FEDERAL TRADE COMMISSION

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HEARING ON:	)	
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FRIDAY, DECEMBER 5, 2008

Conference Center
Federal Trade Commission
601 New Jersey Avenue, N.W.
Washington, D.C. 20580

The above-entitled hearing was held, pursuant to notice, at 9:35 a.m.

P R O C E E D I N G S

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MS. MICHEL: Thank you, and welcome to the first in a series of FTC hearings on the evolving intellectual property marketplace. I am Suzanne Michel. I'm the Assistant Director of Policy in the Bureau of Competition here. If you have any questions throughout the day, please feel free to ask me or any of the people that you see with one of these name tags like I have, with the blue around the corner. We're all working on the project, and we'll be able to help you.

I'm going to make a couple of security announcements and then introduce Chairman Bill Kovacic for opening remarks.

First of all, in the case that there is a fire alarm or evacuation, please walk directly across the street in front of Georgetown Law School. We will be rallying there, and we will have to check off that everyone who came into the building came out of the building.

If you do go out for lunch, we'll be having an hour and a half lunch break. In fact, you will have to go out for lunch. There's no food in the building. I believe you do need to go back through security when you come back in, so please give yourself a couple of

minutes to do that.

Chief Judge Michel would like to start promptly at one o'clock and I know that no one will want to miss his remarks. I had a preview and a discussion yesterday with him, and you will not want to miss it.

If you see any suspicious activity, please let any of the staff or security people know.

It is now my pleasure to introduce the Chairman of the Federal Trade Commission, Bill Kovacic. As I think you will hear, the Chairman has been a very enthusiastic supporter of FTC involvement in this arena at the interface of competition and patent law.

Indeed, he's very much been the inspiration for the project that we launched today, so I give you Chairman Kovacic.

(Applause.)

CHAIRMAN KOVACIC: Thank you, Suzanne, and I am enormously pleased to be here at the beginning of what I am certain will be a fantastic workshop, and my delight in seeing us convene this event is closely related to my view about what the Federal Trade Commission ought to be doing.

It's just about 40 years since the FTC had a near death experience, in 1969 and 1970, where basic questions were raised about whether the institution

itself ought to continue, and the view of a number of observers in thinking about what the way ahead of the agency should be focused heavily on the conception of what the agency's comparative advantages and possible contributions to policy-making were.

And the most formative event at that time was a report that the ABA did in 1969 that said that the high ground for the Commission consisted of following a couple of specific approaches.

First, there was the view that the Commission would pay the rent by dealing with the difficult issues. To paraphrase Jack Kennedy, we do the hard things because they are difficult, and we take them on because they involve some of the most complex and intricate issues. The Commission's comparative advantage, given its institutional features, ought to consist of taking on questions that involve particularly complex issues of law and economics.

Second, was that the configuration of the Agency, which is partly an enforcement body, it is partly a think tank, it is partly an organ for research and policy, it is partly a device to convene discussions of important issues, ought to consist in using all of these tools in a way to come up with more comprehensive diagnoses and assessments of specific

phenomena and to develop solutions that reflect a thoughtful, careful use of all the tools at its disposal.

That's exactly the subject matter of the program today, which in many ways is an extension of activities that the Commission has pursued in various forms over its lifetime, going back to formative initial cases in its first decade, but more recently to a fuller and more elaborate use of all of the policy-making instruments at its disposal.

What do these proceedings reflect or acknowledge? First, is coming up with good solutions with respect to intellectual property. Competition policy requires a genuinely multi-disciplinary perspective. The historical tendency was to focus on a specific discipline and to develop a deep understanding within that discipline is simply inadequate in this area.

I think all of us have come to recognize that the fields of competition law and IP law in many ways reflect different cultures, different disciplines, different fields of preparation, and a flaw in policy-making in the past was the failure to integrate them, and as a consequence, with the application of only one discipline, one saw serious policy distortions as

one field or the other tried to equilibrate, to push back what were perceived to be excesses generated in the institutions and decision-making of the other.

So today's program is in part a recognition of the importance of doing genuinely interdisciplinary work. The second is the recognition that institutional arrangements count and matter a great deal, that to a large extent, when we have discussions about specific topics or phenomena, when you go to conferences and certainly when you go to academic settings, there's a tendency to focus on issues of doctrine, abstractions related to the theory associated with the choice of specific substantive standards.

What's neglected is a discussion of the institutional arrangements through which doctrine is developed and applied over time, and of course doctrine isn't suspended in air. It runs on institutional platforms, and the society that hopes to achieve superior broadband-like policy results can't do so if it's running policy on dial-up institutions.

So part of the initiative here has reflected an effort to focus on the institutional arrangements through which policy is made and to ask how can they be improved, because I think this is part of a greater global awareness, that the jurisdiction that achieves

superior institutional design, achieves superior substantive outcomes while minimizing the cost of applying those institutions is going to have an enormous degree of competitive advantage over time, and its citizens will enjoy greater prosperity because the effort to get the institutional arrangements right has proceeded with a great degree of continuing effort.

A final thought about the approach and philosophy that animates these proceedings today. We see this as part of a continuing conversation. As Suzanne and her colleagues will point out, this is first of a series of events. We found increasingly that rather than trying to point to a single decisive event, where everything is tied together in a conclusive way in a particular field, that in areas such as this one, the model that works best is to have a continuing series of discussions and public consultations.

We see this as the first of several sessions, but I would anticipate over time, given the investment that's been made in the past, that what will characterize success in this area is a continuity of effort, not simply over the coming months but over the coming years where we use, in many ways, our capacity to act as a convener for discussions, as a research institution that can formulate empirical agenda and

indeed as an enforcement body with respect to matters within our formal legal competence, to make this an area in which we continue to return to basic issues overtime.

As part of that process, we welcome your thoughts about what the empirical agenda might be, what the appropriate format for consultations ought to be in the future, and both by your direct participation and through the providing of public comments, we do welcome efforts to intensify and carry out that discussion over time.

I want to finish by thanking perhaps the most important ingredient of making this a successful process. The indispensable element of making this work are the contributions of our panelists, and when you've looked at the good results that I think we've achieved in the past, there's been a continuing theme about that. Very capable people generously put in a great deal of time to think through these issues and to bring those insights to bear in the process.

I can't say how much we are grateful for your willingness to commit your time to doing this, and I think throughout the day, certainly when I get the chance to read the transcript, and it's quite fortunate that we do have a record that becomes available over time, I know that I will see again, as a result of these

proceedings, exactly that kind of dedication of effort and those kinds of insight.

We are extremely grateful to you for committing your time and effort to doing this and to giving us the benefit, not just of theory, but to show us how theory has met practice in a variety of different areas.

Last, let me thank two groups. First, I want to give my thanks to an institution that helped us set down this path in 2001-2002, and that's the Patent and Trademark Office. When the Department of Justice and the FTC and the PTO first formulated the hearings that were set in motion in 2001 that led to the *To Promote Innovation* report in 2003, it was the willingness in many ways of the Patent and Trademark Office to join us in that collaboration.

I suppose if the PTO had approached us and said, "We would like to have 20 or so days of hearings on the quality of antitrust enforcement," I might not have regarded that as a friendly suggestion. I might have seen it, if I were narrow minded, which of course I'm not, as a threat.

Yet the PTO joined us in that effort, even though in many ways it raised questions that were very difficult for them, and the willingness to engage in that discussion, not only to reach consensus about some

of the points, I regard as a singular example of sound public administration, and we continue to realize the benefits of that collaboration.

I also thank my colleagues here at the FTC, and let me simply mention the empresarios who made this happen, the producers who made this happen: Erika Meyers, Bill Adkinson, Armando Irizarry, Tom Mays, Joel Schrag, Chris Bryan, and most of all Suzanne Michel, who is here with us.

Fortunately, you know Suzanne's work quite well, and I'm quite confident that in the field of efforts to integrate knowledge in both of these fields, Suzanne is unsurpassed.

A story I like to tell is an interview that took place some years ago by a journalist who talked to the curator of the Hermitage Museum, and the curator was asked, “Does the Hermitage have the greatest collection of art in the world?” The curator said, “That's a difficult question, it's hard to answer, I'm not sure, but I certainly can tell you one thing, it is not the second.”

With respect to Suzanne's own efforts, that is the effort to truly bridge these areas and bring a genuine, deep, sophisticated understanding of the two fields together, Suzanne is certainly not the second.

I welcome you again I look forward to a very fruitful discussion, and indeed the first of many good days to come in the years ahead. Thank you, Suzanne.

MS. MICHEL: Thank you.

(Applause.)

MS. MICHEL: Thank you very much, Chairman Kovacic. I will stop blushing in just a second. If I could call up our first set of panelists now, and we'll get started. Thank you.

PANEL 1: DEVELOPING BUSINESS MODELS.
MODERATORS:
SUZANNE MICHEL, FTC, Bureau of Competition
ERIKA MEYERS, FTC, Bureau of Competition
PANELISTS:
MALLUN YEN, Vice President, WW Intellectual Property, Cisco Systems, Inc.
PETER N. DETKIN, Founder & Vice Chairman, Intellectual Ventures, L.L.C.
DANIEL P. MCCURDY, CEO, Allied Security Trust; Chairman, PatentFreedom, LLC
RAYMOND MILLIEN, Founder, PCT Companies and CEO, PCT Capital, LLC
BRIAN KAHIN, Senior Fellow, Computer & Communications Industry Association

MS. MEYERS: Good morning. I'm Erika Meyers. Thank you for coming to the FTC's first hearing on the evolving IP marketplace. In our first panel we will explore the emergence of new business models involving the buying, selling and licensing of patents and the implications these developing business models have on patent valuation and licensing.

We have a wonderful group of panelists with us today who will discuss these significant changes. First up will be Ray Millien. Ray is the Founder and Chairman

of PCT Companies, a family of companies providing intellectual property-focused legal, lobbying and advisory service for the knowledge economy. Before that he was General Counsel for Ocean Tomo, the country's leading investment house focusing on IP assets, and he has practiced law with well-respected firms.

Next will be Peter Detkin. Peter is Founder and Vice Chairman of Intellectual Ventures. Before Intellectual Ventures, Peter was Vice President and Assistant General Counsel at Intel Corporation where he was responsible for managing the Intel patent and licensing departments. He was also an intellectual property partner at Wilson Sonsini.

Peter will be followed by Dan McCurdy. In August of 2008, Dan McCurdy was named CEO for Allied Security Trust where he is responsible, among other things, for patent acquisition. He's also Chairman of PatentFreedom. Before this, Dan was Founder and Chief Executive Officer of ThinkFire, and he has had intellectual property experience with a number of large corporations.

Mallun Yen will follow Dan. Mallun is Vice President of Worldwide Intellectual Property at Cisco Systems, the worldwide leader in networking that transforms how people connect, communicate and

collaborate. Mallun started at Cisco as the company's second intellectual property attorney and went on to build a group that now consists of over two dozen professionals.

With the important job of closing the presentations is Brian Kahin. Brian is Senior Fellow at the Computer and Communications Industry Association, and he's also a Research Investigator and Adjunct Professor at the University of Michigan School of Information. He's authored several papers and held other academic and government positions relating to intellectual property.

Suzanne Michel will be moderating, so without any further ado.

MR. MILLIEN: Thank you. I guess I'm batting lead off today. Good morning. My name is Ray Millien. I'm the CEO of PCT Capital and chairman of the PCT Companies. I'm charged today with introducing the topic of the evolving IP marketplace.

Therefore, what I want to do is just put this in perspective, both economically and historically about how we got here. I know there's a lot of what I call Wall Street Journal hype in terms of patent reform, P-LECs, non-practicing entities and all the other names that are out there, and we're all talking about what's

going to happen in the 111th Congress in the new Obama Administration, where there are a good 40 to 50 jobs that may impact IP policy. So without further ado, let me just get into our presentation.

Economically, I guess I always like to start my presentation by quoting Alan Greenspan, one Federal Reserve chairman ago. He noticed back in 2003 that our economy was really moving towards an intellectual property economy and saying that the fraction of the total output of our economy that essentially conceptual rather than physical has been rising, and therefore the rising importance and emphasis in asset valuation going from physical property to IP.

To put it in further historical perspective, Alvin Toffler wrote an influential book called the Third Wave, and in that book, he said you could really divide the world's history into three economic periods. The first was the agricultural period, where basically from 8000 BC to 1800 AD, the measure of wealth was really land. If you remember your social studies from grade school, you realize that back in the day, if you didn't own land you couldn't vote, right, and in some places not so far back in the day.

Really starting around 1800 to 1950, in the industrial age, where really the measure of wealth was

land, labor and capital. In other words, you needed land to build factories. You needed labor to work in those factories, and you needed capital to buy the machines for those factories, and then Alvin noticed that around 1950, really the measure of wealth is becoming more capital and intellectual property, and we are now in the third wave so to speak.

To present some further empirical data, Ned Davis Research, following on some research that was done earlier by Brookings Institute said: Look, if you look at the components of the S&P 500, and the S&P 500 are the 500 largest publicly traded companies in the U.S -- if you look at their value, their book value and separate that by tangibles and intangibles, you will notice in 1975, less than 20 percent of the value of the companies on the S&P 500 were really attributable to intangibles.

If you look 30 years later, that value is almost 80 percent, and we know that IP is the largest component of intangibles, so therefore there's been what we call sort of like an 80/20 inversion.

Now, let's look at some interesting facts. Back in 2005, the economists noted that as much as three quarters of the value of publicly traded companies in America comes from intangibles assets, really validating

the Ned Davis Research.

They also noted that for the first time since the industrial revolution, fewer than 10 percent of American workers are now employed in manufacturing, and by 2008 that number is probably closer to 5 percent, so we are becoming very much a white collar society, the output of which are intangibles. That's how we're measuring wealth these days, and that's how we're measuring the values of our companies.

Global licensing revenue is greater than $150 billion and growing 25 to 30 percent year. If you look at the US IP settlements and judgments in 2006, they total over $3.4 billion, and if you look at sort of the gold standard of measurement of IP revenue is always IBM, you'll notice that they were at $975 million in 2006, down from their previous high of $1.5 billion, and if you look at sort of the flip side of a different business model where a large company doesn't do a cert, you will notice that Microsoft paid more than $1.4 billion in IP royalties in 2003.

So I talked about the historical perspective, the economic perspective. Now, I have this little chart here that I would like to go through just to talk about the history of the IP business models in the evolving IP marketplace.

Going from left to right, we're going from historical to future, and then from top to bottom on the Y axes there, I'm going from quote, unquote, low quality transactions, highly frictional transactions, to more high quality transactions, less frictional transactions.

Historically, IP was really a feudal system. If you look back 30 years ago, the IP game was really dominated by the IBMs and the GEs of the world and their patent lawyers. You had a very few companies that owned most of the patents, and that was really the IP game, and then people just basically did a lot of defensive cross-licensing. Then companies like IBM got into royalty-based industry licensing and then into expansion licensing, licensing companies outside of your core business areas.

In present, now we have companies doing IP based M&A where they're buying a company, not because of its revenue, but because of its IP position. You have patent licensing and enforcement companies, P-LECs, or what some people refer to as NPEs, non-practicing entities, or some people refer to as patent trolls. Those are sprouting up.

And now you have people doing patent pools, whether it be defensive or offensive. With Ocean Tomo we launched public IP auctions a few years ago, and now

there are a lot of web portals popping up which are more like the business to business models like yet2.com, Tynax, Deans List, Patent/Bid-Ask, so on and so forth.

In the future, you're really going to see an IP for the masses, where IP is treated more like a commodity, like pork belly futures and oil and so on and so forth, and right now, you have people developing IP-based hedge funds, where they're picking stocks based on the companies's IP portfolio, and we have IP indexes like the Patent Board's Wall Street Index or the Ocean Tomo 300.

You are going to see in the future urban IP zones. You've heard of the empowerment zones. The next wave is going to be urban IP zones, like American Express is pioneering in Upper Manhattan to develop the economic areas in Harlem.

Then you're going to see traded exchanges for license rights, like the IP Exchange in Chicago that people are developing now, sort of the NASDAQ and New York Stock Exchange for intellectual property, and that's sort of where we're headed.

There is still a problem with IP today. That is, the IP assets are not very liquid, and historically IP sellers haven't been really able to locate IP buyers readily and easily. These days, if you own a hundred

shares of Citibank, it is easy to sell these shares, you just call your broker, but if you own a hundred patents, where do you go to sell those? That's a little more difficult transaction, obviously.

Traditionally, IP transactions have always been characterized by difficult to acquire identification, long periods of negotiation, and as all the lawyers in the room, know, endless due diligence.

So what are the IP business models? So we've surveyed the IP business models and really found there are 17 business models out there, and there are probably more evolving as we speak. But, these 17 business models are different and apart from an operating company, who is doing R&D, producing IP, and getting markets and products to the marketplace, and this is different than the law firms.

So we're talking about the models other than the traditional law firm model and the other traditional operating company model, and those models include the P-LECs that we referred to earlier, people like Acacia Research, Fergason and Lemelson; in other words, people who are non-practicing entities that assert the IP.

Then you have institutional IP aggregators. Those are people who are really following more of a private equity model where they're going out and raising

capital, going out and acquiring IP and employing different strategies to monetize that, whether it be arbitrage or what have you.

Then you have your IP technology development type companies like AmberWave, QualComm and Rambus. Those are companies, traditional-like companies but who may develop IP, who spend a lot of money on R&D but may not actually get the actual product or service to the consumer but rather licenses it to another company who then produces the product or service.

Then you have your licensing agents, those people who represent companies who are looking for licensees.

Then you have your litigation, finance or investment firms. These are firms that may loan money or they may take investment, whether it be equity investment or debt investment, into a company who then may use those funds to go out on assert or use those funds to develop the IP or use those funds to actually go into business.

Then you have your IP brokers, who are very much like your IP licensing agents, but in those cases, the brokers are more; in other words, licensing agents sort of go along with the company. They try to find licensees. They manage the licensees. They implement

strategy. The brokers are pretty much the people who are saying, look, you want to sell your patents, let me broker the deal, I keep a percent, I'll move on.

Then you have IP-based M&A advisory. Those are people who are helping companies locate IP, doing some more investment banking type representations but looking for companies to compliment their client's IP portfolios.

Then you have your IP auction houses that are trying to do what Christie's and Sotheby's did for the art market; in other words, make it more liquid by holding either live or online IP auctions.

Then you have your online IP technology exchanges; in other words, more of a B-to-B business model like back in the dot.com heyday, people who are letting people post their IP, sort of becoming the credulous of IP, so to speak.

You move on to people. You have people who are doing IP-backed lending. In other words, there are people who are loaning companies money in the range of anywhere from half a million to two million dollars, and basically the collateral for those loans are not the Aeron Chairs and the Dell Computers, but the actual IP assets of those companies who are typically start ups or post-round A companies.

Then you have your royalty stream securitization

firms, who are probably not doing much business in light of the mortgage-backed securities meltdown, but in essence, those companies are those who specialize in helping companies issue IP-backed mortgage securities. Many of you may remember the Dunkin' Donuts deal or the Yale University deal where essentially a company issues bonds, and those bonds are backed by the royalty income of its existing IP portfolio.

Then you have patent analytic software and services. These are the folks who are not really doing deals, not really facilitating deals, but they're providing the background research to do the deals, your PatentRatings.com or your Patent Cafes. They're helping people do due diligence. They're helping score patents. They're helping trying to -- if you have a portfolio of 4,000 patents and you want to know, which of those patents should I assert first, those are the companies that are doing the background analytics.

Then you have companies that follow all the business models that I talked about earlier, but focus in on the university market, and that's not a bad market to focus on because universities in 2006 did over 4,000 patent licenses, and if you look at the combined research budget of universities, you're talking in the tens of billions of dollars.

Then in the 14th business model you have IP transaction exchanges, and those are what I mentioned earlier going to the future, people trying to be the NASDAQ and New York Stock Exchange of IP.

The 15th business model are defensive patent pools, funds and alliances. These are companies that really function like the private equity model, and I won't steal Dan's thunder there, so I'll go quickly through this, but in essence those are companies that are raising capital and pooling patents either for offensive or defensive purpose.

Then you have companies that focus on technology and IP spin-out financing. In other words, those are companies that are helping Fortune 500 companies that have developed some intellectual property, but that IP is outside of their core areas, so therefore they provide financing to spin that IP out into start-ups or smaller companies who may take that IP and develop actual consumer based products and services.

Last, but not least, we have patent based public stock indexes, like the Ocean Tomo Indexes or Indices, and the Patent Board's Wall Street Journal scorecard, and again, those are companies that are facilitating trading and hedge funds that are focused on IP based quant models.

That's a summary of the business models in the evolving IP marketplace, and with that I'll turn it over to my fellow panelists.

MS. MICHEL: Thank you very much, Ray, and let me comment: Ray has done a great job of packing a lot of information into a small time and exactly the information we needed to lead off this panel. We do plan to post all the slides on the web site for the conference, so that if you didn't catch it all, you can get it there.

We'll turn next to Peter Detkin.

MR. MILLIEN: It's a good thing I'm from Brooklyn. I did that in a New York minute.

MR. DETKIN: It's been a while since I left New York, so I don't think I can match Ray's speed, but we'll see what we can do.

I would like to thank the Commission, Chairman Kovacic, Suzanne and Erika and everybody at the Commission for hosting this panel and for bringing us together to discuss this important topic.

There are a wide range of views, a lot of strongly held and sincerely held positions on various issues that surround this evolving marketplace. With that in mind and with full knowledge of the silver tongue oration that is to follow and the held views of

my fellow panelists, I want to see if I can reserve some time for rebuttal here.

So you heard from Ray about the market and what is evolving out there. I'm going to talk a little bit about why and Intellectual Ventures' place in that market, so we're going to dive a little bit deeper on one of the models, and I'll touch on some others.

Why does the market exist? Like any market, it exists because there's a demand for it. The current market undervalues invention and discourages innovation. I'll get a little more into that, but the simple fact is the objective facts are that markets don't pop up for no reason. They exist because there's a demand for it.

Congress is addressing some of it, but as often happens in capitalist societies, the free market is addressing it as well, and I think there's some very interesting questions for the FTC to look at.

Let's never forget, I mean, I started this presentation off, and I don't know if you caught my title slide, according to the Constitution, the point of the patent system is to promote the progress of science, and so the key question I think we need to look at is: Are inventors and innovations better off with the new free market models emerging and evolving or not? Let's not focus on individual competitors. That's not what

antitrust law is about. That's not what patent law is about. Let's focus on invention.

What are the sources of invention? Quickly, this comes from an SBA report. 60 percent of the patents granted are actually so called small inventors, which is a defined term in the Patent Office regulations. 40 percent are large corporations.

Of course, the patent revenues -- I have to be honest, I saw Ray's number. I'm a little distrustful of the $150 billion number that he put up. I've seen that reported before. However, he also noted that IBM was roughly a billion, and a number that we all know about. I find it hard to believe that if IBM was at a billion, the entire market is 150 billion.

So another call, another challenge to the FTC is this discussion needs data. This argument desperately, desperately needs data. There's a lot of anecdotes out there. I remember when this discussion first started four years ago. Everybody was all up in arms about the Dell injunction case, because injunctions was the big issue. In the *eBay* case, the Supreme Court did what the courts do, which they tweak the law as we all know, and dealt with the injunction issue.

But everybody was talking about how Dell had to stop shipping the laptop because of a patent on a modem

that was on a small piece of a modem and meant the laptop got shut down. It turned out the case didn't exist. It was urban myth. There are a lot of urban myths out there. We need data.

Looking at the technology marketplace from the user view, that is the large corporate view, the large corporations, Moore's law is almost -- it's an economic law, but it's as immutable as the law of gravity in the semiconductor industry. It also applies in all other industries. There's a lot of integration going on.

There's a lot of inventions that are being used by companies that didn't come from those companies. I mean, I'll have to pick on Mallun for a second because she's sitting here, but I'm sure Mallun will tell you that Cisco does not have all the patents on routers and networks.

They have a large percentage. It's a very innovative company, but they don't have them all. I know at Intel we didn't have all the patents on semiconductors, a lot of other good companies out there did.

So Intel needed access to invention rights, and that's what patents are. They're dry pieces of paper. They represent invention rights. Just like we don't talk about deed law, we talk about land. Patents

represent inventions, and Intel needed access to the inventions of others, and they needed to share IP within an ecosystem, and of course they needed to avoid financial pitfalls. They want to avoid royalty stack-ups.

From the inventors' standpoint, they just want to be paid. Inventors want to invent. They don't want to spend years -- you heard Ray talk about, and I'll talk about it a little bit more, the difficulties of being paid. It's hard for somebody to invent, and then if they invent something cool and new and they make a router go 10 percent faster, they're not going to start a company that's going to go compete with Cisco, they would be nuts, but they would like to license it to Cisco.

Well, they can knock on Mallun's door and have a nice discussion with Mallun. I sorry, I don't mean to pick on Mallun. I'll pick on Doug at Palm. They can knock on Doug's or Mallun's door and start the licensing negotiation which here's another immutable law. It's another 18 to 24 months. It's interesting, 18 to 24 months, Moore's law, that's law of licensing. We'll call it Detkin's law.

18 to 24 months in licensing negotiations, I'll guarantee you, but you know what? During that time he's

not inventing, and that's what he wants to do. That's from the small inventor's standpoint, and this is supposed to be an avatar of a friend of mine, who has a patent by the way, and I got it for him. The first patent I wrote in 20 years, and he got what he paid for it. I did it for free.

From a corporate perceptive, R&D budgets are under pressure. Patent portfolios are underutilized. People invent things that they don't use. They have the rights to them. They have a right -- the shareholders have a right to see a return on those inventions, but it's something the corporation is not currently using, and of course patent enforcement is not for the faint of heart or small of pocketbook.

What that leads is kind of a big guy versus little guy syndrome. Big companies frankly benefit from a disorganized market. They take a viewpoint that whenever you go to one of the patent law focused conferences, not one that's like this, you go to patent law focused conference and there's always a panel on how to avoid paying? What are the latest techniques? What are the new reexamination techniques for keeping those patents in the Patent Office forever? What are the techniques for -- who are the best courts to go to? Who are the best courts not to go to?

As I said, Detkin's law, 18 to 24 months of license negotiations, litigation of at least two to seven years, and of course, if you don't like the law, try to get it changed.

Small inventors have few options. Ray talked about this eloquently, but there is no market to get the inventions for that guy who made the router go 10 percent faster. He's got no efficient way for getting that license to Cisco. He's got a hard choice. Does he keep inventing or does he go try to negotiate with Cisco or Palm or whoever?

That leads, by the way, to a swing from the fences mentality. If I'm going to litigate, I'm going to ask for a lot of money because I have got no choice. It's a two to seven year long slog that leads to the so-called troll syndrome.

This was all analyzed by a professor, I hope I don't mispronounce his name, Elhauge, a professor at Harvard Law School who wrote a very influential paper, copies will be available in the back, and he examined using language that only economists can love with lots and lots of formulas, but his conclusion was that the current system of damages leads non-inventors to appropriate patents for less than their value, thereby discouraging investment in invention.

This was a direct response to the Shapiro-Lemley paper that was published I think a year or two ago, and it's a really very interesting article. I commend it to everyone studying in this field.

I understand Professor Cotter has written a reply or a reply of sorts that he'll be discussing this afternoon. I haven't had a chance to read Professor Cotter's reply. He just promised to send it to me. The point is, clearly there's room for debate on this issue.

I'm sure that Professor Lemley disagrees with Professor Elhauge's conclusions. I believe Professor Cotter does as well. Reasonable minds can differ. There is some serious debate to go on here, and I don't think anybody would call any of these professors unreasonable minds.

How do we restore balance, which is what we're all here to discuss? Well, there is a lot of lobbying going on as we all know. I mean, this is not a secret to anybody in this room. Some of the folks, staffers from the office came here for a break from the lobby, and I see them in the audience.

Patent law changes are under review, and talk about a timely bullet, the *Tafas* case is being argued I believe, even as we speak. Judge Rader, by the way, is leading the panel, if anybody's curious. There's

significant legislative reform under discussion.

Interesting, the FTC, of course, published its report in 2003, which everybody now holds up and says, This proves the need for reform, but if you look at the reforms that are proposed in the FTC report, it has no bearing whatsoever on reforms that are in the current drafts of the legislation, so I would urge folks before they use that as a basis for reform to actually read the FTC report.

There's a lot of claims that are out of control, filings and damages awards. Again we need data because the fact is litigations are down or flat in the last several years. Dan McCurdy's own web site has year to date as of 2008 data. It shows that NPE litigation is only 4.5 percent of overall 2008 patent suits. There's no evidence of out-sized settlement or damage awards. There's been no proof the Georgia Pacific factors don't actually work. Of course the Supreme Court and the courts generally are becoming more active in IP. I don't need to belabor that point. I believe this audience is well familiar.

So what do we need to do going forward? We need to continue to remember that patents protect ideas, not products. We need to focus patent law on idea protection, not on what's right for the product

manufacturer. We need to provide incentives to inventors. We don't want to facilitate market share protectionism and continue to activate the free market forces that Ray so eloquently spoke of and so quickly.

Talking a little deeper about inventions and developing asset class, traditional asset classes, you have venture capital, which is capital stimulating creation. There's been a 77 X growth since 1980. VC-backed companies -- this is a study as of last year so the numbers may be a little out of date, but you get the idea. It's a very large percentage of the U.S. GDP.

Private equity, that's an effort to unlock a potential of existing assets. You provide the capital. You provide the expertise. It's at a huge growth. Now, this number is definitely old because God knows what this number is in light of recent events, but still, it's a very large market.

Invention capital is somewhere in between investing in invention. It's a combination of both investing in new assets and investing in existing assets and bringing them to their full potential.

These are some of the models out there. I'm not going to talk about these at all because Ray covered it already. Professor Elhauge had a very interesting conclusion, and this should be common sense to everybody

in the room. Non-competitors, non-practicing entities actually have less incentive to overcharge for IP as compared for competitors because there's no competitive so-called tax or rent that they'll seek to include. Again I encourage people to look at that article.

Who is Intellectual Ventures? Well, we build, buy and partner. I have 30 seconds to get through this, and I will.

MS. MICHEL: We have time.

MR. DETKIN: We do all three.

We build our own inventions. We have a state of the art laboratory. We have many engineers on staff who are devoted to nothing but inventions. We buy inventions from others. Folks come to us and say, I have invented something cool, I want to go back to inventing, will you help me monetize this. We have capital for that.

We partner with others. We work with research institutions around the world. Our research model looks remarkably like Cisco's, like Palm’s, like HP's, like Intel's. We all build, buy and partner. The difference is we don't make product out of it. We're not embarrassed by that. We're not apologizing for that fact.

We don't think we have distribution expertise.

We don't have manufacturing expertise. We don't have marketing expertise. We want to let a thousand flowers bloom. We non-exclusively license and let our licensees do that heavy lifting.

We have about $5 billion under management, and let me correct a misconception that's out there. That does not mean we spent $5 billion. I've read some blogs where people said, Oh, my God, they've spent $5 billion, there's a bubble, I can't believe that, they'll never get a return. We haven't spent $5 billion. We have $5 billion under management, big difference.

Of the amount that we have invested, 20 percent has gone to individual investors, by the way, and the rest has gone to corporations to reimburse them for their -- to help them monetize their inventions, but we are helping both the small inventor and the corporations, and we've generated over $1 billion in license revenue already, and yes, we've done that all without any litigation.

We see about 30,000 assets per year, and we currently own about 20,000 plus assets. Assets are both patents, patent applications and foreign assets as well, and we've filed thousands ourselves.

We believe we are making it easier for buyers

and users to engage. From a patentholder perspective, they receive fair compensation. That person will figure out a way to make that router go 10 percent faster. He gets his money. He gets to go back and invent, which is what he wants to do. We think it's a market alternative to him being forced to go to litigation.

From the user perspective, it enables them to deal with us. I mean, if we were to license all 20,000 assets to a particular company, they can either deal with us or they can deal with 20,000 individual rights holders. That's the so called gridlock economy, and that's what we think we're solving, because they don't need to go deal with all the individual right holders. They can just deal with us.

I'm almost finished. You don't have to put up the stop sign.

So the real question for the FTC is: Are investors better off than they were five years ago? I believe the answer is yes, and notwithstanding that stop sign, I still think I've reserved some time for rebuttal. Remember, patents protect ideas, not product.

Thank you very much.

MS. MICHEL: We'll now turn to Dan McCurdy, and there will absolutely be -- following all our panel presentations, we'll be having a discussion among our

panelists which I'm looking forward to. Dan?

Dan, we started a little early so a couple extra minutes is absolutely fine.

MR. DETKIN: Sure, you tell him that.

MS. MICHEL: Sorry, Peter.

MR. MCCURDY: Thank you very much. Good morning. I'm Dan McCurdy. I'm CEO of Allied Security Trust and chairman of PatentFreedom, and, Peter, thank you very much for your comments. Where do I begin?

I appreciate the opportunity to appear before you today. My remarks are taken from a larger paper I have just completed for the Center For American Progress, which we published for January the 12th, and which will be discussed at a panel on patent reform which I will moderate on that date being sponsored by CAP.

The United States is, of course, in the midst of a financial crisis. That's no surprise. Innovation will be critical to restore the long-term economic health and prosperity of our country. Innovation, as a key to prosperity, has long roots in the United States.

The basis for the patent system was not the protection of individual rights to inventions *per se*, but rather the promotion of economic development in a young and ambitious country. Patents would facilitate

investment and innovation by helping to ensure that the patented products or services that were the fruits of that innovation could not be copied by others, thereby undermining a return on the investment that made it possible.

In recent years, much in the practice of intellectual property management has changed in ways that are inconsistent with the public policy objectives that were the foundation of the patent system. Left unchecked, some of these new approaches threaten to undermine the patent system and our prospects for renewed economic growth.

By far, the most significant and destabilizing change in the patent environment since 2003 has been the dramatic increase in the growth, financing and patent acquisitions of non-practicing entities, sometimes called patent trolls, a phrase, of course, coined by my friend Peter Detkin.

NPEs derive or plan to derive all our most of the revenue from the enforcement of patents. They are, therefore, distinguishable from major research institutions, universities operating companies which respectfully derive their revenue from funded research, tuition grants and the sale of products and services.

Some NPEs raise large funds from which to

purchase the patents they seek to enforce building these purchased portfolios around already highly successful products. They then use these funds to enable, through direct or veiled threats of infringement, their pursuit of royalties as a tax on these successful products. To be clear, they are not protecting revenues derived from their own products but rather seeking a toll from successful product companies.

It is my prediction that because patent licensing is inherently selling a product that no one wants, litigation will be required to achieve a level routine investors and NPEs expect. From October 1, 1994 through September 30, 2002, 527 patent lawsuits were filed by or against 219 NPEs currently identified and tracked by PatentFreedom. This represented 2.7 percent of patent lawsuits filed in the United States during that eight year period.

From October 1, 2003 through December 30, 2007, there were 1,210 lawsuits filed by or against these entities, representing approximately 8.4 percent of all patent lawsuits filed in that period, which now exceeds 10 percent in both 2006 and 2007.

The number of unique operating companies sued for patent infringement by an NPE grew from 43 in 1996 to 1,260 in 2007. The number of litigations by NPEs

against operating companies grew from 17 in 1995 to 343 year to date 2008. With patent litigations averaging $5 million in cost to each the plaintiff and the defendant, the loser in this process will be operating companies, consumers, competition, since many smaller companies could be driven out of business by expenses of these magnitude, and an overburdened court system.

Today the 219 NPEs currently tracked by PatentFreedom combined have more than 800 subsidiaries, likely at least 1,500, of all Intellectual Ventures subsidiaries that are known, and more than 12,500 active and U.S. patents in their holdings. In all likelihood, these numbers dramatically understate the magnitude of the problem.

Intellectual Ventures is unique by virtue of its capital structure, its collection of signatory operating companies, its public relations capabilities, its leadership and its patent portfolio. Beyond Intellectual Ventures, the remaining 218 NPEs currently identified and tracked by PatentFreedom have varied backgrounds.

Some like Acacia Technologies, Alliacense and Rembrandt Technologies are primarily patent enforcement entities that are highly selective in their purchases. Other NPEs such as First Technology, Rival Star, Cygnus

Telecommunications Technology LLC, Freedom Wireless, Millenium LP and Rates Technology, primarily or exclusively license patents created by their employees and/or owners as their primary source of revenue.

A third category involves individuals enforcing their own patents, but who generally do not practice their inventions in their own products or services. Because these entities and individuals do not make or sell products, there is some question as to how their enforcement activities contribute to the first principle underlying the creation of the patent system, to encourage economic growth.

The creation of an idea is frequently the least costly and least time consuming aspect of product success. Development budgets vastly exceed research budgets in research and development intensive companies. Much more time and substantially more investment is required to commercialize a product or service embodying an invention than to create the invention in the first place.

For example, when I was director of business development for IBM Research, the global development budget exceeded the global research budget by about 20 times. Even this were not the case, the tremendous financial and tactical advantages NPEs have over their

operating company targets are huge. When one operating company asserts patents against, both have the opportunity to reduce or eliminate the assertion by counter asserting patents of their own against key products of the aggressor.

Injunctions on key products are also a possibility. This has a stabilizing impact by discouraging frivolous or speculative assertions. These tools are not available to an operating company when confronted with patent assertion from an NPE.

This fact was recognized by Mr. Detkin in the last Federal Trade Commission hearings when he stated: "These guys have no threat of counterclaims. It's the ultimate asymmetry of risk, and even better, they demand an injunction, which boggles my mind."

In fact, an NPE is actually rewarded with these immunities as a result of choosing not to pursue progress or services using their invention or failing to successfully produce and sell such products and services. This can actually serve to diminish competition and increase prices to consumers by rewarding entities not to put products and services in the market but rather tax those that do so.

Some NPEs argue that their presence provides needed liquidity to inventors that may otherwise never

obtain any return on their investment, spurring those inventors to further innovation. It is hard to credit that argument when most NPEs offer such trivial rewards to the inventing seller of a patent.

NPEs with hundreds of millions or billions of dollars in capital pay inventors a small fraction of the money they seek to obtain in subsequent enforcement activities. It's hard to imagine that the prospect of netting so small an amount will on its own stimulate further innovation.

In fact, NPEs could alter their behavior if they truly believed that their objective was to be an advocate and defender of the small inventor. They could, one, attempt to enforce only those patents that they could demonstrate were clearly valid and infringed, fully applying a Rule 11 standard.

Two, they could avoid predatory massing of patents through acquisition that is intended to overwhelm a potential licensee. Three, they could practice full disclosure and transparency in their funding, patent holdings and practices, and, four, they could commit to the return of the majority of royalties to the origin investor/inventor that created the technology.

Though they would still remain a dangerous

threat with significant advantages over operating companies, these changes would help level the playing field.

In summary, NPEs that amass fortunes by using purchased patents to tax those that commercialize innovation raise costs to consumers and stifle innovation. These effects hardly promote the public policy on which the patent system was created, but for the government's grant of a patent, the sole means of exploiting an invention is to put it in a product and offer it for sale.

Fostering the commercialization that spurs economic growth must certainly be at least as important as fostering innovation. NPE's damage invention and commercialization by exploiting their unfair advantage in the market. They increase barriers to entry for new firms that might otherwise lower prices through competition and they threaten the viability of existing firms that could increase competition and lower prices.

Thank you very much.

MS. MICHEL: Thank you, Dan. Now we'll here from Mallun Yen from Cisco.

MS. YEN: Thank you, Suzanne. Thank you, Erika. I appreciate the opportunity to participate in today's hearings, and I want to thank the FTC for its leadership

in focusing attention on the need to make our patent system more effective.

Cisco has a key interest in innovation and in the important incentive the patent system provides. Our inventions are at the center of the Internet's role as the ubiquitous worldwide communication medium. Cisco invests more than $5 billion annually in R&D. We have more than 5,000 issued U.S. patents, and more than 5,000 more pending.

Our patent portfolio is consistently ranked number 1 in the telecommunications sector by the Patent Board, and we innovate both through internal R&D as well as by acquiring companies, 130 by my last count, most of which are start ups that compliment and enhance our business as well as our internal innovation.

So we follow changes in the intellectual property marketplace very closely, and we're very concerned about the recent developments. Increasingly, activity in the marketplace is driven not by increased innovation but by efforts to exploit imbalances in a patent system that overvalues patents, particularly weak ones, and thereby actually suppresses marketplace innovation.

Much of today's patent market is based on the buying of patents in order to profit by compelling a

royalty payment from successful product companies that have actually commercialized their innovations. An increasingly common approach we've seen is to accumulate new patents from each target with which the plaintiff settles, which then, in turn, get immediately asserted against another company, which fuels the cycle even further. The consequences for innovation are potentially just as dire as the injury we've seen to our financial system. Patent laws created to promote innovations are being used to drain funds from innovators, harming our economy.

So in preparation for these hearings, I reviewed the FTC's 2003 report which recognized the potential harm to innovation from a surge in licensing demands. What the FTC wrote in warning about the proliferation of patents, this was five years ago, is: "Innovators and manufacturers may have to choose between the risk of being sued for patent infringement, after they sink costs into invention or production, or dropping innovative or productive efforts all together. Either option can injure economic welfare."

So this is precisely what has become a reality today, and a lot has happened since the report issued in 2003. As we have heard, we've seen an almost irrational exuberance in business models that attempt to make money

from patents, and these models largely developed in the last five years.

Cisco's history in patent infringement actions as a defendant demonstrates this trend. In 1998, Cisco received its first patent infringement lawsuit, and the cases that followed in the next couple of years were brought entirely by other competitive operating companies that built products and services and developed their inventions in-house.

So what you can see in this chart is a dramatic rise in the volume of cases brought directly or indirectly against Cisco in the past five years, including the quadrupling in the past five years, and by the way, none of the cases filed in the past five years involved a competitor, and virtually all of these cases have been with non-practicing entities.

In many of these cases the plaintiffs are not the original assignees or the inventors of the patents. Instead they purchase the patent in the marketplace for the sole purpose of litigation or the threat of litigation and never intended to make or sell any products or services.

So in addition to these lawsuits, we receive many demand letters as well as an increasing number of offers inviting Cisco to purchase patents. These

requests come at a rate of five to ten per week, and we look at every one of them, including the friendly request to buy patents rather than license, and in several of the cases where we've declined to buy the patents, the patent holder has sued us very shortly thereafter, and we have other cases where the patent holder then sells the patent to a third-party who also then very shortly thereafter sues us.

So some of these plaintiffs seek an amount that is just under the cost of litigation, knowing that with such uncertainty in the system, a company must seriously consider resolution under such terms, and other patent holders make huge demands based on a system that does allow for jackpot type victories.

Indeed, we've had demands as high as $8.8 billion, and, in fact, there was actually a meeting where a plaintiff literally demanded, I quote, a gazillion dollars, not kidding. We almost pulled out our checkbook right there and wrote a gazillion.

Inevitably, these patent holders, these plaintiffs also seek treble damages for willfulness, even though the first time we've ever heard of the patents are years after the products have been developed, and indeed sometimes the claims have been written years after the products have been developed. Generally the first and

only notice we've ever received of these patents are when we receive the offer to purchase their patents.

So even when infringement allegations are baseless, the cost of defense are extremely large for a technology companies. I did a poll of some of the other large technology companies, and the defense costs range on the low end from $4 to 5 million, for a relatively small simple, one patent case, to well over $25 million for a more expensive case, with the average being between $5 to 10 million for most cases.

Additionally, every assertion we receive distracts our engineers from innovation and productive efforts. The valuation of patents requires a significant amount of time that would otherwise be spent on developing new products, not to mention the time consuming prior art searches, discovery requests, depositions, testimony and travel to far away jurisdictions.

So to be clear, despite what Peter says, when a licensor presents a legitimate claim that we are using or could be using their patented invention and the royalty expectations are reasonable, we absolutely voluntarily license the patents and do so very quickly, well under the time frame that Peter mentioned, but more often the assertions that we receive present patents of

questionable validity and weak arguments of infringement and yet request royalties of a magnitude far beyond the value, the fair value of the alleged use of the invention in our product.

So when our engineers and experts take a look at the patent and they tell us that this has nothing to do with our product or it's very clearly invalid, we still can't ignore such a patent. The odds are stacked against invalidating even weak patents. Further, there is uncertainty in the calculation of damages, especially in light of current law, and these factors together conspire to raise risk levels throughout unmeritorious settlements, and hence fuel the cycle even further.

So as a rational business, we have to evaluate the downside if we lose. Plaintiffs regularly seek a percentage of the total value of the product that is allegedly infringing rather than the value of what was actually invented, which in many cases might be a minor feature of a particular product, so this was demonstrated by the recent jury award of over $500 million against Microsoft.

So even though the accused feature was the -- if you go into the auto date picker feature within Outlook when you're scheduling an appointment, if you float your cursor over the date, a little drop down calendar will

appear, so that is what the alleged patent -- the patent allegedly covered.

So the plaintiff in that case was permitted to ask, seek from the jury an award of damages based on a percent of the overall Outlook program, with all of its many features and functions, and this followed shortly after a jury awarded $1.5 billion for infringement by Microsoft of a patent alleged to be infringed by an aspect of an MP3 player which was within an overall PC, although this award was overturned by the Court.

So with this type of potential downside, while one might prefer to fight these baseless assertions on principle or to deter opportunistic actors, effective risk management for corporations unfortunately requires that in more cases than we want to, we settle, and the money that we use for settlement or that we pay for attorneys' fees not only continues to fuel the frenzy, but it also directly impacts innovation, in that it takes away -- absolutely takes money away from resources such as hiring engineers and funding new R&D efforts.

So one might ask: Why can't we simply avoid all these issues by analyzing the patent landscape before we design a product and simply design around all these patents? Well, the reason is simple. It is impossible

to achieve any degree of certainty by such clearance searches with today's systems.

Beyond the sheer quantity of issued patents in our field, in fact I did a search and in the last year alone, if do you a search on wireless and Ethernet, 3,400 patents issued in the last year. Beyond this, the current patent system also allows patent-holders to construe claims so broadly that a reasonable product company would often never recognize most of the patents that ultimately are asserted in speculative litigation.

Even if we could identify such patents, this knowledge would likely later lead to a claim of willfulness, even post-*Seagate*, on a patent that was not relevant to our product development. So the end result is the exact opposite of the patent systems's purpose, innovation is discouraged.

The money to pay unjustified settlements is taken away from R&D and promising technologies, and the added costs ultimately are passed on to the consumer, and more troubling perhaps is the lost opportunity for new products and services that would lead to new jobs and the bolstering of America's technological leadership, so we need to reform the system. The most important change we can make is to ensure that damages are based on the fair economic value of the innovation

that gave rise to the patentability.

Now, there's been a lot of discussion and debate on this issue, but at the end of the day, the question is simple: What was actually invented and what value does the true innovation add to the product?

To that, to answer that question, the place to start is the value of the invention rather than the value of the product, and for illustrative purposes let me give you an example.

If I invent a new tire, is it reasonable that I can pursue a percentage of the $25,000 car because the tire is incorporated in the car when it is sold? No reasonable person would accept this premise, and yet that is the current practice in the high tech patent world.

So as an innovator and patent holder, we are in favor of a strong patent system that rewards innovation and promotes competition. The patent marketplace will continue to exist and will in fact be strengthened by reform. There will always be demand to trade patents, to aggregate them and for other reasons, but the value of patents should reflect the true value of what was actually invented.

So we look forward to the FTC's continued work on the patent system. There is a real opportunity to

once again drive productive change. If there is a more balanced system, then expectations will be more reasonable, and real patents will continue to thrive and be even more readily licensed.

So the result will be a robust and more efficient marketplace with transparency that fairly values patents, and that's something that's good for innovation and competition.

Thank you.

MS. MICHEL: Mallun, thank you very much, and finally to wrap up this portion is Brian Kahin.

MR. KAHIN: Do I have to control this.

MS. MICHEL: Yes, just hit the arrow I think.

MR. KAHIN: Okay. Well, I'm delighted to be here. I'm going to take a little bit different perspective. I've heard a lot of things that I agree with, surprising amount of things that I agree with, and talk about some of the intentions within the system, within more of a policy framework rather than an individual enterprise framework.

So I'm first going to offer you this quote from Judge Rich, which I think expresses a perspective on the patent system that underlies a lot of the jurisprudence of the Federal Circuit. This is something he said many, many years ago, and I would describe this as a legal, a

very legal, narrow legal perspective on the patent system as a right in a particular case.

The problem with this perspective is that, one, it assumes that the patent is an asset, and that colors a lot of thinking about patents that is ultimately very confusing because a patent is not a right to an invention. A patent is basically, from an economic perspective, an option to sue. It's a right to exclude, and Judge Rich does not seem to recognize the liability that a patent can create when he said this.

What I think is one of the really remarkable achievements of the FTC study back in 2002-2003 was to attempt to integrate economic and legal perspectives on the patent system, and they came up with this significant recommendation. We have a long ways to go to making this happen, as witnessed the apoplectic response of the American Intellectual Property Law Association response to this recommendation.

So what I want to offer you is a framework for analysis, and it's not just the economic perspective or the legal perspective that Judge Rich presented with the economic perspective, which is a systemic perspective. It is something in between. There is something in between, which is what most of these presentations have been focused on, and that is business practice. How do

you get from the individual patent to the systemic effect?

I also want to point out that even when you get to the system, you're really only talking about the patent system, and patents are intended to promote innovation, so if you really wanted to look at this correctly, you have to look at the patent system in context, in the context of other innovation models, like the development of standards, like open source and software, and different means of appropriating returns from invention.

There are a number of those. Even though you may be told that people will not invent without patent, you look at the Carnegie-Mellon survey of '94-95, and you see there are a lot of other reasons that people can have confidence that they can appropriate returns from invention, and that patents is not the top reason, except in the pharmaceutical area.

So even within, going back and focused now on the MESO level, what I call the MESO level here, business practice, there are different levels, and Raymond gave us an excellent overview of business models. I want to focus a little more on strategy, particular practices and what drives them.

So here are the patent uses identified in the

Carnegie-Mellon survey: Preventing copying, 99 percent. So that's kind of the classic notion that patents are an adjunct to technology, that they're there to protect against unscrupulous innovators, and I note though that this is asked of manufacturers' R&D managers, so this is a particular perspective. This did not ask lawyers. It did not have other kinds of business like technology development companies.

It's also important to point out that the Carnegie-Mellon survey was the third of a series of surveys, the Mansfield, Yale and then Carnegie-Mellon, and we haven't had anything of this scale in 15 years, despite the remarkable changes in patent practice.

So I am offering these as examples of creative uses that were not reflected in the Carnegie-Mellon study. I'm just going to leave that there and not say anything more about these, although a lot could be said about these individually. You can look them over, and I will have a draft written statement that lays these out as well.

Now, what I really want to focus on is information failure because I think this is what's driving a lot of the problems we're having in the patent system, and here again is a laundry list of the sources of information failure, and a lot of these have been

talked about individually.

The problem has not been looked at systemically, and this explains why we have such an opaque system. We don't have data, so I agree 100 percent with Peter that we need data. We don't have it. We have funny data. We have the problem of: How do you evaluate cross licenses? Do you value them by the balancing payments that are made, or do you value them by imputing value on barter to every license from both sides?

That's the fundamental problem, and that lies at the heart of that funny $150 billion a year figure. There's a paper by Carol Robbins at the Department of Commerce that lays that out, makes incorrect conclusions, but it's worth looking at, and that is a big problem.

So behind this we have a tension between two different kinds of value. We have the value as reflected in the cross license, which you can see is undervalued if you want, and you can see the value in the hands of the entity, the non-practicing entity. You can call one the freedom to operate value, and you can call the other the value extraction value, and the value extraction value tends to be a lot higher than what the patent is worth for freedom of operation.

So here's an example of the opacity. This is

one of my favorite quotes from the 2002 hearings from Frederick Telecky of Texas Instruments. He was saying this in the context of - we can't do searches to disclose the standards process because we have no idea what we have, but you can imagine that if TI has no idea of what it has in its own portfolio, how does a company know what's in the dozens of portfolios and tens of thousand of NPEs or technology company patents that are out there? It's an impossible problem, and it discriminates against all but the largest companies who can conceivably manage that kind of knowledge.

Here's Mark Lemley expressing the problem more recently. What's the solution in component industries, and that's IT, you ignore patents, totally contrary to the popular image of the patent system, totally contrary to the principle of disclosure that supposedly underlies the patent system.

So the underlying dynamic is we've got a very opaque environment rife with information deficiencies of all kinds. Information deficiencies drive information asymmetry. Some people know more than others. Some people will pay to find out more than others. Some people build business models knowing a lot about particular patents.

Operating companies are focused on creating

products for the market, and you can see that cross-licensing is a way of not only getting freedom of action, but by not spending a lot of time and resources on evaluating patents. Your stack is this high. My stack is this high. Pay me this.

Arbitrage, when you have information asymmetry, you naturally get arbitrage. There is benefit from moving patents from a low value environment, cross-licensing environment, to a high value environment, asserting individual patents, so that becomes an important business driver.

That's why we see patents which were originally committed to RAND licensing being asserted against companies that are using the standard because they've moved out from under a portfolio and into the hands of a specialist.

So when you have arbitrage, you actually have incentives to secrecy, so I was discussing with Peter this morning the troll metaphor, and I went back and researched Three Billy Goats Gruff to make this point because it's not just a bridge. It wasn't a bridge as a bridge. It was a bridge with a troll hidden under it, and so the problem is being surprised, so there's an incentive to surprise.

There's incentive not to disclose your patents

to a standard setting organization. There's an incentive to hold back your patents until the technology represented by the patent is embedded in a product or a standard or the marketplace, and this is leveraging against the sunk costs, the investments as Dan was describing and Mallun that operating companies make that isn't connected with the individual inventions.

There's a lot that goes into IT products in terms of design, in terms of integration, in terms of marketing and so on that is entirely independent of the value of underlying inventions if you can identify those. So when you put those two together, you get ambush, surprise, multiplied by somebody else's investment in sunk costs, and so the way the system is operating in many contexts is to promote ambush.

So my final conclusion is we have the irony of a patent system that purports to promote public disclosure actually promoting secrecy and secretive behavior, and we have a major problem of opacity and evaluation, and part of the case for data is that we ought to know a lot more about this.

These are not credit default swaps that the private sector has come up with. These are public grants of rights that the public should have an interest in understanding not only what we look like on paper but

how they're used in practice.

Thank you.

MS. MICHEL: Just hit page down I think. All right. Thank you. Great.

MR. KAHIN: I can't get your symbol back.

MS. MICHEL: That's all right. That's all right. Chris will do it. Is Chris here?

Thank you. That was very interesting. I think our panel has done an excellent job today of bringing in a wide variety of perspectives on these issues coming from the very practical level of what's happening to the very high policy level of how should we think about it.

Now, I think I misspoke when I called this the rebuttal portion of the program. It's actually the discussion part of the program, and I'm happy to lead off, but also, this is for our panelists to discuss with each other, so would any -- Peter?

If you can also turn up your table tent when you want to speak so that we can take turns in an orderly fashion, but, yes, Peter we would love to hear your remarks on what you've heard.

MR. DETKIN: We only have an hour or so so I don't know if I reserved enough time for everybody.

MS. MICHEL: 35 minutes.

MR. DETKIN: Dan led off his remarks by calling

the management of Intellectual Ventures, I think the word he used was unique. I'm not sure quite how to take that, Dan. Hopefully, I'll at least demonstrate it's my ability to take slings and arrows, which were coming pretty fast from my fellow panelists. I did my best to take some notes, and I apologize if my response is not going to be polished because I have not had a chance to see Dan's papers or having heard Mallun's comments ahead of time.

MS. MICHEL: I suspect you knew what was coming.

MR. DETKIN: No, I didn't know about Mallun, and I applaud the fact that Dan is making an effort through PatentFreedom to bring some data to the discussion. I may disagree with his conclusions. This won't surprise anybody. I do disagree with many of his conclusions.

I believe that some of the data he is looking for is perhaps intended to support some conclusions, but none the less the effort's there. I think Brian supports me in saying this is something that's desperately needed in the debate.

However, I also think that, I don't know if they realize this, but both Dan and Mallun I think gave a very eloquent argument in favor of the emerging market. They both said that -- I think Dan used the word stabilizing, Mallun used the quote from -- I forget

where it was from, about how the patent system could cause people to drop innovation, innovative or product productive efforts.

The fact is that in I think seven or ten hearings and countless roundtables, not a single CEO or a single head of R&D ever stood up in the IT field and said, I'm not developing a product or I cut down in R&D effort because of patents. There's not a single company that has ever said because of patents, we had to pay material amounts of money.

The RIM case might be the exception, and the RIM case of course everybody knows about it. Oh, my God, it was $600 million. You know what? It's a big number because it's a big market. That deal was a steal for RIM. They are selling tens of billions of dollars worth of product, for which they paid for patents that were found infringed, woefully infringed, upheld on appeal. They paid a few million dollars.

I don't mean to -- especially today, while they're talking about billions over at the other building for the car companies, I don't mean to disparage the amount of $600 million, but as compared to the tens of billions of dollars that RIM makes every year in the infringing sales, I think it's a pretty big deal, and more importantly there's nothing

destabilizing about the system as it exists.

Interestingly, Dan then also argues that we're not paying folks enough. So where Dan agrees with me, and I don't have to encourage Dan to speak up if I'm not saying it right because I'm sure he will, but innovators deserve to be paid. There's no question about that. We want the economy to -- I mean, I can put up quote after quote from Greenspan or Bernanke or pick your favorite economist. Innovation is what drives this economy. People that innovate deserve to be paid.

I see a couple of economists in the room, and hopefully, at least a few of them are nodding their heads in agreement with me. How they get paid, that guy who made the router that went 10 percent faster, he can get paid by Mallun, and I applaud Mallun if she will pay faster than Detkin law.

I guess now Detkin law is no good, and I hope it enjoyed its 30 minutes in the sun, but maybe Mallun does pay, but for the most part, companies don't pay. No matter how strong, no matter how good the patents are, they don't pay. How do I know this? Because the market exists.

You heard Ray's presentation. There are 17 different business models out there devoted to the fact that people are not paying the folks who innovate. Are

they being paid enough? Well, reasonable minds can differ on that. That's a commercial transaction. I'm not sure that Congress has any place putting its thumb on that particular scale.

I would argue that they are. I don't think Dan knows what we're paying. Those transactions tend not to be public. I can tell you it's a very wide range. It ranges from not very much to millions of dollars per patent, but the fact is that they are being paid.

What really I think at the end of the day Dan and Mallun were both arguing was a more efficient market, a more efficient way for people who have real invention to get their invention rights to the Ciscos of the world and to the IT companies of the world, and that's all we're providing.

You may disagree with our particular model, and maybe it won't succeed. I don't know. There's 17 other models that are also out there, but at the end of the day, there's got to be a way to efficiently get money to the inventors so they can invent, and we can get those routers working 10 percent faster, and for those people to be paid and so they can go back and invent.

MS. MICHEL: I would like to hear -- please, I don't mean to cut off any comments any one of you might want to make, but I'll throw out there: Is it helpful

to make a distinction between the use of patents for the sake of tech transfer? I have another idea, I don't have the capital to get it to market, so I go to a company with those kinds of resources and say, "Please create something new with my idea and pay me" versus a business model that focuses on monetizeing the patent or treating the patent as more of an economic asset to gain licensing royalties from what some people have termed an inadvertent infringer.

Is it worthwhile in thinking about patent policy and these issues to make that distinction, and if so, how and why should we do that? Okay. Let's start with Brian, and we'll just move on down the table.

MR. KAHIN: I think the independent infringer question is an important one, and I'm organizing a panel on that, so I've been thinking about it.

MS. MICHEL: Good.

MR. MCCURDY: This will be January 14 at Brookings as part of a larger event, but one of the reasons that copyright is accepted by consensus in software is it does allow for independent inventions, so for a complex technology, which software is the most extreme -- for complex technology, and software is the most extreme example of that, where invention is ubiquitous and constant and you can't manage the

information costs of who invented whom, who invented what rather, that makes a lot of sense.

Let me comment on two points that Peter made. One is we need to be careful about distinguishing invention from innovation because innovation is generally understood to mean not just the invention, but the whole process that Dan and Mallun are talking of commercializing ideas and getting them into a product and getting the product to market, making real changes in the tangible economy.

Finally, an observation that Peter and I may agree on because Mark Lemley and Nathan Myhrvold agree on this point, that we need to have more transparent licensing markets, and the way to do that is to require the recording of license transactions.

Now, I'm sure lawyers are going to have a fit about that, and a lot of business people too, but until we take decisive steps to remedy the problem of information costs, we're not going to have good markets.

MS. MICHEL: Thank you. Mallun, and I would be interested in all the panelists' views of this concept of a more transparent market, given that it's hard to imagine an efficiently operating market with a lack of information.

MS. YEN: So on your first question, I think

that is a good question to ask, the idea of independent invention versus where the first time you've learned of a patent is years after the product has come to market, and many times the claims have actually been drafted years after the products have come to market.

First is we're affirmatively seeking technology to incorporate into your products. The mass majority of the claims that we've seen are the former rather than the latter, and I'm going to agree with Peter in that innovators deserve to be paid, absolutely, but what they deserve to be paid is fair value.

If a company actually makes a router that's 10 percent faster than ours, then we will pay for it. In fact, we have. We've acquired over 130 companies and paid billions and billions of dollars for those acquisitions.

Now, where they do not deserve to be paid is where they stretch interpretations based on existing law and try and gain the system based on the imbalances, and then they deserve to be paid exactly what their patent's worth, and in that case, we will have a disagreement as to what the patent is worth.

In terms of transparency, Suzanne, and along with that, I agree. I think contributing to this over-valuation is the lack of information, lack of

information by what the licensors are charging in terms of royalty rates, how much he was being paid to buy or sell or license patents. Who in fact is even buying and selling and licensing the patents is unclear in many cases.

So it has created a very inefficient marketplace, and it has allowed people to exploit the system and try and play different companies or licensees against one another, and so I think that Brian's idea is an interesting one about recording licenses, and I'll have to give that a little bit more thought, but I have to say it doesn't offend me, and I am in favor of a marketplace and a system that has no transparency.

MS. MICHEL: Dan?

MR. MCCURDY: So I first want to congratulate the Commission on finding the one thing that I know we have in common, that is, more data is better, so that has to be the take away, if nothing else.

With respect to transparency, Peter made a remark with respect to what he said was an agreement among us that a more efficient market was better, and I think that that is certainly true. One way, of course, of doing that is to have a much more transparent market.

Today if there's a small inventor who wants to

sell or has patents, five years ago they had no idea how to go about that. Intellectual Ventures, without question because of its funding and its vision, pursued inventions worldwide for acquisition, massive phone contacts within inventors all over the world, huge databases to figure out who had patents in particular areas and so on, so they had the ability to begin to identify this.

The problem is that's not an efficient market. It is not a transparent market, so if everybody on the earth who had a patent that they wanted to sell or were contacted by someone to buy their patent had a transparent marketplace to take that patent to advertise that they may want to sell it, so that any potential buyer, whether it's a corporation or a patent aggregator or anyone else, had an opportunity to purchase it, the patent owner suddenly has a chance to get real market value for the asset, and those that could be impacted by it have an opportunity to buy it as opposed to a transaction that's bought in the dark of night for relatively low money, and then as Brian put it, is used to ambush companies who were not even aware that the patent was ever for sale. That is not -- it's certainly not in the public interest to have that continue.

With respect to tech transfer, there's two kinds

of deals. I mentioned in my testimony that patent licenses are selling a product no one wants, and it's absolutely true, and I did a lot of it. As president of intellectual property at Lucent I did a lot of it. Certainly at IBM I did a lot of it, and you are selling a product no one wants, but they feel compelled or are made to be compelled to ultimately pay for it.

So, the good news is that there are friendly deals that can be done. Tech transfers is one of those. The problem is that if all you have is an idea in a patent and you have not invested to develop that idea into a product, preferably a successful product where you can truly teach, engineers can teach other engineers how to go about making that a commercial successful, there's nothing to transfer because you have no knowledge.

All you've got is what is taught in an idea that's available in a patent, but unless you actually have done something, like I've mentioned, 20 times the amount of money you spent on development rather than research, which is the creation of the idea, you don't have anything to transfer, so it's hollow. We can follow-up on that if you want. You look puzzled, so we can talk about that more.

Finally, Peter said that I used the word

something about the market was -- the brokerage market was stabilizing. What I said in my testimony was the ability --

MR. DETKIN: Destabilizing.

MR. MCCURDY: That the brokers market is destabilizing?

MR. DETKIN: That the growth of this market in general was destabilizing. You used that word. You have a speech.

MR. MCCURDY: What I said was is what is destabilizing is the lack of the ability to counter-assert. That's what my testimony said, and Intellectual Ventures, as far as I know, cannot be counter-asserted against nor can any other NPE. That's what's destabilizing.

MR. DETKIN: My turn?

MS. MICHEL: Yes, please, Peter.

MR. DETKIN: We all have our tents up here.

MS. MICHEL: Yes, which is good, a good thing.

MR. DETKIN: A couple of comments, first on innovation versus invention and whether you get to be paid for coming up with a product design. Again, think back to the university professor who thinks of a way to make a router 10 percent faster. Under Mallun's and Brian's view of the world, he has to start a company,

which then gets bought out by Cisco in order to be paid for his invention.

Fortunately, that's not the way the system works, and I see your tent going up right away, but the fact is if he's got an invention, he should be allowed to be paid for it. Now, should he be paid as much, if all he's got is the invention, the patent, and Cisco is going to do a lot of the heavy lifting and turning it into a product? Of course not. That's part of the negotiation.

Well, but the patent law isn't clear. Actually it is clear. The patent law has evolved over time. The damages law is very clear. Are there occasional outlier cases at the district court level? Yeah, the Microsoft/Lucent case, well, Mallun was forthright enough to say that got overturned. The $500 million case that she talked about, that's still in post-trial motion. That's yet to be appealed.

The system sorts these things out. It may take time. That's the way the system works. We can't legislate, you can't use -- to borrow a phrase from Barack Obama, you can't use a sledgehammer when a scalpel will do, and that's what some of the proposed legislation will do.

I mean, even going back to the so-called

egregious example of, well, a patent in a tire should get --recover from the car. Well, I haven't read that patent, but you know what, if the wheel well needs to be redesigned and the patent or the redesigned car or the patented car enable drag to be reduced by 35 percent because this new tire in the new redesigned wheel well, as a result this car sold like hot cakes because of that particular design? Yeah, he gets a percentage of the $25,000 car.

On the other hand, if this tire just improved traction in mud and snow, then, no, probably not, and Georgia Pacific factor, God, eight or nine -- I didn't know this was going to be a debate on patent reform, I think we were talking about the market, but specifically calls for let's discuss that issue, and it says let's have expert testimony on that issue.

Is all expert testimony perfect? No. Is anything that happens in a courtroom perfect? No. Is it messy? Yes, but you know what, that's what the appellate courts are for.

Finally, I have to talk about this a little bit -- this gets to the independent invention, and I'll get to that in a second but, boy, these searchs. I agree with Mallun that she is not, by searching patents, going to find every patent relative to her business, but

that's no excuse not to try.

And as Brian puts out in his -- you can't raise your thing any higher, Mallun, it's already up. Brian quoted Mark Lemley. It went beyond dispute in all of the hearings and the House and Senate. High tech companies, don't even try to search out patents. Nobody testified and said, "Yeah we make an effort to find the patents to do a product clearance."

I agree, they're not going to find them all, but you know what? 3,500 patents over the course of the year doesn't sound like that much to me to a $40 billion company like Cisco, because not all those patents -- I mean, some of those patents you could immediately throw out, so it puts you down to 2,000 patents. That's 40 patents a week.

I think a company like Cisco can quickly look through 40 patents a week and see if any of them are going to be an issue so they can proactive -- they don't have to design around them all. I know design around is expensive, but they can then proactively start the discussion and say, Look, Mr. Professor, you invented something that we think we could use a license to, let's have a discussion.

Oh, finally on your point about selling product, there are companies that do exactly what you're talking

about - QualComm, Rambus, ARM. Those do follow that exact business model. That's an 18th for your list there.

MR. MCCURDY: It was on there.

MS. MICHEL: No, it was on there. Okay. Ray, I would love to hear your comments.

MR. DETKIN: I'm sorry, do you want me to talk about the transparent market or do you want to give Ray --

MS. MICHEL: Let's let Ray talk, and then we will come back to that. I would like to hear those thoughts.

MR. DETKIN: Sorry. I forgot about that.

MR. MILLIEN: I just wanted to say, and it's interesting to hear the conversation between Mallun, Dan and Peter, but as a market observer, what I think is missing from the debate is I think we all need to step back because I think a lot of us are losing the forest through the trees.

Yes, it's right that we need more data because if your plaintiff had more data, he wouldn't ask for a gazillion dollars, right? If I want to buy a one bedroom or two bedroom ranch in Palo Alto, I can look at the comparables, and my real estate agent and the seller's real estate agent could come to a more rational

discussion as to value because there's just more data.

So we all agree to that, but I think in terms of the FTC and the patent reform debate, the debate has not been very balanced, and you asked: Should we look at individual inventors versus tech transfer? I think the patent policies have to be neutral because for every non-practicing entity that's quote, unquote, extorting a large company, there is really a small inventor who pitched the idea to Cisco. Cisco said, Go away, and then ten months later, Cisco developed -- that feature ends up in a product. I'm using that as an example. I'm not engaging in trade lobbying.

So what I'm saying is that the policy needs to be neutral because we talk about there are quote, unquote, real companies doing real quote, unquote, doing real R&D, but if you look at the studies, 80 percent of the R&D budget of a Fortune 500 is just to improve existing products. Only 20 percent of that research is truly innovative to truly bring new products to market.

If you look at the studies, small businesses invent 13 to 14 times at a higher rate than large businesses. That's why Apple bought the technology for the iPod, bought the technology for the iPhone. It's really small inventors, so what's missing from the debate is you have a bio and pharma versus software and IT,

but what's really missing from the debate I think is the patent policy has to be neutral because you have to engage in patent reform, which is figuring out how to decrease transparency, how to get better patents through the patent system and not really engage in patent litigation or patent infringement reform.

I think everybody here -- and the argument as whether it's good or bad for the economy, I don't know. Some macro-economists might say, troll litigation is good for the economy because there are 20 lawyers eating off that, paying their mortgages. There's court reporters eating off that.

It's sort of like the prison system. If we got rid of crime, what would all the correction officers do? So that's all I have to say.

MS. MICHEL: All right, interesting. Let me ask a specific question: Several of you have mentioned a need for more data. Could you expand on that point for a moment? What sort of data would be helpful? How might people look for it?

Also I'll take that opportunity to say the FTC's accepting public comments through February 5th. You can see that on the conference web site, and it would love to hear ideas from everyone on this point, all points, but that one too.

MR. DETKIN: Do you mind if I start since that kind of goes to the transparency issue?

MS. MICHEL: Sure, and then we'll work down the table.

MR. DETKIN: Fair enough. Once again, surprising there's agreement on the transparency issue, although I guess in a sense I'm agreeing with myself because Brian cited an article written by Professor Lemley and my partner, Nathan Myhrvold. Absolutely, we think that the market needs to move to become more efficient, become more transparent, and would we participate? Absolutely.

Are we going to lead the way by ourselves? No. I can sense that question in the audience, no more than Cisco would publish its product plans before -- unless everyone agreed that they're going to publish their product plans.

MS. MICHEL: You're saying no unilateral disarmament.

MR. DETKIN: Right. I mean, it's a competitive market, and I'm not going to give my competitors access to competitive data unless it's going to be reciprocal, but at the end of the day, markets don't spring up from whole cloth. Ocean Tomo, when Ray used to be there, is doing a great job to with their auctions. These are

open bid, open cry auctions run by -- if you haven't been to these, they're great -- run by a Sotheby's auctioneer, complete with gavel and pomp and circumstance, and he auctions off patents. You don't get more transparent than that.

What percentage of patents sales does that comprise? A pretty small percent, but is that a step in the right direction towards the complete, open, transparent, efficient market that Dan envisions? Absolutely, and I think that's the direction we're heading.

That would be -- to get to the question you just asked, Suzanne, that would be the way of getting the data that we need because as I understand, the debate has shifted in Congress from damages are out of control to settlements are out of control because of fear of out of control damages, but then when you say, okay, well, we can get data on damages because that's in court opinions, but where is the data on the settlements?

You can't see any of that. We have to trust the people who are making these allegations always behind closed doors. Again they're not reported. You won't find them in the SEC, so that we know they're not material, but still we don't know what they are, so that's the data we need.

If we're going to have a damages debate based on out of control settlements because it's shifted from out of control damage awards, let's get the data on what the settlements are and not have it be behind closed doors.

MS. MICHEL: Dan, any thoughts on transparency and data that would be useful to inform the debate?

MR. MCCURDY: I think under the transparency of the marketplace, I've spoken to that. With respect to data, there are at least a few that I think would be very important.

The first is much greater transparency as to the true ownership of the patent, and so I would go so far as to say that a patent should not be enforceable unless it has been properly assigned, registered, and I would go further to say that that registration ought to include and keep updated all upward and downward affiliates of that owner. I think that would help enormously as a piece of data.

The second would be data surrounding the price for the sale of patents, much like a stock market operates, that would be extremely useful.

The third would be disclosure of the price and circumstance at least at some level of licenses for patents, and the issue is very simple. If it's a one-way license not involving a cost, that's relatively

straightforward. There's a royalty rate and/or a paid up price that's given for that.

In a cross-license, it would be useful, and we've had some minor discussion about this, to figure out how you can attribute value to what that cross-license is, which of course is one of the huge issues with non-practicing entities because there cannot be a cross-license.

We can't properly attribute what the distortion is in the market of an NPE versus what might otherwise be by two entities in a more level playing field. Again, data would be extremely useful, and frankly, if operating companies are bothered enough by the problem, particularly of non-practicing entities, notwithstanding the practice over decades of not disclosing this kind of information, I think it's about time. You can't have your cake and eat it.

MS. MICHEL: Mallun?

MS. YEN: So I think Dan very articulately elaborated on some of the issues relating to transparency that I mentioned earlier, so let me just address a couple of points. I guess Peter might not share his cab with me to the airport by the time we're done, but....

MR. DETKIN: I'll share it, but you're paying.

MS. YEN: You're always asking for money. So on Peter's points of we only buy companies who have actually designed products or brought products to market, that's absolutely not true. When we have come across patents that are truly innovative, pioneering patents, we have sought them out and bought either the patents or the company for the sole purpose of acquiring the patents, so that point is just not true.

The second point about the tire, and like I said, it was -- I had mentioned it was an illustrative example, and of course if the reason for buying a car was because it was designed around this really neat, new tire that made you have a hundred miles, get a hundred miles per gallon, and zero to 60 in three seconds, et cetera, then, yes, that's the entire market value. That's the value of what was the invention, but I'm talking about a tire.

Let's see. Second, so, Peter -- I want to ask Peter a question before I make a comment, which is: When you were in my position at Intel, how often did you conduct patent searches?

MR. DETKIN: We did, absolutely.

MS. YEN: Because what I said earlier today was not that we don't conduct patent searches, which is what Peter said, but I said it's impossible -- even when you

conduct patent searches, it is impossible to avoid the amount of claims that we have.

MR. DETKIN: I get to ask a question now. Do you do product clearance searches?

MS. YEN: So what we do is when we go in to a new market, it depends, it's a case by case circumstance. If we go into a new technology area where we have not been in, like routing and switching, since the beginning of time, then we will do some searching to make sure that we steer clear, and if we find some patents, we make efforts to design around.

In areas where we have been the pioneer from day one, it does not make sense to do a product clearance search because one, we've been there, we know what's out there; two, we know the delay. It's three to five to seven years for a patent to issue.

So, your search is necessarily out of date as of the date you searched it, and even if you look at published applications, the claims often look very different than when they actually issue, and not all claims are published. So I didn't say we don't search.

Third, you can cut me off any time, Suzanne, because I can probably go on until the end of the session. On the budgeting side, on the budgeting and Peter's claim that not a single CEO sat up here and

said, because I had to spend money on patent litigation, I wasn't able to fund whatever.

I can tell you from personal experience that when we go through the budgeting cycle, and I get told repeatedly you are a cost center, a dollar that goes to you is a dollar that's taken away from engineering. This is absolutely the case. And, in fact, it struck home -- it struck a chord with me when I was talking to one of our engineers who had to travel across the country to testify at a patent infringement trial, one that we actually did end up prevailing on.

I called him, and I said, thank you so much for taking the time out, I know it's a huge burden, no one wants to spend time with all these lawyers, et cetera, et cetera, and I said, I hope you get at least a nice bonus for this.

He looked at me, and he said, "I don't care about a bonus." He said, "All I want and all I need is $300,000 so I can hire the ten -- to rent the office space to fund the -- to house the 10 engineers that I want to, to be able to fund this particular project," and I thought about it.

$300,000 in my budget where we spend $50 million a year is nothing, and yet it is so -- it has such a direct impact on whether or not he was able to

hire a team and develop a product, so it absolutely takes money away from innovation and engineers being able to hire the engineers and have the resources to develop product. And I'll stop there and give Brian some time.

MS. MICHEL: Thank you. Brian?

MR. KAHIN: Well, I want to say generally in response to this discussion is that I think perhaps the greatest service that FTC could do in a future report is to take a run at evaluating search costs, information costs, negotiation costs and risk costs involved in patent practice.

Some specifics -- and I think we got to be aware that there's a bit of a catch 22 here, because part of the problem of opacity is that there's too much information out there of uncertain quality, and we have to be very careful about adding more information of uncertain quality.

I think the settlements are extremely important. In part, this is to get at some of the problems of settlements and doing things like suppressing prior art or the amount of settlements that may go on around low quality patents which Carl Shapiro has shown will happen more. There's a big free rider problem with low quality patents.

One point that we could get at is to acquire registration of notice letters. That would be a very simple provision and would reveal who is doing broadcast assertions, how big a problem broadcast assertions are.

The ownership that Dan was mentioning who owns patents, who has assignments, who has exclusive licenses, and this goes into the nonexclusive recording, there should be failure to accrue damages for periods that these things are unregistered, particularly assignments and exclusive licenses.

For public companies, we should require recording of licensing income, out and in, by type of license, so separate out the copyright from the patent, separate out exclusive from nonexclusive.

We should require public companies that they report on intellectual property as assets and liabilities, not just assets, liabilities. What is their exposure to intellectual property? I mean, this is going to be a best guess to start with, but unless we start making those requirements we aren't going to develop the methodologies to do it.

I'll stop there.

MS. MICHEL: All right. Thank you. We'll wrap up in a couple minutes, but any of the panelists have any thoughts on how the *eBay* decision, in particular, has

changed the dynamic of the non-practicing entity seeking royalties. Has it solved all our problems? It doesn't solve all the problems that some have asserted or it doesn't sound like you all think that.

But, Peter, do you have any comments?

MR. DETKIN: Yeah. Actually I'm glad you brought that up because Dan quoted my testimony from when I was here in 2001. I want to make sure that's -- that was actually in the context of injunctions that I was talking, and I know that Dan and others on his side of the fence are very fond of taking that quote and taking it out of context.

I was talking about injunctions. I had a particular remedy that I proposed. I thought that the appropriate remedy was a stay of injunction pending appeal. The Supreme Court decided to say basically non-practicing entities -- actually they specifically said -- this is not a hard and fast rule, non-practicing entities still can get injunctions, which of course has been interpreted by every court as non-practicing entities cannot get injunctions.

But either way, I think it's too early to tell how that decision affects the landscape of licensing. I don't know if Mallun has something or Dan has a different viewpoint of that.

MS. MICHEL: Yeah, Mallun?

MS. YEN: So I think the *eBay* decision has helped in clarifying the law. It was a good decision and the right decision, but I do agree with Peter that the impact of *eBay* is unclear. You have some courts who have created an exception for licensing entities or academic or research institutions saying that if they don't grant the injunction, then the licensing institute will be irreparably harmed because it will deter others from taking a license.

There are also cases, and I think this ended up settling so we didn't know how it ended up turning out -- but there's a case where a company, a non-practicing entity sued a couple of defendants, ended up settling with the first defendant and then assigned the right to obtain -- a partial right in the patent to that first defendant, who was also a competitor of the second defendant.

So that the right to obtain an injunction went to the first defendant, and the right to obtain the licensing royalties came to the licensing entity, so I think the case -- Peter is nodding his head, so he probably knows what I'm talking about.

So I think the case settled so I don't know how it actually turned out, but there's lots of creative

things like that out there. You have other licensing entities who are forming and creating small companies that are developing some -- purporting to develop some products. In fact one of them, in a phone call -- well, it first started out with the patent, an offer for us to buy their patents.

Then they said, no, no, we're a real company, let me send something to you. They sent me a product, but if you had seen the product, you would laugh. It was just a phone in a box. Actually it was a handset in a box.

So that you have -- these are some very smart people who are involved in these licensing ideas. They will look for ways to get around it and so time will tell as to what the full effect of *eBay* is.

MS. MICHEL: And Dan, did you have a comment on that?

MR. MCCURDY: Yeah, so has *eBay* helped with the NPE problem? The statistics would indicate no. Cases continue to go up, post *eBay*. The real benefit I think is in the compilation of the various cases, so if you look at *KSR* and *Lucent* and *MedImmune* and *SanDisk* and *eBay*, just as examples, and there are maybe one or two others. I think the compilation of those, the latest *Quanta* more recently are beginning to help.

I think the latest *Volkswagen* case, with respect to venue, is helping, and I suspect that the courts are going to hit on a couple others, and the Congress may or may not be able to, on some of these biggest issues, depending on whether industry ever gets its act together or not so it can agree to go to Congress to tell Congress how to help, some of the big issues like apportionment and venue which is clearly a stalemate at the legislative level.

So it's a compilation that I think is helping.

MS. MICHEL: One of you had put up a quote from the FTC report that talked about what sometimes is referred to as the hold-up problem, a problem that a manufacturing firm is going to be willing to pay a license based on its cost and its switching costs rather than the value of the technology, when a patentee asserts the patent once the product is on the market.

There had been some discussion in the literature that perhaps *eBay* would help with that, the ability to not shut down the product, get an injunction on the product, to change that settlement or licensing negotiation.

Does anyone have a sense of whether reality has played out that way. Mallun? I'm sorry, Dan?

MR. MCCURDY: I was going to say but the reality is the request for injunctive relief is, of course, completely automatic, just as the inequitable conduct defense is automatic, just as willful infringement is automatic, and so everyone has always asked for it, and frankly I don't think that -- particularly in the high tech industry, it's virtually never granted or at least not sustained.

So people deal with it, they know it, and I don't think the fact that the non-practicing entity has a harder time to obtain an injunction is stopping them from pursuing the infringement.

MS. MICHEL: Mallun, and then we will let everyone have lunch.

MS. YEN: I think that's right. I think that even after *eBay*, you don't see a decrease. You actually see an increase in the number of cases that are filed so we still have a litigation problem.

I can tell you when we're assessing the risk and whatnot on how to go forward when we receive a claim, we can't rely on *eBay* to say, there's no injunction risk. It continues to be a factor, and we need to factor that into our decision on how to proceed.

MR. MCCURDY: Just one quick follow-up with that, in the end the reason is is a simple one, which is

remember that non-practicing entities are not interested in blocking a competitor. They only want money so the fact that they can't block the competitor doesn't matter in the end as much because they're still going to be able to ultimately get, if they pursue it, a judgment of infringement of a valid patent if both are in fact true, so there it is.

MS. MICHEL: All right. Why don't we wrap up. If everyone would just like to take -- anyone who would like to make a 30 second final statement and then we'll break for lunch.

Peter, you've got your tent up so why don't you go first then.

MR. DETKIN: This actually might cost my companionship to the airport, but I think Mallun's last comment really summarizes my concern more than anything. You heard Dan say that *eBay* or no, people never got the injunction. They never got treble damages. It was always put in there automatically.

The high tech industry, the people in the trenches knew you didn't get them. *eBay* kind of solidified that and said, you're not going to get it, and the cases since then except for the one set of stupid lawyer tricks that Mallun mentioned, the cases that were settled where they tried to get it. But Mallun

said, but we still settle cases in fear of that.

That's a reprise of what I hear over and over again on Capitol Hill. Notwithstanding the fact, and Mallun's now furiously writing so I might need rebuttal here, but notwithstanding the fact that the damages law is pretty well settled and pretty well handled at the appellate level if not the District Court level, we now hear, yes, but settlements are out of control for fear of the run-away damages claim, even though there's no evidence of the run-away damages claim.

This is where I guess -- this is probably the main thing coming out of here, the transparency and the real data on what is going on out there would help because maybe if we had that transparency, we wouldn't have that fear of the needless dread.

MS. MICHEL: Thank you very much. Any final comments?

MS. YEN: Sorry, I was going to let Dan go.

MR. MCCURDY: I was going to say thank you.

MR. DETKIN: I forgot to add thank you.

MS. YEN: I do have one final one before I say thank you.

MS. MICHEL: Sure.

MS. YEN: So Peter said that I said that we settle cases in fear of an injunction. Did anyone else

hear me say that, because I didn't? What I said was it's a factor. *eBay* has improved the situation and it is better, but we cannot completely rule it out because people like Peter are very clever.

MS. MICHEL: All right.

MR. DETKIN: I'm unique and clever, all right.

MS. MICHEL: Well, I want to thank our panelists for a very lively discussion and say that we could not possibly exhaust this topic in the time that we had, and we welcome comments to the FTC or even to the staff individually on the topic. Thank you, and we'll return at one o'clock to hear Chief Judge Michel.

AFTERNOON SESSION

(Resumed at 1:08 p.m.)

MS. MICHEL: Thank you very much for returning. We'll get started now. WELCOME come back to the afternoon session of the FTC's first hearing on the evolving IP marketplace.

For those of you who couldn't join us this morning, please know that these sessions are being web cast, hello to everybody watching from your desk, and you will be able to view that web cast later. The tape will stay up on the conference web site.

There's also a realtime transcript going up, and we are having made a more perfect transcript, which will be up a couple weeks from now. We will be posting the speaker slides and any papers that they would like to submit to us, so there will be plenty of information for your interest.

It's now my distinct pleasure to introduce the Honorable Paul R. Michel, who is Chief Judge of the Court of Appeals for the Federal Circuit. The Chief Judge has been a member of the court for 20 years now, and its chief for the past four.

His tenure on the Federal Circuit, like his career prior to joining the court, demonstrates a small commitment to public service. He's worked in the

Philadelphia District Attorney's Office as an assistant special Watergate prosecutor in the Justice Department and as a senate staff member.

The Chief Judge's work on the court, his numerous, thoughtful opinions that have carefully developed key areas of patent law are no doubt well known to everybody here today, but it's his participation in the patent law community that reaches beyond hearing these cases and writing opinions.

As shown by his presence today, he has always been exceedingly generous in his willingness to speak, teach and engage the broader community.

If you will indulge just a personal note for a moment by one of the Judge's former law clerks, I will add that his dedication to public service, his generosity and his intellectual rigor has always been inspiration. Thank you.

(Applause.)

CHIEF JUDGE MICHEL: Thank you, and good afternoon, everyone. I should probably start by explaining two things. One is why I was not here this morning. We had a full array of oral arguments in front of three panels this morning, so I was busy hearing a different form of argument than perhaps occurred here.

Unfortunately, the same fate awaits this

afternoon. We have a special session involving a portrait presentation for Judge Gajarsa of our court, so once again I am going to have to study the record after the proceedings close rather than sitting in the back of the room as I would have preferred.

The second explanation is thatto my chagrin, Suzanne Michel and I are not related. At least we're not related by blood, but we worked together very closely and very happily in that wonderful relationship of judge and clerk, and I'm very pleased to see several of my other devoted law clerks and former law clerks here, so hello to Joe Miller and Michelle Lee and Matt Dowd and everyone else I might have missed.

I would like to admit up front two things: Number one is that, contrary to popular belief, I do not believe that all patent wisdom, patent law wisdom, patent policy wisdom or any other kind of patent wisdom resides exclusively in the brains of federal judges. In fact, I think federal judges should more be thought of as students of all of you and you as the teachers than the other way around.

It's a great disappointment in reading petitions for en banc re hearings in patent cases to be struck again and again and again in nearly every case with just having your own words, maybe not my words, but some

other Judge's words in some opinion thrown back as if they are perfect, immutable, logical, sensible, efficient and all kind of other good things, which of course isn't always the case. It isn't necessarily the case.

The other thing by way of preliminaries is that I'm going to use a lot of numbers, which I hesitate to do, but it's a little bit required. The numbers are very, very rough. You'll able to quarrel with some of them in terms of precision. It's a matter of trying to set the perspective, which I think is so important to the ongoing effort of the entire patent community to work toward a feasible, realistic, balanced improvements. So with that as a warm up, here we go.

As we all know, the PTO issues tens of thousands of patents each year. There are well over a million in force today. Many surely contain claims that might be thought to be invalid. The vast majority have no commercial value and therefore never enforced, so they're really no threat to anybody.

On the other hand, several thousand patents each year will be enforced, and by enforced, I mean both in what shall I call, threatening letters or, no, we don't threaten any more. In any event, informing letters. But most particularly, of course, I'm talking about the

filing of lawsuits, so what are those numbers?

Well, for most of the last decade, a little under 3,000 patent infringement lawsuits have been filed each year. That's been quite a steady number for the better part of a decade so that's kind of our baseline.

Now, of course in all of those 3,000 cases, the validity of the patent is immediately challenged right in the answer and on through the litigation. Quite often validity doesn't get adjudicated because so many cases fall out on summary judgments of non-infringement based on claim construction, but there still is a fairly substantial number where validity is determined.

It's not at all infrequent to have at least some of the claims, and they may be the critical ones or maybe not, declared invalid on any number of grounds, but most commonly perhaps on the ground of obviousness.

Now, it may be true that as the Federal Trade Commission observed in its report now five years in the past that we have a big issue or problem in this country that you could put under the label of 'patent quality.'

But I suggest that as we move forward into the seventh inning or round six or the third period or wherever we are in this patent reform, patent policy debate, that it's worth pausing to consider for just a minute what do we really mean when we're talking about

more patent quality.

Certainly lay people and maybe some lawyers could be forgiven if they take that as a suggestion that a very large number of patents are just flat-out invalid. That is, the entire patent is a piece of junk, worth nothing, illicitly granted.

I've been on the court for twenty years and eight months, and I cannot ever remember seeing a single patent, I'm sure they're out there, but I can't remember seeing one where every single claim was invalid. I've seen innumerable patents where some of the broader claims either were indefinitely broader or were damn close, but in all of those cases, the narrower claims seemed to me equally clearly to be plainly valid.

So what we really have is a problem of some over-broad claims getting through the system, slipping through the sieve that in the ideal world would catch them.

Now, the other sort of buzz words associated with the debate in its earlier stages also strike me as not as helpful as they might be, so when we talk about patents like 'lacking quality' or patent applications lacking quality, I'm not sure how helpful that is.

If we want to consider the patent system, the overall thing, everything, the PTO and the courts and

all the other pieces of it, including the roles that all of you men and women here in this room and your counterparts elsewhere play, if we look at that system and we ask: Is that system sick, is that system very sick, what is the illness of that system, what is the right medicine?

Of course it's a question of diagnosis, so it seems to me very important to get the vocabulary straight and to sort of get our logic aligned with reality. So when we say there are many patents out there that are 'questionable,' well, sure, if somebody sues on them, the validity will be questioned, probably in 100 percent of the cases.

Does that make them really 'questionable' or just subject to defenses of he who gets sued? Of course you fight back if you get sued, and you say the patent is invalid. Maybe it is. Maybe it isn't, 'Questionable' isn't the best kind of test.

Now, as I said, I think that certainly in the ideal world, and maybe in the world we actually live in, we might be able to expect or assist the Patent Office in doing a somewhat better screening job with respect to these broader claims that probably shouldn't be allowed.

Of course, a downstream benefit of that would be there might be fewer suits filed. There might be even

more suits that would fall out under summary judgment with greatly reduced costs compared to full trials, but it's not sure. It's not certain.

Like almost everything else in life, you have to look at the cost versus the benefit. You have to look at trade-offs that inevitably flow from any decision you make, in any direction. At least that's the way it looks to me.

So the question then becomes: Can the PTO be strengthened enough to provide what I'm going to say are the needed rejections of all these over-broad claims and the large number of cases? The shallow answer is, well, yes, of course. If you spend enough money and hire enough examiners and train them well enough and retain them with bonuses and supervise them well enough and have everything else that you need going, including large enough net examiner numbers, you would hope that you would be able to do this function of screening out these over-broad claims.

But again there's something of a question in my own mind: Would it really work, and would it be worth it? And, in any event, is it even feasible? No less a leader than Reed Hundt who is associated with the president elect's transition team, two years ago, so he might not say the same thing today, but two years ago

wrote publicly that he proposed that the Patent Office's budget be tripled. Tripled.

Now, I don't object to the idea, but if we step back and consider where are we on December 5 of 2008, it ain't going to happen. We'll be lucky if the budget goes up at all at the Patent Office. It certainly isn't going to triple. Obviously the financial crisis, the fiscal crisis is going to block that. Beyond that, it's not entirely clear, at least it's not clear to me that it really would reduce the number of lawsuits filed or the number that get past summary judgment or the cost of the lawsuits. It might, but it's far from clear to me.

Then I get to broader questions, like I keep hearing that we have a 'litigation explosion' in patent infringement cases. I keep hearing that we have lots of 'wasteful litigation.' I keep hearing we have excesses and abuses of certain types of defendants or maybe plaintiffs in some of these cases.

I also read that for quite a number of decades now, the percentage of extant patents sued on has remained almost exactly the same, at about 1 percent, so if you have a lot more patents out there, you would expect more lawsuits, and that's exactly what you get.

Now, of course you can say, yeah, but they're all bad patents. Well, maybe or maybe they're partly

bad and partly good, so a little hard to be sure. I'm a skeptic about whether we have an excess amount of wasteful litigation or a crisis or a patent litigation explosion.

Now, as you may have heard me already throw out the number, about 3,000 patent suits filed a year, but the more interesting numbers that start to reduce that is that about 90 percent settle voluntarily. Now, of course now you may say, but yeah, only under coercion and under threats, under a gun at your head. All those kind of arguments. Well, maybe. Maybe.

But 90 percent never go to trial, so when we're talking about trial expense, trial delay, not minor matters, we're not talking about 90 percent of the lawsuits. We're talking about 10 percent of the lawsuits. What happens to the 300 that don't fall out on voluntary settlements between the parties?

Well, over two-thirds of them get resolved on summary judgment. Now, summary judgment isn't cheap. I'm not trying to make that argument, but it's a lot less expensive than a full trial, lots less, and much faster almost always, not in every case, but normally.

So now we're down to about a hundred trials per year, ball park figure. (All these figures are just ball park figures). If we step back and we say, all right,

we're a nation, highly developed, high technological, fully industrialized advanced nation of 300 million people. We have something like a million and a half patents in force, and we have what, 30,000 companies in the marketplace? I don't even know the exact number, but accept the notion that it may be somewhere like 30,000 players.

Are a hundred trials excessive in a country of that size and that vitality with that many patents extant? And what happens when there are trials? Most of them get affirmed on appeal. Of course, that also means some get reversed, but the numbers again are kind of instructive.

About a third of the hundred tried cases, fully tried cases, will get reversed on some basis or other. So we got about 30 going back to the trial court, so out of that 30, how many actually get retried as opposed to settled at that remand stage? I don't have precise statistics, but it's very few.

Let's say it's five or maybe ten, so five or ten times we have the ugly circumstance of having to retry a case, expensive the first time, going to be expensive the second time too, but it happens very rarely, so is it really legitimate to say the big problem in the system is appellate reversals that require us to go through

the horror of a slow, expensive trial twice? Rarely, rarely.

So it's out there. It's not negligible, but it's a pretty small piece of the problem, it looks like to me.

Now, when we try to focus on 'wasteful,' if the courts are able to do screening out and avoiding trials in over two-thirds of the cases, that saves a lot of money. Now, depending on the complexity of the case, even the summary judgment related costs, lawyer fees and all the rest, can certainly be considerable.

Well, I'm not trying to suggest that summary judgment is always super fast or always very inexpensive. It is, on the other hand, as I've already observed, far better than the full trial alternative.

So then the question for me as a Judge is: In the hundred or so cases we're trying a year, are we wasting the public resource? The taxpayers' money? Are we wasting the money of the combatants, the litigants?

When I look at the cases as they flow through the court year after year, my strong impression, and that's all it is, it's not scientific, is these tend to be the closest, most difficult cases, so if we're trying a hundred of the closest cases a year out of 3,000 that

are filed, that doesn't sound very wasteful or horribly inefficient to me. It's not perfect, but it's not terrible either. We need to have some kind of sense of proportion, I think, if we're going to diagnose the illness in the system in a way that will provide treatment that will really be meaningful.

So, of course, the magic bullet is a new kind of reexamination in the Patent Office. That's what everybody says will solve the problem. Why? It will be faster and cheaper than court trials. Well, maybe. In the real world, we've got a Patent Office that struggles to keep up with its current work.

What basis would we have for confidence, particularly if it doesn't have a tripled budget, that it can run in-house what amounts to a court system with cross examination and discovery rules and a Judge presiding and making fact findings or Administrative Patent Judges even trained for this? How hard would it be to get them up to speed to function just the way District Court Judges do or ITC administrative judges in patent cases? I think these are hard questions, and I don't think the answers are too obvious, but they certainly give me a lot of pause.

So then when we look at, well, where does the litigation process in America start to impose costs that

are worth really, really worrying about? Probably we could all agree, well, at least at the discovery stage. There's no other country in the world that forces litigants to spend one fiftieth of the money that we force litigants to pay routinely with American discovery rules.

Of course, the discovery rules are uniform in patent cases and every other type of civil case. They're in the civil rules procedure as we all learned in law school, so if the discovery costs are viewed as unacceptably high, given where our society is, what we want, what we value, then it would seem to me the most logical, direct solution is to reform the Federal Rules of Civil Procedure to change the discovery regime as opposed to changing substantive patent law through legislative means.

I'm not against legislation. I think there's a place for it. Some things can only be done by legislation. I used to work on legislation, so I'm hardly an opponent of legislation, but it isn't a magic solution. It's not a magic wand.

Now, certainly the existing reexamination process has been less than a stellar success, and it certainly doesn't look faster than the courts, as slow as the courts are, compared to how they should be. I

can't testify about how much cheaper it is, but the stories I've heard don't sound too encouraging, and then there's a big question of: Is it adequately accurate? Is it more accurate than what would happen in a well-run district courtroom? I'm not sure.

Now, of course the suggestion is, well, we're going to beef it up, we're going to make it work, we're going to have a restructured, refinanced PTO that's going to be able to do it better, faster, cheaper than the courts could.

Well, we already talked about the budget problem. We talked a little bit about the training problem, but consider some of the other basic facts of life at the PTO. Recent reports suggest that in the effort to hire each year a thousand new examiners, they're losing 600 for every thousand they hire, so the gain is 400, not a thousand per year.

The salaries are such that in private industry, these same young men and women, often engineers, but not always, can double or triple their salary the minute they walk out of the PTO. That's awfully tempting, pretty hard to stem that.

So what do we have? We have a horrendous revolving door. I'm told that the average examiner has been in the corps less than three years. Less than three

years! That's a horrible fact in this country, even for our ongoing system of ex parte examination. If you try to lay on top of that a new beefed up litigation-like re-exam process, are there people there who can do it? Can the examiners do it? Can the supervisors do it? Even the board is also drowning in cases. They've greatly expanded in recent years. I think it's somewhere up to in the neighborhood now of 80 Administrative Patent Judges. What do they need, 160, 390? No one even knows what they would need to run these trials.

Of course, there are many other suggestions, diagnoses by various pretend doctors. One of my good friends suggested inequitable conduct, traditionally called fraud on the Patent Office, should be legislatively removed from the courts altogether and put under the PTO, again with a second sort of litigation-like system, mini-trials within the PTO.

I'm not sure they can do it. That is the same desperately under-resourced PTO that can't do its current job right. Pendencies average three and a half years or something like that. In many art groups, the average pendency is even longer than that. That's the status quo. If you're going to give a whole lot more work to those people, I don't know if that makes sense.

Now, of course when you talk about the courts, their awards, people talk about excess damages. Everyone can cite some example of what they consider a horrendously excess damage award. A fair number of what I've read in print turn out to be nonexistent cases.

I kept reading about the windshield wiper case where the cost of the car was used as the metric of damages, but I haven't been able to find such a case. And Professors Jaffee and Lerner, who are very highly qualified economists, wrote in their book, which many of you read, that the courts often give double damages and actually cited a case that I was involved in as an example of double damages, and they said that I gave both lost profit damage and reasonable royalty damages to the winning patentee.

Well, yeah, the Court did. Of course it did, because it was for different products and different time ranges, two different forms of damages, but they weren't -- but that's not double payment. That's paying once, so there's a lot of misunderstanding out there. There are a lot of apocryphal cases that turn out to not really exist, and there are certainly some very large damage numbers; no question about that.

On the other hand, most of those large damage amounts involve very large markets, very large profits,

so we shouldn't be surprised, I wouldn't think.

In any event, a few examples, if they're not very representative, hardly prove that excesses are common, but that's the charge, that half the time the damages are wildly out of proportion to anything that would be sustainable in common sense. It's easy to use words like 'appropriate.' The FTC talks about whether damages are 'appropriate.'

Well, it's a little bit in the eye of the beholder. What you might think was appropriate I might think was way too little or way too much, but it's a pretty inexact yardstick.

Then of course you should look at proportions. How many really large awards are there? Well, by my recollection about five to ten times a year there's an award above let's say 50 million dollars, and the rest are below that, and the median is something like $3-5 million. Does that make out the case that the courts are just kind of nuts and excess damages are kind of doled out right and left?

In some of the cases that have been cited as having excess damages, it turned out the damages were later -- were in the jury verdict and later were sharply reduced on post-trial motions by the District Judge as the District Judge is required to do, and in some cases

modified on appeal, so some of the damage amounts that are cited as a problem didn't stand.

So does that prove that the system is sick, or that it's actually fairly healthy, and it made the correction in the way it's designed to do, post-trial motions if a jury makes a terrible mistake?

Of course one of the most cited examples is the RIM settlement. People say, well, RIM was forced to pay 600 and some million dollars, 612 maybe, if I remember the number right, and obviously that's outrageous. That's exorbitant. That's just not reasonable. Well, I'm not sure by what measure I could opine on whether it's reasonable or not.

I assume given the skill of the actors in that case, meaning the businessmen even more than the lawyers, that RIM thought it was worth it to pay what, of course, on its face is a huge amount of money to get a license to continue to operate their system that we all use, and probably everybody here has Blackberry in their pocket or their pocketbook or somewhere, and they earn billions anyhow, so maybe it's excessive, but it's not clear to me it's excessive. I'm a bit skeptic about that example.

Then the argument keeps shifting. Well, it's not so much the number of infringement suits filed

every year, it's who's filing. Well, why should we assume that a non-manufacturing patent owner shouldn't be allowed to enforce its patent? What is wrong with a university owning patents based on research of its faculty scientists or research institutes or small inventors or small innovative companies that either can or don't want to try to manufacture products themselves but license their inventions so others can make them?

Well, are these patentees really illegitimate somehow? I mean, after all, at least up until now a patent has given its owner the right to exclude, not the obligation to make. Then some say, well, it's not so much the non-practicing entities, it's certain companies that don't invent at all, but merely acquire and enforce patents, and of course calling them 'trolls' just confuses the analysis because obviously a troll is a bad thing. It's a pejorative label. (Some people who used to complain about trolls allegedly have become trolls).

But I don't think that it's helpful -- it's a slogan. It's a label. It's an excuse to not think carefully about the problem, as far as I'm concerned. It's like talking about 'questionable patents.' It's an excuse to not think carefully about the problem as far as I'm concerned. It's like talking about questionable patents. It's not helpful if we're

going to try to diagnose the real illness and prescribe a useful medicine.

Besides, patents, like any other form of property, the essential element of property is it is alienable. You can sell it. You can sell it to anybody you want to for whatever price you want to sell it. Why should that be prohibited? Why should I be prohibited from buying patents if that's what I want to do, whether I invented them or not, whether I am going to practice them or not, whether I'm a research institution or a university or not? There might be some reasons. Maybe some of them are good, but it's not self-evident, at least not to me.

Then there's certainly the debate about motives. Well, they just want to acquire patents so they can squeeze royalties out of infringers. Well, yeah. Hey, this is commerce. This is about money. This is not an altruistic system.

The whole constitutional idea was that the incentive of monetary gains would motivate innovation at a greater rate and to better ends than if the lure of money wasn't there, so I'm a little dismayed when I see it even creep into footnotes of Supreme Court opinions, that certain patentees were just trying to squeeze money out of the accused infringer.

Well, all kinds of patentees are trying to squeeze money out of the accused infringer. That's what the lawsuit is all about, so come on. Let's be a little more adult about it than to worry about the greedy motive of the patentee. Of course the patentee is greedy. That's the way the system is supposed to work I think.

I think it's worth noting too that in the five full years and the month I guess since the pioneering work of the Federal Trade Commission in that first report, a great many changes have taken place, mostly through case law development. A lot of it at the Supreme Court, some of it at our Court and some elsewhere. But mostly in the courts.

I would suggest to you that for the most part, not 100 percent, but 70, 80, 90, we pretty well solved the problem of strengthening the obviousness standard, making injunctions less routine, less automatic, whatever you want to call it, raising the bar on willfulness, restricting patent eligibility under Section 101.

Beyond those changes, of course, now any and every licensee, even in full compliance paying every month, can challenge the validity of the patents that are the subject of the license, so a whole lot has changed, so even if the diagnosis in 2003 was perfect, maybe it

doesn't apply anymore or for the most part doesn't apply anymore.

So again, I applaud the FTC for picking up the analytical trail and looking for new empirical data and bringing in people like all of you here and the stellar panelists, and I'm very sorry to have missed these panels, but I will read about it later.

Well, if I think a lot of the challenges that were the biggest have been solved and a lot of the problems have changed in their complexion, that we have a new disease -- the old one has kind of gone away. Maybe the immune system took care of it well enough. What remains the biggest challenges in terms of improving the patent system?

Well, I would suggest that it's actually a very broad, almost philosophical, perhaps metaphysical approach, and I would describe it this way. Our goal, all of our goals, should be to try to assure that any changes in the patent system are defined so that they serve all types of inventors, all kinds of companies and entities, all technologies and all stages in the life cycle of each technology.

The system, particularly the litigation part of it and the Patent Office part of it, certainly should be as efficient as is practicable, but it also has to be

fair, and it has to be fair to everyone, and it's never going to be super efficient. It's just not in the nature of patent applications or patent infringement lawsuits to be super efficient.

So if we're going to strive for that, we're just going to die trying because it's never going to happen, and of course, no system is ever going to be perfect. Every system is going to have certain huge costs. Life isn't fair. Some litigants are going to have a harder time than others, and that will be true if we leave the system absolutely unchanged, and it will be equally true if we change it a lot. All that will change is who will be a little bit disadvantaged, or more than a little bit perhaps, and who will be advantaged.

Of course we talk a lot about predictability, and particularly yours truly, but predictability has to be counter-weighed against other values: Fairness, enough flexibility. I certainly agree with the spirit of the *KSR* ruling that over-simplistic or overly rigid rules are to be avoided.

So I would say we need to try to make sure that our reforms avoid categorical rules, rigid rules, overly simplistic rules and the like. In other words, they need to be thoughtful, modest, calibrated and balanced.

All right. Well, if those are the goals, do I

have any kind of approach, a sort of overall strategy? I started by saying I'm quite sure that judges don't have all the wisdom on this or even most of it, maybe not any of it, but I do think looking ahead to the reform efforts and the Congress and the work of the Federal Trade Commission, maybe The National Academies will get back in the act again as they did the year after the 2003 report.

I don't know, but whoever gets in this game and the various coalitions up on the Hill, I would suggest to all of us, would-be reformers (and I count myself among them), that we ought to carefully consider, based on the nature of the precise problem we're looking at the moment, which kind of doctor do we need? Do we need an orthopedist? Do we need a brain surgeon? Do we need an infectious disease doctor?

Because if we don't match up the right approach for what the problem is, we're probably not going to get a great outcome, and I would go beyond that to say that I think that in the main, except for those things that can only be done by legislation, we probably will continue to make better progress in the courts, particularly those courts that have the most experience with patent infringement cases, and through case law development, careful, gradual case law development, even

more than legislation, even more than overburdening the PTO or giving it greater powers or requiring that it be deferred to, to some extreme degree. The courts are probably the best equipped to work on most of these problems.

Now, I entirely agree with the perspective of the FTC that competitive interests and consumer wallets need protection and deserve protection, and the patent system has to coexist with the antitrust law and competition law and lots of other laws.

On the other hand, does it need to be said at this season -- and I'm not talking about the holidays, I'm talking about what's happening in our economy and with the layoffs and with stock prices collapsing -- is it too much to ask that our reforms not only net promote innovation, but also promote job creation and avoid job loss and promote stock values going up instead of precipitously down?

Of course, wealth creation is the ultimate goal of the whole thing, and all of these mediations among these competing interests require very adroit balancing. Now, everybody should make their own choice about who they think the best actor is to make rather fine balancing decisions among many competing goals, but for my own money, putting it in betting terms, I would bet

on the courts.

This is what courts do all time. This is what courts usually, I think, do pretty well, probably way better than Congress, probably way better than an administrative agency like the PTO, although they of course also have a very big role.

Now I want to end with sort of a caution, a suggestion that all of us, as we pursue what would be good recommendations, exercise a lot of discipline on ourselves. Shouldn't we have to ensure that remedies that we recommend don't just state objectives, but define exactly how you're going to get there, with what resources and what mechanisms, and at what costs to somebody else, to other players, to other industries, other technologies, whatever the consideration is?

Second, if the mechanisms aren't spelled out, is the reform real? To say the Patent Office is going to invent a great discovery system I think is to talk nonsense. The courts have worked on this for over a half century with great input of the Congress and the Supreme Court, and despite all those decades of efforts, we have the discovery system we have now.

Do we really think the Patent Office, in a short space of time, can crack this nut and deliver a great discovery system that's really fast, really cheap,

really fair, really accurate? I don't see how, but maybe.

Okay. What other cautions? Look for the trade-offs. Look down the road, to the downstream effects. Are you sure it's going to really net increase innovation if you make this adjustment or that adjustment? Is it going to increase jobs or are we going to offshore more jobs?

What about wealth as measured on the stock market or as measured in a patent portfolio? Do we really want to make changes in the patent system that might cut in half the value of every companies' patent portfolio or most companies' patent portfolio? Do we really want to see stock prices drop in half? Do we really want to see more unemployment?

Those are possible downstream effects of certain kinds of changes we could make in the patent system, and maybe we should. Maybe there are even higher values than those, but those are considerable values. They need to be weighed. It's all part of the trade-off analysis.

Then of course the most obvious of all: Is it affordable? If the Patent Office would need a 10 billion dollar budget, it just isn't going to happen. We're just wasting our time talking about it if the reform would require that kind of resource.

So I end with once again applauding the bravery I will say and the rigor of the Federal Trade Commission to approach these exceedingly difficult problems in such an open, transparent way by bringing in all the players, putting people who fight with each other in court and elsewhere and sometimes on panels in this room. This is exactly the right way to do this.

If this is all done on an ex parte basis in Congress or wherever, we're not going to get an optimal answer because optimal by definition means pretty well, almost all the time, for everybody. That's what we need, and we'll never get there unless we include all the players in a very open process.

So congratulations to the Federal Trade Commission. Thank you very much.

(Applause.)

MS. MICHEL: I want to thank the Chief Judge very much for those comments, always provocative and interesting, and we appreciate your coming down.

We will move on to our next panel, which will be focusing on patent remedies, so if I could call them up, thanks.

(Pause in the proceedings.)

PANEL 2: RECENT AND PROPOSED CHANGES IN REMEDIES LAW

MODERATORS:

SUZANNE MICHEL, FTC

BILL ADKINSON, FTC

PANELISTS:

THOMAS F. COTTER, Briggs and Morgan Professor of Law, University of Minnesota Law School

JOHN R. THOMAS, Professor, Georgetown University Law Center

JOHN SQUIRES, Chief Intellectual Property Counsel, Goldman Sachs & Co.

Q. TODD DICKINSON, Executive Director, American Intellectual Property Law Association

HONORABLE RODERICK R. MCKELVIE, Covington & Burling, Former Judge for the United States District Court for the District of Delaware

MR. ADKINSON: Good afternoon. Thanks very much. We're rebooted now. My name is Bill Adkinson. I'm an attorney with the Policy Studies Group in the General Counsel's office.

Our second panel is going to focus on remedies in patent litigation. This morning we heard that the damages system was working well and also that it was seriously flawed, so that gives us a fair amount of room to work with.

We're going to focus on the recent and proposed changes in remedy law, their impact on innovation and consumers, and the use of economic analysis in determining remedies. We are going to, in particular, look at what sort of evidence we should consider when granting or denying preliminary injunctions, and whether the legal rules for governing patent damages result in awards that are appropriate.

I guess in light of Judge Michel's comment, we will also consider what sorts of evidence should be considered in determining how to evaluate appropriateness, and we're also going to consider willfulness doctrine and how it is altered behavior.

We're going to have a terrific panel for this. I'm going to try to do the introductions very quickly. Professor Tom Cotter is the Briggs and Morgan Professor of Law at the University of Minnesota Law School where he's taught since 2006. He's made a series of contributions to the economic analysis of patent law and remedies, including a book coauthored with Roger Blair entitled "Intellectual Property, Economic and Legal Dimensions of Right and Remedies" published in 2005.

Then Professor Jay Thomas will speak. He's a professor of law at Georgetown and a visiting scholar at the Congressional Research Service. In addition to

general articles concerning intellectual property, his publications include a hornbook and a treatise on pharmaceutical patents and a case book and textbook on patent law.

After him, we'll hear from Todd Dickinson, who is the executive director of the American Intellectual Property Law Association, which is one of the world's leading policy and advocacy groups on IP. He previously served as Undersecretary of Commerce for Intellectual Property, and Director of the USPTO. We heard about the enormous job that the PTO has to do for us. He's also served as vice president and chief intellectual property counsel for General Electric and was a partner at Howrey.

John Squires, who will come next, joined Goldman Sachs in 2000 and is presently the firm's first chief intellectual property counsel. He has global responsibility for IP matters. He co-chairs the Securities Industry and Financial Markets Association's intellectual property subcommittee, and he's authored numerous articles and briefs on these issues.

Finally, we will hear from Rod McKelvie, who is co-chair of Covington & Burling's intellectual property litigation practice, and he teaches patent enforcement at George Washington. From 1991 to 2002, he served as

United States District Court Judge for the District of Delaware and presided over a number of patent infringement cases. He's been named one of the top intellectual property lawyers by leading publications.

So thanks very much. Professor Cotter.

PROFESSOR COTTER: Thank you. I'm going to try to present rather quickly just an overview of patent remedies and focus more specifically on three or four specific issues within the body of law relating to patent remedies, and then hopefully we will have some time during the question and answer period to elaborate on some of these issues more carefully.

So let me begin just by setting forth this menu of various possible remedies for patent infringement. Initially I want to focus on two things in particular: Permanent injunctions and ongoing royalties as a substitute for injunctive relief.

You can see from the slide that I'm using the terms property rule and liability rule that follows terminology developed by Calabresi and Melamed in their influential Harvard Law Review article of 1972. We would say that a legal entitlement is protected by a property rule if the remedy for invasion of that entitlement is a right to injunctive relief, a right of exclusion. Alternatively, a legal entitlement would be protected by

a liability rule if the remedy for invasion of that entitlement is monetary damages.

So the question then is: What are the advantages and what are the disadvantages of property rules versus liability rules, specifically with respect to patent infringement?

I think it's fair to say that the property rule entitlement has a number of advantages when we're talking about patent infringement: One, just the characterization of patent rights as property, according to Section 261 of the Patent Act. But more importantly from a policy basis, protecting a patent by means of a property rule effectively channels the parties, the patentee and the would-be user, into private transactions.

The theory would be that the patentee and the would-be user have an informational advantage over a court or other government entity in estimating the value of the patent. They have private information that they can use to come up with the terms of a license.

On the other hand, a court trying to replicate or estimate the value of the patent may face higher error costs, greater administrative costs.

Another advantage of a property rule entitlement in this context is that the patentee and the would-be

user can craft their own remedy, whether that be the development of a patent pool or creating other types of institutions to reduce transaction costs. They can be more creative than a court can be.

Finally, usually we're talking about a relatively small number of parties, one of the factors that tends to weigh in favor of liability rule entitlements is when there are a potentially large number of parties. When the number is small, according again to the Calabresi and Melamed framework, a property rule entitlement may be more sensible.

That said, there still may be some advantages to protecting patent rights by means of a liability rule entitlement, at least in certain types of cases, and so one traditional rationale for at least occasionally departing from the property rule framework would be to have this safety valve in place to safeguard the public interest.

So, for example, when the federal government wants to use someone's patented technology, for well over a hundred years, the government has had the ability to do so upon paying just compensation pursuant to Section 1498.

Another debate that's going on in the international patent community is the debate over

whether developing nations should have the right to compel the licensing of pharmaceutical patents in order to ensure an adequate supply of essential medicine. So at least in some contexts, it may make sense to protect patent rights by a liability rule as opposed to a property rule.

More recently in this country, the debate has centered on patent hold-up, and so one possible reason again to depart from the property rule framework would be to protect against patent hold-up, which I would define in the following terms. I'll come back to this again in a few minutes, but when we're dealing with a patent on a component, that is to say, some relatively small-value aspect of a larger end product, and the defendant is infringing that component's patent inadvertently, giving rise to surprise, and the hold-up value exceeds the inherent value of the technology. For example, the cost of switching ex post, once you're locked into a particular end product formulation, may exceed the ex ante value of designing around. So when those conditions are present, it might make sense to depart from the property rule framework and opt for a liability rule.

So in terms of the legal doctrine, everyone in this audience I'm sure is familiar with the *eBay* case in

which the Supreme Court ruled that the Federal Circuit rule that the prevailing patentee is entitled to injunctive relief absent exceptional circumstances, is incorrect, but also the Court, in Justice Thomas' unanimous majority opinion, appears to reject any bright-line rule that non-manufacturing patentees are never entitled to injunctive relief.

So instead, Justice Thomas says the courts should apply this so-called traditional four-factor test focusing on whether the plaintiff can show irreparable harm, no adequate remedy at law, that the balance of hardships favors the entry of injunctive relief, and that the public interest would not be disserved by the entry of injunctive relief.

A couple concurring opinions: The Roberts' concurring opinion suggesting that maybe *eBay* doesn't really change very much in the vast majority of cases; the Kennedy concurring opinion perhaps arguing for a greater role for compulsory licensing.

The question of interest today I think is how the court should go about interpreting *eBay*, what are we seeing so far, and where should the law be headed. I think some of the lower courts, I think correctly, have interpreted *eBay* as discarding the presumption of irreparable harm, and many of the district courts, as we

heard this morning, seem much less inclined to grant injunctions with respect to non-manufacturing patentees.

I think the interesting policy question we should be focusing on though is: What factors should the courts be looking to for guidance in determining when to opt for the damages remedy only. And I would suggest here that where a lot of the research and discussions should be headed is: What sort of factors are good proxies for the existence of patent hold-ups, so can we identify and isolate certain factors to look for in determining whether the threat, the risk of patent hold-up is substantial or not?

There's an interesting recent article by Denicolo, Padilla, Layne-Farrar, and Geradin that actually goes into some detail, coming up with a variety of factors that should be present for patent hold-up to exist, and I think that's where the research ought to be going.

Other factors that may play a role in some other cases, I'm listing up there, and I think we do have to be cognizant of the possibility that if we abandon injunctive relief in too broad a swath of cases, we could actually be in violation of TRIPs Article 28.

In terms of procedural issues, some recent Federal Circuit case law suggests that in a case in

which a Court decides not to award injunctive relief, it may be preferable to have the parties try to craft their own compulsory license before the Court weighs in, and I'm still trying to sort through whether that makes sense, but I think there is a risk here.

In those cases -- and it may be a small number of cases, but in those cases in which the Court has decided that injunctive relief is not appropriate, perhaps due to the risk of patent hold-up, I wonder if then asking the parties to craft their own damages remedy in effect just restores the risk of patent hold-up being exercised. I'm not sure this is the right approach in this type of case.

I think there's also a substantial question as to whether there's a right to a jury trial on the amount of the ongoing remedy. The Federal Circuit has held that there is not, but I'm not sure that the analysis fully grapples with this body of law dealing with the 7th Amendment. I think it's an issue that we may have to confront more deeply.

On the questions of damages, I'll skip the provisions here of the Patent Act, again I assume some familiarity with this, and just focus briefly on the theory, damages theory and how closely does the law of damages conform to the theory.

My own proposal, which is based on a series of papers I've coauthored with Roger Blair over the years, is that we should start with a baseline assumption that patent damages should render the patentee no better off, and also no worse off, than the patentee would have been but for the infringement, and that departures from that baseline may sometimes be necessary to avoid the risks of either over or under-deterrence. In terms of lost profits damages, that would mean restoring the patentee to the position it would have occupied but for the infringement.

In terms of reasonable royalties, again this theory would suggest that the ideal measure of reasonable royalties would be to replicate the bargain the parties themselves would have struck ex ante, assuming patent validity and infringement. You need that assumption in order to avoid a double-discounting problem, which I can elaborate on, if necessary, during the question and answer period.

That hypothetical bargain then should wind up reflecting the expected value of the patented technology in comparison to the next best alternative, again possibly subject to some adjustments in order to avoid either over or under-deterrence.

So where is the law currently? I think the law

of lost profits is actually pretty much in conformity with what our theory suggests, particularly the Rite-Hite case, in which the court seems to opt for this but-for analysis.

In terms of reasonable royalties, I think it's less clear, and a few problems that I think are currently at play with respect to the law of reasonable royalties. One is that some recent Federal Circuit opinions state that reasonable royalties may exceed the amount the parties would have negotiated ex ante or even the defendant's entire expected profit from the use of the patent. I question what the logic of that value would be since, by definition, this measure would exceed anything that the parties would have actually negotiated in the real world.

The other bone of contention is this whole issue of whether the royalty base should be the entire market value of the final product. We heard some discussion of that this morning, and so one issue is this: Is this basically a reasonable proxy for the ideal of trying to replicate what the parties themselves would have come to because in reality we may not be able to replicate that bargain very carefully or very, very well?

So is using the expected market value -- the expected market -- the entire market value of the final

product a good enough proxy, assuming you use the right royalty rate in connection with that royalty base? Or is this bad policy because for whatever reason, it risks inflating the value of the patent in comparison to the next best alternative?

Then a third question, really an institutional question is: Even if, in theory, there is some better way of valuing, of estimating the reasonable royalty, is it worth the cost? Would we be gaining very much in terms of more accuracy, and would that be cost justified if we adopt more complex methods for calculating reasonable royalties as was suggested in some of the versions of the Patent Reform Act that were before Congress last year?

Then in terms of enhanced damages, I'll leave that to Judge McKelvie to talk about that, but again the question is whether the *Seagate* case more closely aligns the legal standard now with the underlying rationale for enhanced damages, again that rationale being to bring a greater level of optimal deterrence, avoiding both under- and over-deterrence of patent infringement, and I'll stop there.

MS. MICHEL: Thanks, Tom, very much. We will hear from Jay Thomas next.

PROFESSOR THOMAS: Thanks a lot for having me

here, and it's always a delight to speak to such a distinguished audience and be on such an impressive panel.

I saw a few of you I think across the street at Georgetown for lunch, and I hope that the fine offerings of our salad and taco bar were not overly off-putting. I think I also see a few Georgetown law students here today, which I find fairly shocking, and I just want to warn you that none of this is on the exam, so there's not much reason to be here, but for that fact.

Let me also note, Professor Cotter is a tough act to follow because Tom's been really a leading light in the profession in dealing with remedies. He's someone who recognized their importance a long time ago. Recent events have focused a lot of attention on patent remedies, there's much more demand for precision remedies in the damages sphere than before.

Part of that is, of course, the increasing attractiveness of the patent system. Part of it is expanded efforts to obtain value from patents through new or at least expanded industrial models, and indeed a third model is of course the *eBay* case. After *eBay*, courts can no longer rely upon the notion that a permanent injunction is inevitable and the parties will simply bargain away prospective royalties.

They must look -- provide forward looking remedies in many cases -- and of course they have to confront the reality of trying to set royalties and other damages amounts. That makes it much more difficult and puts a lot of attention on how little we know about how to assess patent damages.

Here's Judge Rich from his well known line from *Application of Kirk*, his dissenting opinion. He speaks to the legal beauties of a system where the marketplace automatically values patents based on the value of the inventive contribution.

Well, the quotation is accurate to an extent. It's accurate to the extent that it does speak to the patent system as the least expensive alternative to other options as an innovation engine, for example, a prize system. Of course, that's an unusual observation today as prize systems seem to be picking up. There are more prizes it seems out there for technical contributions than there were before.

The notion, which is really black letter law for generations of patent attorneys -- this quotation is in many of the case books and has been in many of the case books -- it's very much lacking. It doesn't evince the fact that patents are unique intangibles that are among the most difficult entitlements to evaluate.

How do we do it?

We have elaborate models based on cost reduction, cost of substitution, innovation, advanced income streams, but these things are very difficult to pull off, and cost members of industry a great deal of time and effort.

Also, to say that the market evaluates the patent really misstates the matter, because the market doesn't value patents abstractly. It values patents based on what courts say the patents are worth, so courts can't look to the market. Jurists have to look to themselves to evaluate patents first, and the market will follow, so having a market-based valuation is simply circular and misleading. Again, courts must do the work on their own.

In addition, the quotation says, Well, the value is based on what the patentee brings. In part it is, but patent value can be based on exogenous factors. It can be based on who owns the patent, who owns other patents that may be out there. Other laws, for example, FDA marketing approval, may limit the value of what the patentee has brought. Even consumer and manufacturer lock-in.

So it seems just this basic quotation that informed patent valuations for decades is really subject

to doubt in view of current circumstances. We have to think about this further.

What are some of the informing principles? We've heard a lot about them already today. Administerability is one. We don't want courts to have to spend an overly excessive amount of time, in view of their other obligations, to resolve patent damages.

Again patents can account for external -- patent remedies and damages in particular can account for external factors. For example, do we want to not discriminate against or should we in fact privilege certain patent exploitation models? For example, the current damages scheme, as most of you know, does not allow disgorgement as a remedial measure. It gives lost profits, but only for patent providers who are in direct competition with the adjudicated infringer.

In a sense that privileges an exploitation model over a non-exploitation model, or can be viewed as doing so. Is that something we should sustain or further? Is that something we should avoid? We've heard already about encouraging private bargaining. Certainty of remedies is said to encourage private bargaining because it allows members of industries to act in the shadow of the law.

However, too much certainty can often encourage

aggressive behaviors. At least that's the theory of one of concurring opinions in the Supreme Court in the *eBay* case. An automatic right to an injunction in every case would encourage aggressive trolling practices, according to one of the Supreme Court opinions. We ought not to allow that. We ought to put a little play in the joints to soften behaviors of rights-holders.

Deterrence, there's the notion I've heard from several people, a very memorable quotation from a colleague here that, why should anyone put a quarter in the parking meter if the fine's a quarter? Why should the damages just be what we would privately negotiate?

Of course, that view, though it's very intuitive and strong, perhaps there's some other influences, and one might be the notion that we rely on accused infringers to clean out invalid patents from the public rolls, so we need that incentive for them to be willing to litigate, even if sometimes they're wrong.

Also we need flexibility in our damages principles because market structures and technologies differ, and we want to be able to apply future learning readily.

So looking at some of those background principles, what are some of the current issues that some of us perceive are problematic? Well, as we know,

reasonable royalties are commonly determined through a hypothetical negotiation framework. One of the big questions now is: Is that framework essentially useless? It may be useless in part because courts commonly discard the framework when they don't feel it's appropriate. What is it really adding to other sorts of factors?

Courts commonly disregard this construct when they face who they regard as strident patent owners -- patent owners who would never settle under any circumstances -- so they simply throw it out and embrace negotiations that don't allow the infringer any room for profit.

They say it's a legitimate prospect to allow infringers to negotiate patent deals that would leave them at a loss for each and every unit that they sell. So we see a lot of cases, and I just picked a couple cases. I've written works that talks about other opinions. One recent case, *Mitutoyo*, the royalty is the entirety of the infringer's profit. The reasonable royalty is in fact a prohibited grant of damages under our Patent Act, which makes it a disgorgement measure of lost profits.

Congress allowed that measure for design profits but not utility patents that's allowed by the courts

under the guise of a reasonable royalty, so in effect the courts have expressly disregarded Congressional instructions over the royalty rate.

We also have *Monsanto v. McFarling*, one of the notorious bag-tag cases where the damages exceeds the price of the product, not to mention profits, well over the price of the product. And of course that's a case in view of *Quanta*, but I'm not even sure the patent right extends that far to descendants of seeds that were originally sold.

So I believe there are some problematic cases, but certainly it's correct that there are some cases that are resolved, apportionment of royalties and reasonably royalties, fairly. And I do believe there is room for disagreement about the extent of the problem, and that's a contribution that the FTC can well make.

What we do know is the average royalty award is over 13 percent. By itself that number doesn't have a ton of meaning. If the profit rate in one industry is 70 percent, 13 percent doesn't seem that bad. However, we know the profit rates are not that high in most industries. They're substantially lower.

Certainly when I was in practice the industries I dealt with, if I had come back to my client with a 13 percent royalty settlement, I would have been in academia

years before I actually joined, okay? They wouldn't have had me any longer than that, so it's a rate that seems high, but again I think more work could be done on the basis for comparison.

How about lost profits? Interesting strains of thought here. Remember that lost profits aren't available unless we have a case of direct competition. Some scholars like Professor Lemley think that in fact it may be too difficult to show lost profits. That's why we're having contortions on the legislative minimum showing of reasonable royalties, why they're not often that reasonable on further observation, and why we ought to make lost profits more broadly available.

It's important to note though by rejecting disgorgement and requiring the legal damages of lost profits, that Congress has said effectively that lost profits -- the damages for patent infringement -- are going to exceed the gains.

That's often the case due to the impacts of competition, and the notion of consumer surplus. That's an impact -- the damages regime has tremendous impact on our public health system because it strongly discourages generic applicants from competing because their damages may be much greater than any profits they gain under the Hatch-Waxman regime. It's something that again has

tremendous influences just on the public health system, not to mention other innovative industries.

Apportionment remains one the big topics for debate. Apportionment is part of our law. It stands among the *Georgia Pacific* standards. Many of us believe that it's been unevenly applied, and when it's been so, implicates the same policy rationales that patent claim scope does.

Why are we so concerned about construing claims accurately, having claims scope precisely defined over the prior art, if at the remedial phase it's of little value?

The entire market value rule, too, means that this patent, if it's found to be the entire market value of the competing device, it means there can only be one such reward, that the infinger has nothing left, and if that if the product infringes in the future, the patentee should go -- the subsequent follow-on patentee should go not to the infringer but to the original claimant and seek a portion of its damages.

Well, I'm running out, but let me just note that: What are some problems that the FTC might productively engage in or we all can think about? One thing is like the patent system itself, patent damages are incompletely theorized. We don't know much about

patent damages, and we haven't thought much about how damages pair with different aspects of the patent system in terms of its goals.

The thing is the patent system is not just about one goal. It's about incenting innovation. It's about incenting disclosure. It's about encouraging investment. It's about breaking the Schumpeterian form of vertical integration. Whichever one of those goals you privilege would influence which remedial scheme you might adopt.

I certainly would know we have a growing availability of empirical studies. Houston and Stanford are getting more numbers down, but often those are just reports of numbers. Someone is going to have to crunch them. We need to recognize structural limitations.

The courts, in view of some, may be the superior actor for deciding these issues. The difficulty is, at the appellate bench level especially, given the short amount of appellate time for appellate advocacy and brief limits, most litigants, of course, are going to try to defeat the judgment generally by saying that the patent would have been obvious or we don't infringe.

They're not going to argue about the damages award. That's often an afterthought, and damages are not often properly framed before the Federal Circuit.

Finally, let me note that solutions to damages problem may lie outside remedies law. The expansive ability of patentees to claim as they wish may, in fact, be a better source of concern in this arena.

Let me close again by thanking you for your patience, and I look forward to further discussion in months to come. Thank you again.

MS. MICHEL: Thank you, Jay, and thank you very much for the suggestions of what we should be thinking about as we move forward in this project. We welcome that kind of input from all our panelists and from all of you. I'll keep putting in a plug for, send us comments.

MR. DICKINSON: Don't worry.

MS. MICHEL: We will read them all I promise.

MR. DICKINSON: You asked for it. Hi. I'm Todd Dickinson. I'm here, and I'm invited maybe because I can't keep a job. I've had a number of experiences over the last decade or so that I think hopefully give some perspective on this today. I am currently the executive director of the AIPLA, and so while I'm not literally speaking for them today, obviously a lot of the comments that I'm going to make are reflective of them and their policies and also perhaps more importantly, the constituency they represent.

We have about 16,000 attorneys and agents. We represent clients on all aspects and all sides of these issues, and we care deeply about the system, so hopefully these comments will be constructive.

Also as was mentioned, I was the director of the USPTO too, and the number of the challenges and the number of perhaps the solutions that we're going to talk about may also lie there. Many of what we're talking about in the remedies area, big R remedies, discussions particularly around patent reform legislation are focusing on perhaps the end of that process, litigation.

I think we're starting to see the beginning of a discussion that says maybe we should also be focusing, maybe preferentially focusing on the front end of that process, helping reform and resource issues at the PTO.

Just a little bit on that: There's a couple studies coming out or have come out showing the magnitude of the increasing problem. Let me see if I can get my slides up to by the way. No?

I'm going to stop right there for a split second. When I came into the office about a decade ago, I used to give speeches talking about the horrendous problems facing the office because their workload had doubled. The budget had doubled, but the hiring had to double, and it was an increasing management challenge.

Now, a decade later, the budget has doubled, but the workload has more than doubled. The number of applications coming in has doubled. Pendency has gone up from 24 months from the first office action, 24 to 32 months. It's been reported publicly by the office that if you file an application in the health insurance business methods 7054, you will get a first office action in nine years. That's a problem.

Let me first thank the FTC for holding these hearings. This is I think some measure, a follow onto the very good work that was done again almost a decade ago. I had a chance to testify back then a couple times, and I appreciate the chance to be here again today.

One of the comments that came out of the report that I used to make and sort of tweak Suzanne and Bill and their colleagues was all the evidence they were collecting seemed pretty anecdotal. They replied, Well, if you get enough anecdotal evidence, it becomes empirical, okay, but let me perhaps suggest that I know other speakers, and I know others have, that maybe there's also room for good some empirical studies in this area as well, since that time has passed.

Also let me start off by saying I have like 40 slides in five minutes, so I will move through them

pretty quickly and hopefully stand with the record. Let me thank my good friend and colleague, Steve Kunin who has helped me with the slides and who also was my colleague at the PTO.

As I'm sure many of the people have said, the concerns regarding the inadequacies that we're talking about have been addressed since that time, since the 2003 FTC report, in various ways but particularly through the courts. I think the Supreme Court certainly sent the signal on a number of issues, but that signal has been picked up I think very affirmatively by the Federal Circuit.

You heard the Chief Judge a minute ago. He's been, I think many people, know in particular saying, Give us even more cases to take up some of these issues. I think given the mechanisms for reform, I think people are taking a good hard look at where that's a continuing good option.

A lot of what he said, by the way, if you will accept my apology, I don't usually quote Rush Limbaugh, but I would say ditto to what the Chief Judge said in large part. I think he's had a long experience, and I think in many cases he is making good recommendations.

Again just quickly, we've seen these four basic categories or types of remedies. I think I'm not going

to go into quite as much as Professor Cotter did about the specifics of them. They're in here.

What I'll probably touch on is some of the impact and some of the policy, political reform nexus that some of them have given rise to and how that complicates the challenges that we have in crafting remedies going forward. I know we have good friends from the legislature here and from the Congress here today.

Having been involved in this now for three or four or five years, I don't envy their task. One of the challenges they faced of course is that everybody is extremely passionate, turns out to be passionate about these issues, amazingly, and that passion translates into pretty strong rhetoric. So one thing I hope we get through and I hope the FTC facilitates is cutting through a lot of the rhetoric and getting to the meat of the matter.

Again back in 2003 almost every permanent injunction was granted. I think we know that. There were concerns though, as was discussed this morning and I know a lot, this issue of non-practicing entities giving rise to a distortion of the system, and so the *eBay* case, which in the reform debate, the reform debate and legislatively, injunctions was far more provocative,

far more heated for a period of time than even damages is today.

Then the Supreme Court takes *eBay*, and I have to disclaim I was a witness in the *eBay*, so a little disclaimer upfront, and all of the tension, all of the stress seems to go out. Everybody seems to feel that Justice Souter hit it right down the middle on that one, and maybe he did.

We're seeing it evolve as I think several speakers have mentioned. Non-practicing entities in particular are learning to live with it. Others who are technically I guess non-practicing entities have got to figure out how to, and that's where I think we're going to see -- hopefully see a little more flexibility in the system.

Universities are a good example. Research institutions. There are commercial entities who are not just gathering patents for the sake of gathering them and licensing them, but whose business is licensing them. We have representatives that I know are here in the room today from those companies, and I think they should have a fair shot at convincing us that their business models is also deserving of this, even though they don't technically make the product.

The result is they're no longer automatically

granted. They do require this equities balancing, which seems fair enough. This probably will affect the probability of settlement.

Another area that wasn't talked about too much, let me just get my water -- wasn't talked about too much is the effect on declaratory judgment actions. Now, traditionally you can get a declaratory judgment, can initiate a declaratory judgment, if you feel, within limited circumstances, that you've been directly threatened by a patentholder.

There's some advantages of bringing that action, of course, procedurally. But the limits of that threat, the perceived threat have been tested, and the Supreme Court fairly recently in the *MedImmune* case clarified it. What's been the impact of that?

Well, the Federal Circuit is going to take that up to delineate what the boundaries of that are. That was kind of a case that came in a little under the radar, but I think is getting a little more focus now because of the impact of loosening how those actions can be brought.

It will hopefully remove more business uncertainty because it gives the opportunity as a mechanism for cleaning out some of the underbrushes. We're talking about a lot of mechanisms for dealing with

patents which perhaps should not have been granted in the first place or were too broad or lower quality. Yet here's one more mechanism among a number that we've talked about that have evolved in this last decade that can be helpful in doing that. The Federal Circuit has enumerated several types of behavior that can give rise to it. They're a little different than they were in the past.

There seemed to be -- there was a lot of worry right after that decision was granted of whether that would lead to there being no way to avoid declaratory judgment. I don't think it's played out that way. I think most observers will say the Federal Circuit, as they traditionally do, began to shape, delineate, bring into focus when it can be used and when it cannot be used. As it says here a very careful factual analysis is always important, and it will continue to evolve further as we get more refinements.

Part of the challenge I think we have, and I'm speaking personally, is back to this rhetorical question: Probably this is also part of my experience at GE and other places where we had technologies at each end of the spectrum, and we needed to have careful balance.

We need to watch the rhetoric. We need to make

sure that the reality matches the problem, and the reality certainly matches any proposed solution. I've heard the sky is going to fall in too many times, and when it hasn't fallen in, to not be a little skeptical of that. On the other hand, as Chief Judge Michel certainly said, this system is too critical, too critical to the economic development of this country and certainly the future economic development of this country, to tinker with theoretically. We need to make sure what we're doing has a great basis in fact.

The issue of willful infringement. Again traditionally there's a lot of concern about willful infringement, a lot of concern about the enhanced damages that flow from that. There was a desire for reform. We actually heard that in a couple cases starting with an en banc in *Knorr-Bremse*, and then the *Seagate* case. They actually basically reversed the *Underwater Devices* limited duty of care, and established the objective recklessness standard. Again like these others, a theme is working it's way. The sky didn't fall in.

Someone is going to talk, speaking to the young man out there, we were talking about interrupting Chief Judge Michel. I said, Don't do that, you're a law student. The first thing I learned is never interrupt a

judge. The second thing is always agree with a judge when you can, so even though Rod is no longer a judge, I'll agree with a lot of recommendations he's going to make here in a second, even though he hasn't made them yet. I thought he was going to go ahead of me. Sorry.

So what are the consequences? Harder to obtain injunctions, harder to obtain damages. The recent state of 101 cases brings into question whether this expanding patentability that we've given -- usually taken a lead on globally in the United States -- is now in question.

How is that going to affect damages, the royalty? We'll see. I think we'll see is the question. Well, that's what we're here for. These are some of the questions we have to consider: What are the remaining problems, what are the best approaches, and if you have a legislative stalemate in particular, which has been a major problem, a major challenge, let's say because the forces seem to be balanced very interestingly, and while the debate tends to be framed as oh, high tech versus bio pharma, it's not anywhere near that simple.

Where you stand on all these many issues, the alliances ebb and flow, form and reform. So the complexities of having to do this whole package legislative are great, so some have suggested maybe some of those issues like damages and inequitable conduct,

both of which are made by the courts, the reform might be best left to the courts.

Others are going to talk a lot about damages, so I won't spend a lot of time on it in my remarks other than to comment on again this issue of how the debate is played forward, and I want to frame one thing. Jay Thomas, Professor Thomas has an excellent paper on the impact of *Georgia Pacific*, can judges and juries get it right?

A good colleague of mine both at Howrey and formerly AIPLA president, Bill Rooklidge put out a paper saying roughly the opposite. That's not to say they were both wrong or right. It's to I think highlight the fact and the challenge in figuring out from currently available data just what the right -- first of all, the problem, then to figure out what the right solution is.

It's true. The high tech community is plagued by non-practicing entities in certain ways. It's true, non-practicing entities, in certain cases, have figured out a business model that's appropriate under the law to make some buck, and their shareholders made zero value.

It's true that biotech and pharma need significant protection because their business model will rise or fall. It's not a matter of just getting hit for

a large amount of damages impact. Their companies may fail. Balancing all these out, that's what we're here for, but it's very, very difficult.

These are some of the observations. I need to wrap up, so maybe we can get to them in the questions. I mentioned Chief Judge Michel. Legislative actions, here are some suggestions: Post grant review, become more of a controversial question.

Interestingly enough, this is the cornerstone in many ways of the FTC's recommendations and the DOJ's recommendations, but we have struggled to try to figure out exactly how to do this post-grant review process. There are a lot of subissues in it, second window. For example, there's a lot of consensus around first window, doing it for a brief period of time after a patent issues.

Second window, very difficult. The House tried to, in their work, reform inter partes reexamine. That may be an appropriate way to go, but we're starting to see inter partes re-exam. People are saying, Oh, it's great, people are using it. Some of the current anecdotal evidence data suggests they're using it for tactical reasons to prolong litigation and to draw the things out as opposed to the reason it was proposed initially, and what oppositions was proposed for which

is to reduce the need for litigation and reduce the cost.

So we have to watch that too. The law of unintended consequences is probably the law where I got most of this.

Let me thank you. Let me make one final quick comment about the USPTO. As I said, I think that one of the things that should -- that the FTC may take even further view on and testimony on is how some of what we regard as remedies might be affected positively, little R remedies, by a closer and more resource-driven focus on the front end of the process and reforming PTO.

And I noticed Herb Wamsley and Steve and I and a number of former executives at the PTO have come together and are putting out a report under the aegis of the U.S. Chamber of Commerce which addresses a lot of these reforms. I know the new administration will take a careful look at it, and the PTO will.

Substantively, I think a great development -- the PTO, as I understand it, has advertised for a chief economist, and I think one of the things, they've had a challenge in the past is getting the kind of empirical data and the kind of theoretical view of the impact of their work, and I know that the FTC has benefitted from that in the past, and hopefully that will benefit the

future here. Thanks.

MS. MICHEL: Thank you.

Now we have John Squires.

MR. SQUIRES: Thank you. I also should disclaim that the remarks and opinions are my own and not the product of my firm's research nor the industry associations I represent.

From a financial services industry standpoint, I probably should also disclaim that past performance is no guarantee of future results, but given the current state of play, that's probably not funny. Let's hope not.

I would like to first like to thank the Commission for --

UNIDENTIFIED SPEAKER: You still have a job, don't you, John?

MR. SQUIRES: Well, we'll see after the speech. I would like to first thank the Commission for putting this together. Today's panel is timely and topical because we're seeing a market failure in the marketplace for ideas. If we listen closely to the marketplace for ideas, it's echoing a similar message that the financial markets are sending; that is, over-stressed and outdated rule sets are causing a lack of transparency, leading to a mispricing of assets.

Now, the stressed and outdated rule set here, and that is the subject of discussions specifically, is the entire market value rule construct for patent infringement damages. Now, the asset mispricing occurring are the patents, which are no longer able to be priced based upon fundamentals.

Now, the last time we saw this in our industry, the symptom of this phenomena, was with the automatic injunction rule, and that was at issue in the *eBay* case. As a result, the four major financial industry associations came together, and these associations comprise many thousands of members, and filed their first amicus brief on patent law to the United States Supreme Court in order to shed light on the contours and specific market effects of this problem.

Now, we argued successfully that courts should have the discretion in appropriate circumstances to balance competing interests and harms. One such circumstance that we point out was where an injunction would disrupt or dislocate the U.S. financial system markets or exchanges. Another is where the enforcer is a non-practicing entity which provides no goods or services.

Now, the practical result for me today tells us that the market works, that patents can and should have

more value in the hands of commercial competitors versus non-practicing entities. Monetary damages may in fact make a non-practicing entity whole, whereas commercial competitors may suffer irreparable harm.

Now, if we carry this concept forward, we have to ask: Well, then, what is the appropriate measure of monetary damages for patent infringement? If we look to current damages jurisprudence, we see a market failure resulting from a rule set formulated in a bygone era in a marketplace at the time with relatively new economic actors.

As a result, the current landscape is skewed toward predatory litigation and has created a lottery-ticket mentality that all but drowns out legitimate market price signals. Now this is because the patent owners are able to obtain damages awarded on components that they did not invent and are not covered by the claims of the patent.

This results in a distortion, which is particularly profound in an industries with complex value chains and where products and services can literally be the subject of literally hundreds, if not thousands, of patents.

Now, while incentives to obtain patents are strongly reflected in their growing number, the remedial

regimes to compensate patent owners for infringement have not kept pace. The lag has led to a rise in litigation and abuses that are straining the system and calling into question the role of patents in the modern economy. Indeed as I testified to the Senate Judiciary Committee, Professor Josh Lerner's work confirms that financial service firms, in fact, are 27 times more likely to see a patent suit than other industries.

As a result, available patent remedies need to be sharpened so that a patent owner's remedy is valued in accordance with the specific contribution of the invention, while preserving full valuation under current remedies for more traditional, patent reliant and mature industries.

For example, where an inventive contribution is a new compound, a break-through pharmaceutical for example, valuation would reflect of course that first and foremost the patent owner would cover lost profits, which it could prove, and a reasonable royalty calculated on the price of the full component that it could not prove through lost profits.

By contrast where the inventive contribution is one of many components in a complex product or service, an improved memory chip, for example, in a complex processing system, then valuation should be correlated

to the component.

Now, a fundamental tenet of economics is that free market most efficiently values goods and services, and I, in fact, had the quote that Jay put up from the *Application of Kirk* case, but the point there is that patent value related to the value of an invention should be determined by the marketplace. Well, what does that mean?

It means a lot of different things. Recent decisions have demonstrated that patent awards can grossly exceed market values, and the Microsoft case that Mallun mentioned this morning is an example of that, and there, over half a billion dollars worth of damages were awarded where the court allowed a royalty calculation based upon the entire value of the Windows Operating System, even though the infringing component was much less than that.

This is not a market-based calculation. It's rather a symptom of how law and patent damages have moved away from market principles, particularly for goods and services that have complex value chains.

Now, calculating reasonable royalty consists of two parts: First, you have to establish the royalty base, that is, the total value of the infringer's sales on which the patent owner is entitled to royalty

payments, and then the second part is establish a royalty rate to apply to that base.

This approach is consistent with the overall philosophy of relying on market forces and calculating compensation to the patent owner. This policy is thwarted, however, if the royalty rate base is artificially high or artificially low.

Now, modern technology, of course, involves interrelated components that are sold to consumers as part of functional units. Many of these components is subject of patent protection and can be combined in multiple ways to yield new and improved systems and methods. If, however, each individual patent owner has a possibility of obtaining a damage award based upon the price of the entire end product, an incentive to engage in litigation over licensing arises.

I'm going to provide an example to illustrate this. Now, suppose a particular product is sold by E, in this case a cell phone comprised of components A, B, C and D. The product itself sells for $10, and each individual component sells for $2. If the owners of A through D enter into license arrangements with E each, each receives a 10 percent royalty rate on the price of the component or 20 cents.

E is still left with a 12 percent profit. Now

suppose that one of the patent owners, D, decided to bring patent litigation and is successful in arguing the end product is sold as a functional unit, including this patented component. Now, further suppose he is successful in obtaining a royalty rate of half of that, 5 percent, but on the total price of the unit, $10.

As a consequence D is receiving 50 cents per unit. All numbers of serious problems arise with this example. First, D is rewarded by choosing to litigate rather than to license. This distortion results in a jackpot litigation mentality that diverts economic activity to less productive purposes.

Perhaps even more important is the impact on E. Recall that under a licensing regime, where each patent owner is paid a royalty based upon their specific contribution, E is still left with a 12 percent return on sales price.

If D is successful in obtaining a royalty based upon the entire market value, then E's return drops to 9 percent. Stated simply, this 25 percent reduction in E's return will have a real impact on E's willingness to sell the product and will no doubt stifle innovation. Now, my example was rather simplistic. Most modern products or services involve hundreds, if not thousands, of patents. This only magnifies the problem.

Second, the uncertainty of the end result chills innovation and prevents proper market pricing of the patent.

Finally, the appearance of a new character on the stage, a non-practicing entity, has altered the dynamic. Two important implications arise out of this development. First the NPE, the non-practicing entity, unlike actual manufacturers, has no fixed cost in creating the patented component.

Now, commercial suppliers have fixed costs, mitigating some of the risk of pursuing a litigation strategy that may otherwise chill production. Now, again think back to our example. If any one of A, B, C or D brings litigation, seeking a royalty based upon the entire market value of the end product, they run the risk of having E re-deploy its capital to more profitable alternatives.

Stated simply, if A, B, C and D actually manufacture the components, as contrasted with the non-practicing entity, they are less likely to engage in an activity that will undermine the production of articles including that component.

Now, the NPE model is often attempting to maximize short-term gains. This leads again to the jackpot mentality and further tips the playing field in

favor of litigation. NPEs can, in fact, do better than folks manufacturing the components.

A more consistent, uniform approach would be to limit the application of the entire market value rule to situations where the patented component is the entire basis for the demand. This formulation has several critical advantages. First, it would ensure that a leveraging patent beyond its scope is the exception rather than the rule.

Second, applying this formulation should reduce uncertainty, and therefore the distortions that occur when the system can be gamed.

The Supreme Court recently provided further insight into this theme in the *Quanta* case. While *Quanta* involved the doctrine of patent exhaustion, part of the rationale behind the doctrine is to prevent patent owners from leveraging their patents to secure market control on related but unpatented items. This may be of particular interest to the Commission.

In Quanta, the Court was forced to consider the extent to which a product must embody a patent to trigger the exhaustion doctrine. Now, as an initial matter, the Court traced its own jurisprudence lamenting the increasing frequency (quote, unquote), with which patent owners were using license terms to secure

market control of related but unpatented items.

The Court further noted that the primary purpose of patent law is not the creation of private fortunes but the promotion of progress of science and the useful arts. Consequently, the Court observed that patent rights are limited to the invention described and claimed, and Courts should focus on the inventive aspects of the claims as distinguished from standard components.

The teaching of *Quanta* are instructive as to the application of the entire market value rule. Indeed, the logic and rationale of not allowing a patent owner to secure control over non-patented but related items as part of a licensing strategy stands in direct contrast to the current entire market value rule practice of allowing a patent owner to capture a royalty for non-patented but related items that are used in combination with a patented item.

As in *Quanta*, damages calculations, royalty calculations, should be rightfully focused on the inventive aspect of the claims and should not be extended to standard, non-patented components absent exceptional circumstances. The premise is only underscored by that Court's admonition that patent laws, again, are designed not to create private fortunes, but

to promote innovation.

So to the question I posed in my opening slide: Can Quanta finish what eBay started? I would echo the refrain that was echoed that was so successful in this election season: Yes, we can.

MS. MICHEL: Thank you. Now, Judge McKelvie, I believe you'll be talking with us about willfulness.

THE HONORABLE MCKELVIE: I thought I would take on what's been happening with *Seagate* during the last year. Remember, it was decided in August of '07. Ashley Miller is responsible for all the correct things in the slide. I'm responsible for all the incorrect things in the slides.

I remember a couple years ago when the FTC and The National Academies looked at the issue of willful infringement, they identified a number of problems with willful infringement. It discouraged research. It didn't actually act as a deterrent. It interfered with lawyer/client relationships, and it spawned inefficiencies in litigation.

So the FTC suggested that we look to new standards that would give written notice for infringement and punish deliberate copying. The National Academies said abolish the affirmative duty of due care, and bifurcate willfulness proceedings.

The Federal Circuit came down with *Seagate* and knocked out *Underwater Devices*, thank goodness. They adopted a recklessness standard, which for us litigators is good because nobody knows what it means.

So Ashley and I looked to see the reported opinions that have come out under *Seagate* in the last year. Those of you who work in litigation know that saying there's 40 opinions out there doesn't say there are 40 decisions because there are a lot of unreported decisions, and there's a lot of looseness in this. I'm not sure I would cite these 40 in a brief to the court, but there are some interesting patterns. I thought I would share them with you and make some recommendations.

So in 15 out of the 20 cases where parties sought to eliminate the willfulness issue from litigation early on, the judges denied the motions -- denied the motions in the context of a motion for summary judgment or denied the motions in the context of a motion to stay discovery.

We put it on this chart because a person might say, Well, that may have happened early on in August of '07, but now judges are more inclined to grant summary judgment. The answer is: This pattern shows the regular bad guys. That's judges who deny motions for summary judgment. The green are the good guys who

grant motions for summary judgment. I think there's an ANDA case in there for green, so that it doesn't necessarily count, but it's showing that judges are not knocking willful infringement out of patent litigation early.

There's some good news, some interesting news, assuming that you agree with me that willful infringement is not necessarily the most productive part of litigation. Five post-trial, non-jury decisions by trial judges find no willful infringement. That's five of five, so that says if you can survive your battle over the waiver of the privilege, you survive the jury trial or survive non-jury trial, you get to the judge, the judge will say no willful infringement.

In nine cases where a jury found willful infringement, the judge took away the willfulness verdict in four out of the nine. Actually some judges said, Well, I'm going to uphold the willful infringement verdict, but I will not enhance the damages.

In the eight other cases, I think it's eight, or nine other cases, the judge said, The jury banged you, I'm going to bang you. I have a paper that I gave to Suzanne, who will put it on the web site, that will show you these 40 cases. And you can look and see what happened, because I know what people are interested in is

the underlying issue, which I'm not going to talk about today, which is what is willful -- what is willful infringement? What's reckless conduct?

So I said to Ashley: Are people filing fewer claims of willful infringement now that the recklessness standard is higher? We thought we would take a quick snapshot of the Eastern District of Texas to see if plaintiffs' lawyers are filing fewer claims, and in a quick one-week sample, it shows that there are maybe fewer. It's sort of a very light sample. Incidentally, my partner was in Texas on Tuesday. He got a trial date four years from now in the rocket docket.

So what do these changes tell us? Has *Seagate* eliminated our concerns about the problems with willful infringement? The answer is probably not. Has *Seagate* eliminated the need for companies to obtain exculpatory legal opinions? Probably not, especially if you consult former judges who can give you an opinion, discount this week.

Has *Seagate* eliminated the
the need introduced in legislation, to maybe change the standard for willful infringement to provide for written notice and deliberate copying? Probably not. That is, it's still a little bit unclear. You have to look at the decisions to see what judges think

deliberate or willful infringement is.

So what are the solutions? And these are the ones Todd endorsed, so I don't need to go into them too much. I think the things we need to do, I think the Federal Circuit needs to encourage district court judges to grapple with willful infringement early on in a case. Most judges are reluctant to do that perhaps because they have to write an opinion on it.

If the Federal Circuit would start telling trial judges to grapple with willful infringement early, it would knock it out and give parties some comfort that they wouldn't incur all of the expense.

There's a proposal floating in Congress to put willful infringement at the end of the case. That actually would probably be pretty effective in this situation; that is, if people are still going to plead willful infringement and judges aren't going to deal with it in summary judgment and say, you can't plead willful infringement until there's been a finding of liability and the patent is not invalid, it would come up after the case has been litigated.

In those cases you've seen that the judges, with the pattern I showed you, would probably end up saying, unless there's really egregious conduct,

that there's no willful infringement. That rolls back to say you probably don't need the opinion, so I'll give an even bigger discount now, if you don't need it.

On the issue of willful infringement and judge and jury, there's a lot of case law out there that says, This may be an issue for the judge rather than a jury. That may be another remedy that we can use to somewhat correct it.

So I had looked at *Seagate*. I've been watching *Seagate* for a year. I thought maybe with a year it would wash through the system and improve what's happening with willful infringement, and my suggestion to the FTC and to the National Academies is, you look at your advice, it hasn't really worked out with *Seagate*, and that we may need to make some additional changes.

MS. MICHEL: Thank you. A very practical presentation. Thank you very much.

Why don't we start with willfulness. I was wondering if any of the other panelists had any additional comments about the need to continue thinking about willfulness doctrine following *Seagate*. In particular, we heard in 2002 about the interim effect of willfulness allegations and how that could affect settlement negotiations and licensing negotiations.

Do you think that that effect has been lessened

at all by the *Seagate* decision, and in particular the requirement that there be a recklessness to the defendant's actions? Specifically, are there fewer willfulness findings now that would lessen the in terrorem effect.

THE HONORABLE MCKELVIE: I think the end point of my statistics show that there were probably fewer willfulness verdicts. I haven't looked at the statistics out of Houston. Probably at the end point we're doing a lot better, but the time and expense and the investment of getting there is still just as great.

If you look at the pattern and if you look at the paper, you see what the judges look to for the purpose of finding willful infringement, it's the same old factors the judges relied upon before, which is that you copied. You didn't try to design around, and you lied to me during litigation, and I don't like you.

MS. MICHEL: It's always bad when the judge doesn't like you. John?

MR. SQUIRES: Yes. As Dan pointed out this morning, if you look at pleadings, willful infringement is still automatic. You're going to see that as something that is put forward, but what I think *Seagate* has done is it's discounted the availability to make good on the threat.

So in a license negotiation, whatever premium there may be, unless there's some good hard facts that they'll reveal so much as to make good on the threat, it's a very much discounted equation now in the bargaining.

MS. MICHEL: Any thoughts -- Todd?

MR. DICKINSON: Maybe to add a little from my corporate experience.

MS. MICHEL: Please.

MR. DICKINSON: I think it provided a floor. I think it provided some relief and provided a lot -- you didn't feel like there was this open hole in front of you of uncertainty, and I think that's probably the best effect of it at all.

I think with regard to what Judge McKelvie said, I understand what he's saying about lessening the number of opinions. I think we're seeing -- I think some of the data is that we're seeing fewer opinions but only some delta 10 percent, 15 percent or something, so people are still getting them for that extra assurance.

They're just feeling a little more secure on relying. There's still some reform that needs to be done I think, but I think maybe people are willing to let that one go and not worry Congress with it so much.

MS. MICHEL: Does anyone have any sense of

whether *Seagate* has lessened what for some companies, not all, but the effect of willfulness in putting a damper on the willingness to read patent applications or patents? John, you might be the only one with the experience.

MR. SQUIRES: I would echo what Mallun said this morning, not necessarily willfulness as an impediment to reading patent applications, although I think it's expanded. If you're focusing on the reprehensibility of the conduct and the other side has expended what is reasonable behavior of a business to undertake, I think there's less got you on the willfulness side to undertake to do that.

There's other problems such as: Are you going to get the entire universe of things you need to see, what's the timeliness of it, and are you going into the markets where you have less experience versus markets which you've been historically in and probably are in the best position to know most of the information?

MR. DICKINSON: Let me ask John a question. Do you think that's going to provoke a cultural shift in those industries and companies that traditionally have said to their engineers, Don't look at patents, now may loosen that up a little bit culturally, internally?

MR. SQUIRES: It might be a cultural trend. I

think shift is probably too sudden.

THE HONORABLE MCKELVIE: But it should. That is, if *Underwater Devices* is gone -- it was *Underwater Devices* that caused the problem about looking at patents -- so I think even if you look at the decisions that define reckless conduct, it's not that a party was on notice of the patent. There are other things the judges are looking to, so people should feel much more comfortable about doing research, and candidly they should feel much more comfortable about proceeding without opinions.

MR. SQUIRES: That's a good thing overall because it's really a question of due diligence. If later on you're staring right down the barrel of a patent that sat right on the market entry that you were going into, what did you know, and when did you know it, and why didn't you do anything about it? That was a little more difficult question to ask when the information ostensibly is there.

MS. MICHEL: Why don't we go ahead and dive into that damages issue.

MR. DICKINSON: One more thing --

MS. MICHEL: Please do.

MR. DICKINSON: -- on the damages piece that flows from that, and I think one interesting issue

that's left open, we'll see the Courts -- some have discussed whether Judge Dyk's dissent, or concurrence I guess, in *Knorr-Bremse* about looking to the Supreme Court and their law of punitive damages, which we just heard I guess yesterday at the Supreme Court again -- whether that will have an impact -- and of what magnitude -- on trebling or not trebling.

MS. MICHEL: I have a very specific question actually about the entire market value rule and why so much of the debate has focused on it. In looking at John's very interesting example of damages calculation in which the entire market, the $10 instead of the $2 was used, I was thinking: Well, isn't part of the problem that the royalty rate there is 5 percent instead of 2 percent, and if it were 2 percent, you would have ended up with 20 cents again?

Why has so much of the debate been about the base and not the rate, and should we be thinking more about the rate? Tom, please.

PROFESSOR COTTER: With all due respect to some of the esteemed panelists, my own view over the years has been that things like the entire market value rule and apportionment concepts, in an antitrust context, have been largely debunked, particularly leveraging. It would be kind of a shame I think to start applying those

context with more robustness in the patent context.

What we should be doing in my opinion is focusing on the economic realities, which is that leveraging can happen, but it tends to be more the exception than the rule, and we should be looking for specific indicia of leveraging or hold-up and not using leveraging and the possibility of leveraging as a guiding principles in formulating damages rules.

In the context of reasonable royalties, in particular, again from where I come, what we should be doing is consistent with this but for damages rule that we apply in many other areas of the law, trying to figure out what the patentees' royalty revenue would have been but for the infringement.

The hypothetical negotiations would, to some extent, reflect the parties' ex ante estimate of the value of the patented technology. Now, it's difficult to calculate or estimate what that hypothetical bargain would be, so we have to rely on proxies, but my view is we should rely on the proxies that the parties themselves would have relied on.

MS. MICHEL: Yes.

PROFESSOR COTTER: And so what we probably need to do is start focusing more on an industry by industry basis on how parties to real world, voluntarily

transactions come up with an appropriate royalty base, when do they use the value of the entire product, when do they use some subset, and also what royalty rates do they apply.

So maybe the problem is not in applying an entire market value royalty base, but in applying a rate that is too high given the particular field of art.

MS. MICHEL: And in thinking about that hypothetical negotiation and what kind of base the parties might have chosen, what kind of factors do you think might influence their choice? Let me throw out a couple suggestions and see if anyone has a reaction.

For instance, the practicalities of what's being bought and sold and what can be easily priced, rather than some relationship between the invention and a bigger product. I'm thinking in terms of, if the patent's on a circuit, well, nobody buys and sells a circuit. You buy and sell a chip, and so the chip is something easy to price, and let's make that our base.

Tom, do you have any suggestions on what kind of proxies and how to think about that hypothetical negotiation and what it means for the base?

PROFESSOR COTTER: Well, I think what we actually need here is more empirical evidence on this issue. This is something I don't personally have a

great deal of knowledge of how -- for example, in various fields within IT -- how firms go about calculating the value of technology when they voluntarily enter these transactions.

What I will note is that going back a long time, even back in the days when the U.S. Supreme Court was most infatuated with the patent misuse doctrine, they always took the position that, for the convenience of the parties, you could license a package of patents and calculate a royalty based on some package of patents, even some of which might not be used.

So convenience of the parties has always been a factor, even under earlier, now to some extent discarded, models of both antitrust and patent enforcement. So I think what we need to do is focus more on the real world particulars in given industries rather than guessing the way the real world works. Let's find out how parties do this.

MS. MICHEL: John?

MR. SQUIRES: Thanks. In response to your first question, at play on a royalty base obviously is the law of large numbers. If you think the base for Windows Operating Systems sales is a big number, think about what it would be to set a base upon volume traded through the New York Stock Exchange in a single day.

So that is really a small calibrational factor on the rate as opposed to -- and that was assuming really even sort of the charitable: Well, we're not asking for what you would ask for normally in a context where a component is applied. We're only asking for half of that. Still the law of large numbers gets you into trouble pretty quickly.

I also happen to think the inquiry is backwards, and that is: Why should a patentholder get more than they invented? That's the fundamental question. If they can prove, like the example this morning with the improved aerodynamics gas mileage and acceleration based upon a tire design, that's the basis for the consumer demand, more power to you.

That should be provable and demonstrable, and I think it goes then to Tom's comment, that dynamic informs the ex ante behavior. To borrow from Todd's analogy, if you have a bottomless floor in front of you going into the negotiation, because they're going to be able to put up numbers of volume traded through the exchange in a single day, you're in a lot of trouble once you're on that footing for the debate.

MR. DICKINSON: Yeah, to respond a little bit to John. First of all on the rate question, I've been in traditional industries mostly, where there's a lot of

data. I've been IP counsel at oil companies, chief IP counsel at GE, and other things, and we would normally quote 2 to 6 percent, 2 to 6 percent, 2 to 6 percent.

So I think there's a lot of data to back that up. Where we may not have it is in new technologies and also the brand -- that is something that is so focused that they can really command an out-of-ordinary rate. So I would guess 80/90 percent of royalty rates are going to come in roughly the same place.

To John's questions a little bit, he's starting to veer off in that rhetorical area that I talked about before, the issue of large numbers. I think it's an issue. To get to that question though, the jury has to have first found that the defendant didn't invent, that the person who did invent what the defendant used did indeed invent something that was patentable, and secondly that the defendant infringed and willfully infringed. The defendant stole from them.

So they get to that point. I understand what you're saying, so juries can weigh that kind of thing I think a little bit, whether you're going to destroy the New York Stock Exchange or whether you're not. I mean, I think that's part of the issue.

On the other hand, it is a huge number, and those numbers do cause market distortions and can cause

market distortions. In particular can impact emerging technologies and emerging businesses and industries with candor, like John's, which have traditionally not had to deal with these questions and suddenly find themselves having to be in an environment which is fluid, to say the least.

MS. MICHEL: You used the word stole, and infringement being a strict liability offense, should that fact play into our approach to remedies policies?

MR. DICKINSON: Well, it was a provocative word. That word should probably the concept John might want to address.

MR. SQUIRES: Yeah, I was stuck on the word stole myself. Well, again I think what we have to remember is going on here, as between commercial competitors, you are going to fall through the lost profits analysis before you get to entire market value. What you can't prove up but for the infringement, that was your lost profits, you will now be able to recapture no less than reasonable royalties as provided by statue.

Again the non-practicing entity goes right to it. There is no lost profits analysis for the most part for them because they're not commercial competitors, so they're unable to do better by showing an infringement, but now your eyes get very big because of a number of

factors -- even if your royalty rate in the industry is 2 to 6 percent, when you're talking about a very large base and multiplying or applying the rate by that base.

Again you're trying to, in an ex ante manner, negotiate what you could settle the case for versus whether it can go through all the way to the jury and have maybe unlimited liability. It's a very difficult dynamic. And now could you bring me back to the question that you just posed?

MS. MICHEL: What was my question?

MR. DICKINSON: Let me first retract the word stole.

MS. MICHEL: I understand.

MR. DICKINSON: I was using it in kind of a provocative manner to try to suggest how the debate has engaged.

MS. MICHEL: But it's an interesting issue in that we have inadvertent infringers. That is what some of the literature is now calling them, or you might call them independent inventors, although it's a slightly confusing term. What does that mean for how we ought to approach policy in general when trying to formulate damages rules?

MR. DICKINSON: So like willful infringers though that haven't studied the art, I mean?

MS. MICHEL: That's a good point.

MR. DICKINSON: There's a spectrum of stuff there.

MR. SQUIRES: We haven't talked, but I would tee this up for maybe the next panel with Professor Meurer and say what you're really talking about is there is a notice problem because you have strict liability. In a real property system, for trespass, it's knowable and recordable, and that's the boundary. Where there are fuzzy boundaries and non-existent or imperfect notice regimes, it's a big weight to bring down in a strict liability system.

MR. DICKINSON: A large part of the reform, a piece of the reform debate we were talking about in Congress was this question of notice -- when would post-grant review trigger with notice, and when will willfulness trigger notice, and what is the type of the notice. And there's tension in that as well.

MS. MICHEL: Tom?

PROFESSOR COTTER: On the question of inadvertent infringement, there's a fairly recent draft paper on SSRN by Mark Lemley and Chris Cotropia which seems to indicate that inadvertent infringement is actually more the norm than the exception today, and if that's true, and again I guess that's maybe another

piece of empirical analysis that ought to be further analyzed and investigated, but assuming that that's true, what are the implications for policy?

I don't think anybody wants to abandon strict liability for patent infringement as a general principle. I think it would be a bad idea, but so what are the implications? Can we make notice better? That's certainly one of the topics on the table. To the extent inadvertent infringement occurs, it's one of the necessary conditions for patent hold-up, not the only one, but it's one of the conditions that must be present.

So there are implications that flow from this, but I'm not sure that that fact by itself necessarily leads to any major changes or reforms to patent law.

MR. ADKINSON: I was wondering if the panelists would comment on how difficult it is judges and juries to implement the hypothetical negotiation concept and whether that is a source of concern for defendants and for plaintiffs for that matter?

MS. MICHEL: That's definitely an area I think we'll continue to consider.

THE HONORABLE MCKELVIE: I'll try. This follows up on Professor Cotter's comment before, which is that a difference I see between lost profits and

reasonable royalty is lost profits tends to be constrained by the facts, and reasonable royalty isn't constrained by the facts, but by the imagination by the expert witness.

But on the other hand, I didn't see juries lose too much ground on reasonable royalties in cases I saw. There weren't many cases that I saw where damages was really a big battle of contention between the parties in terms of thinking the jury got it very wrong.

MR. DICKINSON: The hypothetical negotiation, interestingly you may want to have witnesses that come forward from Congress and others about their reform efforts because that issue and the concept came up as a possible way to deal with the reform in the damages area.

That was controversial. It wasn't adopted, but it was given a pretty good airing, and so you may want to hear from them about how they felt about balancing the question of using hypothetical negotiation -- the economic determination of what the patent's value was -- versus, for example, what John was talking about: Shouldn't you only be entitled to what the actual invention is? That requires kind of a technological analysis of what it is and then study that byplay intention too.

MS. MICHEL: Thank you.

MR. SQUIRES: I would say part of the hypothetical negotiation is informed by, for example, the case that Mallun referred to, *Lucent*. When you read in the paper that there's a potential jury award of a half billion dollars, based upon an application of the entire market value rule possible out there, it colors your discussions upfront.

I want to make one comment to that. People this morning rightly said that those issues are being worked out through the system, but you can't forget that when you lose that verdict, you have to post a bond in that amount, so it's really little comfort that maybe a few years later, I will be able to return on appeal. Large companies can post those bonds. Mid-range companies, smaller companies, that could be the end.

MR. DICKINSON: The *Microsoft* verdict was overturned. That's the other side of the story.

MS. MICHEL: It was overturned, but on different grounds I thought on appeal. Microsoft had a license.

THE HONORABLE MCKELVIE: Actually, unless I missed the statistics, I think the practice has been that the Federal Circuit has been staying injunctions pending appeal, and I understand the bond is a slightly separate issue, but my impression generally is the hammer doesn't come down on defendants until the Federal

Circuit has affirmed.

MS. MICHEL: Go ahead.

MR. ADKINSON: One other quick question on this, going on something Jay said about the circular nature of determinations of damages by courts and determinations of value in licensing.

I want to focus specifically on the extent to which you think that licensing negotiations are sensitive to what damage awards are doing, I guess specifically with respect to settlement negotiations, but also just generally with respect to licensing negotiations.

MS. MICHEL: Any thoughts on that?

PROFESSOR COTTER: I mean, I think it's best from people who actually do licensing rather than me trying to speculate, but it seems like there ought to be a connection, but what the connection is in the real world, I don't really know.

MS. MICHEL: And we will certainly ask our next panel that question also.

MR. DICKINSON: Also don't forget, a lot of licensing -- one challenge, and I know that on various contacts in my work, we've tried to capture data from licensees, but so many licenses are obviously confidential business matters that it's very difficult I

think to get a broad range of data on licensing.

Licensing Executive Society might be another place we would look, but that's been one of their traditional challenges, because whether it's a settlement or whether its just a regular arms-length negotiation, there aren't a lot of parties that are willing to talk about it for one reason or another.

MR. SQUIRES: Yeah. That's why I was puzzling and hesitating a little bit to answer. It's just hard to know because we talked about data this morning. That's an area where industry data and maybe the royalty data is out there, but it needs some crunching, and we're hopeful the Commission report might be able to shed some lights on that, at least those dynamics.

MR. DICKINSON: I think the LES probably has the best data.

MS. MICHEL: Let's spend a couple minutes on *eBay* before we wrap if you don't mind. Tom, you made an interesting point that one thing to look at is what factors are good proxy for identifying hold-up when doing the injunction analysis.

Do you have any examples of what factors you -- of those sorts of factors to give us ideas on what to think about?

PROFESSOR COTTER: I've been trying to think this over for the last several months as I've been working on a couple papers on this issue. It seems to me that we need a definition of patent hold-up, which I think is relatively straightforward. We're talking about a small component in the sense of some patented invention that is a relatively small aspect of the value of some final product.

We're talking about a situation where the defendant infringes inadvertently and is thereby caught by surprise, and where the defendant's sunk costs in the end product are such that having to design around ex post would be very expensive in comparison with what it would have cost ex ante to design around.

Those are the conditions. Again I mentioned a paper by Denicolo, Geradin, Layne-Farrar, and Padilla, and I think their analysis is fairly persuasive. I mean, those are the factors that they go through, and I think if any of those conditions are not present, then we run some risk of applying *eBay* too broadly and abandoning the property-like entitlement in too many cases.

I think when those factors are provable and present, maybe it will be a small number of cases, maybe it will be a moderate number of cases, I don't think it

will be a large number of cases, but wherein those factors are present, I think that would weigh in favor of a liability entitlement as opposed to a property entitlement.

There may be other reasons as well, based on the traditional notions of public interest, where an injunction would cause some extreme detriment to the public interest. Again though I think those cases would be relatively rare. I would counsel against applying *eBay* in such a way that non-manufacturing patentees are never entitled to injunctive relief. I don't think that's what the Supreme Court is mandating, and I don't think that would be good policy.

MR. DICKINSON: The public interest issue often takes care of itself I think. It's such a rare and extreme -- Cipro would be an example, where after a day of threatening to withhold, it cratered -- so I think that those are kind of few and far between.

MR. SQUIRES: I would echo Professor Cotter's comments and say that if you look back at what happened vis-a-vis the legal rule, all they said was: Well, if you are entitled to an injunction, you have to prove it just like everybody else. There's the four-factor test. You have to prove that the public's not harmed and that monetary damages won't make you whole and the other two

factors.

Those had been elided out of the equation previously, and they were assumed, so it puts it back on equal footing I think with the rest of injunctive jurisprudence.

PROFESSOR COTTER: Can I just --

MS. MICHEL: Please.

PROFESSOR COTTER: There is one curious thing about the *eBay* holding that remedy scholars have picked up on and that intellectual property scholars probably would not have picked up on, and that is that there really is no traditional four-factor test. At least there wasn't one prior to *eBay*.

What the Court did effectively was take the law of preliminary injunctions and modify it. The cases they cite are actually cases involving preliminary injunctions as opposed to permanent injunctions. Why does this matter?

Well, one possibility is that in the law of permanent injunction, at least some of the factors -- such as public interest and balance of hardships -- the burden of proof could have been accorded to the defendant. Now, they are clearly on the plaintiff.

Whether that will actually have any practical difference I think remains to be seen, but in one sense

the Supreme Court created a traditional rule for which there actually was no tradition.

MR. DICKINSON: One interesting thing is to look at the market impact. It's unclear. The two most significant cases, those provocative and known cases, are *eBay* and *RIM*, and yet once the settlements occurred as a function of the threat of the injunction or the injunction, their share prices rose dramatically or at least a little bit in *eBay* cases.

So were they suppressed? It's a little hard to say.

MS. MICHEL: All right. Well, I want to thank the panel very much. We'll take a ten-minute break, and start back again at 3:35.

(Applause.)

(A brief recess was taken.)

PANEL 3: LEGAL DOCTRINES THAT AFFECT THE VALUE AND LICENSING OF PATENTS.

MODERATORS:

SUZANNE MICHEL, FTC

BILL ADKINSON, FTC

PANELISTS:

JOHN F. DUFFY, Oswald Symister Colclough Research Professor of Law, George Washington University Law School

JOSEPH S. MILLER, Associate Professor, Lewis & Clark Law School; Visiting Associate Professor, University of Georgia Law School

MICHAEL MEURER, Michaels Faculty Research Scholar, Professor of Law, Boston University School of Law

JEFFREY P. KUSHAN, Partner, Sidley & Austin

DUANE R. VALZ, VP & Associate General Counsel, Global Patents, Yahoo

MR. ADKINSON: Thanks very much for staying on for the final panel, which will examine a wide variety of issues, including the changes in legal doctrines that affect the value and licensing of patents that have been brought around by the recent Supreme Court decisions on obviousness, declaratory judgments and exhaustion.

The panel will also discuss the role of

unpredictability and notice in the IP marketplace. Of course, that came up at the end of the last panel and extensively during the discussions of the first panel.

We have a perfect panel here to address these issues. Professor Michael Meurer is Michael's Faculty Research Scholar and professor of law at Boston University School of Law where he has taught since 1999. He previously taught in the economics department at Duke and then at the law school at the University of Buffalo. He's the author of numerous articles and books examining the patent system, including one published this year which was co-authored with James Bessen entitled "Patent Failure: How Judges, Bureaucrats and Lawyers Put Innovators At Risk."

Then we'll hear from Professor John Duffy who's the Oswald Colclough research professor of law at George Washington University School of Law. He's previously taught at Cardozo, William & Mary and University of Chicago. Professor Duffy previously clerked for Justice Scalia and has published numerous articles on patent law and other topics and is the coauthor of a case book on patent law.

Then we'll hear from Professor Joseph Miller, who has been the associate professor at Lewis and Clark Law School since 2002 and is visiting associate

professor of law at Georgia Law School. He previously served as a law clerk to our keynote speaker and worked as an attorney at the Antitrust Division at DOJ. His research examines patent law questions within the larger legal structure that governs competitive market processes.

Then we will hear from Duane Valz, who is the vice president and associate general counsel for Global Patents at Yahoo!. In that role, he leads a team of attorneys and engineers responsible for the company's worldwide invention harvesting, patent filings and portfolio management. He also advises on other IP related matters. Previously Duane served as director of intellectual property for Quantum Corporation.

Finally you'll hear from Jeff Kushan, who is a partner at Sidley & Austin in Washington. He counsels and represents companies and trade associations on a diverse range of intellectual property matters, including serving as lead counsel in amicus filings by companies and trade associations in significant patent law appeals. In 2003 he was named one of the top 45 lawyers in the U.S. under the age of 45 by American Lawyer Magazine.

So we're really looking forward to a great lineup, and if Mike will start us off.

PROFESSOR MEURER: Thanks very much. I hope I haven't alienated everybody already, but maybe I will by the end.

The title of the book, by the way, was of course written by our editor, so I didn't have the spine I guess to resist. We had a kind of bland title originally.

I want to thank John Squires for setting up a couple remarks. The first one is that the name is pronounced Meurer. It rhymes with lawyer, so that's an easier nonionic for you, and I'll get to the second one in a moment.

So this book, with the provocative title of Patent Failure, is so named because we argue that the patent system has failed to perform like a system of property, so competition law lawyers in here might have heard that patents are property, just like any other kind of property, but I think John is quite right too point out that patents are property, just like mortgage backed securities are property, that the patent system unfortunately doesn't share all of the features of a system of property rights that might pertain to real property.

So economists have produced a lot of evidence that shows that strong property rights encourage

investments, transactions and economic growth, but there's quite a bit of economic evidence that says that the patent system has a mixed record when you use the same kinds of studies to look at the same kinds of indicators of economic success.

The best evidence for the patent system is patents as they pertain to pharmaceuticals, but otherwise the conclusion in our book that is supported by a lot of other economic evidence is that the patent law system fails as a property right system, and it actually imposes a tax on most innovators outside of chemicals and pharmaceuticals.

John mentioned that we attribute this failure mostly to a failure of notice, so all the lawyers in here are quite familiar with what notice is supposed to do to make a system of real property work effectively.

Strangers will take notice of a property line when they're investing in a structure. They don't accidentally build a structure like an office tower across someone else's property line. They either move the location of the structure or they negotiate to purchase the rights they need to situate the structure where they want it.

It doesn't work that way in the patent system. We identify in the book much evidence to show that

infringement takes mainly two forms: People who failed to license before investing in new technologies, people who would want to, and other people who spot some patents, try to design around the patents and fail because they can't clearly pin down the scope of the property rights.

Besides the Lemley and Cotropia study, there is some evidence in our book of the same sort that says that piracy is rarely proven in litigated cases. We estimate that only in about 4 percent of the cases is the defendant ever shown to be a copyist.

We have a substantial body of data that we analyze to understand what causes the hazard of patent litigation for a defendant. The term hazard here means the expected number of lawsuits that will be filed against you in a particular year, and more specifically, we look at publicly traded American firms from 1984 to 1999.

After controlling for firm size, stock market capitalization, industry, date and other factors, the risk of facing patent infringement increases with R&D intensity. It turns out actually to be a pretty good indicator of the risk that you will face of a patent lawsuit.

Ask managers in your firm, how much do we spend

on R&D, that's a very good predictor of the likelihood you will be a defendant in a patent lawsuit. Why? Because high R&D, means that with some luck, you will succeed at innovating. That means you will introduce new products. That means you will be exposed to a patent lawsuit.

Take a look across technologies at the performance of the patent system, and I think you get a further hint that there's a serious notice problem at play in the patent system. When we take a look that the probability that any patent could be in a lawsuit, that averages to be about 2 percent per year over this time period that I mentioned before.

If we normalize to one, the chances that any patent when it was -- when it is born will end up ultimately being considered by the Federal Circuit on a claim construction issue, normalize that to one, we'll be able, as you move down that column, to do some comparisons.

Finally, if you move to the right-hand column and you use a standard technique of economists to measure the value of patents in aggregate, in our research we find that the average patents, which has this 2 percent probability of being in a lawsuit, has a value of $78,000. This is in 1992 dollars.

Switch to chemicals, and here we're not talking about the chemical industry, but we are talking about patents that are to chemical structures, so this will include much of the pharmaceutical industries activity. We see that the probability of one of those patents in a lawsuit is only 1.1 percent, just about half of the typical patent.

We think that is true because much of the patent claiming in this area is structural. When you look at an organic chemical that is sketched out in a two-dimensional picture or verbally expressed according to conventions that are well understood by chemists, you have a clearly defined property right.

Skip down to the biotech row, and you see that the probability of a patent lawsuit jumps up to 3.2 percent. That might be because of instability in the law in this area. It might be because it's a new technology. I think it is also, to a large extent, due to the difference between biomolecules and traditional small molecules. It's a difference that's explained by the tendency, when you're trying to capture a property right with a polymer, to speak about it in functional terms.

That language, functional versus structural, I think is a big part of the problem that we have with the

patent system. The more functional the claiming is, the harder it is for anyone to understand what the property rights are.

Move over to the middle column, and you see that claim construction, even though these chemical patents are extremely valuable, they end up getting to the Federal Circuit for claim construction less often than the typical patent. Not true for biotech, not true for software, not true for business method patents.

With business method patents, we find an incredible 13.7 percent of those patents will end up being featured in a patent lawsuit. So when you look at software, to go over to the right, you can see software patents tend to be less valuable, chemical patents more valuable, and we think it is because the notice function of the patent system is performing much better for chemicals than it is for software or for other functionally claimed technologies.

The notice problem in our research appears to be growing worse across all technologies including chemicals. The harm from notice, as you might expect, falls especially on large capital intensive firms that are most vulnerable as defendants.

We conclude in the book that the notice problem, not low quality patent examination, deserves the most

attention from patent reformers, so if you define quality broadly to include fuzzy boundaries and to include other notice problems, then I would say, yes, we have a quality problem, but I don't think it's a question of getting the right prior art before the examiner. I think it's a more fundamental problem of getting the system to look more like a property system.

The book goes into detail in examining four dimensions of this notice failure. Number one, fuzzy boundaries, marking the difficulty in claim construction, the work by Judge Kimberly Moore showing us that about 35 percent of District Court claim construction are reversed by the Federal Circuit.

Interesting recent evidence, and I wish I could remember the name of the author, someone might shout it out, but there's a recent study that finds the more experience a District Court Judge has with claim construction, the worse they do. In an environment like that, it's really difficult to counsel your clients about how to stay outside of someone else's property right.

Hidden boundary information caused by continuation practice is a big problem. More fundamental maybe is that property rights in areas like software are untethered to possession. We really need

to get serious about disclosure requirements when it comes to software patents and generally to kinds of technology that are functionally claimed.

Because of the first three problems and because of other considerations, we have an enormous search cost difficulty. You don't have that sort of difficultly when you're searching real property title. It's relatively cheap to find other people's property rights, and we have a good recording system. We have a disaster in terms of the recording system for patent-based property rights, and on top of that, we have so many of these property rights, that the cost of doing a serious search in most areas is prohibitive.

The consequences are pretty clear. There's little search or clearance. A survey of IPO members found that a large fraction of them, a majority of them did not do product clearance. We have an insurance market failure. We have the puzzle, that if you're a maker of software you can get insurance against the hazard of being sued in a copyright suit or a trade secret suit but not a patent suit, the same software subject matter.

In the insurance market, I know a couple big insurers like Chubb and members of the Lloyd's syndicate have tried to offer patent defendant insurance, and they

haven't been able to successfully underwrite that. The consequences is a lot of inadvertent infringement.

So that leads to the conclusion, one of the two big punch lines in the book is displayed in the following two graphs. We use a couple different techniques to calculate the value of patent portfolios, so here is one of our techniques used in the dotted line to display a 92 billions of dollars, the worldwide value of patent portfolios to publicly traded American firms in the chemical and pharmaceutical industries.

The solid line down below is the aggregate U.S. litigation costs to alleged infringers. There's a big gap between those two numbers, and as it should be, the profit derived from patents is far above the costs associated with patent litigation, so the patent system is clearly going to provide a subsidy. It has a chance to work as it should as an incentive for investment in innovation.

Things look all little bit grim though when we switch to all other industries, so looking at the dotted line, we see the value of patents in all other industries. How did we calculate that? Well, for this particular graph, we calculated that value by looking at the stock market reaction to the portfolio of patents that are held by these publicly traded firms.

We checked that against a second method of calculating value. The second method is to look at the renewal decision, payments of maintenance fees, so you've got the judgment of research managers in one case, the judgment of investors in another case, and they give pretty similar answers to the value of patents. More important than the total number, the total value number though, is that these two different methods of estimation are consistent across technologies, across industries, across time.

Likewise, our measures of cost also seem to comport to other measures that are available. This particular measure of cost is again using stock market reactions to the filing of a lawsuit.

First observation that's important to understand is that we find that more than half of the cost associated with the filing of a patent lawsuit is things other than payments to attorneys. Payments to attorneys are less than 50 percent of the expected cost of a patent lawsuit. It may even be as little as a tenth of the expected cost of a patent lawsuit.

It's the business disruption cost that really matters, and now what happens to this time series right here? Looking from '84 to '94, we see that line move around, but not clearly rise. In '94 -- actually also

in the book we pin the date down to about '92, we see an explosion of patent litigation costs.

I would argue with Judge Michel that we also have an explosion of lawsuits, but that's not quite so important. What really matters is this explosion in cost, and you see that the data ends in '99. In the book, we have another bit of evidence that it pulls us out to 2004, and you naturally will probably be asking: Can we update this to 2008?

We can try to, so we're starting to work to extend this time series out to 2008, but the data that we have that extends out to 2004 says that if anything, the problem has gotten worse, and when we look at the timing, we attribute it in large part to decisions by the Federal Circuit in the '90s that weakened the notice function of the patent system.

So we think that's the first place we need to look to for reform, and perhaps as many people have said today, we're starting to get some of that. So maybe Bilski is a step in the right direction.

MS. MICHEL: Thank you. Thank you very much. Next we will have Professor John Duffy.

PROFESSOR DUFFY: Well, I am here to talk a little bit about the obviousness doctrine or the non-obviousness doctrine, and I wanted to give -- I

think the program was designed to set forth questions that the Federal Trade Commission should investigate in a supplement to its last report that it did five years ago.

The last time the FTC had a report, I testified there too, and there was at least some testimony that criticized the then existing teaching suggestion motivation test, which was at the time the dominant lower court metric for judging patent validity under the obviousness doctrine.

Indeed, one of the witnesses from the Patent Office actually said that the problem with the teaching suggestion motivation test was that it required the Patent Office or challenger to connect the dots very, very clearly in order to prove that something was obvious, and therefore unpatentable. My testimony, to some degree, supported that and gave a theoretical framework as to how we should think about obviousness.

The Supreme Court has changed the law in the *KSR* decision, and by good fortune and a little bit of luck, I had a little involvement in that case, so today I want to talk about how that case affected the law and where we should go next, and maybe what the FTC can do to be helpful in this process of developing the law.

I will say that the FTC was very helpful the

last time. Because I was involved in litigating *KSR*, one of the things that was important in that case was getting the Supreme Court's attention to the issue, and one of the things that was prominently displayed to get the Supreme Court's attention was the FTC report, which I think was very helpful in sort of providing a basis to tell the Supreme Court: This is a very important issue; if this issue is decided incorrectly, which we thought and I thought it was, then the patent system cannot work effectively. You will have a bad system, so this is really the heart and soul of the patent system.

So I encourage -- the FTC has done some I think very good work and influential work in its last report, and this new set of hearings or new set of -- this new initiative is I think to push the law forward I think a little bit further.

In *KSR* I think the Supreme Court did two fundamental things, which advanced the law and made law better, and one thing, which is a problem, which remains a problem -- the two things which it did, which I think advanced law, is to say that the teaching suggestion motivation test is not the be all and end all of obviousness analysis. It clearly held that that cannot be the sole test of patentability.

I think that was important because I think that

there's no way that that test gave us any purchase on the policies that the obviousness doctrine is trying to get at.

The second thing that the *KSR* case did is that it reaffirmed in quite clear terms and I think for the first time that the person of ordinary skill in the art, in other words normal innovators, have creativity. We should not assume that they are automatons who can only do exactly what the prior art tells them and no more. Rather, people who have skill in the art can create things and combine things within some sort of range of reasonableness.

I think that's important because the very policy of the obviousness doctrine is designed to protect what might be called ordinary innovations. Ordinary innovations are things that people would develop on their own without the inducement of a patent. This goes back to the very language that the Supreme Court used in the Graham Versus John Deere case more than 40 years ago. So that is a good policy. We don't want those things patented because we don't need the inducement of a patent in order to call them forward in our economy.

The last thing that the *KSR* case did, which many critics of *KSR* have discussed, is that it added uncertainty into the law, and I'm here to tell you that

those critics have a point. *KSR*, as appropriate for the Supreme Court's first attempt to adjudicate this doctrine in more than a quarter century, the Supreme Court did not fix on a single solution for this doctrine, and that is a problem for our law.

I think it's something that the FTC, now that the law has been -- that the Circuit Court law has been, in some way destabilized or rejected by the Supreme Court, the FTC can help, and the Bar can help in building a better law, building a better obviousness doctrine, which is central to the patent system.

There's many ways to prove that *KSR* did that. *KSR*, if you read it, it talks about: Here's a laundry list of principles that we've said in the past should go into the obviousness analysis, but they don't really come up with any metric or anything that might add additional stability to the law, and I think that that is a serious criticism of *KSR*. I still think it was a helpful decision, but I think that we can move the law forward and produce better law.

Now I'm going to tell you what I think should be done, so just Suzanne should take some notes here.

MS. MICHEL: I am.

PROFESSOR DUFFY: This is what I think really should happen, and it goes back to the Graham versus

John Deere decision, and it goes back to something that I think Graham versus John Deere did that was precisely wrong, precisely wrong.

In Graham versus John Deere, the Supreme Court, for the first time ever, described what used to be called objective considerations, which are facts about how long it took to develop something, how hard it was to develop something, how long a prior art existed that needed to be combined, how long the need existed that would have called for the innovation if it had been obvious.

They took all of that set of circumstances, packaged them together and put them under the label secondary considerations. They had never been called secondary considerations before, and I think that has -- and instead as the primary consideration, the Court said it's a legal analysis, which is some sort of legal formulation, which they didn't provide in Graham versus John Deere. They just said figure out whether it's obvious.

The lower courts, ever since that time, have been trying to fill in that gap, and even the Supreme Court in some post Graham decisions have been trying to come up with some verbal formulation that would give us a legal test that would help us to decide these issues,

and I think *KSR* shows that that project has been a failure, an utter failure, and that what we need to do is to undue, to some degree, what Graham did on this crucial point, about whether the objective facts should have a secondary consideration, should be just viewed as secondary to some sort of verbal formulation.

There's a reason why Graham actually did this I think. In fact, it's quite clear, and I have an article about this, and I have a chapter in a book on it too, that Graham made a mistake, a factual error about one of the cases that it had before it. It didn't read the record correctly so it thought that in a case where they thought for sure this patent was obvious, they thought that the secondary considerations pointed in the other direction. But they had just misread a fact.

It's quite clear from the opinion that they had misread a fact, and it's quite clear from all the internal court memos which are now publicly available and that I read through that they did misread a fact in one of the companion cases to Graham. That might explain why they pushed secondary considerations to the back end of the bus, which I think was wrong.

I have an article on this, on what I think should happen -- thank you. I have an article on this, a short article. I intend to come out with a longer

piece, but I think that a crucial way to look at this is a timing approach to patentability, to look at the timing of events leading up to the alleged invention, and that that should be the crucial, crucial metric by which we determine patentability.

All this goes back to a basic insight which actually relates directly to the word obvious. The word obvious, the etymology of the word obvious means in the street. It's obviam. It's lying in the street, and the answer to how can something lie in the street if it's valued, if it's really a valuable innovation, how can it possibly be obviously, and I think the solution to that paradox is that it has not been lying in the street very long.

It's the same thing when you see money lying in the street. When you see a $20 bill lying in the street, there's a reason why it's there. It's just been dropped. It has not been there for days and days, particularly if you're in Manhattan or some other place like that. There's actually an economics joke I can tell you afterwards that talks about this.

That is I think a crucial -- that's the way I would reorient the doctrine, but I do think that the FTC should investigate the so-called secondary considerations, and I almost want to banish that term,

just call them objective considerations. It does lead to a different kind of examination at the Patent Office.

A lot of times, patent examiners fight back and forth with the applicant, with legal tests and verbal formulations about: Is there a teaching, is there motivation, is there a synergy, was it obvious to try? What they should do is they should not spend their effort and time on that. They should spend their effort and time on trying to document facts about what led up to this creation.

If there's a crucial fact like, Well, the need just arose, it just arose last year, and two or three people are already trying to patent it, that might be strong indication that it's obvious.

For example, in a Supreme Court case, the Adams case, which was a companion to Graham, if the record shows that the need -- the need, in that case a need for a better battery had existed for decades and that the components had existed individually for at least a half century and no one had thought to combine them to fill the existing need, no matter what verbal formulation you use, that is incredibly powerful evidence of non obviousness. So I think that that would be a tremendous help, and it would change the way examination actually works.

The last point that I will make, because I told Suzanne I would talk a little bit about this, is on patentable subject matter, which is a completely different topic, but I do think that patentable subject matter issues have introduced a tremendous amount of uncertainty into particular industries, and that is going to lead to large litigation, just like the last presentation suggested, that if you have patentable subject matter issues, which will take down both the good and the bad patents because the patentable subject matter doctrine does not work, does not judge merit, it does things by philosophy or by other indicia, that will create a lot of uncertainty.

Perhaps at least a modest proposal is that the agency should do fact finding before it does the patentable subject matter inquiry, at least accepting perhaps the most blatant cases, because if we're going to have to decide very hard questions about patentable subject matter, we should make sure we're looking at patents where it's going to make a difference, where the subject matter is new, useful and nonobvious, and then decide it in that context rather than in the context of a junk patent where people might say, Well, that's clearly -- that's wrong, that's just wrong, that should not be patented.

We should actually look at real innovations and say -- decide whether that sort of thing, some of which could be very socially valuable can and should be patented, so that's my only suggestion on patentable subject matter, and I will stop apparently on schedule. Thank you.

MS. MICHEL: Thank you. And now we have Professor Joe Miller.

PROFESSOR MILLER: Thank you. It's an honor to be here with such distinguished panelists through the day. I've enjoyed it tremendously, and I appreciate the opportunity to share some thoughts with you.

The Supreme Court case that Suzanne and Erika asked me to talk about is *MedImmune*. Todd Dickinson mentioned *MedImmune* a little bit in his remarks. This was a January 2007 decision, just a few months before *KSR*, a decision that rightly received a great deal more press attention.

MedImmune is a procedural decision. It's about whether a paid up licensee can bring a declaratory judgment action attacking the validity or applicability of the underlying patent. The Supreme Court, reversing the Federal Circuit, concluded that a paid up licensee can bring a declaratory judgment action.

The reason the Federal Circuit had rejected such

a notion is the Federal Circuit had approached these DJ, which is the phrase I will know use to mean declaratory judgment -- that the reason why a paid up licensee couldn't bring a DJ action is because only those under a threat of eminent suit, people with a reasonable apprehension of suit, should be able to bring such actions, and of course a paid up licensee is the epitome of a person who has no apprehension of suit. They are a licensee after all. The Supreme Court used a very different framework.

I want to talk about three consequences of that conclusion, that in *MedImmune*, a paid up licensee can bring a DJ action, and I'm going to order my consequences from more concrete and actual to more speculative and fanciful, so you know at the end I'll be talking about law professor ideas, right, the most fanciful of all.

So first, DJ jurisdiction in the Federal Circuit after *MedImmune*. The paid up licensee question is interesting, but perhaps less interesting than the question of DJ jurisdiction as to punitive infringers who are not yet licensees, who are considering, do I want to take a license or not, maybe instead I want to go to court, clear my path forward by eliminating this patent either on non-infringement grounds or on validity

grounds.

Well, the Federal Circuit's embrace of *MedImmune* was both swift and total. That's because *MedImmune* had made it quite clear in footnote 11 of the opinion that the Supreme Court thought this reasonable apprehension of suit test was a complete error, and so the Federal Circuit quickly turned around, I credit them for it, right, swiftly and completely. They said, Okay we're not going to do things that way anymore.

As a consequence, right, people can bring DJ actions to challenge validity, to challenge infringement as infringers, much more reasonable in cases like *SanDisk*, cases like *Micron* against *Mosaid*, and there's two important consequences for licensing I think of this very complete embrace of a much easier standard for the DJ jurisdiction.

One relates to the marking requirement in patent law. If you're selling a product and you're a patentee, if you want damages to accrue, you have to put the patent number on the product. Of course, if you don't care whether damages accrue, don't bother, but you can't collect damages absent actual notice.

So one consequence of *MedImmune*, in a chain of reasoning, is that if you have failed to mark, and you want damages to accrue, you have to provide actual

notice, right? I think I own this patent, I think your practice infringes.

Sending that letter, which will get damages to start to accrue, will also give your opponent declaratory judgment jurisdiction under *MedImmune*, so you can no longer start the damages clock and keep your opponent out of the courthouse. They now match. They didn't before. They do now. What that means is failing to mark is more expensive, so maybe people will mark more, who knows, and the patentees who have failed to mark have less leverage in licensings than they did before at the margins.

Also, a much bigger circle of potential litigants can now come into court. I mentioned *Micron* against *Mosaid*. This is an instance where the DJ plaintiff received some threat letters. Three years go by because the patentee is litigating against other people in the industry. This person in the industry finally comes into court, and the Federal Circuit says, sure, there's jurisdiction. They were threatening lots of other folks, you were the next logical target, they sent you a letter a few years ago, of course it's okay for you to be here. That's a much bigger circle of litigants that patentees now have to take in mind as they develop their licensing strategy.

Another response to *MedImmune* licensing terms, of course patentees are going to try to get back what they lost in *MedImmune*, which is a more stable regime where they can tell who is going to be suing them and who won't be suing them. The most natural expedient, getting someone to agree in a license that they will not challenge your patent is probably unenforceable.

I say probably because the cases still holding date from the early '70s in the wake of Lear against Adkins, the Supreme Court case overturning licensee estoppel, and we just don't have recent information about that, except in the trademark area. Recently, both the Ninth Circuit and the Second Circuit struck down no challenge clauses in a trademark context, so perhaps it would be equally true in patent law.

Now, are there functional substitutes for no challenges clauses? Of course there are. The better they are at functionally approximating no challenge clauses, of course the harder they should be to enforce because no challenge clauses are unenforceable, so we'll see what happens there.

Assuming there is no good substitute, of course what this means is that patentees will need to work into the price of their license the risk that their licensee will sue them. Now, on very strong patents that's not

going to change the price of the patent very much because the risk of being sued is low.

For weak patents, it's going to increase the licensing rate a lot or it should, right, but of course those are the very patents where licensees say, I don't want to pay a lot more for that, it's weak, I think the consequence is for weak patents, more likely litigation than licensing, okay.

Now, the most sort of speculative or strange thing I want to say relates to joint defense agreements. You can think of these as joint attack agreements in the declaratory judgment context. Because we broadened that circle of litigants who can challenge patent rights, there ought to be more people interested in challenging them and maybe even working together to challenge them: A bunch of people in the industry, hey, let's cooperate.

The problem, the biggest stumbling block is some case law from again the '60s and '70s saying, Well, problem here, right, you cooperate too vigorously, you're engaged in a group boycott, that's an antitrust violation, okay. Now, that's serious, shouldn't violate the antitrust laws.

However, I don't think that's the right way to think about a joint defense agreement because, as has already been pointed out, patents are probabilistic in

nature. Patents are not like selling sugar beets to the sugar refiner. Patents are not like selling milk to the cheese maker. I am mentioning some fact patterns from group boycott cases. That's not what patents are like.

What is a joint defense agreement or a joint attack agreement? I think the better way to think of it, and certainly from an antitrust perspective, is it's a research and development joint venture. What are they researching? The status of the patent, right? Is it really valid? Is it really this big? That's information.

Research and development joint ventures designed to develop information receive actually quite deferential antirust review, and they should, right, and I think that's frankly what joint defense agreements are. So that's really far out I can tell by how much eyebrows went like this, right, but I think it's an idea that really needs to be considered, and I need to stop. So thank you.

MS. MICHEL: Great. We will go from the fanciful world of law professors, but actually I thought that was a very good idea, to the real hard core world of day-to-day licensing with Duane Valz.

MR. VALZ: Thanks, Suzanne. It's been an interesting day, and in many ways I feel like much of my

presentation has already been given, but to that degree, perhaps it just means that I was prescient because I think there are a lot of resident themes with speakers going back to the first panel.

So in thinking about appearing on the panel, I was definitely familiar with the FTC's report, and I think consistent with everyone else's remarks, found it to be very comprehensive, hitting a lot of key themes and points, and in looking back at the report before preparing my remarks, I actually have seen that it itself was very prescient.

A lot of its recommendations ended up coming to pass, whether through changes at the Patent Office or through some of the judicial decisions that have come down, some of which this panel is charged with talking about it.

What also struck me was at that time, the concern was more so about the impact of patent law and policy on competition generally, and in this panel or this initial set of hearings, the focus seems to be more so on the market for licensing within the industry, and so some of my remarks will be looking at what's happened between then and now and what kinds of things we may be learned -- we may be able to learn from that.

My first point is perhaps my conclusion really,

that what we can see in the past five or more years is that industries driven by scientific and technological innovation are hindered by patent system flaws more than benefitted by them. I think there was a concern in 2002 that there was a cabal of established companies who were benefitting disproportionately from patents and perhaps that was hurting competition in the form of new entrants.

Given the amount of focus that's been put by established companies on trying to get reform through and the support that reform has had, we could see that a lot of those dynamics weren't true then and perhaps are more so not true now, and some of the new dynamics perhaps should definitely carry more weight.

Many remarkable changes have been made as other speakers have pointed out. It's been mostly judicial. There has been some changes at the US PTO concerning re-exam, the availability of it, ex parte and inter parties rather, and as we all know though, legislative reform is stuck.

So it's the general perception that the system as a whole is still out of balance. I may not share a lot of the reasons for that with Professor Meurer, but I think over the course of the day, a lot of the panelists have definitely focused on the fact that the industry

has become more litigation driven than value promoting licensing driven, and I would put a focus on that distinction.

I think one of the animating concerns is the role that non-practicing entities plays in the market and whether or not they distort the dynamics of true innovation, and I would argue that when we get to a point, someone mentioned marking, it seems to be quite unjust that if you actually are a firm producing products and services in the market, that if you don't mark, you might compromise damages, but if you are an aggressive, aggregating company or non-practicing entity, you can get a patent from anyone for any price, and you're not subject to the same constraints.

That seems to be an anachronistic aspect of the patent law, and in relation to actually pursuing technology transfer where you're exchanging technology of value, people want to do business with you, and patents may either be incidental to that or a key component, it's odd and also anachronistic that perhaps the values being extracted by licensing and litigation entities far outweigh the amount of value that's exchanged on a monetary basis by firms actually doing business with each other.

So to those points, I think damages reform and

venue reform are still two key elements of patent reform that haven't been addressed by judicial cases and still remain ahead of us. I'll talk a little bit about that later, and generally talk about some points that might help to get to a better calibration system.

So in looking back, we can look at the concerns over patents and the perceptions versus the realities, so in the early part of the decade, there was a general concern that patents had become too strong, and there were some reasonable points there, and that patent owners wielded too much power.

And at the time, while dynamics sort of were of a general cross industry nature, the focus was often on growth industries such as software and the Internet, and I think this is when you really saw an expansion in the number of software and other Internet related patents being issued, and some of the more trivial examples were getting headlines, and people perceived that that characterized the whole industry, and there was also a concern then that new entrants would be deterred by patent thickets and innovation would thereby be impeded.

I think particularly in the high tech space and I think more particularly in the software and Internet space, you've seen different realities actually emerge. Open technology development has thrived. It's a driving

force of innovation. Start ups have not gone away. There's still certain lower barriers to entry and success in the space.

As Mallun mentioned earlier, those small entities that are actually producing great technology along side IP will get noticed and will do really well in the industry, and innovation really in all forms has thrived.

I think rather than consolidate excessive power through patent related exercises, successful new economy companies have become beleaguered by defensive litigations brought by NPEs, and these new participants have fueled a secondary market for patents which has really intensified this whole idea of licensing without true technology transfer which helps to support innovation.

Looking at the impact of judicial reform, I won't get too deep into the cases, certainly most of these cases have had the impact of tempering patent power. All of them have had the effect of curbing the power of independent patents as well as patentholders, but have they really impacted market competition and value promoting activities initially surmised? I would argue slightly but perhaps not, and if we look at licensing, which is one of the focuses of the panel,

that becomes clear.

Obviousness, as Professor Duffy pointed out, the *KSR* really had some benefits. It's made obviousness easier to prove in litigation, but that's where you really have experts a lot of time, and focus who can get to what was going on at the time, can ferret up some of the objective considerations and really get to the heart of the matter.

When you're trying to get patents at the Patent Office, one of the virtues of TSM was that it was an objective set of criteria. You had to actually do the research and do the work and find references, and while that may be overly tight, the opposite of what we have now is more room for subjective judgments to creep in about what a person having ordinary skill in the art may or may not have been able to put together at a time that another reference existed, and that leads to inconsistency.

In examination practices in terms of licensing, this doesn't really come to bear that greatly because that determination of subjective factors requires so much research and time, especially in multi-patent licensing deals, I don't really believe that any of us in the industry really pay a lot of attention to *KSR* when we're evaluating. We're still going to do the

rough and ready thing and look at the actual references, so the impact of this case has been let's say marginal on licensing.

In terms of willfulness and declaratory relief, *Seagate* did bring welcome improvements, and perhaps it has promoted a little more investigation of patented technology for product clearance and possible licensing, removing some of the research hazards associated with looking at patents. However, combined with *MedImmune* and *SanDisk* and its progeny, which makes is very easy to trigger litigation, if you are on the other side of a patent discussion, it's really caused litigants to rush to the courthouse.

So there's no prospect, there's a lower prospect for treble damages from pre-litigation discussions and a higher risk of being hauled into a forum that you didn't choose, so NPEs particularly go straight to court without prior notice.

I can tell you, we have about 24 active defensive litigations growing from about nine just a year and a half ago. About 19 of those are in the Eastern District of Texas, and it kind of flips Detkin's and a few other folks stats on its head. It's the same thing with Mallun Yen. We have a 80/20 split, but it's in the wrong direction, and this is some of the

consequences. Unfortunately, I think *Seagate* is a great decision, but combined with some others, it's had those kinds of effects.

So more and better calibration is required. I think NPE litigation does suppress value-added licensing activity and drains resources from marketplaces.

There is a whole discussion about transparency, and I think one of the things that companies actually doing tech transfer and value added licensing suffer from is the fact that it's done confidentially. A lot of these entities becoming more bold and non-practicing entities can talk about their facts and figures and how much they're doing and how much they're helping small inventors.

As Mallun had volunteered, I think I would be happy to help with creating more marketplace transparency, whether it's on settlements, on licensing their programs like peer to patent. We need to demystify a lot of the ambiguities that survive around patents, and I don't believe that it's just a matter of a reserving patents only for compositions of matter as maybe Professor Meurer suggested.

Defining patent boundaries is difficult when you're dealing with intangibles technologies, but Silicon Valley thrives on solving difficult problems and

I think we can here too.

My last point: *In Re Bilski* does preserve a legitimate role for software and business method patents, but certainly the machines test and transformation test of the Federal Circuit leaves a lot of uncertainties about what the contours of those tests are.

Unfortunately we're going to have a lot of small skirmishes around that, and it hasn't created a lot of certainty. I think a lot of folks, if you ask them, can say, okay, maybe we can live with slightly narrower rights, but just tell us what we need to do, especially when we go to the Patent Office. It's getting ugly there after *Bilski* in terms of what's expected and the uncertainty around that.

I would also -- the FTC does have an international component, and I would like to offer that it would be great to have some notion of safe harbor claiming. If you do these things, you can meet Section 101 requirements. It shouldn't be that difficult, and that if we can have that internationally where we can harmonize around Section 101 and harmonize inventive step with non-obviousness internationally, that will promote U.S. industry and help us all have a better functioning patent system, not just here, but globally.

MS. MICHEL: Thank you. Very practical thoughts, exactly what we needed. Thank you very much, and now we'll hear from Jeff Kushan from more of a biotech perspective.

MR. KUSHAN: I first want to thank the FTC for having me come back again. We had a program a couple weeks ago which was equally thought provoking and I think very productive. I also want to thank my panelists because each one of their presentations I think has really had a very nice, thoughtful and I think very practical perspective to the points they were making.

I think they are pulling out from the five or six or ten years of policy debate we've been going through and really the things I think are the variables affecting the dynamics you're seeing in litigation and in uncertainty.

I was asked to cover a few points, and since I have the mike, I will not let go of it until I talk about one thing, but when you look at the landscape of cases that have come down over the past decade, it is having impacts. I would say some of the impacts are less dramatic in the life science sector than they are in the other sectors.

I also have had the benefit of working on a

couple of these cases so far, but so John's ahead of me in the standings. The question of DJ standing, that is obviously -- as we predicted in the case, it's going to have an impact on how parties write their contracts and how they have license terms, and I think one of the questions that comes to mind is the asymmetry of the standard. When you're the patent owner, you can't sue, and when you're the defendant, you can. That really does have a big impact on how you behave.

Some of the questions that creep into licensing decisions now, if you do something, can I terminate your license or if you bring suit, can I terminate your license and really put you at the equivalent risk to me facing a DJ action?

Patent exhaustion is kind of -- that decision in the supply chain kind of context doesn't really fit perfectly into the biotech or life sciences sector. There's some overlap, but I think that's going to have a fairly limited.

Obviousness is a big issue, and I really did like the idea that John had of taking the sort of secondary out of this equation because that tends to be the most powerful insight into why something isn't obvious or why it might have been. I like the analogies he brought. I think in terms of what we're seeing,

we're seeing a lot more of a play on the question of predictability in our area.

At the heart of the *KSR* decision was everything was out there, and you put them together, you knew what was going to happen, and that is pretty much the antithesis of the work we do in the biotech sector. It's really, wow, this happened, and that kind of perspective of unpredictable outcomes based on what you know is really an important variable, and it's good that it was used to elaborate some of the principles in the decision.

The other thing that came out of *KSR* which we see a lot now is kind of, where is the art telling you to go rather than where are you with your patent or you with your invention, and that kind of teaching away concept, which historically has been a really narrow doctrine in the patent law I think now has been loosened a little bit to say, you really are taking into consideration where people -- that isn't written down in the publication, where is that leading you and if it is leading you away from where the invention requires, then hopefully you're going to be nonobvious.

The kind of broader question that is stimulating this panel and discussion is: What do you do to make the patent law more certain and how can you do that to

facilitate better licensing conditions? Here, kind of the notice functions, these variables that you've been talking about, are peanuts compared to the thing that dominates the life sciences area and predictability, and in our world, in terms of the predictability of what the patent is going to do for us, the 98 percent of the question mark that we can't answer is something called inequitable conduct.

In the first iteration of the FTC proceeding, this was one of the topics that did get some discussion but we have not seen a case, we have not seen legislative action, we have not seen the kind of remedial activity in our area on that doctrine happen, and that's an issue that I want to flag.

Now, we talked about the question of obviousness. Well, at least you have a framework to assess it. You look at a question of infringement. You look at the product, you look at your patent claims, you at least have a metric for figuring out and guessing where things might come out.

If I'm asked to advice a company on infringement, I can do that relatively cleanly. I put my asterisks where they need to be, but you know kind of the foundation of your opinion. If I have to go to the question of: Is this case enabled or described? Again

I have a framework. I can look at facts, and I can say, yeah, this is what I see and it's probably going to come out this way.

Inequitable conduct is the mother of all, I don't know questions, because it's entirely subjective. It depends on what your witnesses say in their depositions in the litigation. It is entirely dependent upon how the story gets told in front of the court, and at the end of the day, you won't know until it's over.

So in terms of a thing that you look at as a predictability factor, that's the worse possible metric you can think of for telling someone what the patent is going to do for you or do to you, and that's the heart of your decision in the licensing context.

If you look at the cases that have come out in the last decade, we have kind of a simple subscription of the idea that the standard is relatively easy to articulate: Did the patent applicant, with the intent to deceive, misrepresent or withhold information to the Patent Office that was material, and so that's a very nice simple topic.

So what does that mean? Well, material information. That could be, as we can tell from the recent cases, anything, so we've had cases where material information is failing to tell the Patent

Office that you are not entitled to get small entity status because you licensed your patent to a company that had more than 500 employees, okay. That's pretty much the heart of the patentability question. That's at the root of the Patent Office's job.

The next thing, so I have a 7,000 pages of experimental results that I conducted in the course of making my invention. I have 6,9999 data points supporting what I told you, and I have one that doesn't, so is it good for the system to send 7,000 pages of experimental data to the patent examiner, who is not going to look at it, to make sure that you're absolutely pure in your presentation to the Patent Office of your belief that scientifically it is true that the condition that made my invention meritorious is true? But that's what we fight about.

The best one I love, which is so I filed ten applications because the Patent Office made me file that because I got a restriction requirement that was 7,000 page restriction requirement and because I didn't tell the patent examiner who is handling the case that I'm going to litigate about the other 7 or 10 patent applications that he's also examining concurrently, I now have a risk factor of inequitable conduct.

I didn't have that written down in the record

that I had communicated to him that he's actually working on the other cases that he made me divide from the case I'm working on, and these are the things that make up material information of the cases of the past decade. It's the most absurd metric, which basically comes out from the way the cases are litigated, and here there used to be a requirement in the law that said you had to have two variables. You had to prove that information was material, and you had to prove that you had intent to deceive the Patent Office.

So what every case now kind of develops early on into, Well, we're going to go with the super material information because the cases say that if it's highly material, if it's really really material, then I can kind of step over and make that speed bump of an intent to deceive almost zero, and that is essentially the way the dynamic of the cases go now.

You start a case and you spend inordinate amounts of time, excessive production, commence fighting, tons of prep of your witnesses, all around the question of preventing a story developing from the litigation itself that you committed inequitable conduct before the Patent Office, which then carries with it the penalty for you and the lottery like win for the defendant that the case -- the patent, regardless of its

merits, is going to be held unenforceable.

So we have this wonderful doctrine which is entirely subjective which makes it impossible for us to tell people whether their patents are going to survive litigation, which cover products that are worth billions of dollars, and this is the heart of the litigation world that we live in in the life sciences sector.

So when we talk about, well, did you give adequate notice about whether you're infringing or not? I would love to have something that I could take and make an objective metric for testing, whether I'm infringing, whether -- in this world of inequitable conduct, it's remarkable that we can actually put them in the same footing as many of the debates we're having. Sorry, I'm kind of running away with this topic.

So the one question that I will go back to is the notice requirement, and I think one thing we see in the life sciences sector is it's not been a traditionally difficult thing to know if you infringe a patent on a chemical compound or biotech product.

I think in the biotech area, we have seen that the use of functional language in the claims is the necessary thing to have. You have to have that flexibility because there's just too many variables in the structure of a molecule of that size that you can

kind of change the molecule that preserves essentially what the original molecule did, and you need to have some latitude to capture equivalent molecules through functional language.

I don't think there's any major impediment about translating and interpreting functional language in litigation or outside the contours of the litigation in our area because essentially you go back to the specification. You see what structures do support that function, and I think in terms of notice, when we're looking at a patent, either offensively or defensively, obviously the claims tell us one thing, but we look through the claims and we see what is actually supported by the specification.

We have relatively decent law now on written description on enablement that we can draw upon to determine whether the claim that we might see asserted against us is going to be supported, and you can kind of peer through that and see whether there's actually a risk. If you use the thing that is covered by the claim but it's not found in the spec, then you know where you stand on a liability risk, and I think that while it does require paying patent lawyers, which glad to hear that we're not the problem of cost.

So I want that record clear.

MS. MICHEL: Raise your right hand.

MR. KUSHAN: With the modest amount of effort and cost, you can look at a patent and know where you stand regarding it, if you're in the biotech or in the life sciences area. So I will kind of stop with that, and I look forward to the discussion.

MS. MICHEL: Thank you. I think a very different perspective than what we heard from Duane.

Jeff, just do you have any suggestions what to do about this terrible problem that you have?

MR. KUSHAN: Well, the inequitable conduct sanction is pretty much the only one I can imagine where if you do anything bad, you lose your house, and illogically what you're talking about is doing something bad in front of a federal agency, and it seems to me that the logical remedy for inequitable conduct is a penalty on the party who did the bad thing to the Patent Office, and it seems like that's been completely detached from the standard.

It seems also that in any other federal setting where you have been accused of doing something of this nature, the notion is that you get a fine or there's some kind of a penalty but you're not losing your property interest, which in most of our world has a

value far in excess of anything which you would call a reasonable fine.

MS. MICHEL: And if you want to speak, if you would turn your table tent up. You don't have to or you can just -- that would be great. John, you look like you want to say something.

PROFESSOR DUFFY: Yes. I've looked at this -- is the heart inequitable conduct issue, and I have pretty strong feelings on it that are similar and maybe even more radical than Jeff's which is that the inequitable conduct doctrine is really out of step I think with administrative law because normally the rule that is applied to other administrative agencies is that the Agency itself is in charge of its own procedures, and it gets to determine what things have to be disclosed to it, and whether and to what extent it will punish people who do not disclose things to it.

There was a case within the last ten years at the Supreme Court where somebody perjured himself before the National Labor Relations Board, but nonetheless, it was always -- it's always the case of an unnecessary perjury, right, because once you find the truth, if the person is not entitled to a patent or relief, then of course they don't get it.

But in this case it was unnecessary perjury.

For whatever reason the employee perjured himself but still deserved relief under the true facts, and the NLRB gave him the relief, and it went all the way up to the Supreme Court because the NLRB has to seek court approval to enforce it, seek court enforcement, and the Supreme Court unanimously enforced the order, and said it's up to the Agency to punish misconduct before it.

I can go into more details about other administrative law principles, but to give you just a sense of how out of step the inequitable conduct doctrine is with administrative law is a very recent case in which, I guess it's about three years old now, the Federal Circuit was presented with new rules that the PTO had passed saying, This is what materiality means to us, this is all the information we want disclosed.

And the Federal Circuit said, Well, that's one standard but we've got some others, and you have to meet them all, and they listed literally five standards of materiality and said you have to meet them all, but we're not overturning the PTO's materiality standard. You just have to meet other ones too.

Well, that of course is ridiculous. If you have to disclose -- if you have to meet five standards of materiality and if the PTO is one of the more modest

ones, well, you still have to meet all the others. That actually I think violates a very basic case in administrative law called Vermont Yankee which says agencies actually get to determine their own procedural rules.

So I think that this area of the law, that you can't find very many inequitable conducts cases prior to 1970. You can find one Supreme Court case that says if you violate the minimal ethical standards, and in a case where actually the misconduct weaves over into a judicial proceeding, that will lead to unenforceability, but prior to 19 -- certainly prior to 1940, there was never a case in which the courts held unenforceable patent, and indeed they had rules about this, and they said, you have to get the government to care about whatever misconduct occurred.

So we lived for a long time without this rule. It's inconsistent with administrative law. It leads to vast uncertainty, and it punishes the patentholder and the inventor and the company when what we're really talking about, if it has occurred, it's attorney misconduct, so it doesn't even punish -- you said you lose your house. You lose somebody -- I lose my house because something else -- somebody else did it who maybe should be disbarred or something else if it's really

terrible.

MR. KUSHAN: I lose my factory.

PROFESSOR DUFFY: Yeah, you lose your factory, and it's because your lawyer was unethical, though most of these cases, if you actually look through them, don't involve any misrepresentations. They involve lack of disclosure, and when it's not even clear the agency wanted that information.

That's something you, as an administrative agency outside the system, should probably understand, and you might be able to give a different perspective on.

MS. MICHEL: Joe?

PROFESSOR MILLER: Yeah. Especially sitting where I am right now, I'm not about to defend inequitable conduct as it currently exists because I'll get battered with water bottles, but it seems to me in any realistic sense that in order to eliminate that doctrine, which apart from all the bad it may do, does have the benefit of incenting both the lawyers and their clients to fly right when they're at the Patent Office, right.

You guys aren't mentioning the misconduct deterred, which is a good thing, right, so we need to find some other way to deter that misconduct, and there

could be lots of ways to do it, an inspector general's office at the PTO that randomly selects prosecution histories to go through with a fine tooth comb. There are all kinds of mechanisms that can been used, so I'm not arguing for the current rule.

What I'm arguing for is some way to grapple with the fact that in an ex parte system where you get national rights of exclusion that can be highly valuable, you can expect bad behavior if no one is watching so you have to watch some way.

MS. MICHEL: Duane?

MR. VALZ: Yeah. I'm just going to say that inequitable conduct, the state of it, of the law now is much like willfulness used to be, where you really have some tails wagging the dog. You might have a basic legal principle, and the derivative legal principles that come from it have these absurd consequences, and willfulness was about an entire litigation defense, perhaps having to give up privilege because of all of the contortions you have to do around the due care standard.

And here certainly you need something to disincent misconduct, but the events that can have that happen have become so absurd that the doctrine really just needs to be reformed.

MS. MICHEL: Mike?

PROFESSOR MEURER: A quick follow up on what Duane just said. It's a bit ironic I guess that those people that read a lot of patents have a lot to disclose and some are more at risk for the inequitable conduct, so it doesn't seem like a good situation.

MS. MICHEL: Interesting. All right. I was wondering if anyone had any reactions to John's suggestion on secondary considerations and obviousness. Joe?

PROFESSOR MILLER: John and I have talked about this many times, so he knows that what I'm about to do is grab a pom-pom and go yeah. The objective of it, here is what's so important about it. In addition to the quite cogent conceptual presentation is that we've actually had really good experience with this approach before in the sense that a great deal of Learned Hand's approach to the non-obviousness inquiry, although at that point in time it was called the invention inquiry, utilized these objective evidence points to really conduct very compelling inquiries about why the invention happened when it did, what were the circumstances in the art.

And as he said, there is no better way to know what average artisans would do than to look at what they

have done. That's the basic insight, and so we've got lots of case law to draw on, so we can explore this new way of thinking about things in a sense that isn't new. We have one of the greatest jurists of the 20th Century who actually marked out a lot of very important ideas here so let's draw on that experience.

MS. MICHEL: All right. Jeff?

MR. KUSHAN: To join the fan club, I think it is particularly now, after we've had *KSR* and we're kind of in this period where we're seeing the nuances kind of start to get developed in the Federal Circuit jurisprudence. I think it is a very good thing to think through, whether these ideas can be developed and hold out a little bit.

I think it is the case that when you have a story to tell it usually falls into one of those secondary consideration baskets. I think you have to also step back and look at the poor Patent Office, and also keep in mind that at the time that they're looking at your patent application, it's usually before your story is over, whether it's commercial success or whether it actually has stepped in and filled the need of the market.

So whether the standards or concepts that get developed map well into the Patent Office phase of the

evaluation of the invention is one question, but fundamentally at least for the jurisprudential effect, it should be not discriminated against and put into a kind of box that you only get to if you've gone pass your from prima facie fight.

There's a structure to obviousness inquiries that pushes the question to the back of the bus, and that notion of not having it part of the integrated thought about whether the invention is obvious is a really good idea to capture.

MS. MICHEL: We heard this morning also about the notice problem that Professor Meurer talked about. Do any of you have comments on the source of that problem and also how can it be addressed? We didn't talk about that. Duane?

MR. VALZ: Well, I think the notice problem in the way that Professor Meurer talks about it really comes down to the fact that patents are linguistic entities as well as technical entities, and you're always going to have difficulties in mapping language to technology that escapes the naked eye. You can't pull out gears and pullies, and that's just a feature of it, and that's why we have things like novelty and non-obviousness inquiries, and we have a literary record around what's been done and how it's been done in the

past.

And I think necessarily it's a dialogue with prior art in terms of defining your property boundaries, and the fact that it's always a difficult exercise and maybe a little more so in the era of nanotechnology and functionality that happens on minute scales shouldn't be some kind of disqualifying condition. That's just part of the art of practicing the law, and I think it can be done well.

I think some of the issues in the software and Internet spaces that's happened have to do with the fact that there's a dearth of prior art because it hadn't been allowed so long, and I think a fair comparison would be not just a contemporaneous between industries, but if you look at the relative age of an industry and you go backwards in time to see when the chemical industry and the biotech industries were really coming up to see how chaotic and maybe unsteady some of the issues were.

I don't believe that some of these issues of linguistics should be really made more problematic than they need to be.

MS. MICHEL: Mike?

PROFESSOR MEURER: Three comments I guess. I'll try to control myself.

MS. MICHEL: Don't.

PROFESSOR MEURER: Well, I'll come back if there's more time, but one of the things that Duane just said, in the book we talk about software patents in particular, and we address the question: Is this a transitional problem? Is the PTO getting better? Are the courts getting better over time? The answer seem to be, no, they're getting worse.

If you look at a software patent born in the year 2000 and ask: What are odds that it will show up in a patent lawsuit by the year 2004, that number is greater then if you took a software patent born the year 1990, and that's actually steadily true over each age cohort.

So that it seems as if our performance with software patents has deteriorated over time, even though we're accumulating prior art and we're accumulating value.

MR. VALZ: Maybe that's a bad measure. Litigation follows money. Maybe if you look at the software and Internet industries since 2000 and you look at comparative industries and when litigation spikes, that's a better correlation.

PROFESSOR MEURER: In the larger study, we actually do control for all those things. That

particular study, though I confess we did not, but the study as a whole about the hazard as I told you was increasing across all industries, and that was carefully controlling for measures of value.

Two other points. I like the comment Jeff made about biotech and notice, and I would second his emphasis on 112. If we've got good, strong written description and good, strong enablement, then maybe functional claiming is less of a problem.

Something implicit in what Jeff was saying is that there's a trade-off between good notice and scope in some cases, and so a sensible ground for attack of my argument is that we will sacrifice too much in scope in the quest of good notice.

I think that there are many opportunities to avoid that trade-off completely, to increase clarity, to increase notice without sacrificing scope. Not quite on point, but I'm accumulating data right now to almost answer Jeff's question, not looking at biotech, but looking at pharma, and I think I am finding that within pharma, relatively functionally claimed inventions, for example, the formulations of drugs, are litigated much more often than patents on active ingredients.

I see a disparity in those two categories. There's actually four categories that I've taken a look

at, between the more structurally claimed pharma patents and the more functionally claimed pharma patents, finding that latter to be more problematic.

Back to Suzanne's original question: So besides pushing for stronger 112 in areas outside of biotech and pharma, an easy thing for us to do, another easy thing for us to do is to take the definiteness requirement seriously, and 'solidly ambiguous' is a disaster.

The PTO, those poor examiners have little time to do much of anything, but if the only thing they did was started chopping out indefinite claim language, we would be in much better shape than we are today.

MS. MICHEL: Thank you. John?

PROFESSOR DUFFY: I want to say that Michael's presentation does point out a very, very basic problem that's always been in the patent system in the sense that what the patent system is trying to do is to create property rights at the very edges of technology and human understanding.

It should not at all be surprising that we have immense difficulties, and only a very sophisticated society can actually have a patent system. They didn't exist in the classical world, so you need a very legally sophisticated society in order to do this.

I don't think that merely because we see that

there are some industries that may have developed a relatively precise language, that simply because those are better, that we should think that the patent system isn't working in the other industries.

Michael targets the functional language, and I think that there are is something else going on. I think that Michael does make a very good presentation that something is changing overall at the Federal Circuit level and at the level of interpreting what patents mean.

I think that has been actually an excessive literalism, and that patent claims used to be interpreted and indeed you can find -- this is the way the Supreme Court always did it. They always used the doctrine of equivalents as a second step to limit literal language.

So in other words, the rule that you see for patent lawyers out there, the rule that you see in Section 112, paragraph 6, that was never supposed to be a different rule than the normal infringement rule. That was the rule of going back to the specification and making sure that what was said in the claims actually had some basis in the specification and that that sort of gets around literalism.

It sort of accepts the problem that we're not

going to be able to create literal language that always describes things, and this is not -- I want to make this clear. This is not pro -- this is not anti inventor to do that. Indeed I think as a case study, you should use -- to look at the question of functional claim language, you should look -- or the Wright patent to look at is the Wright patent, which is a case study in my case book because that used purely functional terms in its claim language.

And the great thing about it is, Joe and I are big fans of Learned Hand. You have an opinion of Learned Hand. How could you not love this case? It's one of the most famous patent cases, and the most famous patent judge, and there is a very hard issue in there about the way they claimed, and they claimed functionally, purely functionally.

There's two answers, the one that Learned Hand gave them or the opposite, which would have given them exactly $0 as an award for their invention, so it's an interesting case study to see, to sort of point out whether it's really functional claiming that we're angry about or maybe it's excessively literalism, which I think is a problem, and maybe that's not inconsistent with what Michael is saying. Maybe that's similar to what he's saying.

MS. MICHEL: Joe?

PROFESSOR MILLER: Yeah. I want to add just another layer of historical context around what's been said, especially about the connection between claim language and the disclosure, and one thing that is striking is if you go back and grab a batch of patents from 1908, they look the same as patents from 2008.

Now, so what? Well, as the Chairman mentioned this morning, right, if you're trying to run broadband rules on a dial up platform, things can get a little inky. Well, we're running on a whip and buggy platform in the sense that I wonder what a team of information scientists today would say the optimal patent disclosure and claiming document should look like if they got to design it from the ground up.

I wonder if they would come out with a document which doesn't have any general crosslinking, doesn't use different colors of text to mark different concepts when things were introduced during prosecution, right? I mean it's just a little odd I think that the patent itself, as a document, hasn't changed in more than a hundred years. Weird.

MS. MICHEL: All right. Mike?

PROFESSOR MEURER: John is right.

PROFESSOR DUFFY: Thank you.

PROFESSOR MILLER: Being too nice to you today, John.

PROFESSOR DUFFY: The Federal Circuit may not in May.

PROFESSOR MEURER: I'll tell you why. In my talk, I gave an unqualified disparagement of functional claiming, and Jeff pointed out that that was a bit problematic. John pointed out that's problematic, so let me restate my position, that structural claims seem to work well, provide give notice. Functional claims are problematic. We need a good body of patent law surrounding them or working with them for them to succeed.

So I think as Jeff pointed out it would be great if we did a better job of applying written description and enablement. In the book, unlike what Duane suspects, we don't advocate abolishing software patents, although we do make a contingent statement. We say, we need lots of reforms, and if these reforms don't work then, maybe we'll think about abolishing software patents, but we're conservative, and we want to work through all of what appear to be the straightforward sorts of reforms before we move to that radical position.

So I don't think that this is a statement that

certain kinds of technology cannot be successfully patented. I'm optimistic. I think they can. I also want to note though that functional claiming is not just an issue for software. We see functional claiming of biohazard, of binds, of sofas, of prison walls. In fact, it's kind of puzzling, but you look at most of these famous Federal Circuit cases and they're dealing with pretty pedestrian kinds of technologies.

You look at books that teach people how to draft patents, and clearly the message is draft functionally. Draft abstractly. Your mission of course is to claim the biggest juiciest property right you can, and the Court's or the PTO haven't done what they should do to counterbalance the clear incentives sitting out there in front of patent attorneys.

MR. ADKINSON: Most of this discussion has focused on how the patent document could be made clearer through application of various doctrines. In the first panel this morning we heard about the difficulty of lack of likelihood that we would ever see the relevant patent documents before you made investments, and so I would just like to throw that broad question open to: Is that a problem, in what particular industries, and what might we do about it?

MS. MICHEL: Do you want to limit continuations?

And how did it go this morning? Jeff, please?

MR. KUSHAN: So fortuitously I had my flag up, so on the question of continuations, it's not -- I think very clearly in the history of the biotech area has been that those are necessary to make sure that you actually get to an end point where you end up with a patent that is worth something, and the value for companies to have the option to keep pushing forward to get the claims they need is very, very important.

I understand one of the biggest challenges of having a longer window of time in front of the Patent Office is that your claims evolve to match what you find in the marketplace, and it seems to me that something short of the stupid rules that you can come up with and say one shot and that's it, a much more granular solution needs to be found, and that solution needs to be looking at when you present claims and how they relate to what you put in there before.

The problem I think that many people have outside the biotech area has been that the claims morph over time, and eventually have no tie to what is actually invented.

MS. MICHEL: So you're sort of supporting Mike's point of stronger 112 requirements in the biotech industry. He's nodding, let the record is not going to

reflect that.

MR. KUSHAN: I do. I think historically -- so we feel fairly confident we have a good balance in the biotech and life sciences sector because we can -- we look in the specification, we see if there is a correspondence between the claim scope and what we've written down, what we've invented, and I think one of the challenges -- just historically I did have a time when I was in the Patent Office where we were working on software examination standards.

We found one of the biggest challenges was figuring out what was invented. There's no uniform nomenclature. Everybody has complete freedom to write whatever they want, and so it's not like you can complain about the claims being fuzzy. You can claim about the entirety of the description being fuzzy. It's just all fuzz.

So the examiners, who get 18 hours to figure everything out, look at this, and say, I can't -- I don't even know what you invented, so certainly some kind of a point of pressure that needs to be applied in the areas that don't enjoy the benefit of objective descriptions like ours is to get that, some kind of a tool in the hands of the examiners to figure out what has been described as the invention.

The last point will be: We've seen evolve the written description and enablement doctrines. The enablement was always looked at from what you gave me, can you get to what you claimed, and from the written description that has now evolved to: What did you actually make and do and describe, and how does that relate to your claims.

That second variable I see as being very powerful in addressing some of the claim scope and transparency issues you see with the software claiming issue.

MS. MICHEL: All right. And I could do this all day, but we should wrap up soon, so any final comments, Mike, please? I did not mean to cut you off there, just to say that we'll have final comments and wrap up.

PROFESSOR MEURER: Well, one final comment. I kind of meta answer to Bill's last question is clear notice I think will facilitate good licensing. Someone's good a technology out there. They're living in a world that's populated by a lot of bad patents that kind of discourages people from finding them and licensing them.

So good notices should promote the good licenses and it should punish the trolls or it should punish at least trolling the way most people do, but it should

punish any person that's trying to assert a patent with this only slender argument that it's got a scope that actually covers the technology they're asserting it against.

So a good notice could cut down on the bad licenses and increase the good licenses.

MS. MICHEL: All right. Yes, John, final comments? You can close down the show. Okay.

PROFESSOR DUFFY: No, no, no. I won't close down the show.

MS. MICHEL: In that case, this has been a very helpful and interesting conversation, and I want to thank all of our panelists, thank the audience who stayed, and please, I'll put in one more plug, for we want your comments, and feel free to actually just contact us informally. We would love to hear from you.

Thank you.

(Applause.)

(Whereupon, at 5:17 p.m. the hearing was concluded.)