again, I want to thank Jon for coming. I just saw Barbara Wierzynski--Barbara, did you have a question from [inaudible]?

MS. WIERZYNSKI: [Inaudible].

CHAIRMAN BROWN-HRUSKA: In any case, I want to thank you so much for coming and reaching out to this industry. I think that we found much of this or the industry has found much of this to be very disconcerting in many respects, and that in fact they're now starting to have to think about--especially as our trading technologies have become more automated, more global, questions of, you know, the old way of doing things, and it's a very innovative industry, and I think that we've seen a lot of interest in protecting the property associated with that innovation.

So we're interested--I think the industry is interested both from the perspective of defending against patents, but also protecting their own property. So it's very helpful to have you here and to provide this information.

And with that, I will invite everyone up to my suite, I believe is where we're having some refreshments. Thank you for being patient. It looks like we're done a little early, so I think my plan worked to make Jon talk fast.

[Laughter.]

CHAIRMAN BROWN-HRUSKA: And again, thanks everyone for coming, and let's adjourn.

[Whereupon, at 3:35 p.m., the Commission was adjourned.]