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9	Wells Fargo Room
10	Haas School of Business
11	University of California
12	Berkeley, California
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14	The workshop in the above-entitled matter
15	commenced at 9:42 a.m.
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MR. BARNETT: My name is Michael Barnett and I'm a staff attorney with the Federal Trade Commission. I'd like to welcome everyone to the third day of our hearings at the Haas School of Business here at the University of California at Berkeley, entitled Economic Perspectives and Real World Experiences with Patents.

The hearings in Berkeley are provided with the support of the Competition Policy Center and the Berkeley Center for Law and Technology of the University of California at Berkeley as part of a larger series of public hearings from the Federal Trade Commission and the United States Department of Justice Antitrust Division, investigating competition and intellectual property law in the knowledge-based economy. This mornings hearings are entitled Business Perspectives on Patents: Software and the Internet.

Here today I would like to introduce

Commissioner Mozelle Thompson from the FTC to my

right; Commissioner Tom Leary also from the FTC here

to my left; as well as Susan DeSanti, Deputy General

Counsel for Policy Studies at the Federal Trade

Commission; also, Pam Cole, who is a trial attorney at

the United States Department of Justice; and Ray Chen,

1 Associate Solicitor at the United States Patent and 2 Trademark office.

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Gathered with us are representatives from software and Internet companies as well as academia and the legal community, to provide us with their insight into patents, competition and innovation within their business or field, and in turn, the industry in general. In my opinion, I think that this is an exciting group of individuals who are impressively distinguished in their fields, and I'm anxious to hear their thoughts.

With that in mind I think we should begin. We will start by briefly introducing each panelist, and following their introduction they will provide a brief explanation of what their companies do or who they represent or what their area of expertise is, to provide us with some perspective toward their relationship to the industry.

Following these introductions, four of our participants have graciously offered to provide us with a brief opening presentation to introduce us to ideas and issues that they find particularly relevant and important

- 1 Kaplan founded Intouch Group, Incorporated. The
- 2 company's flagship product was a patented record store

1 collecting demographic and psychographic data on the 2 customers so that the music industry could find out a

3 little bit more about what their customers were doing.

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The way that this worked was somebody would walk into a record store, fill out a form, get a card, walk up to device called an iStation, scan the bar code of a CD and be allowed to listen to anything on the CD or the tracks that we'd encoded. We encoded roughly 200,000 CD's and this was starting in 1990.

We received a patent on that product called the iStation, which was a physical kiosk. We transitioned the business in 1995 to an online business, and received a patent in 1999 for the online version of the interactive kiosk that allowed for previewing music and collecting psychographic and demographic data on a customer and tracking the customer's progress through the website.

Since receiving the second patent we put approximately 190 companies on notice and went into litigation against 6 companies in March of 2000. We have settled with 5 of the 6 companies. We're currently in the Northern District litigating with the final company, and I'll talk a little bit more about that as we go further on.

MR. BARNETT: Next we have Robert Kohn. Robert

1 Kohn is Vice-Chairman of the Board and Director of
2 Borland Software Corporation. He is also the co-founder
3 of Emusic.com and the former Vice President and General
4 Counsel of Pretty Good Privacy, Incorporated, a developer

5 and marketer of Internet encryption and security

6 software.

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7 Robert.

MR. KOHN: Thanks. I started my career at

Ashton-Tate in 1983 and before going to Borland as

General Counsel. While I was at Borland we were involved in a highly celebrated intellectual property case that went to the Supreme Court called Lotus v. Borland, having to do with, in our view, the difference between copyright and patent and where the lines are drawn.

I started a company, as he mentioned, Emusic, which is the leading downloadable MP3 music service which was sold to Vivendi Universal last year, and I've recently done a startup company called Laugh.com, a comedy record company with George Carlin, so I wanted to do something less serious.

Borland Software today -- you know, in preparing for this I looked and I had testified for the FTC on November 29th, 1995, and I was reading my testimony last night and it holds up pretty well except Borland is almost a different company today than it was

MR. BARNETT: Thanks, Jim. Next we have Yar

Chaikovsky. Yar is the General Counsel with Zaplet,

Incorporated, an enterprise software and services

company. Before joining Zaplet this year, Yar was the

sole patent counsel at Yahoo!. Before that he was a

senior associate at the Patent and Technology Practice

Yar.

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MR. CHAIKOVSKY: Again, Yar Chaikovsky. At Zaplet, it's interesting. I have a different take with respect to Internet and software patents, because at Zaplet we focus on enterprise software, collaborative business process management, where obviously we're taking on individuals such as Microsoft, IBM/Lotus, and focusing on patents from that perspective and competition from that perspective.

Group at O'Melveny and Myers in Los Angles, California.

On the other hand, as Chief Patent Counsel at Yahoo! looking at the competition and then focusing more on the Internet perspective that I bring to bear here, dealing with the smaller competitors that have patents and are asserting patents in order to extract rents at the same time requires filing many patents at the same time to protect our own innovations.

But I will say out front that Yahoo! was able to get to a \$120 billion market cap in its heyday with

the E-commerce and Internet practice at the law firm of
Wiley, Rein and Fielding, Mr. Misener also served as
Senior Legal Advisor and Chief of Staff to a Commissioner

4 of the Federal Communications Commission.

Prior to his federal service, Paul was Intel Corporation's manager of telecommunications and computer technology policy, where he co-founded and led the computer industry's Internet Access Coalition.

Paul.

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MR. MISENER: Thanks, Mike. For those of you who don't know, Amazon.com is the Seattle-based profit-making juggernaut. We are the holder of 22 patents, 2 of which are relatively famous, or infamous depending on your point of view, and hopefully we'll be able to talk about those.

MR. BARNETT: Great. Thanks, Paul. Next we have David Mowery. David Mowery is a Professor of Business Administration here at Berkeley and the Director of the Haas Ph.D. program. His research interests focus on technological change, international trade, United States technology policy and the relationship between public policies and the private sector.

David.

PROF. MOWERY: Thank you. I'm obviously not presenting a real world but an economic perspective here

today. I guess what I will probably speak to are some
earlier work I've done on the growth of the U.S. and
international software industries, and then in particular
a paper that I and a student here, Stuart Graham, did on
overall trends in software patenting and copyright which
was done for the National Academy's panel on intellectual

8 Oh, let me just make one other note.

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property rights that Mr. Pooley sits on.

Unfortunately, I have to leave shortly before noon because of a teaching schedule conflict, so don't read anything into my hasty departure.

Thank you.

MR. BARNETT: Finally, we have Brad Friedman.

Brad is the Director of Intellectual Property at Cadence

Design Systems, Incorporated, a global electronics design
automation company.

Before joining Cadence, Brad worked as Senior Intellectual Property Counsel at Varian Associates and Varian Medical Systems in Palo Alto. Before moving in-house, Brad practiced law with the patent litigation firm Fish and Neave.

He is a member of the Licensing Executive Society, the Silicon Valley Intellectual Property Law Association, the intellectual property section of the California Bar Association, and the American Corporate Counsel Association.

1	Brad.
	Brad

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MR. FRIEDMAN: Hi, good morning. Cadence is an interesting company, fairly unique on this panel. Our industry is the electronic design automation industry.

We develop software tools that we sell to others who design semiconductor chips or smart electronics like cell phones.

Cadence's patent portfolio has grown through acquisition more than by its own internal innovation, and it's not an uncommon thing to do within the EDA industry.

I come to Cadence from a unique perspective as well. My background, as you heard, was patent litigation, focusing in medical devices, then moving in-house working in imbedded software, semiconductor and now finally in electronics.

I'm looking forward to providing the view of the world's largest supplier of electronic device software in talking about how our patent policy affects this particular branch of software. Thank you.

MR. BARNETT: Thanks, Brad. Now we're going to begin with the introductory presentations. I think we're going to begin with Bob Kohn.

MR. KOHN: What I'd like to share with you are some of my thoughts, I guess really to set the tone for

the morning. I think that means to upset as many panel
members as possible to goad them into controversial
discussion, but I'd like to say something about
intellectual property protection in general in connection
with patents, something about software patents in
particular, and then something about the system that
we're living with.

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As everyone knows, we have intellectual property protection, whether it's copyrights or patents, so that there isn't an underproduction of goods. I mean, these are public goods once they're created, and if everyone else can use them without compensating the author, it may not be created to begin with. So clearly, intellectual property protection is needed in order to have an efficient number of goods or ideas or whatever products are produced.

But there is a problem that with too much protection you're going to have the same problem as too little protection. That is, you're going to have too few goods produced, especially in the area of complimentary products bingsomppareatoonsemplar3pc-2B.eaeno

- defining the scope of intellectual property protection.
- Now, with that background in mind, let's think

1 patent for a particular part of a piece of software code

that is already protected by intellectual property?

3 Okay.

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So I would argue or at least put out that in the software area there's a real potential for overprotection of what's going on in a piece of software.

It's already protected by copyright. Now you're starting

to add patents. What is the marginal benefit of this?

Now in the software area, just by experience I think most businessmen in our field will tell you that innovation generally is promoted by competition and not by the intellectual property protection. Of course, intellectual property protection is important, it's good. You need to be compensated for your software so that, you

know, people can't just or shouldn't be able to just copy

16 your software verbatim and not pay you for these

17 additional copies. But most of the innovation comes from

18 a competitor coming out with a new feature or something

as opposed to, "Boy, I think we can get a patent on this

and protect it for 17 years. "n this

aMst of the iatents.fiele, Inwould argue, in

aur field ,in the software area, jre aiele, for 1defnsaiv

1 Counsel. We filed patents on virtually everything. Any

- innovation in user interface design, flyover help,
- 3 spreadsheet notebooks -- I mean, you name it, I had my
- 4 guys file patent applications.

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Those features weren't developed because we could get a patent on it. They were developed because we had to build a better product than our competitor. I was filing them because I knew I was going to get sued someday by some large competitor who had patents and I

Now, finally, the point I want to make about the system is this. When you get involved in one of these cases, or you get involved even with a settlement discussion, and let's say you're legitimately infringing somebody else's patent in some small piece of process or something that you use in this ten million lines of software code for your product, potentially hundreds of thousands of patentable ideas in your code, somebody sues you and says, "You're using our process, you're using our this or that, our interface design. We want a ten percent royalty on your sales, we want ten percent of your gross."

needed some way to defend ourselves against that lawsuit.

I mean, you end up getting into these discussions, "Well, wait a minute, wait a minute. This is only one patent out of a hundred thousand, okay. You

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can't ask us for ten percent of our product, it's just a
minor feature. Yeah, we're infringing it."

"Well, if you don't pay us the money, we're going to sue you, and you know what the damages are in a patent case."

And then you get into this discussion where you're hiring guys like Carl Shapiro for \$500 an hour, and I've been through this at Borland. We won in the Supreme Court but we spent \$5 million in the damage phase of the case to determine what the potential damages were for infringing the copyright. It's no different in the patent field in determining the damages.

So, my argument is at the end of the day there needs to be a major overhaul of how damages are determined in these large intellectual property cases so that there's some reasonableness brought to the table so that when there's one little process or procedure in a code you don't get into this huge discussion of what are your profits and what are our lost profits. Some judge should be able to say, "Look, I'm going to set a reasonable royalty here. It should be one-hundredth of one-thousandth of a percent because this is what the value of your particular idea is to the whole piece of software."

That's what I have to say this morning, and I

- 1 hope that sparks some interest.
- MR. BARNETT: Thank you very much, I have a
- feeling that it will. I think next we're going to hear
- 4 from Brad Friedman.
- 5 MR. FRIEDMAN: I want to thank the Federal
- 6 Trade Commission and the Antitrust Division of the
- 7 Department of Justice for the opportunity to testify
- 8 today. My name is Brad Friedman, I'm the Director of
- 9 Intellectual Property at Cadence Design Systems, and
- 10 we're located in San Jose. I first want to state that my
- 11 testimony, and the views and opinions that I express here
- 12 today, are solely my own, and do not in any way represent
- the opinion of Cadence or of any of its employees.
- 14 A little bit more about Cadence. It is the
- 15 world's largest supplier of electronic design automation
- 16 software and methodology services, both of which are used
- in the design of electronic space products such as
- 18 semiconductors, computers, telecommunications equipment
- and consumer electronics. Cadence employs approximately
- 5700 people worldwide and had revenues of approximately
- 21 \$1.4 billion in 2001. The company is traded on the New
- 22 York Stock Exchange under the symbol CDN.
- I'm especially appreciative to participate on
- this particular panel to represent here a distinct and
- 25 significant industry within the broad umbrella of

1	software,	and th	hat of	software	tools	for	product	design.
2	My perspec	ctive o	on toda	ay's issue	es may	be s	somewhat	unique

- 3 on the panel.
- 4 For example, Cadence Design Systems sells its
- 5 software not to the end user but to other businesses who
- in turn use those software tools to design
- 7 electronics-based products that ultimately reach the end
- 8 user. I'd like to speak to you from that perspective.
- 9 And personally, ideologically and

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conferences are seen as much more useful in advancing the state of the art. Business practices, in turn, have adapted to the current environment.

With respect to movements towards open source standards and interoperability, there's an increased participation in standard-setting bodies. Early on, standards organizations were largely based on patented technology owned by the founders of the standard body in an attempt to move the industry under their proprietary position.

More recently, forward thinking standards groups are premised on open source or open licensing schemes for the purpose of achieving interoperability as demanded by customers. There is the implicit expectation that anti-trust scrutiny will be appropriately loosened for these standards groups.

As I'm sure this committee is aware, there is a general animosity to pure software patents within and outside of the industry due to, one, the perceived allowance of what I'll diplomatically call overbroad patent claims, and two, the historically non-proprietary culture of the software engineering industry.

There's a concern that the USPTO lacks the necessary information about prior art in the field of information technology software and business methods to

1 make the needed decisions on the novelty and

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2 non-obviousness of patent claims, and also lacks the

3 needed expertise and infrastructure. The uncertainty in

4 the process generates skepticism, withdrawal from

5 participation in the process, as well as optimism.

I also want to note it's perhaps telling of the role of patents in this industry, the relatively low volume of patent litigation in the design software space versus other industries. This holds true for software in general. The maintenance of a patent portfolio serves mainly as a means of keeping detente or for cross-licensing opportunities.

Given this scenario, can anything be done to achieve the policy goals of the patent system for the electronic design software industry?

In adhering more closely to the fundamental ideology of quid pro quo that underlies and should motivate the patent system, the Legislature might weigh in on this issue and consider more radical changes in our patent system than the courts are equipped to accomplish — for example, differentiating between those inventions that add greater societal value from those whose benefit to society is minimal. This would be a daunting and improbable task.

Incorporating present day economic realities

into the value given to the patentee through a patent grant -- also a daunting task.

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Acknowledging the enormous administrative burden, an ideal, perhaps utopian patent system would tailor the rights, scope and duration of a patent grant to the specific industry or knowledge base to which it belongs. In the electronics design industry, for example, we'll take a short-term, low-level protection in exchange for speed of issuance, while in another industry, biotech or pharma for example, long-term protection might be needed because the revenue stream is in a much more distant horizon.

On the judicial side, we might consider eliminating the presumption of a patent's validity, enabling more rigorous judicial oversight of the already small percentage of patents that end up being litigated.

In sum, largely because the current patent system is poorly fashioned for the software design tool industry, the industry has evolved to minimize the impact that patents have on competition and has relied on other more market-oriented drivers of innovation. I believe this is a missed opportunity for accelerating technological and economic growth in the industry.

Thank you again for this opportunity.

MR. BARNETT: Thank you. Next we have Josh

1 Kaplan.

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MR. KAPLAN: Thanks, Mike. I'm going to give a slightly different perspective this morning because we are a smaller company.

Although we're a ten-year-old company, we're based in the music space, and I think unless you're one of the Big Five music labels it's been very difficult to actually make a business out of the music space over the past few years. I think everybody has seen what's happened with companies such as Napster as well as MP3.com, and a number of companies actually have just disappeared, either being acquired or have gone out of business in my landscape over the past few years.

One of the first things that we did when we were granted our second patent, which covered the Internet for music previewing and the tracking of user and the collecting of marketing information, is that instead of turning it over to our law firm I decided, well, I'll write a nice, non-threatening letter to a number of companies that we felt were infringing on our claims. And I can tell you that out of the 30 or 40 letters that we sent out, we may have received 1 or 2 responses.

Typically the response went something like this: "Meritless patent. We don't believe we infringe,

but send us a claim chart if you think that we do
infringe." And that process moved on for months and
months and months.

So as a small company, the problem that we faced in the Internet is that while we started in 1990 and we have raised roughly \$30 million over 12 years to build this business, the issue in our space is that once something can be broken down and digitized, there really is no competition. And within the Internet space what you've had over the past 4 or 5 years are companies that have gone out, raised massive amounts of capital either through private placements or IPO's, and they have had very little perception towards profitability and it's been to go out and do a land grab.

And what's happened there is that people would wholesale just simply go out and replicate your business within a very short period of time, while it took us three or four hundred thousand manhours to encode

1	had	in	a	matte	r of	six	months	and	then	give	e it	away	for
2	free	·											
3				So, v	while	I'v	e heard	som	e of	my c	olle	agues	say

you know, we only have three patents and we have \$150 billion market cap, the reality in our space is that it's very simple for somebody to replicate your process, go out there and give it away and really destroy the market value of what you have, and so from our position we really had no choice but to assert our patents and try to defend them.

11 Which brings me to a funny story. We were

us two things. It gave us a deep pocketed investor and it also gave us somebody we felt could become a master licensee of the patents should they, you know, continue to hold their validity and then go out and license the music industry.

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So Friday we were sitting in court. We were the only case on calendar, but there was a motion to the judge that they had somebody else that had to come in. And actually there was a man who approached in shackles, he was apparently a bank robber who had seven counts of robbery against him. And of course we had to sit there for an hour and waTD nu

guilty before proven innocent. So from our perspective
when you look at civil or criminal proceedings versus
what we have to go through, it just seems like

something's been turned upside-down.

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If we were, for example, treated like the bank robber, we'd be potentially given an attorney, have the presumption of innocence, guaranteed the right to a speedy trial, and yet we've gone through litigation now for almost three years. We have to face dozens of summary judgment motions that are really there specifically to try to invalidate your patent versus companies trying to legitimately take a license from you.

So why do I bring this all up? One of the things that Mike and I discussed, he said, "Well, what would you like to see happen through these hearings?"

I think there's a palpable perception problem with those companies that own software patents that are issued through the PTO. The one perception is that the Patent Office doesn't have the resources to evaluate and make a determination as to whether these patents are valid or not, and the other perception is that patents are handed out, you know, really like jelly beans.

And I can tell you from our perspective it took us almost eight years to get our two patents, and our file wrapper on the second patent is probably nine inches

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thick, so clearly there was quite a bit of scrutiny to go through and get our patents. We probably have fifty to sixty citings between the two patents, so clearly we went out and we did our homework.

But from everything that you read in the press, every time we approach somebody to take a license or negotiate a license, the feedback was always, "You have a software patent. We'll invalidate it in court. It probably doesn't have any merit and we'll fight you on this." And I would say that that happened 95 percent of the time.

The ones that didn't simply looked at us as a nuisance case where they looked at taking a license relative to what they had to spend to defend us. In other words, as soon as we sue somebody you can look at an instant \$100,000 retainer that they would have to pay. So from our perspective, that was the gating factor when we looked at trying to license to companies.

So one of the things I thought about was, well, how can the PTO work to change this perspective? And again, these are longer-term concepts, but I think that the Patent Office has a perception problem. I don't think it's any different than the NRA has. The difference is they have Charlton Heston as a spokesman and everybody feels warm and fuzzy about going out and

1 getting a gun.

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Maybe the Patent Office needs to resurrect an Abe Lincoln or an Edison to be a spokesman so that they champion the software patents and all patents and the innovators and not make it look like we are, I think the term one of my colleagues just used here, trying to extract rents. And that tends to be the perspective of most people, that we're simply here as a fulcrum to try to squeeze something out of the legitimate business.

The other thing I think we'd like to see is whether there's some way that the PTO in conjunction with another arm of the government, whether it's the Small Business Administration, could assist small companies in defending their patents.

Now, I brought this up to Greg Aharonian, who most of you know from PATNEWS. He laughed and said why would you ever want the government to help you defend your patents? That would be one of the worst things you could do.

But I think it's unlikely that most companies can be that innovative, find companies or attorneys to take an equity position and pony up \$2 to \$3 million and spend two to three years of management time to defend the patent. So if there were some mechanism for funding the litigation of a small company, we think that that would

potentially be a deterrent from people to simply take you on in litigation versus sitting down and negotiating some type of reasonable settlement.

So, I think at the end of the day we're not looking for free clothing and shelter and three meals a day, but we are looking for a fair shake in an industry where you're a small company going up against very large corporations, a number of whom are sitting around this table that we've actually met in court and gone through the process with.

Thank you.

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MR. BARNETT: Thank you. Now we're going to hear from David Mowerypanel.

PROF. MOWERY: Thank you. I think I'll try to preserve the PowerPoint-free nature of the discussion so far and I'm just going to summarize some of the findings in this paper that we did for the National Academy of Sciences panel, which is a paper that I believe will be posted on the website for the Board on Science,
Technology and Economic Policy, which is a wholly-owned subsidiary of the National Academy of Sciences, and you should be able to find it through their website. It was a paper co-authored with Stuart Graham, as I said.

I began life actually before I came to the business school as an economic historian, and I think

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there is some advantage in adopting a historical perspective to some of these issues, because the software industry in particular has been around for a number of years, number of decades, and what we're really looking at in the issues created by growing formal protection of intellectual property in this industry is really a confluence of developments, some of which are related to policy, the strengthening of intellectual property rights generally in the U.S. economy that's taken place over the last 20 years or so, but also technological change and the growth of new markets that have greatly increased the importance of formal intellectual property protection.

And the most recent, if you will, or a recent very important technological development influencing this industry, the Internet, is having effects the ultimate dimensions of which I think we don't fully know at present, but you can think of at least three contradictory, to some extent, effects of the Internet on the software industry and the role of intellectual property protection.

The first is the role of the Internet in making possible the rise of open source software itself.

Shareware has been around in the software industry for a very long time, but open source software really is shareware squared in some sense, and the Internet makes

1 feasible the maintenance of a unified source code, an

2 open source that previously I think was very difficult to

do. So that's one challenge in some sense to formal

4 protection created by the Internet.

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The second is the role of the Internet in facilitating low cost distribution of software, which should facilitate entry by new firms in some cases and the growth and intensification of competition.

A third and, again, somewhat offsetting effect of the Internet on software development and intellectual property protection is the role of the Internet in creating a space for patented business methods. Most of the rise in business method patenting in this area has been facilitated by the growth of the Internet as a venue for exploiting business methods and patented business methods in particular.

Now let me talk very quickly about some of the trends that our analysis of patenting in the software industry seems to highlight.

The first issue I think that comes up here is how we define a software patent in a way that is meaningful for supporting some kind of analysis of trends over time. That's not a trivial exercise, and so what my student and I have done is defined software patents in a way that tends to overweight packaged software patents

1 within our definition.

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So we're looking at a definition of software patents that tends to emphasize packaged software patents much more heavily than something like embedded software, which in fact is much less frequently the focus of formal intellectual property protection, and I think there are four or five interesting findings, if you will, that are highly preliminary that come out of this.

The first is that by our definition, software patenting as a share of overall patenting in the United States certainly has increased during the last 15 years. The share has grown to nearly 3 percent of overall patents, which is a substantial growth from its level 15 years ago.

Secondly is that within software patenting, large packaged software specialist firms have increased their share of overall patenting. At the same time, however, and a very important set of players to keep in mind when one is analyzing trends in software patenting, is the fact that large electronic systems firms, Motorola, IBM, Intel and others, have increased their share of software patenting by our definition much more significantly so that they are accounting now for more than 15 percent of what we define as software patents.

For The Record, Inc. Waldorf, Maryland (301)870-8025

If we look at patents per R&D dollar -- some

1	sort of an intensity measure, how many patents are you
2	obtaining for each R&D dollar that you're investing?
3	This is obviously a challenge because we want to try to
4	look at software-related R&D investment nevertheless,
5	what we observed between roughly '87 and '97, and I think
6	this is consistent with Mr. Kohn's argument, is that
7	large packaged software firms including Borland have
8	quite significantly increased their patenting per R&D
9	dollar during this period of time, so their patenting is
10	much more intensive, relative to their R&D investment.
11	At the same time, however, if one compares the

increase in patenting, perhaps much of which is motivated

2 by defensive motives, is going on in the diversified

systems firms in addition to an increase in the

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(Tape One, Side B)

PROF. MOWERY: -- two other points.

The quality issue in software patenting has been raised. And again, it's very difficult to know how to measure the quality of software patents. What we have done is define a very crude measure, a somewhat controversial measure, that looks at how frequently software patents are cited, the patents assigned to a given firm, how frequently those are cited relative to all software patents. So if your patent is being cited in subsequent inventions relatively intensively, that is one indication that this is a more widely referred to, perhaps a more important, patent.

And what we observe in looking at patents assigned to these large packaged software firms is that there is no evidence during the '87 through '97 decade of a significant deterioration in the intensity with which these patents are cited. So that's one very imperfect measure of quality. We don't see a significant deterioration over this period of time in the citation intensity, which at least could be interpreted as not

representing a significant decline in quality. 1

imperfect and incomplete data.

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Finally, I think that our exploration of this issue really underscores the extent to which our 4 indicators of what is going on here are very imperfect. I'm going to really put on my academic hat now. This is a very economically important space and we have extremely

> We don't really even know. We don't have good robust definitions that would allow us to look at how much software patenting has been going on over the past 30 to 40 years, because this field has been so dynamic and because the categories that we are able to use themselves are changing very rapidly.

> So I think that as policy makers begin to consider these issues more seriously and deliberatively, one very important issue is trying to develop ways of getting our arms around measuring it as well as dealing with the problems of addressing the economic and competitive challenges created by it.

> > Thank you.

Thank you, David. MR. BARNETT:

MS. RODRIGUEZ: I was wondering if you could have everybody turn off their cell phones. It's very distracting, and he was going very, very fast. wondering --

1	MR. BARNETT: Apparently, if we could ask
2	everyone to turn off their cell phones as well as if
3	people could be conscious of somewhat speaking at a
4	moderated pace as we are providing facilities for the
5	hearing impaired.

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That said, and with these ideas in mind, I would like to begin with a less structured portion of the session. Let me start with some of the rules of the game.

As we begin these discussions, if you would like to contribute or have something to say, just turn your name plate on its side and that way nobody has to waive hands around or anything like that and then we can get to everybody in turn.

Given the statements from the people who have given presentations, I think we'd be interested in hearing from some of the panelists who did not give presentations, and it looks like Jordan Greenhall has jumped into the fray already.

MR. GREENHALL: Yeah, this is great. We do bring a different perspective from the other companies that have spoken today. Let me start off by issuing a few mea culpas because I'm about to agree with Mr. Kohn and Mr. Friedman. First off --

MS. DeSANTI: Hearing is difficult. Could you

1 speak into the microphone a little more?

2 MR. GREENHALL: Yeah, I apologize.

3 MS. DeSANTI: Thank you.

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MR. GREENHALL: My previous company, INTERVU, made an egregious amount of money by virtue of its patent portfolio, and my current company, DivXNetworks, also stands to capitalize significantly on a patent portfolio, so I have a lot to benefit personally from the strong and vigorous enforcement of, specifically, software patents.

Second, we are a small company with very large competitors. I think it's fair to say that Microsoft would be considered our number one competitor on a global basis, something I'm reminded of probably ten times a day, and we do have, as I mentioned earlier, many patents filed.

Nonetheless, I would tend to agree with Mr. Kohn and Mr. Friedman about the state of patents and software, and I could just issue a couple of concerns that I have which I think are somewhat different from what we've heard so far today. I'll do that really by virtue of maybe throwing out a couple of concepts that we might want to use or that might have some interesting value.

The first of which is something that we internally call a patent farm. How does one identify a

1 patent farm? Simply divide the software engineers in a 2 company by the number of lawyers in that company. are organizations that have very intelligently determined 3 that you can generate, again, hundreds of thousands of 4 5 patents in software code that you've already paid to develop because you're developing a product, and if there 6 7 is value in creating a spew of patents, most of which are defensive, although there is a uniquely offensive value 8 to those patents as well, which I will categorize with a 9 second concept that I call patent FUD. 10 11 Are we familiar with the concept of FUD? MS. DeSANTI: I think it would be very helpful 12 for the record if you could lay it out. 13 MR. GREENHALL: Great. Well, FUD is something 14 15 that was invented probably 15 years ago, mostly by 16 Microsoft, which stands for Fear, Uncertainty and Doubt.

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This is a concept where you issue press releases,

been hearing about in the marketplace.

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intellectual property landscape around digital video -and asked him to evaluate a particular patent that we've

We did a quick search on the USPTO website, which by the way is very useful, and uncovered no less than 120 patents that claim to be within the general scope of this particular patent, which was widely cited.

The poor guy spent the better part of five days examining all these different patents and came back to me saying, "I haven't the slightest idea whether or not we infringe on these patents, and frankly, they all seem to infringe on one another."

The end result being that I have no idea whether my product infringes on upwards of 120 different patents, all of which are held by large companies who could sue me without thinking about it.

The end result, much like Borland, I have now issued a directive that we reallocate roughly 20 to 35 percent of our developer's resources and sign on two separate law firms to increase our patent portfolio to be able to engage in the patent spew conflict. I think the concept here would be called saber rattling. I need to be able to say, "Yeah, I've got that patented too, so go away and leave me alone."

That assumes, of course, I don't get a sit-down

strike from my engineers, who can't understand the logic behind this. And if you guys have ever dealt with

engineers, the lack of logic is a complete conclusion.

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So really the thought process that I've gone through -- and this is all, you know, very concrete literally in my life in the past year -- is that there's a bizarre inequity between the cost to create patents in software and the value to be generated by purely defensive patents that have no sort of innovative value in and of themselves. They weren't, as we say, created to innovate but simply are riding on the backs of innovation to create a zone of obscurity where other companies really don't know what the patent landscape is.

And also, let's not forget the incredible windfall that can befall a company if one is able to establish both a patent and a standard based on that patent. We could call this the Qualcomm model, which as I understand it, means a secure patent, the establishment of that patent as the international standard for some particular piece of large-scale technology, and then sit back and make billions of dollars.

The time to develop a patent in my company, for example, we could probably do twenty to a hundred patents in a year easily, spend about a million dollars to develop those patents from a technical perspective, that

of the process by which we resolve disputes about those patents.

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I think it's not only a feckless task to try to understand whether something has quality in the abstract when it comes out, but that's not really where the action is in terms of the impact on the marketplace as I have seen it. It's the litigation process that animates the decision of any given company either to take on a license or to, perhaps worse and in a way that we can't measure, back away from a product or a part of the marketplace that they would otherwise compete in.

It's in part because of the issue that's been referred to already about uncertainty. That's one aspect of it. There is great uncertainty in the process of resolving disputes when one receives a notice of the sort that Josh was sending out. And presuming for a moment that there is a rational basis for challenging the validity of the patent or challenging the assertion that one infringes, what you face is a highly, highly uncertain process.

It's made uncertain in part because ultimately we know the decision on things like infringement and the scope and content of the prior art will be decided by a lay jury, and we think ahead to that when we look at what our exposure is.

through the doctrine of equivalents.

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We consider the effect of the doctrine of equivalents, which is often used, especially in the Internet's space, to make older patents that were intended obviously in their first incarnation to apply to an earlier technological environment, all of a sudden to become applicable broadly to the Internet space. And so the issue of breadth is not in the initial issuance of the patent, but the way in which it is treated in the litigation process and allowed sometimes to expand

The process is made more uncertain because of entrants, and usually in my experience in the software industry we have a kind of business that's easy to enter, but where you enter with sometimes an overwhelming sense of dread because you don't know how many pieces of IP you will need in order to operate.

It is opaque, you can't get there, and in fact the system discourages you from looking very hard because your lawyers may advise you that simply by virtue of poking around to find out what patents exist you expose yourself to wilfulness claims which can triple the amount of damages and exposure to attorney's fees.

And there's also the problem that Bob Kohn has referred to of, you know, we don't know how much we're going to have to pay. And it can seem overwhelming

sometimes when someone knocks on your door and asks for five percent of your revenue and you negotiate that, end

3 up paying three, and then surprise, there's someone else

4 who asks for another five or ten percent.

Because their particular claim is measured by

what would happen in the litigation process, not by a

sane, well-informed view of all of the IP that is out

there that might be necessary and that would be
appropriate to reward the producers of that IPafor end

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you actually put that notion in front of a jury, their eyes glaze over. It really reinforces the notion that the patent with the gold seal and the ribbon on it is something that they as lay persons are not really qualified to look behind and question because someone with training has already checked this out at the Patent Office.

When you combine that, especially in the software environment where, as Mr. Kohn has noted, a piece of software that has perhaps hundreds of thousands of lines of code can be stopped in its tracks through a patent claim that covers one routine in that product, when you deal with issues of validity and you're trying to challenge it, you can be overwhelmed with a story of commercial success -- one of the so-called secondary factors that actually have come to be primary in litigation over this issue and required to be presented to the jury -- you're overwhelmed with this story that the product itself of the plaintiff was successful in the marketplace, and therefore the market has accepted the patented feature.

Well, the patented feature may be buried deeply inside the product, but it is very difficult for a jury to understand when presented with this overwhelming story of award winning products that you really have to push

away everything that isn't the patented feature and try

patent FUD and backing away from R&D, which brings to
mind to me just how does the issuance of a patent or how
do patents, whether it's patents owned by yourself or
patents owned by your competitors, end up affecting the
direction of your R&D efforts? I might direct this one
to Yar.

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MR. CHAIKOVSKY: Well, in terms of what we've spoken about today with respect to the effect on our R&D efforts, I can talk about both. And again I'll put the same caveat; these are my opinions and not necessarily the opinions of Zaplet where I presently work or Yahoo! prior to that.

But as we've seen with respect to the patents that are issuing and focusing on packaged software in particular because that happens to be the space that we're in and it happens to be the space where you see increased patent allowance from the Patent Office, I can't say that there's, as opposed to coming from Mr. Greenhall at DivXNetworks, a specific amount where I said 30 or 40 percent of R&D is set aside for patent development. That doesn't occur at Zaplet or Enterprise Software Development, although we recognize that there is a focus, that our significant competitors are also Microsoft, as any packaged software company is probably going to say Microsoft is a significant competitor. IBM

is a significant competitor with Lotus in our space,
which is collaborative business process management. So

3 we recognize that there are these significant entities.

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And also, as Professor Mowery mentioned, we also have the entities such as Motorola, Intel, et cetera, that are patenting software and even Internet techniques that aren't necessarily in their main line of business, but they happen to have a 'patent farm' or what have you and they decide to file for patents that might not necessarily be where their R&D lies.

So with respect to our company, the reality is, and I was going to touch on the point that, again, it's the competition that promotes the innovation. We're taking a look at what competitors have out in the market -- What is Microsoft developing? How is Sharepoint developing? How is Lotus developing? How is Groove developing a product with Ray Ozzie, the ex-developer from Lotus? How is he going out there and developing a product and taking a look at that product? -- and that drives our R&D. At the same time, recognizing that because of the way the patent system is, and we'll use another infamous statement, MAD, Mutually Assured

1 you don't have it, you're going to have problems.

But going back to R&D, I can't say that we've

3 set aside engineers or spent specific dollars and said,

4 "Okay, let's do this." Yes, there is -- as a patent

5 attorney I was hired to focus in on making sure that we

do have our intellectual property covered. As opposed to

another panelist here, my argument would be that

8 intellectual property is something that's useful if you

have a product that is very useful in the market, a

10 product that people are interested in.

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In particular during the '95 to '99 time frame

1T0 -61Befulthiwoundakhapeace in this valley, well, you would have

1 property, as opposed to some other companies who try to 2 establish a business and try to establish some type of 3 business opportunity, and after going around for three, 4 four, five years recognizing, "Hey, my business isn't working. Well, let's see what I can pull out of the bag 5 and send at somebody, and if I've got something, it may 6 7 not be the greatest patent in the world but it's the last thing I can do because my business is totally 8

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ineffective."

That's not what we do and that's not the perspective we take. I've seen that happen many times so now I'll cut back to my Yahoo! experience.

Yahoo! is a perfect example of a company that came about in 1995, went public in March of '96, didn't have its first patent issued until 1997, didn't have a patent attorney until 1999, and was able to achieve a market capitalization in December of 1999 of, as was previously mentioned, over \$120 billion. At that time it had three issued patents.

Patents had nothing to do with the interest in the company, consumer use of the product of the company and the Internet space. There was no focus of an R&D effort with respect to patents.

As I said, the first patent attorney was hired in '99, the company had been public since March of '96,

backed by Sequoia and other venture capitalists in the
community here. Why? Because it was a great idea. Was
there competition out there? Sure, there was Excite,
there was Lycos, there was AOL, there was significant
competition. In fact, Excite and Lycos went public in
the same month that Yahoo! went public.

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But did intellectual property matter? Did the General Counsel or the CEO of Yahoo! sit there and say we've got to file patents and get patents to promote our products? No. And if you even looked at AOL with their acquisitions of Netscape and Compuserve over the years, they have a portfolio that's over 70 patents strong. So it wasn't a concern of the company.

Sure, eventually it became a concern. And why did it become a concern of the company? It became a concern of the company because you did have entities, such as Professor Mowery mentioned, coming at us with large portfolios, upwards of ten patents at a time, and Yahoo! made the realization, perhaps a little late and a little naive -- on the other hand, the company was doing quite well without it -- that they had to get into this ball game also to basically not pay people percentage royalties on the company's revenues going forward. So Yahoo! obviously decided that it was time to hire one patent attorney, and I was it, with no other support

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You know, at the same time I can say we received letters from smaller companies such as Intouch. And a patent portfolio is not going to really help me in that sense, because I can't really do anything. Building up a patent portfolio for defensive/MAD purposes is not going to help me against a small competitor. I'm not going to countersue him and try to get whatever dollars he has left that he may be spending on litigation at this point, so it's not going to help me at this point.

We had two significant litigations at Yahoo!, one was by a New Zealand woman who had a patent on universal shopping carts. You know, it cost us a lot of money to defend that lawsuit. It was a waste of legal time, it was a waste of our resources, it wasted some of our VP's and engineering and commerce time involved in the project. It ended up settling on terms that were favorable to Yahoo! with Yahoo! paying no amount of dollars of its own and settling the case.

The other case we had going was a Fantasy Football case that was brought by a plaintiff's contingency attorney with patented Fantasy Football on-line on the Internet.

Well, you know if you think about Fantasy

Football, for those of you who have ever played Fantasy

Football where you pick the players on-line, well, people have been doing that since the '80s on paper, and to think that you can get a patent on that. And again, the quality of patents is sometimes good, but when you think you can get a patent on that on the Internet and its application onto a computer, it's troubling and it cost the company again a significant amount of dollars.

Again, the end result being that time was spent.

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Obviously the person here, perfect example on the Fantasy Football and the shopping cart examples, their business models weren't working. Some of them may have not even have had a business model. They end up getting patent agent firms or licensing firms, as we call them, not law firms. They sue on those patents.

They cost our companies a lot of dollars, and the end result is so far none of them have been victorious against the companies that I've been involved with. In fact, it just cost us a lot of dollars. We've never had to pay a cent; it's just cost a lot of legal fees and made attorneys like Mr. Pooley some money at their law firms in representing clients such as ours.

But going back to the point at hand with R&D.

Again, a little bit different from the Internet

perspective because of the, it's been spoken about, the
antipathy, I'd say, towards software Internet patents

from the community here in Silicon Valley.

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2	If you go to engineers in general they'll say,
3	"That's patentable?" I mean, the reality is that's the
4	general reaction from most engineers. They are
5	traditional believers in the open source movement.

On the other hand, as you're protecting intellectual property for your company you're not going to necessarily dive into open source. You might get into some of it, but then you've got to worry about GPL and

1 website and say, "Wow, I found these ten patents. I'm

2 going to come up with a great idea." That just never

3 happens.

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I mean, the reality is we're looking at what are good business ideas. People in the valley here look for good business ideas. They back them up, they go forward. They're not looking at patents. The exclusion to that may be IBM who looks at their own portfolio and makes \$1.5 billion a year basically on revenues of their patents, at least they did in the year 2000.

Thanks.

MR. BARNETT: Josh, one of those comments seemed to have brought a -- Oh, okay. Let's go ahead and go to Paul. Paul's been waiting patiently.

MR. MISENER: I'd be happy to have Josh take this.

MR. BARNETT: Oh, that's okay, go ahead.

MR. MISENER: Well, I just hope it's obvious to everyone that these are not mutually exclusive business objectives. You need not sit down a priori and say, "Gee, we want to have a patent farm and we don't want to innovate and then get patents." Or you don't go the other way and say, "We're going to be so pure as to just want to innovate in response to competition that we won't actually ever use our patents in either an defensive or

offensive manner."

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Let me suggest there's a third leg to this stool, and that is really focusing on what your basic business is and not thinking about the intellectual property as the objective but rather as the means to serve the ultimate business objective, which for example in Amazon.com's case is our focus on our customers and trying to provide them the best possible service that we can. In that way we developed some innovative solutions in the technical space and decided that there was potentially some intellectual property there and decided to and successfully patented several inventions.

I'd like to cycle back for a second, though, to what Jim was mentioning earlier. He had talked a lot about dispute resolution and said that there had been perhaps too much focus on the *a priori* grant, or the prior-to-grant patent quality issues. And perhaps there has been relatively too much attention focused on it, but still I think it's worthy of note here that -- well, perhaps a historical perspective is helpful.

About two years ago, yet another patent was issued to Amazon.com which created some controversy, especially among what we'll call the open source community who had been and remain big supporters of Amazon as a proposition and a company. And so as a

result, we kind of stood back and decided to really
engage with the folks in the open source community,
primarily with a fellow named Tim O'Reilly who, as you
may know, is a publisher of an excellent set of computer
books.

He and my boss and I met on several occasions to try to figure out, well, what's a good way to address

period allowed for U.S. based patents, perhaps at least in this area there ought to be a pre-issuance public comment period. That, tied with what has been discussed earlier, some sort of a prior art database, could be

valuable to the USPTO.

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And lastly, we have spent some of our capital trying to ensure that the USPTO is able to at least keep the funds that it raises. I'm not sure it's widely known, but the USPTO serves as something of a cash cow for the federal government whereby it takes in all of its revenue through fees. Taxpayer money does not pay for the USPTO, it takes it in by fees, but it also has to turn over a large percentage of those fees, and I think it's roughly 30 percent or so, to the general revenue of the government. And so in other words, the Patent Office is taking in more money than it's allowed to keep to do its own business.

This to us seems like a major problem. And it's not to say that the patent examiners are doing a bad job now, I don't think that's the case. But frankly, in order to simply reduce patent pendency, which in this business is a huge issue, we ought to allow the USPTO to retain the funds that it collects.

MR. BARNETT: Josh, do you have some thoughts on this?

1 MR. KAPLAN: A couple things come to mind.

- 2 Again, I think I try to represent a real world
- 3 application of patents here. An interesting thing, and
- I'm not going to, you know -- Yar made some interesting
- 5 points.

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Number one. You know, Intouch also is funded
by people like Bill Hewlett, Ray Norder who founded
Novell, Amerindo, Bay Partners, Tim Draper, venture
capitalists who felt we had a great idea. And we were
very early on in this thing, 1990. I think the founders
of Yahoo!, I don't know, they were still in high school

In fact, when I first got my patent on identifying the user, tracking the user, having the user uniquely identify themselves to the system, previewing music, I waved my patent around at a board meeting to venture capitalists. They looked at it and they said, "Let me understand this. You've got a patent that somebody will have to identify themselves to a system before they listen to music? What a worthless patent that is." They didn't ascribe any value to the patent that we had.

probably around that time. We were out there very early.

In fact, as recently as two weeks ago I read an article where the venture capitalist was quoted, and I think it was Benchmark that said, "We really don't

ascribe a lot of value to patents that small companies

2 have. It's more of getting out there quickly and

3 establishing a beachhead for their product."

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Now, interestingly enough, I've never met Yar before, but obviously he received our letter, our notice letter. Okay. No follow-up, no discussion, not a call, not a reach out. Hey, Intouch, what can we do to work with you to see what we can do?

And by the way, Yahoo! I believe just became a profitable company. I'm not sure if they're profitable today, but like most of these companies that have spent hundreds and hundreds of millions of dollars -- Excite, obviously we know what's happened with them. They're, I think, in Chapter 11 right now and probably will cease to exist.

It's been a market share game in the Internet industry. It doesn't really matter how quickly you are out there with a product. Ask anybody who's competed against Apple or Microsoft. You establish a nice little product. Next thing you know, it's part of their operating system. Oh, too bad, you've lost your market. This has happened to countless companies in the valley, all that have been venture funded. The only thing they can do is go off and sell their company.

I think when EMusic was public it had a market

cap of, I don't know, \$300 million. Is that right?

- MR. KOHN: Don't remind me.
- 3 MR. KAPLAN: \$300 million. They got sold for
- 4 \$14 million, I believe.
- 5 MR. KOHN: No, 25.
- 6 MR. KAPLAN: Okay, \$25 million. So again,
- 7 market cap doesn't mean anything, the public market
- 8 doesn't mean anything. The problem is if somebody comes
- 9 along with your same technology and eclipses you and runs
- out there and gives it away, you really have nothing that
- can protect you aside from your patent portfolio.
- So Yahoo! was known as a search engine. They
- 13 got into the music space. When they did that we sent
- them a nice friendly letter, not from the lawyers but
- from myself to the CEO of Yahoo!. No response. And we
- don't understand why there wasn't some type of reaching
- out to say, "Let's take a look at this. How can we work
- 18 together? "
- 19 Actually, we did finally get a letter from a
- gentleman at Yahoo! who said, "Show us how we infringed."
- 21 So we went back to our intellectual property letter and
- 22 we put together a massive claims chart analysis on our
- 23 patents versus what Yahoo! was doing, clearly showing
- that there was at least the presumption of some
- infringement. Nothing. No return calls, no return

up with the lawyers saying, "It's really not acceptable to my client," and so you're right back at ground zero.

And so, it's my feeling that unless there is something that preempts the legal process, like an arbitration or like something where there's a panel that is able to sit down and help these companies come to terms, it's simply an issue then between the law firms, and then it becomes an issue of who has the staying power.

Luckily we were able to be creative and bring in initial money from lawyers who were contingency lawyers. It's not the greatest thing I would recommend,

1 now, small inventors that have interesting patents that

are saying, "How can you help us with this? We haven't

gone through Markman. You've seemed to monetize this.

4 You've gone through the process, you've gone through all

the pain. Can you help us with our patent?"

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And so one of the things that we're looking at is, is it worth it to take on some other patents, make them a part of our portfolio and move this ahead? That's what we're faced with in order to protect our market.

(Tape Two, Side A)

MR. BARNETT: Yar?

MR. CHAIKOVSKY: My first response would be that Josh did receive response very, very quickly. He may be forgetting due to the sheer number of people he sent letters to, but actually our company was one of the few, and was in fact congratulated by Intouch for our responsiveness as compared to others, maybe even some that are at this table, to your letter. So I would disagree with that characterization.

Secondly, I would also disagree with the characterization that, yes, it does get handed off to lawyers, but the lawyers requested more than just claim charts. The lawyer requested a significant amount of information, and the information that you just set forth with respect to what you provided Amazon, never

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I mean, the reality is -- and I won't point this at Intouch -- the reality when you get letters all the time from companies is that they don't provide you this information. You're looking for information with respect to the patent, whether it be claim charts or what exactly it is that they think is problematic or infringes their patent, or the damages calculations, as Josh just mentioned. You know, where is all this information, or maybe you could help me come to a reasoned analysis as to what to do in this situation.

And the reality is, yes, lawyers do provide advice in the situation. And the fact of the matter is that Josh may be sitting there because his company is sending out a letter, and this is his business and he's not making money in his business and therefore they have to sue people to extract rent to keep up with his business.

Well, Yahoo! at the time when I was there, I was getting a letter every three weeks, so maybe yours wasn't on my priority list because I was getting a letter from every other company in the world to do the same thing, and being the only patent attorney there, there was a lot to do.

So there's also a time lag when you're dealing

1 with the Yahoo!s, the Amazons, the AOL's and all the 2 other individuals, Time Warner, et cetera, that you sent 3 letters to. These are large organizations, bureaucratic 4 organizations, and as opposed to these smaller entities such as Zaplet where I could probably respond to you at a 5 quicker point in time. The bureaucracy happens to be a 6 7 lot larger, not as large maybe as the government's, but it happens to be quite large and the responsiveness will 8

be quite longer in time.

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MR. BARNETT: Thanks, Yar. Everybody, it seems, is ready to speak. I've been informed that it might be a good time for a break, though, just because we're approaching the two-hour point, so let's come back in ten minutes. I've got -- well, let's come back in ten minutes. Thanks.

(A brief recess was taken off the record.)

MR. BARNETT: -- that these companies are dealing with and that the industry is dealing with and some of the problems that exist. I think it might be nice to shift gears a little bit and maybe look at perhaps some solutions or some ways that have been attempted to try and deal with some of this, whether it's at the PTO or the Business Method Patent Initiative or the re-examination process.

Jim, do you have any thoughts on that as far as

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the re-examination process and some of the initiatives of the PTO?

MR. POOLEY: Well, the Business Method

Initiative, by all reports both anecdotal and I think
statistical, is very encouraging, and I think it's a
demonstration of the way in which an agency with a gate
keeper function like the PTO can properly respond to an
issue and do it in a timely and effective way. So I'd
say kudos on that one.

As far as issues of pre-grant input or the post-grant opposition process, I think there are some very interesting things to look at there to make the process more rational and efficient, and I think those deserve further inquiry.

I think the difficult thing you have to deal with is trying to get the information in to the PTO so that it can be used, and to make sure that that flow is open and free and not discouraged or constricted by fears of estoppel by participation in the process. So there has to be a certain balancing there, but I think there are great opportunities in both pre-grant comment and post-grant opposition so long as it's extremely efficient, streamlined and doesn't lead us to the kind of process that we've seen in some other countries.

I do want to make just two very quick comments

1	on some of the observations that have been made here.
2	The notion of different terms or a reduced term
3	for certain kinds of patents rather than a
4	one-size-fits-all twenty-year term. It's a beguiling
5	suggestion and I think an interesting one; however, I
	think it's something that we have to look at very, very

amuse ourselves with some of the patents that have been

- 2 issued.
- But as I pointed out earlier, in my own
- d observation, it's not the patent as issued that really is

1 or	opposition.
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First, and I should preface this by suggesting this is not, as far as we can see, the fault of the USPTO, but the re-examination process as it was amended in the Congress and developed really is one that operates very differently from what we see in an EPO, European Patent Office, style opposition process.

If you look at the data, which again Mr. Graham has helped me collect and Bronwyn Hall collect, it looks as though nearly 50 percent of the re-examinations for which we have records in the USPTO covering the '80s and '90s are initiated by the patent holder, all right? So this new prior art comes up or they encounter problems in the claims.

So the point here is not that this is a good or a bad thing. It is that this is operating for a substantial number of the patents in a very different way than the opposition process that some people originally envisioned the re-examination process fulfilling. And again, this is not a USPTO issue, this is more a congressional design of the process issue as far as I can see.

The second point relates to the opposition proceedings as they operate in the EPO. One of the benefits that some people have suggested for a more

elaborated post-grant opposition proceeding in the U.S.

- 2 system is that it could resolve uncertainty about the
- 3 validity and the like more quickly. However, what seems
- 4 to be the case in the EPO process is that, partly because
- of the need for an appeals procedure, this takes a very
- 6 long time. So one of the key benefits that is at least
- 7 held out for an opposition style process in the States
- 8 would be that that is a more rapid resolution doesn't
- 9 seem to operate based on the data that we've been able to
- 10 collect on the EPO opposition process. That's something
- 11 to keep in mind.
- 12 And it's also important to recognize that the
- 13 EPO opposition process does not preclude litigation
- following the conclusion of the opposition process and
- the appeals of the opposition process.
- So it's not clear what you're buying into, at
- least on the basis of the data we've seen. When you go
- 18 toward an opposition process and graft it into the U.S.
- 19 system, which obviously would have a very different set
- of political dynamics in the design of this process, as
- witnessed in the re-exam process.
- MR. BARNETT: Brad, you've been fairly patient
- for awhile. Do you have some comments?
- MR. FRIEDMAN: I do, actually, on what's been
- just discussed and I wanted to talk a little bit about

1 your question on R&D.

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First to what was just stated, in a potential U.S. opposition procedure one possible solution is to allow a third party similar to what we currently do in the re-exam, allow a third party to submit prior art and perhaps an argument, and that's all, and have the rest of the proceeding continue to be ex parte in the Patent Office. And so that third party is no longer involved that would highlight the efficiencies, if you will, of the U.S. Patent Office vis-a-vis the inefficiencies that you might see in the EPO system where the opposition period can take an extraordinarily long time.

I also wanted to note that I personally don't feel that it's ordained that all patents must be identical, whether it's 17, 20 or 10 years.

And also with respect to the breadth and scope of those rights that are given, I look to countries outside the U.S. such as the petty patents in the German system where the patentee or perhaps the Patent Office if you might here in the U.S. can decide what type of patent, what type of grant might offered to the patentee, and so that creates more options for the government to give particular rights to the patentee for providing further innovation. I think that's something that we might be well advised to look at.

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The difficulty, as I mentioned, is the administrative burden, which is enormous, in trying to make those distinctions, and would those distinctions be then appealable, and so it's very important to look at that process as well.

A comment on the innovation and the R&D question that we had initially asked, I wanted to make this point. Outside the software industry the use of patents for other business purposes such as corporate intelligence or determining technology trends where there are technology gaps within the IP vector of the industry is fairly commonplace. In the software industry it's not. Outside of software the information can be used as input in, say, a continuous feedback loop for R&D, so I understand where the technology is going because I can see what has been patented and what is being patented; therefore, I know how to direct my R&D to innovate in a particular area.

In the software industry, as we mentioned earlier, and Jim, I think you mentioned it specifically, the number of overbroad patent claims allowed by the USPTO, the uncertainty in the current patent process going through, and particularly the uncertainty in the judicial process post-grant, all combine to increase the difficulties and inaccuracies of the endeavor of trying

1 to use that information in a competitive manner, because

- there's too much information and it is no longer
- 3 meaningful in the same way as it might be in other
- 4 industries, which might seem irrational.

5 The result is that you undermine the

fundamental purpose of a patent system to provide

7 valuable information and incentives to innovate beyond

8 the existing art so I see where the art is and I instruct

9 my R&D, I focus my resources and endeavors to improve

10 upon that art for my profit and ultimately for the

11 benefit of society. But instead, in the software

industry I would say that patents are at best neutral to

13 R&D efforts, and at worst an additional risk and

14 uncertainty that slows innovation in the industry.

MR. BARNETT: Bob.

MR. KOHN: Yeah, first I'd like to clarify for

the record that I'm not speaking on behalf of Borland,

18 I'm speaking on behalf of James Pooley. Well, two

19 comments. One is -- actually, I'm speaking on behalf of

Laugh.com so that you won't take anything I say

21 seriously.

One comment that, actually, Jim has alluded to

or referred to twice, and that is that he's not unhappy

24 with the Patent Office and how their processes and

25 procedures are going.

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And to even be more skeptical, and I'm not accusing anyone and I'm a lawyer myself, okay, but the Patent Office is comprised of examiners who are all lawyers, all right, and they're going to -- I think their career path generally is not to remain patent examiners but to go out in the field and to either prosecute patents or to become like a Jim Pooley and be a litigator of patents where it's a lot more lucrative.

So isn't there something built in, may I ask very skeptically, isn't there something built in the system where these transaction costs and wasteful wealth transfers, as economists would call them, are kind of being perpetuated by the very people who would benefit from those wasteful wealth transfers and transaction costs? Which the transaction costs of course 99 percent of it go to the lawyers, so maybe the economists have a piece of that too, so they're the ones who have an incentive, I would think, to create as many bad patents as possible so that when they get out they litigate them, all right?

Now, I'm not accusing anybody in specific, I would never accuse a specific person, but I think the incentive there is built in, and the Patent Office, rather than talking about quantity, ought to really be focusing on things built into the system that are, I

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think, incentivising high transaction costs and wasteful litigation.

On the other side of the coin, I mentioned earlier my concern or my desire for a system where, as Jim put it, it's *The Producers* problem where one company comes in and asks for five percent, another company comes in and asks for five percent, and all of a sudden you're like Zero Mostel or Nathan Lane, you know, giving away a hundred and twenty percent, three hundred percent of your revenues to various patents.

And there's an infinite number of potential patent claims that can come to you, that there really has to be some kind of a system whereby the reasonable royalty or the fee for that patent relative to all the other things that go into that project can be determined at a much earlier stage rather than after the liability has been determined, it should be well before then.

And I'd like to ask Jim whether he has any ideas on the subject of how, since he's a litigator and would be closer to it, how he might envision that kind of a system.

MR. POOLEY: If I could just answer that, and I'm speaking only for myself. I've been in this position before. One idea that comes to mind short of trying to encourage either through industry sources the formation

1 of consortia or perhaps even through government 2 imposition, there is the idea similar to a stakeholder lawsuit in court where you would implead all the people 3 that you think have IP that's relevant to what you're 4 5 doing into one place, offer to pay a reasonable royalty 6 to whatever it is that's determined at the end of the day 7 to be the necessary IP, and let them fight it out among themselves in one place as to what the proportionate 8

10 I've not had a client yet that's willing to
11 take on that burden, and of course it's an imperfect
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share should be.

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second, but actually MPEG was one of the areas that I wanted to talk about.

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MPEG is the significant patent pooling organization in my space, which has to do with video technologies, multimedia technologies. They were created in response to the patent thicket that had developed in the mid-'80s in the digital video space such that business couldn't move forward in the industry because there was simply too many overlapping conflicting patents. So in order to promote standards, the international organization got together to create a patent pool that would try to create both a nice standard for everybody to be able to work with and a comprehensive reasonable and fair license so everybody could actually go ahead and have rational licensing.

It worked quite well for the first two iterations. The current iteration, MPEG-4, may be exposing some of the significant difficulties that have arisen since the inception of the standards organization.

The first is the increasing politicalization and economic value just found in being embedded in the standard. Frankly, the first two iterations of MPEG were what you might call an ideal environment, very public service-oriented, lots of intellectual property dropped

into it, very touchy-feely and came off quite well.

2 Everybody agreed on it and the licenses were pretty

3 straightforward.

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MPEG-4 has become considerably more politicized with very significant companies being part of the licensing process as well as the standardization process who have significant interests in the failure of the standard, for example.

That said, they've just recently announced licensing terms for one element of the standard, about two years after they said they originally would. And in fact those terms will be open for another year before they're finalized, introducing some quite novel concepts to the licensing scheme.

For those who aren't familiar, MPEG-2 licensing has always been driven by the encoder and decoder. Think of consumer electronics, flat fees based on units sold with also a small fee tied to disks.

MPEG-4 introduces the concept which is very sort of 2000-ish of starting to also put fees on broadcasts, that is per viewer, and start trying to put a tax on the actual use of the technology as it scales into delivery of content .2xsome thng toat before

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development is impacted by patents, our company is 75

2 percent engineering, research and development. We've

3 been around for 2 years. For the first year and a half

4 we were allocating roughly 50 percent to advanced

5 research and 50 percent to development. In the coming

6 quarter that allocation will now be 50 percent

development, 25 percent research; 25 percent of that will

also now be dedicated to assisting in the filing of

9 patents. This is actual engineer time, these are

physical engineering resources who could be developing

11 new technologies who will be working directly with our

12 attorneys to process the actual patents.

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By the way, that does not include the negative impact on productivity that occurs when you force engineers to talk to lawyers.

As a complete side comment, but I think one that was brought up earlier that I found to be shocking and interesting, is this concept of wilfulness claims that Jim brought up earlier.

My first introduction to the way to deal with patents by my attorneys was, for the love of God, don't look at them, which meant that I was in a vacuum for more than a year. I simply didn't look at any patents and I never went to the USPTO site, and if anybody mentioned a patent I burned it as quickly as possible.

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I've recently reversed that process, simply because I've been asked to sign these warrants and I kind of feel like I need to know what I'm warranting. That puts me in a very precarious position. I now am familiar with lots of patents, many of whom it's reasonably arguable I might be infringing on, although for the record I don't believe I'm infringing on any patents.

That just strikes me as a very odd way for the law to work, so just my two cents to those who might have some ability to change it: if you could fix that, that would be great.

Last part on the concept that's been floated around a little bit on reallocating the scope of patents to be proportionate to the industry, the idea strikes me as being very common sensical. Really, if you sort of look backwards, if the concept of patents is to promote innovation, and to be very bottom line as a citizen and as a consumer to provide me with as much cool stuff as possible for as little as possible, a patent should compensate an innovator with the very least amount of economic incentive that would introduce as much innovation as possible, so that if I as an innovator feel like I can get, say, 10-X return on my risk, I'll do it.

In many industries, particularly in the software industry, you don't have to give me any

incentive because competition would generate innovation.

- 2 It would be great if I could get 100-X return on my
- investment, and certainly as an executive I'll probably
- 4 be lobbying you to do that, but as a citizen if you look
- 5 at simply the risk involved in the development of

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- 6 intellectual property in different industries, the
- 7 investment and time to market is incredibly disparate.

I mean, before I got into this IP nonsense I was actually involved in biotech, and they were talking about ten, fifteen years, hundreds of millions of dollars and very high likelihood that it'll blow apart at any

In my business I can develop intellectual property that's highly patentable in two, three months, \$20,000, and it's guaranteed to work because I did it. Rewarding me with the equivalent patent coverage just doesn't seem to me to make sense from a pure common sense perspective. I would say that the biggest issue really is taking the time to go out and take a look at what the actual economic implications are of changing that machine, and then really taking the time as intelligent people to figure out how to implement the right

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pretty good rules when they put their minds to it, but that naivete leads me to think that's a pretty good idea.

MR. BARNETT: I think at this point we should go straight to the source as far as the Patent Office goes, and Ray, do you have any thoughts?

MR. CHEN: Thanks, Mike. I'm not even sure where to start. I'll just do the best I can to talk about a few different things.

Yeah, I am concerned that maybe there is, the more I listen, perhaps a perception gap going on with regards to the Patent and Trademark Office, but first of all, I think I do recognize that there's a concern about uncertainty with regards to patent scope and things like that, and perhaps patents being interpreted rather broadly.

But at the same time, I think if you look at the recent few years, say five to seven years, and you look at what the Federal Circuit as well as the PTO has been doing, you'll see that there's been a rather significant conscious trend towards stressing the clear notice function of what patents should have in terms of what their scope ought to be, and I think that's been especially stressed in these past few years.

If a certain Commissioner has taken pride in the fact that filings have gone up and issued patents

quality of the examination process. We've done industry
outreach where we've specifically gone out to seek out as
much prior art as possible. Obviously, most of our prior
art databases rely on previously issued patents, but in
areas such as software and the Internet, obviously we
have to go to non-patent literature as much as possible.
And again, that's where we really count on public

participation.

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One question I have from hearing some of the discussion this morning is whether there's something unique about the software industry -- and maybe I pose this specifically to Professor Mowery and Mr. Pooley -- about this tension between small companies, large companies, maybe a small company having a patent, and whether or not there's this following perception that these small companies are somehow creating a drag on the larger companies?

And just as a crude analogy I would look at, say, the auto industry where maybe an individual inventor has a patent on a windshield wiper and then all of a sudd of.8os ardshi Tednd the 8.2ystIss0dustrgtsmai th3u7e2lqoer

something unique about the software industry that makes it different from really any other industry that's

dealing with these same type of issues?

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PROF. MOWERY: I have to go in just a couple minutes. I think the question you pose is absolutely the right question to pose to this group because I think that there's a great deal of industry specific knowledge here and a lot of what, in my view, we've heard this morning could be replicated in other industries: small firms, large firms, short pockets, deep pockets, etcetera, etcetera, etcetera.

Seems to me there are probably two or three things about software that are different. One obviously is the fact that you have a regime change in this industry in some sense where you have new markets opening up where formal IP protection now is much more valuable, and you have this change in the judicial deference to patents and the like that has increased the perceived value of patents.

All of that means you're in this transition period where you're going to a much more patent intensive regime. That means that the patent-based prior art is much less abundant for examination. But again, that, I think, is something that one sees in new areas of technology more generally, this transition problem in a

system that relies heavily on reviews of patent-based prior art.

So software is different, but software is not different in that you've got this transition problem, and arguably, once the transition is over, whenever that happens -- and as prior art becomes more abundant that may be less of a problem -- but I think the other areas in which software may pose unusual challenges is the potential complexity of the patent coverage of a given artifact. I mean, the argument that you can have potentially dozens or hundreds of patents covering individual components of a product, that may create one

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group of firms, so in some ways that may be another

characteristic of this industry that is different, but

it's embedded with the change in markets and the change

in technology that is driving this industry so rapidly.

So those are some thoughts, but I don't think I have fully exhausted the possibilities of what makes this industry unique. I wish I could stay and hear from people who actually know more about it from a practitioner point of view, but I have to go teach.

Excuse me.

MR. KOHN: If I can reiterate a couple of David's points on the difference between software and others. The availability or nonavailability of prior art, primarily because a lot of it's behind the object code, is a challenge the Patent Office has had and we realize that, and also the number of potential processes that could be in a million-line or ten million-line piece of source code.

But again, something I mentioned earlier. You can't get a copyright on a windshield wiper, so really the only available protection for innovation for windshield wipers is patent protection. You already have copyright protection in that entire piece of software. What is the marginal benefit of patents within that particular piece of software to the people who have to

1 I think there should be some focus -- and I was 2 a little disappointed, James, that you didn't have the 3 total solution to the problem on the process of 4 litigation. Maybe when this lawsuit is filed or maybe when you get a demand letter there's some kind of board 5 that goes through the evaluation of what's going on here 6 7 to weed out the frivolous claims or not. I don't know the answer to that, but I think that's where a lot of, I 8 9 think, useful focus can be made.

MR. BARNETT: Pam.

MS. COLE: Yes?

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MR. BARNETT: You've been very patient.

MS. COLE: I have, and I'm usually not. Just a few introductory comments. First of all, my views do not reflect my colleagues at the Antitrust Division or my superiors, and they might not even reflect me because they change every day. I actually wanted to shift gears a little bit and talk about the role of the antitrust enforcement in all of this since these hearings are about the collision, if you will, of intellectual property and the antitrust.

Let me first say that I work with the San

Francisco office of the Antitrust Division, and the

Federal Trade Commission also has a San Francisco office,

and both offices pride themselves in being very familiar

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with high tech antitrust issues that are coming out of the Silicon Valley. That is what we tend to specialize in, so know that you have local friends in the antitrust enforcement agencies that you can talk to.

Which leads me to a story that I'd like to tell some of the business people here today. About a month ago, a small business owner came in to meet with me. This small business owner was being sued for patent infringement by a very big firm. This small business owner had found out that this very big firm had indeed sued many companies for patent infringement, had lost all of the cases that had gone to litigation, and if the cases didn't go to litigation had actually purchased the defendants as a way of settling the lawsuits.

That raised a lot of red flags with me, and that type of behavior by a dominant firm or a dominant patent holder can raise some interesting antitrust issues. They could potentially raise some sham litigation issues by the patent holder in terms of bringing these infringement cases as a way of tying up these small firms and because they're too busy defending the case to focus on what they're there to do.

And it's also a way, like I said, that they can be acquiring these firms. And a lot of times we at the government will not know about these acquisitions because

they will fall below the Hart-Scott-Rodino notification
threshold or they will be deliberately structured in such
a way as to avoid Hart-Scott-Rodino notification. So
that type of behavior can raise Clayton Act merger
concerns, it can raise sham litigation concerns, and I
opened up a case and now I'm going to look at it.

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Now, the good news is that if the government looks at a case it doesn't cost you anything except your tax dollars. Now, yes, we can move slowly, but quite frankly, I'm not sure we move any more slowly than the private courts do in this.

So I just want to raise that and I actually wanted to ask any of the panelists if they've had any experiences mostly as a patent defendant where they have raised antitrust counterclaims such as sham litigation counterclaims, patent misuse counterclaims, unfair competition counterclaims. I mean, the good news is if you win on that you obviously get treble damages and you can get attorney's fees.

So I see some cards going up so I think I'll just stop right there and hear from you on that.

MR. BARNETT: I think Bob just edged out Jim.

MR. KOHN: Sure. Well, when we were sued, when Borland was sued by Lotus -- my God, when was that, '93, 1990, '91? I don't know when it was -- we intentionally

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did not file any counterclaim for antitrust or anything else, but particularly antitrust.

And you know, they had 80 percent market share at that time, which was before Excel essentially, so there were potential claims there, but the reason why we didn't was it would have invoked their insurance provision so the lawsuit would have been covered by insurance, so we intentionally did not.

And most antitrust counterclaims in patent and copyright cases tend to be viewed by the people in the profession as just sham. They're not really going to work, but you just throw something over to the other side to put them on the defensive. But we decided not to do that because it would just simply have all their litigation financed.

Ours was financed fortunately by our insurance because I made a claim under our advertising injury provision, and we literally changed all the insurance forms as a result. But we had almost all of our fees covered by the cost of that, and we knew that on the other side that would be the main advantage for them, so we didn't do it.

And again, antitrust claims are generally these really soft claims and very difficult to do.

And the analogy, by the way, of

1 Hart-Scott-Rodino, maybe there should be a

2 Hart-Scott-Rodino kind of process before patent

3 litigation begins.

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4 MR. POOLEY: There's something provocative.

I would just say that from my own experience, increasingly antitrust claims, counterclaims are made in patent litigation, but you have to distinguish between the sort that are the sham litigation claims which judges look on generally very skeptically, tend to bifurcate and put off because you haven't reached the predicate point of proving that you've won the case, and then the more complicated interesting kinds of claims of the sort that you've recognized or you've mentioned, including refusals to deal.

And there, I think, the experience generally is that the trial judiciary, cheered on a bit by the Federal Circuit, is also fairly skeptical about those kinds of claims because what they're hearing at least from the Federal Circuit is that patents are a very, very strong bit of property and you can't blame owners for how they use them. And I realize, of course, it's a much more complicated issue than that, but the tone is there.

And so, on the other hand, we absolutely see these kinds of claims coming up more and more often, and somebody's going to have to deal with them at the

appellate level on a continuous basis, I think, until we get further clarity.

3 MS. COLE: Let me just respond very quickly to 4 some of those comments.

First of all, there will be separate hearings

that the Federal Trade Commission will be holding in D.C.

in terms of the role of the Federal Circuit. Perhaps it

because I was one of the attorneys that represented

Intergraph in the private antitrust suit against Intel

that went to the Federal Circuit, perhaps that leadsvnt Intel

1 has recognized that, the natural response probably would

- be, "Well, that's interesting, but let me see the
- 3 licenses so I can examine what the circumstances are and
- 4 weigh the context in which that kind of agreement was
- 5 reached."
- But you can't see those agreements, you don't
- 7 know precisely who the people are, how much it is that
- 8 they actually are paying when weighed against other
- 9 contributions that they're making or obligations that
- 10 they're taking.
- 11 That, it strikes me, necessarily leads to a
- 12 higher general payment of royalties than otherwise would
- happen if, for example, and this is where the idea is,
- 14 all patent licenses like patent assignments were required
- to be recorded and perhaps made available for inspection.
- You know, a radical notion and one that where
- we have to think about the collateral consequences, but
- it bears mention that there's a great deal of opacity
- that inhibits the natural process of negotiation of
- licenses, and it might be helpful if we were to free
- 21 ourselves from the problem that comes up every time when
- someone suggests you ought to pay this and you say,
- 23 "Well, let me see your other licenses and they say we
- can't do that."
- 25 And the rejoinder is, "Well, if I sued you or

if you sued me, we'd be able to see them." And he says,

- 2 "Yes, I know that, but we're not in litigation." So you
- 3 feel almost as if you're forced into litigation in order
- 4 to get the discovery that you need to make an intelligent
- 5 resolution to the dispute.
- 6 MR. KOHN: I like that. That's a great idea.
- 7 MR. BARNETT: Brad.
- 8 MR. FRIEDMAN: I had one comment, but I'm going
- 9 to fold it into what Jim just said, which was intriguing.
- 10 I'm going to, Jim, remind you of what you had suggested
- in terms of using impleading in terms of having all the
- 12 people who might ask for a share of the royalties, of the
- rents.
- One thing that David Mowery said was that the
- software industry was unique in terms of the number of
- 16 components and the patents covering the various
- 17 components to it. There's another industry that clearly
- 18 comes to mind that I've previously worked in, which is
- 19 biotech, and certainly pharmaceuticals, which shares that
- 20 problem that the final product is covered by a large pool
- of patent owners, each of which own the naked virus, the
- gene, certain components, the vehicle of delivery and so
- forth that result in the final product.
- 24 And some system whereby you could pool these
- interested parties, and I view them now as patentees on

the one hand, and then on the flip side the potential
licensees whose agreements you can't see, pool them
together and create basically a market-driven assessment

4 of the value of the patent.

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The difficulty there is markets with few people in it are extraordinarily inexact. Currently what we have, though, is a one-off every time, and so I certainly don't see that what I'm suggesting is a panacea, but it's a whole lot better than what we currently have. Nor, of course, am I suggesting a particular structure because I haven't thought of one, but I think it's important to look at the uncertainties that we can focus on and bring to light.

For instance, we require some license agreements to be recorded if you want to create a secured interest in that license and the value, the revenue that comes with it. Well, perhaps having all license agreements recorded for the purpose of allowing the value of the patent to be seen is a good idea. Whether or not that should be public to everyone or available to those who sincerely are approaching for a license, maybe that's a good thing to do.

Which is leading me to say perhaps we want to go to a compulsory license model such as in France, in which case a reasonable royalty becomes out there and all

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uncertainty.

them now. Jim.

comers who are interested can show that they deserve to
have a license. I'm not sure if we want to go there, but
I think it's something we ought to look at if you're
looking at trying to shed light on those areas of

MR. BARNETT: Thanks, Brad. I think at this

point we may start wrapping things up. If anyone has any

particular final comments they'd like to make or any

thoughts that they've had as a whole, we'd appreciate

MR. POOLEY: Just a quick comment. The compulsory licensing scheme I know Brad appreciates is a provocative notion, and just for my own point of view I think we need to be very, very cautious about that, because one of the pillars of the patent right is the right to exclude, and once you create a general compulsory licensing scheme you've eliminated that right.

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apply in the patent field because the relative value of the patent of the particular product is going to be so varied in each case it would be very difficult.

And I mean, I don't know how they do this in France, but in the music industry there's a value of a song to a sound recording and they've set it at 7.55 cents and that's what the government's statutory rate is set. And some songs have greater value than others to a recording, but you know, there is a level playing field that they can establish there for that.

I was looking at my testimony seven years ago in front the FTC and I suggested in one instance, and I'm not taking this position today, but that a compulsory license might be applicable in an antitrust situation where someone is controlling some kind of an interface standard or something like that to such a degree or so dominant that it's determined that --

MR. POOLEY: Essential facility.

MR. KOHN: Essential facility, I don't know what the terms are, and I don't want to get too close to that subject. But anyway, I'm not suggesting that, but compulsory licensing might be confined to specific instances where the antitrust field comes about.

MR. FRIEDMAN: I just wanted to say that I think it's clear we have a lot in our arsenal in terms of

enhancing innovation and specifying the ways in which we
do that, and so if we put all of those on the table and
take the radical idea that we can actually change things
with a focus of vision as opposed to it's hard to change
what we have as opposed to inertia, I think we can get to
a place, perhaps even in our lifetime, where we've
improved the system quite significantly.

MR. BARNETT: Very good. Does anyone else have any comments? On that note, I would sincerely like to thank all our panelists for coming today and would like to join in a round of applause for them.

12 (Applause.)

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	1	1 AFTERNOON SESSION			
	2	MS. GREENE: Welcome back and thank you for			
	3	returning for the afternoon panel. We had, as many of			
na	Dater&toimofth®I	MF) to use followed II Bon for the timest Right in TER off not the inverse MRPMF Relations to the investment to own to say 7 with			

presentations scattered throughout, so why don't I just get the intros out of the way up front.

First we have Greg Aharonian, who is the publisher of the Internet Patent News Service, a daily e-mail newsletter that covers intellectual property issues. The newsletter has focused on the issue of patent quality, in particular the problems patent applications and examiners are having dealing with non-patent prior art. Mr. Aharonian is also a consultant to corporations and law firms conducting patentability and invalidity searches primarily in the electronic and computer areas.

We also have John Love with us. John Love is the Group Director in Technology Center 2100 at the U.S. Patent and Trademark Office. As director, he is responsible for managing the work of several hundred examiners who review patent applications for compliance 15

1 matters for many of the firm's clients in the electronic

2 software and information science, e-commerce and medical

device technology areas. Mr. Nydegger was invited in

4 1999 to become a member of the National Patent Board, a

5 non-profit entity founded to provide access to

experienced IP attorneys for mediating patent disputes,

1 research interests include antitrust economics,

2 intellectual property and licensing, product standards

and compatibility and the economics of networks and

4 interconnection.

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And next we have Robert Taylor, who is Managing Partner of the Silicon Valley office of Howrey, Simon, Arnold and White. For more than 25 years he has specialized in patent and antitrust litigation and related fields of law. His experience covers all aspects of litigation in these areas. He is the former Chair of the Antitrust Section of the ABA. He was also a member of the Advisory Commission on Patent Law Reform, whose report was presented to the U.S. Secretary of Commerce in August, 1992, proposing changes to patent laws.

Next is David Teece, who is participating with us once again today. He is an applied industrial organization economist and an economics professor here at the Haas School of Business. He has testified before Congress and government agencies on regulatory, technology and antitrust policy, and has authored over 150 books and articles.

Additionally, we have Les Weinstein. He is the Senior Litigation Partner at Squire, Sanders and Dempsey, focusing on patent and antitrust matters. He counsels technology clients in a wide variety of fields including

1 couple more presentations and then a discussion.

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The bottom line is that I realize that the numbers don't add up. Several of the panelists who are joining us today were kind enough to forego a formal presentation on the assumption that our discussion would be an adequate vehicle for them to get their ideas out. And what I can say is: we know who you are, and so while everybody else needs to tilt up their table tent like this to let me know that you have a comment to make, I want to make sure that those people who won't be giving formal presentations just throw their table tents at me. I really want to make sure that you have your points adequately included. Okay, so here we begin.

We talk about the social trade-offs that are inherent in the patent system, and what we have is you have disclosure, and what you get from the disclosure is a right to exclude. As a result of that, we as a society are hopefully promoting innovation.

What we're going to be looking at today is, as a practical matter, what does it mean to implement that trade-off? What are the consequences of how we choose to implement that trade-off? Step one in this process of implementing the trade-off is clearly the patent application or the grant process. Our first three presentations will focus directly on that process, and

1	then we'll have some discussion. And then we will expand
2	our inquiry into how the patentee uses the rights once
3	acquired, and part of that will be the litigation that
4	invariably, or at least frequently, ensues.
5	So why don't I turn now to our first
6	presentation by Les Weinstein.

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system is functioning today. My view of it is that we are no longer granting patents on inventions, we are granting patents on investment. And that's a policy the country can make, but it would be much more efficient to do it through tax policy rather than handing out -- through the examination process with all of its imperfections -- patents which are also clubs, and I'll come to the nature of those clubs in a moment.

They're clubs to drive people out of business. They can be clubs used to destroy their investment. The exclusionary power of a patent, as Kodak found out a few years back when it lost \$900 million because it made a "mistake" can be very powerful in how our economy is effected.

Now, in fairness to the Patent Office, which is often everybody's current whipping boy, it's fair to recognize that the Patent Office is caught often between: the dictates of the Court of Appeals for the Federal Circuit which is expanding what can be patented, the statutes our Congress has passed through whatever legislative process goes on commanding them to do certain things; and its own shortcomings in budget and occasionally in talent. So I do not want you to think that I'm here to bash the Patent Office particularly, but to talk about how the system works.

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The problem as I see it is that we are issuing too many patents with too many claims, each of which is an individual patent as a practical matter that cannot be understood. We are told that a patent is like a deed to property or like a statute, that it's supposed to warn people as to what is forbidden. Yet in almost every case now, millions of dollars are spent and certainly hundreds of thousands in Markman hearings so a judge that is reversed about 50 percent of the time, can tell people what that patent means. Something is wrong with that system.

There are patents that come out today with hundreds of claims, unintelligible to almost anyone except the people who drew them. And yet, people who violate them jeopardize sometimes a lifetime of investment or their division or their product. That system doesn't work well to spur innovation or carry out the constitutional mandate.

Indeed, for those of you who were here this morning and listened to the people in the software industry talk about how threatening this is to their businesses, as I see it, patents today are often entrenching the established at the expense of allowing the newcomer to come in. I question today whether a Steve Jobs could start an Apple or a Bill Gates could

"Please tell me when the bathroom is available," you're

2 all probably infringers. This patent has in it 64 claims

3 by 4 inventors. It goes on to make a real contribution,

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A couple big businesses chit-chatting over some drinks somewhere could probably do it discretely enough to not violate any laws but end up somehow abusing the system in some way. To me that's not so much antitrust but against trust, to abuse the trust of the public, of their peers, whatever. So to me, I mean, what's at interest to me in the patent system is the abuse of trust that goes on, assuming there is any.

Now, to me, I have no problem with someone with a good patent, developed patent with a new invention, being as nasty as he wants. I suppose that's kind of the fun of the game and the reward of actually coming up with something new. I mean, I think there's very little new to be discovered and I think the person who does discover something new should be able to have as much fun as he wants with it, or her.

My problem is with the quality of the patents. There are just too many patents, as Les and many other people have stated, that are just plain bad; and I blame a lot of it on the applicants themselves and their lawyers.

Certainly, I've bashed the Patent Office many times over the years, and I think there's much they could do to improve their operations, but they are hamstrung in many ways by politics and budgets and things like that.

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But what gets me is just kind of the cavalier attitude of a lot of patent applicants, especially the corporations.

I've passed out, in the back of the room if you don't have a copy, some statistics I've gathered on computing patents, which is my field of expertise, and the numbers, I think, are quite interesting. The data ranges from 1976 to 2001, so it's a very long time period. It stretches the Internet period and it stretches over the '70's and early '80's when a lot of the formative technologies that now are part of the Internet and other areas were being developed.

I mean, you see some interesting things. We go from a few thousand patents in the early '80's to upwards of seventeen to twenty thousand computing patents a year being issued now. And I mean, frankly there's just not that much innovation out there to justify that kind of rise.

One of the reasons why so many patents are issuing is that the Patent Office really has no choice. The examiners are obligated to pretty much process a patent application in two passes so that at the end of the second pass if they have no more ammunition to use against a patent, they pretty much have to issue something.

And the problem is that you look at one column

there, Number OREF, and the second column, Percent ZREF.

What that translates into is the number of non-patent

3 prior art references cited on the average patent is the

4 number of OREF. And percent ZREF is the number of

5 patents that cite no non-patent prior art at all.

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Now, in the computing field as of today there are probably about ten million publications in the general area of computing. There are major organizations, IEEE, the ACM, that have hundreds of conferences and journals every year with thousands of pages in each one. You walk into any engineering library around the country and all you'll hear is the librarians complaining about not having enough room on their shelves for more books, more conferences, more papers. So that for a computing patent today hitting the Patent Office, I would say that there are about ten million potential pieces of prior art that might be asserted against it. Now, the vast majority of them are in different fields of computing. I mean, a patent on a graphics technique will have no prior art in the database area.

But the fact that over half of all patents issuing cite none of this prior art to me is abominable. And the reason is that the corporations and the applicants aren't doing any searching because they're not obligated to. The problem then is that the examiners,

who everyone knows are overworked and under-resourced,

- they don't have time to go out and seek that prior art.
- 3 The end result is that they have to issue patents on
- 4 ludicrous ideas like a reservation for an airline

5 restroom because they don't have the specific information

on hand to properly issue a rejection.

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So the solution is quite clear, it's to stiffen the search requirements for applicants. Rule 56 -- which is an obligation on applicants to disclose what they know but not to search what they know exists -- to me, is a total joke of a rule. It allows companies, especially large companies like an IBM which brags about having the biggest databases on the planet and the best search engines in the universe, to then say, "Oh no, we don't know how to find out anything, only apply for our patents." I mean, come on, give me a break.

The other problem is that right-hand column,

Percent Jepson. For patent applications there's a

language you can use in the patent claims and there's a

certain phrase that appears occasionally, "the

improvement comprising." Now, if any of you use software

or any technology, almost anything you see coming out new

on the marketplace is an improvement on something else.

I mean, there are few truly revolutionary ideas anymore that are just so new that they're not an

improvement on anything. So, I mean, to someone who's 1 2 naive to all this you would think that every patent claim 3 where someone's claiming what it is they've invented 4 would first say, "Here's my improvement over the existing art," so that we could then focus, for example in Markman 5 hearings and other such venues, on what it is that's 6 7 truly new that someone might be infringing. So you'd think that 80, 90 percent of the patents would be using 8 9 this format if they were truly sincere.

10 Given that even amongst lawyers in fields of 11 computing the thought is that at least half the patents 12 are invalid and, therefore, they're an improvement on nothing. And, yet, over the last 20 years we see the use 13 14 of this format dropping. Why? Because lawyers will say, 15 "Well, if we specifically point out to the examiner what 16 the improvement is, he'll issue us an obviousness rejection because he'll say, `well, you have so much 17 18 other stuff that everyone already knows about, your little improvement's too trivial, it's obvious, so no 19 2.0 patent.'"

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I have seen nothing change in the subsequent time period.

So my concern over the past few years has been harping on this one issue. There's a lot that can be done very easily, very reasonably in terms of cost to greatly improve the quality of the patents. And I think that if applicants -- and again, if you look at one of the columns, Percent Corporation, the vast majority of these patents are going to corporations large or small. We're not talking about some guy in a basement anymore, this is corporate stuff.

If you really want to get a powerful weapon, the patent is -- and I have no problem with the patent being a powerful weapon -- I think you should have a higher burden to get such a weapon. But for too long the patent bar has done nothing, and the Patent Office I don't think has a chance to do much of anything.

What happens with all these issues? You have to go into court, spend hundreds of thousands of dollars, millions of dollars, arguing what it is that was invented, whether or not the prior art was relevant or not, in front of a jury or a judge who doesn't understand the technology, and the district court doesn't even understand the patent laws. I mean, it's a real mess, much of which could be dealt with a lot earlier in the system, but it isn't. The result is that large companies

and smaller companies start building up these patent thickets and they start suing people and it's hard to fight stuff like that off.

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I myself should know. I mean, I've been sued for patent infringement on a patent that is totally worthless, and you know, spent a fair amount of my own money defending myself. In the end I think I'll prevail, but it's not something I should have been made to do.

And it's the type of patent that, had the applicant been required to do some searching ahead of time when he was filing for the patent, or if the patent assignee, once he got the patent but before he sued someone in court, was required to do a search.

I could maybe see arguing that, you know, let's not burden everyone at the patent application stage. But to be able to sue someone without doing any due diligence on the validity of your patent and hiding behind the the canard of, you know, the patent was presumed valid, I mean, again as a non-lawyer, that's silly. It may be legal, but it's not very serious.

So I find it funny that in this era where we have in Silicon Valley some of the brightest minds, some of the most powerful software tools, tremendous amounts of technology, some of which is being claimed, that the very process for protecting that technology, the patent

1 the PTO were both attorneys and engineers. And there 2 was, I quess, an insinuation, perhaps in jest or maybe 3 not, but that this somehow gave them incentive to issue 4 as many patents as they could because they were later on brought into the private practice and would be defending 5 and suing on these patents. But I just wanted to get the 6 7 record straight that the vast majority of examiners are not attorneys; a close percentage would be about ten 8

percent have law degrees.

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I appreciate the chance to come and give a presentation on what we're doing at the PTO to improve the quality with respect to these software and, in particular, business method applications. I'd like to give a little bit of a background here. I think most of us know this but it's been talked about indirectly and sometimes directly.

There are knee-jerk reactions to patents that are issued, and of course while the language may seem clear even in the claims, the claims do define the scope of the invention, but the claim interpretation is a question of law and not of fact, and what you read may not be exactly what would be interpreted to be covered by the scope of that claim. It's very complicated. Not unimaginably complicated, but it is a technical question that the courts do go through when they interpret the

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scope of a claim. They look at the specification and the prosecution of the case that could have an effect on the narrowness or how narrow those claims are interpreted.

And of course, we know that the right is to exclude others from making, using or selling the invention, and in response to what Les said awhile ago about exclusivity rights, I think we need to keep in mind that the Constitution in Article 1, Section 8, talks about securing for inventors the exclusionary rights that we're talking about here, so even the founding fathers in the Constitution provided for a patent system.

There are many ways, and we don't pretend to be perfect at the PTO, there are many ways that third parties or others can participate in the application process both before and after a patent is granted. With the recently changed law, the AIPA, most patent applications will, in effect, be published 18 months after their filing date. After that, any member of the public has an opportunity to submit prior art to the Patent Office for our consideration.

Prior to that publication date, if an applicant becomes aware -- excuse me, if a member of the public somehow becomes aware of a pending application or sees that a product is stamped patent pending, they can send to the PTO what's called a protest under our rules, Rule

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291, and include with that any information they'd like us
to consider as a protest to the grant of a patent
application on that particular product.

And we also heard this morning some discussion about the various procedures that we have after the grant. And we do have, in fact, at least four procedures whereby the validity of a patent can be brought into question after it's issued by a third party without necessarily getting involved in a, except for the fourth one there, without being a party to litigation.

The first is through a prior art citation as provided for in Rule 501. Any third party can submit a prior art statement and have it placed in the file of a patent. Those submissions are submitted to the group directors for review and will in fact be considered should a reexamination request be filed in another proceeding. Those prior art statements that are in the file will be considered.

There's an opportunity for an ex parte re-exam proceeding. Any member of the public can initiate that proceeding, and we've averaged in the last 15 or 20 years about 400 per year.

Also, the AIPA provided for a second type of reexamination proceeding that we call inter partes. And that's the one where there's been a lot of discussion

about the adverse or the estoppel effect that may be,

- 2 say, a detriment or a deterrent to people using that
- 3 particular process. We've only had three filed to date,
- 4 but part of the reason is that it only applies to
- 5 applications that have been filed after November of 2000,
- so there haven't been a great deal of patents that have
- 7 issued since then.
- 8 And, of course, invalidity can be raised as a
- 9 defense in litigation by a party who's being sued or in
- 10 the preliminary injunction hearing.
- 11 As far as I know, the Patent Office, we do an
- internal review of the quality of our patents, and we, I
- 13 believe, are the only one in the world that will publish
- the results that we get, our findings. And these reviews
- are done by staff that report directly to the
- 16 Undersecretary for Commerce and they do not report to the
- 17 patent core management, so we hope and we feel that this
- gives it a certain amount of objectivity.
- 19 What you see there -- at the bottom line --
- 20 represents the core error rate. That means that in 5.5
- 21 percent, at least in '99, of the applications that we
- eventually allowed, that there were 1 or more claims that
- 23 our internal review found to be unpatentable for various
- 24 reasons, either 102, 103 or 112 or 101.
- The TC-2100 and 2600, TC stands for technology

center, these are the two technology centers that deal

- with what we can, I guess, imagine as software patents.
- 3 There's a 95-percent chance that they would be assigned
- 4 to one of these technology centers. And you can see that
- 5 the error rate in those two technology centers is below
- 6 the office average. In fact, last year, 2100, which I'm
- 7 associated with that has the software or the e-commerce
- 8 patents and the business method patents, our error rate
- 9 went down substantially from '00.

In the year 2000, March of 2000, there was what we called the Business Methods Initiative. That was partially in response to a public concern about the quality of patents that were being issued in the business

- 14 methods area, and to address those concerns we put out a
- rather comprehensive program to help us in the
- examination of these applications. The purpose of the
- industry outreach portion of that initiative was to help
- 18 identify additional sources of non-patent literature
- 19 [NPL], to provide training opportunities for examiners,
- and also provide a forum to discuss business method
- issues.

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- We are partnering with over 30 industry
- organizations that communicate with us and talk to us and
- 24 provide us resources for training and indicating
- 25 additional sources of NPL, since this initiative began.

1 These are some of the organizations that we partner with:

- 2 the Information Technology Association of America,
- 3 Software Industry Information Association, NACHA, BITS,
- 4 and you can see the others.

looking at.

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We've had two internal partnership meetings with our customers. Representatives from these business organizations and the legal community attend and we discuss the issues that are common and important to all of us. The initial roundtable was held in July of 2000 -- since I have ten minutes, I got to promise to get through here in ten minutes. We published a federal notice in the Federal Register where we indicated the non-patent literature sources that we examined and we asked our customers and our partners to indicate to us if they felt there were other areas that we should be

Part of the Director's initiatives were to create three mandatory fields of searches for the examiners. The first would be the traditional classified search for the examiners, the second would be foreign patent literature databases, and the third was that we required the examiners in the business methods area to do a non-patent literature database search.

Now we've identified over 900 commercial databases and we've grouped them together depending on

exists as opposed to the 101 issues about eligibility. I
explained this to you a little earlier -- about the fact
that we have a mandatory search for all cases that are
originally filed in class 705, and the examiners are
required to search a document from each one of these
sources of searching.

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A unique aspect of this program that we initiated in 2000 is what we call our second level review. When an examiner gets to the point where they feel the case should be allowed, we pass that on to an experienced examiner or panel of examiners who review that case. They, first of all, review it to make sure that the searching requirements have been met. They look to make sure that reasonable allowances have been placed in that case, and they also do a basic review of the scope of the claim. If they have any questions or concerns about the scope of the claim then they'll kick it back to the examining group and we'll take a second look at it. That's in addition to our overall quality review program.

That is a sampling of all cases throughout the office, and since this program has been introduced, for the entire portion of '00 which included the first two quarters of '00 prior to the initiatives, the allowance rate was 55 percent. In '01 the allowance rate for class

705 went down to 45 percent, and that's compared to the 1 2 office-wide allowance rate, which is 69 percent. allowance rate is basically the percentage of cases that 3 4 are allowed versus those that are eventually abandoned. 5 And to give you some raw numbers of the patents that we 6 issued in class 705 for '00, we issued 899, and the 7 patents that we issued last year in FY '01 basically were 8 cut in half to 433. So I hope that provides some basis later for discussions following up.

MR. LOVE: I think we realize that we have a

duty to protect the public interest, and patent examiners

have always, their job is to protect what should be

protected and then not to protect that which is in the

public domain.

And when we talk about partners we don't limit it to people that have filed patent applications. We have members of the press, we have members of academia come to us and participate.

MR. WEINSTEIN: Would you be happy if the FDA treated people seeking new drug applications as customers?

MR. LOVE: That would be a definition of a customer certainly.

MS. GREENE: Bob?

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MR. TAYLOR: I have just a comment really on a couple of the points that Mr. Aharonian made. I think it's certainly contrary to my experience that companies start litigation on patents where the lawyers that are representing them haven't done a substantial amount of due diligence, because you can spend a very large amount of money as the plaintiff in a patent case. And to get to the end of a patent case and have a court say that that patent is invalid, particularly because of prior art that surfaced that you could have found, is not something

that any of my clients would tolerate for very long.

- They're very insistent that we know, as best we can
- determine before we start those lawsuits, that we're
- 4 going to prevail at the end of the day.
- I also had a question perhaps of Mr. Love,
- 6 because I think Mr. Aharonian makes a fairly good point
- 7 that when you analyze the software patents the Patent
- 8 Office doesn't seem to be using the non-patent database
- 9 information as much as it might.
- 10 When the Commission on Patent Law Reform sat
- 11 ten years ago now, one of the suggestions that was made
- to the Commission over and over again by people in the
- 13 business was that the Patent Office really does need to
- create its own database for the very reason that
- Mr. Aharonian mentioned -- that the technology develops
- so rapidly that you really are not going to find in the
- 17 patent database the real prior art -- and I'd just be
- interested in a comment as to where that's going.
- 19 (Tape Three, Side B)
- 20 MR. LOVE: -- we are relying on commercial
- 21 databases. And as I said, we have over 900 that are
- available to the examiners. They have a terminal on
- their desk that they can access these databases and
- they're encouraged to use it.
- I think we perhaps have a ways to go, but at

1 least the numbers show that we're going in the right 2 direction, and in fact, in the business methods area it's 3 a mandatory search right now. I would like to be able to 4 say that 100 percent of the cases that issue in 705 will have at least some NPL literature cited, but I won't 5 promise perfection.

7 MS. GREENE: Carl.

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Yes, I have a couple PROFESSOR SHAPIRO: questions for Mr. Love as well from the perspective of somebody who's trying to listen to all this and sort out, you know, are there really a lot of bad patents out there or not and what should we do about it.

First, the idea of imposing search requirements on applicants, I'm wondering if PTO had a view on that. It seems like a good idea to me, I guess.

And the second thing, you gave some data indicating, if I saw that last slide correctly, in class 705, whatever that is, less than half the number of patents have been issued in '01 than '00. Do I take from that that you're saying that the PTO has significantly improved the quality and there were probably a good number of low quality patents issued but you hope you've gotten over that problem?

MR. LOVE: Getting to your first question, there's been discussion about mandatory prior art

searches or IDS's [Information Disclosure Statements]
being submitted. I mean, it's still nothing that we're
advocating at the current time. Certainly Rule 56 is
there. One of the methods that we encourage of complying
with that is submitting a prior art statement or an
information disclosure statement, so that's one way of

complying with your duty of disclosure.

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With respect to the numbers, I guess they speak for themselves. We understood that there were concerns about the quality of the patents that were being issued in the late '90's; and with the increase in the awareness of business methods as a viable form of patent protection as a result of the <u>State Street</u> decision, we felt it was important to take these initiatives. And certainly I guess the squeaky wheel gets the oil and the squeak goes away. So the fact that there are fewer patents in '01 than were issued in '00, I think is an indication that we're at least searching harder for prior art in these cases and we hope that we're getting the claims narrowed to the point of where they should be to protect the real invention and the contribution to the art.

MS. GREENE: John.

MR. PLACE: First I've got to make a disclaimer. I'm not a patent attorney, I'm way not smart enough for that, but the perspective that I can bring to

the discussion is as one who has had to manage through

- this patent environment for a company, and I have some
- 3 experience as to how the patent environment influences a
- 4 company's behavior and influences how it allocates its
- 5 resources. Just to comment on a few things that have
- 6 been mentioned here.
- 7 It could be, if I recall the slide on the
- 8 patents allowed in '00 versus '01, it seemed like the
- 9 percentage allowed had gone down, but if you extrapolate
- 10 those numbers it seems like the number of applications is
- 11 much more in '01 as well. Is that correct?
- MR. LOVE: Well, the number of examiners also
- has increased significantly from '00 to '01, and then the
- filings tripled from '98 to '99.
- MR. PLACE: Okay. But the filings were, it
- seems like they were significantly less from '01 to '00.
- 17 Is that if you extrapolate those numbers?
- 18 MR. LOVE: That were issued. Yeah.
- MR. PLACE: Oh, okay.
- 20 MR. LOVE: Yeah, these were the issued patents,
- 21 but the filings have gone up.
- MR. PLACE: I'm just looking at the allowance
- 23 rate.
- MR. LOVE: Right, yeah.
- MR. PLACE: And if you take the allowance rate

-- I'm just wondering if my premise is correct, because 1 2 if that's the case, if there are significantly fewer number of patents applied for in '01 and that's the main 3 impact on the raw number allowed -- it could be because a 4 lot of the so-called business method patents have been 5 filed by Internet startups and other companies that were 6 7 in a much different financial position in '01 than they were in '00 and their financial backers, either venture 8 9 capitalists, et cetera, they didn't want their companies 10 spending their resources on patent applications.

MALE VOICE: It takes longer than a year to process a patent. It's not an automatic cycle.

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MR. PLACE: All right, fair enough. Just a thought.

With respect to who does the searching on prior art, what has been my experience -- and I don't know what the right answer to that is because, again, I'm not a member of the patent bar -- but how it impacts companies is you get a patent claim and all of a sudden you have to marshall all kinds of resources, and the most precious resource of a small company or a medium-sized company is not necessarily cash, it's engineering resources.

Engineering resources are far more precious in many cases than cash, and you'd have to divert a significant amount of engineering resources, especially

in the Internet space, to go out, marshall all their 1 2 contacts, spend a lot of time digging up all the prior 3 art that they can. And so there's a shift, the burden 4 and the cost of finding the prior art is shifted to the potential defendant. Again, don't know whether there's a 5 better system, but that's been my experience how it works 6 7 And the soft costs, i.e., the engineering resources that are diverted from actually being productive and 8 9 actually building products and actually making a business run, they're diverted now to defending a patent claim. 10

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There's another diversion of engineering resources that we can talk about when we get into the business aspects. Again, I'm not a patent attorney but I have worked with many, both in-house such as Mr. Chaikovsky from this morning and with a multitude of outside patent counsels, and so I've taken the liberty of canvassing some of them and asking them what certain problems might be and what certain solutions might be. And with respect to the qualification of the examiners, one idea that was presented is, if I understand it -- and again, correct me if I'm wrong, iuallh-1(20) T.rh42r7(-2pecuea to

you talk about business method patents that can be a 1 2 fuzzy line -- but to really understand the prior art in 3 the Internet space and the business method patent, you 4 sort of have to be of that space, and in many cases having a business background is very helpful. 5 idea that has been mentioned by a couple of my contacts 6 7 in the patent bar is, well gee, maybe we don't require everyone to have an engineering degree. Maybe we allow 8 9 people from other backgrounds, other business

backgrounds, maybe finance degrees.

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And then you could say, "Well, why don't we get people who both have a finance background and an engineering background?" But if you look at that, someone who's got an EE and an MBA is going to be an incredibly valuable commodity and because of the opportunity cost of working for the Patent Office it is probably not going to get a large number of people.

MS. GREENE: Okay, you've raised a really interesting way of thinking in terms of where are we placing the burden. Where does the burden lie? Who's capable of handling it better? How much cost does it impose? As the session wears on we're going to see that part of the allocation of burden question up front may be connected to what are the costs and benefits down the line. Because obviously the patent application process

1	is we're just starting at the beginning. And then
2	we're going to look at the way that it's used and the
3	litigation that often results. So these are our three
4	last comments for this session and then we will switch to
5	some more presentations. Greg?
6	MR. AHARONIAN: I have a comment to Robert and

I actually want to take back what I said. I

then a question for John.

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over the years that the good law firms and the good

lawyers really haven't done more to crack down on their

3 bad brethren. I mean, there are some firms out there

4 that working with their clients are just bad and, you

5 know, should be kind of stomped out.

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MALE VOICE: Bad people.

MR. AHARONIAN: Now, as I said, I've done invalidity studies on close to 500 software, Internet and business method patents in the last 5 or 6 years, pretty much working with all the firms here at one point or another and many others. I have no problem, because in many cases it's my money on the line, if someone asks me to do a search and in the end I really don't find anything of any thrilling value. I probably won't end up charging on that particular search. But when people call me up to do a search, lately they've been calling me up with batches of five patents to bust. I don't know why but it just seems they come in clumps in five. I think it has something to do with IBM. IBM for many years liked to throw five patents at people, and I think other people are picking up on that.

And when I get ready to do the searching and start planning to allocate time and anticipate income, I figure I'm going to collect on four out of the five patents. That is, I'm going to find some really good

1 that the patent system have an independent outside

- 2 assessment of the patent examination process.
- MS. GREENE: Okay. And now I want to switch to
- 4 someone else. Les?
- 5 MR. WEINSTEIN: I want to ask Mr. Love another
- 6 question. I have some question about your statistics.
- 7 When I take a patent prosecutor out and buy him a
- 8 martini, they tell me that it's almost malpractice not to
- 9 get a patent issued. And what they tell me is that when
- 10 you take out the mom-and-pops and the nonestablishment
- applications and subtract from that the odious practice
- of filing continuation after continuation, which you take
- credit for, that the actual issue rate at the corporate
- level approaches 90 percent. And I've seen studies to
- 15 that effect. Is there merit to that?
- 16 MR. LOVE: I'd have to see the data you're
- 17 referring to. Believe me, we're not happy with
- continuations either, because they do add to the
- workload.
- 20 MR. WEINSTEIN: But you have not looked at any
- 21 data to determine what the issue rate is for the Fortune
- 22 500 or Fortune 100?
- 23 MR. LOVE: Our statistics don't take into
- account the characterization of the applicant, if that's
- what you're asking.

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1 MR. WEINSTEIN: Take a look at Mr. Quillen's
2 study which is part of this record. You'll see that his
3 statistics, which are pretty good, looks like it's
4 90 percent issuance rate.

MS. GREENE: Okay. I see that we have two more folks teed up to speak, Bob and Luis. Let me just throw out on the table the question of, and you can address whatever you want, but we've got this idea of what obligation could or should be imposed in terms of search?

MR. AHARONIAN: Actually --

MS. GREENE: If you did -- one second. If you did have some sort of search requirement, what would be limiting principles for that, and how would that be converted into practice? Because I think that the translation mechanisms of the aspirational goal of what we want to achieve in terms of how do we actually get it out of any institution is interesting and I'm curious to hear what you all have experienced and what you think it should be.

Is this going to be fast?

MR. AHARONIAN: Yeah. Mine was a question to John, does he think we should have an independent outside review of their quality?

MR. LOVE: Well, I think you ought to ask

- 1 Mr. Rogan about that, how he feels about it.
- MS. GREENE: Okay.
- 3 MR. LOVE: We administer the laws as Congress
- 4 sees fit.
- 5 MS. GREENE: Bob?
- 6 MR. TAYLOR: I'll address the question you put
- 7 on the table and save for a later time the point I was
- 8 going to make.
- 9 MS. GREENE: Okay.
- 10 MR. TAYLOR: It seems to me that the biggest
- 11 difficulty with imposing a search requirement on anyone
- who comes to the Patent Office, there are two aspects of
- it and they're both problematic. One, the vast bulk of
- patents that get issued really never have any economic
- significance. And so if you add to the cost of getting a
- 16 patent several dozen hours or numbers of hours of
- 17 engineer time, you really just impose a burden which
- 18 really is just an additional cost of getting a patent on
- 19 a company. That's the first point.
- MS. GREENE: Okay.
- 21 MR. TAYLOR: The second point, and I think it's
- 22 perhaps the most difficult one, is the task of policing.
- 23 How do you know whether someone has lived up to their
- 24 responsibilities? Right now the state of the law is that
- if an inventor or the lawyer who represents the inventor

in the Patent Office can be shown to have known about a
piece of prior art and if, with an intent to deceive the
Patent Office, they failed to call that to the attention
of the Patent Office, then that's regarded as a violation
of Rule 56, inequitable conduct, and the patent is
unenforceable.

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There's a specific intent requirement. And we get into the things that keep trial lawyers in business -- which is trying to determine from the fact of nondisclosure whether the surrounding facts are such from which you can infer specific intent. You rarely get hard evidence of specific intent.

Now, just translate that problem as it now exists with proving inequitable conduct into an arena where you're now saying to the engineer your job is to go search. You have to go, as Greg put it, to Stanford University, and not stop at the McDonald's on the way and spend half of your five hours having a coke and a hamburger. I think it's an impossible standard to try to articulate and administer as part of the system.

MS. GREENE: Okay. And I'll just throw out and we'll take it up in our next session: What are the implications of what you've just said in terms of what presumptions should be attaching to the patents? And as a practical matter, what are the implications of these

burdens in terms of the cost to search up front or what issues or what comes out at the back end?

3 Luis?

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MR. MEJIA: Yes, I'll make my comments very quick. First of all, costs are extremely important to universities. We generally operate our licensing operations much like an individual business unit within the university. We have to be able to justify our patent expenses by the income we generate from licensing. So, consequently, we have a different perspective on what we choose to file patent applications on.

The difficulty in what we do is that the inventions that we deal with are very early stage. Oftentimes they're ten, sometimes twenty years, ahead of their time before they're possibly commercializable, so costs are very important to us. Some of the current changes in the Patent Office, I think, have led to more complicated and costly prosecution. One thing that I've noticed recently is an increase in the number of restriction requirements that we're getting. It's not uncommon now to see a restriction requirement with four or five different groups, so we're faced with having to do the possibility of four or five different patent applications to try to get claims allowed. So anything that goes to increasing the burden on universities with

- 1 regard to the patent prosecution process, I think will
- 2 not be a welcome thing.
- 3 I'll address the issue of searching also

1 start with Bob Taylor.

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MR. TAYLOR: I've got a PowerPoint presentation in my computer set up. Let me start off by saying that in preparing for this presentation today I thought very hard about how one distills remarks on a topic that could take ten hours into ten minutes, or perhaps even more than ten hours. So what I've really done is to try to hit some high points, and I'm going to move very rapidly through them and then hopefully the questions can flesh out some of the points.

And like Les, I have to make the same disclaimer that no one should conclude from any of my remarks that they're on behalf of either my firm or any of my clients.

Fundamental principles, it seems to me, are an important starting point for the work of these agencies as they think about some of the many complex issues that are on the table as a result of Chairman Muris's challenge in his November talk on this subject. The fundamental principle -- and it goes directly to something that Les said although I reach a different conclusion from it -- the fundamental principle is that reward is essential to attract capital and to attract people that are willing to undertake risk. And the patent system is for many industries, particularly those

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with high front-end costs where their products are easily copied and attracting free riders, the patent system is an absolutely essential requirement for those companies to be in business at all.

I represent a small medical products company, and their objective is to make the best surgical products that are available to surgeons. They take 22 percent of their revenue stream and plow it back into R&D. And they live and they die by their patent portfolio, it's the crown jewels of the company, and there are just literally dozens of companies in the California economy and nationwide that are in that same circumstance.

The second point. Patents and copyrights over a long period of time have offered a proven method for measuring the reward for an innovation with the value that it brings. The vast majority of patents never get asserted, they never have any economic value. They have economic value, remember, only if there is some economic advantage of saying to someone you cannot use this invention. It is only a tiny portion of patents for which that turns out to be true.

Third bullet point. Much of the concern that we're hearing expressed about patents today, I think derives from a couple of industries, the drug industry being one where you see for a given product or a given

drug a very high level of profitability. One of the
things it's important to harken back to, however, is the
risk equation. High profitability for success often
reflects high failure rates for people that tried and
didn't succeed.

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One of the wonderful examples from 50 or 60 years ago was the wildcatter looking for oil. The wildcatter drills 9 or 10 wells that are dry before the company hits one that produces any real oil, and the oil that comes out of the 1 well that's producing has to pay for the costs of drilling those 9 dry holes or nothing happens, there's no economic incentive to do it. The drug industry is the same way; every blind alley costs money, and those do not show up in the profits that are measured by looking only at the cost of producing a given drug.

My final point on this fundamental principles slide is that the marriage of capital and entrepreneurial zeal in the California economy and in the nation's economy has been one of our primary engines for growth over the last 20 years. I'm going to talk a little bit about the history of the intellectual property system over a longer period of time in a second, but I want to just focus clearly on how important this marriage of capital and people willing to take risks has been. The

primary growth in the American economy has come out of this.

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Before we start looking at changes that need to be made, I thought it was important to focus the agencies on a little bit of historical perspective on where we've been.

Early in the twentieth century, if you look back over the history of the patent system, early in the twentieth century the enactment of the Sherman Act in 1890 began to dominate the thinking of courts towards what you could do with a patent. License restrictions became unlawful. As a general principle, any effort by the patent owner to capture value outside the patent was not only unsuccessful but often held to be illegal.

There was a case decided in the '30s called Carbice v. American Patents Development Corp. It had to do with a company that was in the carbon dioxide business, the dry ice business, and in order to create a market for their dry ice they came up with a clever two-layer box arrangement that you could stick the ice in the little space between the two boxes, and they got a patent on that. And when they tried to enforce the patent the Supreme Court of the United States said that because your patent is on a box and you're trying to use it to sell carbon dioxide, that's an extension of the

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This kind of thinking just took away much of the incentive that companies had to be innovative. This company wasn't in the box business. They were in the dry ice business, and they created that box only to help them sell some dry ice. That was evidence of what throughout that period of time was an intense hostility by the Supreme Court toward all forms of intellectual property.

In the early 1980's, actually in Times change. the late 1970's we began to get very concerned in this country about the successes of foreign competition, the Japanese automobile industry, the German automobile industry, the Japanese and Korean electronics industries. Many industries were being afflicted by foreign competitors coming in, and in the early days of that the concern was that their labor costs were low. The steel industry, for example, said, "Well, how can we compete with these foreign competitors from Asia whose labor costs are much lower than ours?" By the end of the 1970's, it was Japan and Korea primarily that were coming in with technological superiority, and that turned out to be a wake-up call.

In that same period of time we were seeing the rationalization of antitrust to economic principles.

Market power became an important criteria before we would

1	find conduct actionable.	Per se rules really were
2	narrowed, and the primary	principle was the shift from
3	protection of competitors	as an objective of antitrust to
4	consumer welfare. All of	this was accompanied by an
5	upheaval in the treatment	of intellectual property. The
6	first harbingers you see,	at least the first that I've
7	been able to find, are the	SCM v. Xerox and the Dawson v.
8	Rohm & Haas cases.	

In <u>SCM v. Xerox</u>

1 welfare. Everyone agrees, or at least most everyone

2 agrees, that intellectual property and antitrust seek the

3 same objective in that both seek to enhance consumer

4 welfare, but the enhancement in intellectual property

5 comes in a different time frame.

1 extent ought antitrust policy allow the patent owner to 2 share that monopoly profits in order to diminish the incentives of other potential competitors that might 3 produce competing technologies? That's the question that 4 5 didn't get addressed in the GE case, has never really б been carefully addressed by any court that I've ever 7 seen, and yet it is an implicit question that underlies antitrust analysis in many of these cases. 8 9 All right, I quit.

- 1 to the fact that Congress couldn't create this kind of a
- 2 right. The best explication of the reconciliation of the

was the one submitted by the Solicitor General's Office in consultation with both the Patent Office and the

So that's my final slide and I've used up all of my time.

6 MS. GREENE: Okay.

Department of Justice.

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MR. TAYLOR: And then some.

8 MR. WEINSTEIN: -- in your reference to Kodak.
9 Kodak got about, by my account, 400 patents on

essentially the same technology. Polaroid fenced Kodak out forever. There never was competition in instant photography. Polaroid got lazy, didn't see the digital revolution coming and went bankrupt. And this is a good example of how piling patent on patent on patent deprives

the public of ever getting the reward that they're

supposed to get under the constitutional provision.

MS. GREENE: Okay. And why don't we take a break now for ten minutes and then when we get back we're going to start off with Professor Teece and then turn to Carl Shapiro, and we will address the questions of what are the implications of those patent layerings. Thanks.

(Whereupon, a brief recess was taken.)

MS. GREENE: Do you have your PowerPoint?

Okay. Thank you for joining us again.

25 PROFESSOR TEECE: Perhaps I can begin by trying

to open up the concept of the patent thicket. I think
we've heard today and on a number of previous occasions
that there may be antitrust issues when so-called patent
thickets exist. The suggestion is that when there's a
lot of patents they may not only just get in the way of
competition, but they may in fact get in the way of
innovation itself.

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It seems to me that these discussions are fairly superficial and that the right question to ask is not whether or not there's a patent thicket, but whether or not the patent thicket, if there is one, is undergirded by a technology thicket or not. Because it's one thing to have a patent thicket without technology, but it's quite another to have a patent thicket with technology. Needless to say, I'm not troubled by the latter but one could be troubled by the former.

But I'm amazed that when discussions about patent thickets take place and people complain about all of these patents, there's never much of a discussion about whether or not there's any technology; and if there isn't any technology then why isn't it easy to work around?

A related concept that I think is necessary to understand the patent issue in the antitrust context is the difference between patents that are complements

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versus those that are substitutes. Many patent thickets involve a complex mixture of both. And, in fact, one with a large portfolio will probably never know what's really a substitute and what's really a complement, and perhaps it's not important to know. But, as a matter of theory, if one is cross-licensing it's almost impossible in my mind to find a way where you would ever be troubled by complementary patents being licensed in some type of cross-licensing arrangement.

There may be issues that arise if what is being cross-licensed is substitutes rather than complements; although just figuring out what a substitute is, as I said before, may be quite difficult. But even where substitutes are being cross-licensed it could be, for instance, that by combining substitutes you in fact create a new technology which is better than either. But the general sense here, of course, is that maybe it's better for companies not to cross-license their substitutes but to pursue them independently because that way you'll get more competition in the market. I mean, I think that is a hypothesis that's worth exploring on a case-by-case basis, but as a general matter, licensing and cross-licensing really ought not raise antitrust issues.

I believe that the question of royalty

1 stacking, which is a related question that frequently 2 comes up, is perhaps of the same ilk. Here we're talking 3 about a circumstance, and it relates to the patent 4 thicket idea, where there are multiple bits of intellectual property that are needed to bring a product 5 to market. And of course if every owner of every bit 6 7 wants a five-percent royalty, you can't make it if there's fifty patents. And indeed, in a fairly simple 8 9 product like a personal computer, I think someone mentioned yesterday there are literally hundreds, if not 10 11 thousands, of patents. So the royalty stacking problem 12 arises, in theory at least, if you have a variety of parties who are each asking for their piece of the action 13 in the way of a royalty, and the stacking of one royalty 14 15 claim on top of another overburdens the technology and 16 the technology fails. That's the concern. Ouestion: Is this an antitrust problem? 17

Question: Is this an antitrust problem? Well, I think it's important to ask what is the generic problem underlying this and is it unique to intellectual property, and I think the answer is no. You see exactly the same problem in many other contexts. For instance, if I'm a real estate developer and I want to develop a block of city property, the guy with the holdout lot may screw up my opportunity to develop the entire block, but in such circumstances one typically doesn't go to the

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Federal Trade Commission nor the Department of Justice and seek relief.

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Is it different with respect to intellectual property? If someone's holding out on a patent that's important for development, should the agencies and should the antitrust laws be involved? I think it's a bit more complicated than the urban development example I gave you, but the principles are similar. If there are alternative technologies, then clearly there is no issue.

And, in general, these things tend to get worked through so long as you've got rational actors who are aware of the fact that there are other parties claiming value from their intellectual property. So the concerns only really arise if you have negotiation that is for some reason socially inefficient, but if people are rational and are aware of the other bits of intellectual property around, these problems should get solved. So there may be transactions cost issues here, but it's hard for me to see that there is a competition policy problem.

Let me use that as a basis to circle back to this whole question of patent breadth. We've heard, I think for the last three days about the saga of the patent that's supposedly too broad, and the Patent Office takes it on the chin for supposedly granting patents that

are too broad. I think we must recognize that there may
be patents that are too narrow as well, but the people
that don't get granted patents that are broad enough
don't come forward and complain. So the political
economy of this process is one where people that have to

pay to people that have patents that are too broad

typically show up, and those that get patents that are

8 too narrow you typically don't hear from.

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But clearly the sweet spot here is to align the scope of the patent with the scope of the invention. And what of course we all seek and I trust what the Patent Office tries to do is to conceptually end up there on the 45-degree line, but if you listen to some people, they don't want patents to be issued on that 45-degree line as clearly as someplace lower than that.

Well, how should the Patent Office deal with this or how should the antitrust authorities deal with it? Well, it seems to me that if there's an antitrust issue here at all, and I'm not sure there is, it's purely a policy one, it's certainly not an enforcement one.

We don't want the antitrust authorities running around playing cleanup behind the Patent Office. If there is an issue, and I'm not sure there is, it seems to me that discussions need to take place between the enforcement agencies and the Patent Office to clear it

up. But I think if the Federal Trade Commission or the
Department of Justice jumps in directly, it simply
creates additional uncertainty and, in fact, perhaps
leads to a reduction in economic efficiency rather than

5 an improvement.

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The other point that I think needs to be made, and I think Mr. Love did an excellent job of this, is that there are mechanisms for combating the overly broad patent. When people speak about patents being overly

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But it seems to me that a defensive patent once again is something that's in the eye of the beholder. If a patent has to be used, then there's got to be some technology that's underlying it, so a defensive patent must have something underlying it, otherwise it's not something that would ever get in the way.

So my point here is that, as with the concept of the patent thicket, the whole concept of defensive patenting has to be blown open as well to see whether or not there is anything that's deeply troubling with respect to the behavior that I just described. I think at the end of the day what one will discover is that, yes indeed, there are some inefficiencies in the market for know-how, that it takes a while for industries and for the players in an industry to figure out cross-licensing and other arrangements that will move the technology forward.

But as Hal Varian described in the first day of these hearings, with the sewing machine industry in the early days there were patent disputes, in the automobile industry there were patent disputes in the early days, with respect to radio there were patent disputes, but some way or another, and there's a different story in each case, these things got sorted out.

And that one should indeed be concerned that

technology could be delayed, but the reality is that if

there is reasonable clarity around intellectual property

3 rights, people will negotiate through to solutions.

4 That's not to say that some litigation won't be involved

along the way, but all of this is to say that there may

be some policy issues here, and undoubtedly there are

7 some, that the Patent Office and the competitive

8 authorities can work on together, but in terms of finding

9 enforcement opportunities whereby the antitrust agencies

need to go out and use the antitrust laws to fix patent

problems, I think that's going to be a very, very rare

12 circumstance.

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MS. GREENE: Professor Shapiro.

14 PROFESSOR SHAPIRO: Thank you. Well, I come to

the discussion as somebody who's spent a lot of time

16 doing research and getting involved in some cases

involving antitrust, many of which have important

intellectual property rights associated with them. I

19 would commend or encourage you to look at my website and

a paper I've written about patent thickets and also on

patent settlements.

1 patents, the defensive patenting particularly in selected

industries such as we've heard and indeed some of the

industries that have been represented at these hearings.

4 So patent thicket is one.

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The second is the fact that in more and more antitrust cases the agencies, in order to evaluate the competitive effects of what is before them, whether it's a merger or a license, need to or feel they need to assess the quality or strength of the patents that are involved in the case, and that can be a headache for the agencies and I want to talk about how they can operate in that situation. So let's call the second one the importance of patent strength in evaluating antitrust specific matters.

And then a third area would be the increasing number of weak patents that have been issued. And actually the fact that you can have a patent thicket does not mean there are a lot of weak patents. I think this is what David Teece said, there may be a patent thicket because there are a lot of good technology, so let's break out the third point. If we believe there are a lot of weak patents, that raises a whole set of separate questions.

And when I say patent strength or weakness, I would tend to define that as, if you have a patent, the

probability that if it gets litigated it will actually be proved to be valid and infringed, that would be its strength. So it's not a technical measure, it's something of how strong it is in the context in which the

5 patent is being applied or considered or asserted.

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And certainly we've heard that there's a lot of concern about there being weak patents. Again, this is nothing new historically whether we get into the sewing machine or the radio or the airplane, but it seems to me it's not a matter of indifference to the antitrust agencies if there are many weak patents being issued.

I would certainly be in the group that would encourage the FTC and DOJ to be part of a process working with the PTO to improve the quality of patents, and we've had that conversation today. I think we have to take it as given that there are probably a lot of low quality patents out there. Even if the PTO has improved its act, which it sounds like they're at least indicating they believe they have, there's a whole body of lower quality patents that still are out there that would be enforced for some time.

Okay. So the three areas. First the patent thicket. I would pose the question as, how should antitrust enforcement policy account for the presence of large numbers of patents, including potentially blocking

1	I would, in contrast, take issue with the FTC's
2	analysis in the <u>Intel</u> case where they did not count as a
3	competitive benefit the lower cost that Intel achieved
4	through its so-called IP-for-IP strategy, where Intel
5	hoped by trading IP they could have lower costs than
6	having to basically pay royalties on their core products.
7	However, I think these days we're in pretty good shape in
8	the U.S. and I doubt the current FTC would bring the
9	Intel case. But I might flag that the European
10	Commission is not necessarily quite in the same camp, and
11	I'm somewhat concerned actually about their taking a more
12	rigid view of various restrictions such as field abuse
13	and geographic restrictions associated with patents. But
14	I think the patent thicket is primarily a problem for the
15	quality of patents, and the agencies are doing a pretty
16	good job understanding what businesses have to do in the
17	context of the thicket.
18	Secondly, how can the DOJ and FTC enforce the
19	antitrust laws without also coming to highly technical
20	judgments about the strength of various patents that are
21	central to more and more antitrust matters?

when Gemstar and TV Guide sought to merge about a year

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Here I would say let me give an example. So

lawsuit TV Guide was competing. After the two agreed to

2 merge, Gemstar basically went in and said to the DOJ,

3 "Look we have these patents. To the extent TV Guide's

4 competing, it is illegitimate competition because they're

simply infringing our patents. And, therefore, a merger

6 that eliminates illegitimate competition should be fine.

7 You shouldn't be in the business of preserving such

infringement activity, so let us merge and get on with

9 it." Now, of course the agency, particularly since there

was a whole slug of Gemstar patents, they didn't want to

11 have to evaluate the quality of each of these and the

12 probability they would win and so forth.

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I would suggest an approach where much as the agency would take in a case where there was a merger and the acquired firm came in and said, "We're about to leave the market, we're about to exit because, you know, our products, we can't keep up." The agency would look and say, "Well, by all indications out there on the market, you're competing effectively. We have no reason to think that that will change overnight, and so we're inclined to look at what you do rather than what you say in terms of predicting future competitive effects and we're not going to simply take as given that you now say you're about to

that."

such arrangements if the patent is seen to be weak.

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Now, in this respect again a number of lawyers I talked to say, "Well, the patent is presumed to be valid and it's a right to exclude and the patent holder should be given a lot of deference here to enter into arrangements even if they eliminate competitors, because after all that's what the patent is supposed to be for."

And my answer to that, and maybe this will be a pithy end to my short remarks here, would be, well, you keep hearing I guess the standard thing for IP lawyers is the patent is a right to exclude. Well, I'm going to be maybe controversial and say I disagree with that. I think the patent is not a right to exclude; the patent is a right to try to exclude.

If I have a patent, unless I can get a preliminary injunction, I can't get you to stop infringing what I claim is infringing. I can go to court and try. Now if the patent is very weak I may fail.

So all patents should not be treated as though they were an absolute exclusionary right. Some are stronger or weaker than others. And the presumption of validity should not mean that the patent is treated as an absolute right to exclude, and of course there's no presumption of infringement to begin with anyhow.

So I would encourage us all to think about the

patent not as some absolute right to exclude, but more of a probabilistic right. It may be a right to exclude or it may not be, and of course that will depend on how

4 strong it is. Thank you.

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MS. GREENE: Thank you very much. And just as a little point here -- many of the earlier schedules that came out said we're ending at 4:30, but we'll be continuing till 5:00 o'clock. Obviously, that's barely enough time to fit in everybody's comments, but we'll at least give it a try. And next I think we'll hear from Commissioner Leary.

COMMISSIONER LEARY: Thanks very much. I appreciate the opportunity to make a couple of highly individual comments here.

I've been interested in this interface between patent and antitrust law for as long as I've been on the Commission because I see them as essentially the flip side of the same issue, and the issue is how we weigh present effects versus future effects.

Bob, with respect, I disagree with your comment about the differing time lines between competition law and patent law. The incipiency component of antitrust is forward looking, just like the patent laws are, and the only difference is that they're sort of upside-down. In the antitrust laws when you're looking at whether or not

there is some kind of an incipient antitrust violation,

you're looking at some present conduct that may be benign

or even pro-consumer in a static sense, that may have

4 long-term anti-competitive effects. And to be simplistic

5 about it and without expressing any views on the merits,

6 that's kind of what the <u>Microsoft</u> case is all about.

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The patent law is upside-down. In the patent regime what you're doing is you're saying we are willing to tolerate certain present anti-competitive, anti-consumer effects in the expectation that in the long run it will lead to pro-consumer benefits, innovation and so on, not only with these particular products but across the entire economy.

So in a sense they are both incipiency regimes and they both involve a certain degree of wishful thinking, or in the other case pessimistic thinking, and I think the problem I have is that we don't really know a great deal about how to weigh those trade-offs. Anybody would say you have to discount future effects very heavily when you're weighing them against present effects because of the time value of money and the increased uncertainty as you go out ahead, but beyond saying that, I'm not sure I know how to do it, at least for my piece of this puzzle.

And it seems to me that what we're talking

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about here, a couple years ago you may remember a responsible economist would say that the high-technology sector is different, we shouldn't have any competition rules in the high-tech sector, it's so fast moving and so on and so forth, the antitrust laws have no application. You don't hear that too much anymore. I don't know whether that's psychological as a result of the crash of the .coms or what, but we don't have that feeling of this magic mystical thing that's going to turn the economy upside-down.

On the other hand, I don't think that anybody in the enforcement community and I don't think that any of the critics of the current patent system sitting around this table would say that there's no role for the protection of intellectual property, so I don't think that's the issue. I don't think we need to frame it that way. Those are just straw horses on both sides.

The issue is what are the appropriate trade-offs and what can we do to improve the trade-offs given the best knowledge we have, recognizing that we can never ever perfect it. To me that's what the value of these hearings are, as an exchange of information and an effort to accumulate some kind of body of knowledge.

I've certainly learned a great deal. The key issue for me sitting here is the issue that some of the other

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people have addressed and that is: what can we do about it?

I mean, we in the Federal Trade Commission do not run the world. We don't establish patent policy and we don't establish energy policy and we don't establish a great many other policies in our economy, but we are asked to comment from time to time. We're asked to comment in judicial actions. We file amicus briefs. We're asked to comment about various legislative proposals. And my sense is that thing that was called competition advocacy about 15 years ago, I think you're going to see more of it. I think you're going to see more proactive commentary by the Federal Trade Commission — and I would assume, maybe, by the Department of Justice as well, I can't speak for them — in those areas bringing whatever expertise we have to bear on issues of public concern.

Just as I don't feel embarrassed to submit a comment in another forum, I would hope that speakers as we go forward in these hearings will not feel remotely embarrassed to tell us specifically what they think we can do within our limited jurisdiction to assist this process. Thanks.

MS. GREENE: Comments on the Commissioner's comments? Yes, Bob.

1			MR.	TAYLOR:	Let	me	see	if	Ι	can	expand	a
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2 little bit, Tom, on the point about the time line.

MS. GREENE: Which I gave you generously all

of, what, 20 seconds to explain?

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MR. TAYLOR: No, 45 seconds. And it's helpful to go back to some basics and just ask the question, what is a patent and why do we give it?

If you accept the idea that the inventor brings to our society something that didn't exist before and that there's nothing improper or anti-competitive or anything else about saying to that inventor, "If you'll tell us what you did and record it here so that others can do it, we'll give you a limited monopoly -- we'll give you a limited exclusive right," I won't use the term "monopoly." So if the only question that the court or an agency is having to deal with is, is there anything improper or anti-competitive about letting that inventor enforce its rights in that particular technology?

Because it's new and because that's the bargain that you struck as a government with the inventor. I don't think there's even a competition law issue involved in it.

COMMISSIONER LEARY: I agree.

MR. TAYLOR: The competition law issues come up when you start examining the real world behavior of companies that own the patents. They don't just

the kind of equation that a normal antitrust analysis
would fit. That's the reason that I say the time lines
are different. I do understand the point, though, about
antitrust taking a longer horizon, particularly in the
last 15 or 20 years.

with what you say. It's just that it seems to me, just as in the late '70's and in the '80's, we in the antitrust community came to the conclusion that we were emphasizing long-term downside effects excessively and condemning a lot of arrangements that were benign in the short term out of an excessive fear of long-term effects, in both of these regimes, we always need to be open to the possibility that there is a present imbalance, that's all I'm saying.

world markets are now being challenged because they're

too dominant in world markets. We are a much stronger

3 country, and if you think that there's any connection

between that and the reinvigoration of the patent system,

5 you really do have to take a macro look at this.

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COMMISSIONER LEARY: Yeah, and that's a very fair comment. We did that in the antitrust world as well, because we looked at what was happening to American industry in the '70s and came to the conclusion that our present antitrust policies may well have been unrealistic in light of what was going on around the world, so that's a fair comment.

MS. GREENE: Rick.

MR. NYDEGGER: I was asked to come and to comment about the kinds of things that clients that we've worked with over the years take into consideration as they attempt to develop patent portfolios. That's an interesting question in the context of the hearing on antitrust policy as it relates to the interface with intellectual property laws.

From my experience, smaller clients tend to look at patents from the standpoint of added value to their business and entry into a marketplace. They're interested in acquiring patents to protect their innovative technologies and ideas and hopefully put them

on a somewhat level playing field with larger competitors.

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On the other end of the scale you have larger clients. We also have some interaction with clients that are fairly significant players in their respective industries, and interestingly enough, I see those clients also using patents in what I think is a pro-competitive way, not an anti-competitive way. Although I will be quick to tell you that if I'd ever sat in a discussion with a client that talked about using patents in an anti-competitive way I certainly wouldn't admit to it in this forum. Larger clients, from our experience, tend to use patents in many respects, I think, to protect, as do smaller clients, their innovative technologies, but also I think to protect themselves with respect to a concept called freedom of design access, continued access to technology. That's an important concept to many of them, particularly the larger ones.

Turning to the question of antitrust policy and how that plays into these kinds of considerations, which I think admittedly is a much more difficult topic in some ways. It seems to me that historically antitrust law has played the role of implementing enforcement policy in those circumstances where patents have been abused.

Unlawful tying arrangements, for example, which

1 have attempted to improperly extend the scope of the

2 subject matter of the patent to unpatented subject

matter, or unlawfully extending the term of the patent

4 beyond the lawful term of the patent, those kinds of

5 arrangements. And I would make the additional point that

typically antitrust enforcement policy has been concerned

7 with the large firms, not the small players who are

8 seeking entrance.

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So I suppose that if there is a question, if we take for just a moment as a given the assumption -- and I don't want to by any means by this comment suggest that I agree with it; in many respects I do not -- but if we take as an assumption that there are large numbers of patents that are being granted that are overly broad in their scope, not high enough quality, I think the real question that that seems to pose then is, does that give rise in some fashion or another to large firms to increase or strengthen their monopolistic positions, assuming that they have them? I think that's a tough question to address, particularly given the fact that much of what goes on today goes on in a context that's much different from when the antitrust laws first developed this enforcement policy.

I thought that Professor Greenstein from Northwestern University submitted a paper that was

1	extremely interesting on this point and I want to just
2	make reference to a couple of points that he made by way
3	of closing that will kind of emphasize the comments that
4	I've made here.
5	He made the point, first of all, and I'll
6	quote:
7	"Public policy should
8	distinguish between environments
9	where intellectual property is
10	effective and where it is not. When
11	it is not, policy should be concerned
12	when a dominant firm uses
13	noninnovative tactics to move the
14	focus of competitive behavior away
15	from innovative activity."
16	As a corollary to that he made the comment
17	that:
18	"Recent rethinking reframes the
19	analysis of the central question
20	about large firms. It presumes we
21	live in a world of widely distributed
22	technical knowledge where many small
23	firms have access to some if not all
24	of the technical assets necessary for
25	inventive activity. And, in

1	addition, commercializing those
2	inventions involves use of real
3	assets from both disinterested
4	parties such as venture capitalists
5	and deeply interested parties such as
6	incumbent firms."
7	And then he concludes with these two points in
8	relation to this idea:
9	"This approach directs attention
10	toward two questions. First, if the
11	two parties cooperate, do incumbents
12	have assets that significantly raise
13	the value of the invention in its
14	commercial form?"
15	Then he says as it turns out:
16	"Policy issues arise in markets where
17	incumbent's assets survive, which is
18	to say most innovative markets."
19	And then his second point is this: "Especially
20	crucial, and I'm quoting again:
21	"Especially crucial, if the two
22	parties compete, can entrants
23	effectively exclude the incumbent
24	from imitating their invention? Most
25	markets lie hetween two extremes

1	those where entrants can exclude by
2	the incumbent and those where they
3	cannot. To be sure, the
4	effectiveness of intellectual
5	property such as patent law plays a
6	key role in determining which
7	situation arises, and when inventors
8	can exclude imitation, then markets
9	for tradeable technologies arise.
10	The larger point is that inventors
11	tend to act as the source of ideas
12	but they do not tend to overturn
13	commercial leadership."
14	A lot of what's gone on, it seems to me, in the
15	hearings is anecdotal in nature, but there are very large
16	and real questions out there. I think one of the key
17	questions, as I said at the beginning of my comments, is
18	whether if one assumes that there are problems with the
19	scope of patents being granted, does that necessarily
20	suggest an enforcement policy or something else? I
21	thought Professor Teece's point on that was a good point,
22	it was well taken. Perhaps there's a role in terms of
23	encouraging reformation. I think the Patent Office is
24	painfully aware of that.

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They've undertaken that role last year. Just

1	"Public policy can encourage
2	dominant firms to compete by
3	innovating. It can do this by
4	discouraging powerful incumbents from
5	using non-innovative tactics that
6	discourage innovation at other firms.
7	How far does this principle extend?
8	For example, should public policy
9	selectively intervene to discourage a
L 0	powerful incumbent from using
L1	innovative tactics such as patent
L 2	suits and patent blocking?"
L3	MS. GREENE: Right, Professor Greenstein
L 4	certainly does raise a lot of very important points in
L 5	his comments, which I will say as a plug are on our
L 6	website, ftc.gov, which is where the proceedings from the
L 7	entire set of hearings over the next several months will
L 8	be put. There will be transcripts from our hearing today
L 9	as with all the other hearings. PowerPoints will be put
20	up there as well.
21	And you've really honed in on an interesting
22	point which is sort of delineating these roles, as
23	Professor Teece said, that the antitrust agencies have a

1 MR. NYDEGGER: I think that's the real 2 question.

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MS. GREENE: Okay, and I'm curious does anybody
want to take on either one of those potential roles and
give us some advice?

MR. WEINSTEIN: Let me try and address in an effort to be constructive what it's like to be on the wrong end of a patent assertion. If you're a small innovative company, really got something good, and you get a letter in the mail that says, "If you don't pay us big bucks, you're going out of business because we're going to sue you."

First of all, the deck is stacked dramatically in favor of the patent owner. Most people do not realize this, but section 102 of the patent law says the Patent Office shall issue a patent unless it proves that the patent is unworthy. Imagine a big drug company coming in armed with lawyers and Ph.D.s against some college graduate two years out of chemistry battling with this drug company. So there is this presumption that the Patent Office has the burden of carrying the ball. Now this company gets sued, and what does it find? There's a presumption of validity when you might argue that it could be just the other way around.

In addition to that, the Court of Appeals says

1	a presumption of validity is not strong enough. We're
2	going to make clear and convincing the standard to
3	overturn it. We don't like a preponderance of the
4	evidence standard.

5 So this little upstart company with a great new

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patents.

is a strong need for an advocacy role. I do think

particularly where there are reckless or knee-jerk

assertions of these patents there's room for section 5 of

the Federal Trade Commission Act and there is room for

other various remedies under the Clayton Act and the

Sherman Act when things go beyond the pale when the

patents have been purchased in order to aggregate those

Let me just say if I can just two more points and then I'll be quiet.

No one has addressed either this afternoon or this morning that I heard the subject of whether or not we're giving patents for R&D or investment versus invention. This goes to the fundamental question of the standard of invention. That is the essential question for reform. It's not an antitrust issue, it's an essential question for reform.

The other thing is, I'm old enough to remember when the head of the Senate Judiciary Committee, Philip Hart, and the head of the House Judiciary Committee, Emanuel Celler, were there worrying about the public interest. Worrying about it, preserving it, holding hearings. I haven't seen their likes in the Senate and the House on the patent front since they've been gone.

I've seen people come in and say, "Well, you

1 know what, you guys in the software industry, if you can 2 agree on a bill we'll pass it. You get together, go out 3 in the hall, and we'll pass it. Or you guys get together and pass a new patent law just so you're all in 4

agreement, we don't want to get in this fight." 5

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Well, who was protecting John Q. Public? And that's the role I think that must be played by the enforcement agencies or this will not get corrected.

9 MR. PLACE: I might add that the same dynamic 10 happens in copyright as well.

> MR. WEINSTEIN: Yes.

12 MS. GREENE: Okay. Actually, Professor Shapiro.

and they're suspect about the quality.

PROFESSOR SHAPIRO: I think some of this discussion about the big guys versus the little guys and how threatening it is if you're on the wrong side of the suit actually should highlight exactly where the FTC and the DOJ should not go in taking sides on those sort of It seems to me that that's always going to be disputes. We heard it on biotech earlier, you know, the case. there's people saying you've got all these patents, particularly when large numbers of patents are asserted

As I understand the law here, it seems to me just right, so long as somebody's asserting their patent

1	they'	re	simply	the	normal	process	οf	people	asserting
_				_		_	_		

- 2 patents, which of course can be exclusionary.
- MR. WEINSTEIN: Carl, would you get in the
- 4 middle if you learned that the letter accusing the party
- of infringing five patents was sent out without an
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not the big guys frequently, it's the little guys. In fact, Mr. Nydegger just pointed out that in many cases small firms, new entrants, use their patents to establish that they're qualified players in an industry, and those of you that heard Bronwyn Hall yesterday will remember that she surveyed the semiconductor industry and found that the folks that really especially appreciate patents are the new entrants.

So the sort of traditional, old-fashioned view that the incumbent firms have the patents and the poor little new entrant's getting hit on the head and this is retarding competition, while it undoubtedly occurs from time to time, the reality is that doesn't fit anymore from what I'm hearing based on the field research that's been done around here and from what people are giving in the way of general comments.

So we have to be very, very careful not to craft policy based on the individual anecdotes. I mean, I've been in many circumstances where the venture capitalist says, well, I'm throwing in an extra million dollars for a patent litigation because I expect it. This is not the end of the world. The odd patent case, there's a hundred of them a year, is not the end of the world. You know, every industry when it emerges there are difficult problems around patents, but we shouldn't

throw the baby out with the bath water. We should

2 certainly always work to try and improve policy, but you

know, to craft policy based on individual sad cases will

4 surely give us bad policy.

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MS. GREENE: Greg.

MR. AHARONIAN: You know, there's another agency we haven't really mentioned here today, at least in this session, I'm not sure of the others, but that's the Securities and Exchange Commission.

None of these lawsuits and activities before the lawsuits happen in a vacuum, especially during the Internet bubble era. Oftentimes we'd see one startup after another, as soon as they got their patent issued, go straight to the press and announce that they got this great patent that's going to let them block out all their competitors that was broad as hell. You would see the stock price rise immediately and significantly, and then over time as everyone started checking it out and realized these guys are bullshitting, the price dropped.

In fact, I commented on this in my newsletter and an economist actually checked it out and he figured that you could actually make money by shorting the stock of a startup or a big company that announced a bogus patent the day after they announced it.

To me, one of the reasons I'm so insistent on

1 problem in this society. If people take a while to

learn, so be it. But if we run in and try to regulate

3 our way to perfection, we're certainly not going to get

4 perfection.

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5 MS. GREENE: John.

MR. LOVE: I just want to comment. I've heard a lot of concerns raised about what to me is patent misuse and I certainly understand that there are problems there, but I think that's a different issue than looking at the patent system in general. If there are concerns about patent misuse I think the FTC and Department of Justice, certainly there's a concern there in some policy issues, but I guess I'll reiterate don't throw the baby out with the water. The problem may not be with the patent system. It may be in the use and the practices that people make of it, of the patents themselves.

And one other thing. The last 20 years there have been other industries that have gone through similar, I guess, patent awareness and increases in patent activity, and I just want people to keep in mind that the patent system has served industries very well the last 20 years. You know, our economy has certainly flourished and we've been one of the best economies in the world and the envy of many companies. In the sporting goods area, those of you that play golf and

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tennis, I'm sure you're aware of the number of patents and the increased development of the technologies of those companies, and they seem to be surviving very well.

Also, I used to have jurisdiction over the medical and health care industries, and I think people who are familiar with those industries, 20 years ago they were very, very -- I guess, in the patent infancy stage about using and filing for patent applications -- but over the past 20 years the activity in that area has increased drastically, because I know I had to oversee the increase. There used to be about six examiners handled all the applications in the surgical area, now there are over 150.

So other technologies have dealt with the problem. They've survived, competition has flourished, and software may have some different characteristics, but I think let's not overreact about the value of the patent system if in fact there are some misuses of the patent itself, which seems to be a different issue.

MS. GREENE: Okay. Bob.

MR. TAYLOR: I would very much not want to see the agencies getting into the business of trying to police what somebody thinks might be bad or weak patents. First of all, I think you may even be proceeding from an incorrect premise that there are more patents today than

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there were at other times in history. The size of the American economy is vastly different today than it was 20 years ago or 40 years ago, and if you make an assumption that there might be some correlation between the number of patent applications and the gross national product, then you at least ought to examine that question, which I'm not sure anybody has done.

Furthermore, on that point, the nature of the American economy. We are increasingly finding our growth in the economy in new technology, and while new technology has been a driving force for this economy for 200 years, it is today the primary driving engine, and that will in and of itself lead to a large number of patents.

The further point, though, is even if you accept the idea that there are in the patent system a lot of weak patents, and I'm not sure I agree with the way Carl looks on a weak patent. He said he thought that a weak patent was one that might not be enforceable. I think the system itself, by and large, takes care of the unenforceable or the invalid patents. I think there probably are some patents that make very marginal contributions in terms of the advance of human knowledge, and if I were thinking about patents that would support anti-competitive types of arrangements between companies,

it would seem to me that that would at least be a relevant inquiry.

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Indeed, I think that if you contrast the old General Electric case dealing with tungsten filament light bulbs with the U.S. Gypsum case which dealt with a machine that depressed the edge of a wall board, of a piece of wall board so that when they build a house they can put tape in the joint, cover it over with mud and can seal the crack, the way the Supreme Court handled the price fixing arrangements or the price restrictive licensing arrangements in those two cases, you will at least find some historical precedent for treating differently technology that really adds something of great importance to the economy.

But for the agencies to get in and try to bring enforcement actions and try to identify those strikes me as an almost impossible task. There's precedent for it. U.S. v. Glaxo, and there's at least another case brought by the Department of Justice back in the '40's and '50's where they challenged restrictive licensing based on the grounds that the patent was invalid and they went after a validity attack on the patent. I thought we had laid those to rest by the time we got to about 1970.

MS. GREENE: Right. Unfortunately, our time is starting to come to an end, so just to restate one of our

1 negotiation and there wouldn't be litigation.

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Even if the agencies can improve things in theory, if you inject another element -- namely, I've got a patent, not only do I have to work through the probability that it's valid and the probability if it's valid that it's infringed, but I've also got to take into account what the agencies will do -- unless there's absolute clarity with respect to the way the agencies are going to act, that's an additional element of uncertainty that can create distance between the parties to the litigation and reduce the likelihood of settlement. So you end up pushing things out of the marketplace and into the courtroom unless whatever you craft is so clear that it doesn't add another element of uncertainty. So that's kind of just raising the bar really on terms of how you get good public policy here.

I'm willing to admit that I think that there is some policy improvement that can come through the agencies working together at a policy level. But when you get into the enforcement action, unless the policy guiding the enforcement is crystal clear, you're going to take a step backwards rather than forward because you're going to create additional uncertainty which will lead to more disputes, not less.

MS. GREENE: Carl.

1 PROFESSOR SHAPIRO: I think the agencies have 2 of course long realized that there are various licensing 3 arrangements and deals between competitors that can act against the public interest. That's equally true of 4 various settlements. So while I agree with various sort 5 6 of hands off sentiments that have been expressed, I would 7 leave you with the notion that you should not presume 8 that settlements or other arrangements involving patents 9 that are reached between competitors are in the public 10 interest. There is just no such inference, and that's 11 why it's an entirely legitimate area for the agencies to 12 keep an eye on such settlements, particularly between direct competitors. 13

MS. GREENE: Right. Les.

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MR. WEINSTEIN: Picking up on this point and also responding to Professor Teece, it's important to w, notnProge publicdata (MR. WE, butspo that h thesurpriTD m -2fc

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MS. GREENE: Now, even though it's five, I want to give everybody the opportunity to have a last comment, so we're going to just keep going. Rick.

MR. NYDEGGER: Yeah. I think one thing is worth noting here in terms of this whole issue with respect to patent quality. I think that in a sense in fairness to the PTO, if there is a question here, an issue -- and I again, I don't think we ought to necessarily jump to that conclusion too quickly -- a lot of the evidence seems to be anecdotal in nature. But I think it's worth noting that the PTO deserves an opportunity to probably have access to the resources it needs to do its job properly and then to see if that results in improved quality at the outset. It's no secret that over the last five years Congress has diverted a half-billion dollars of user fees paid to the PTO for other purposes that Congress deemed to be more important than patent examination.

What's worse, uncertainty and increasing pendency that results from that uncertainty, or trying to decrease that pendency, those both can have implications in terms of potential anti-competitive effects. I personally think that the uncertainty that comes from increasing pendency can perhaps be a larger problem.

1 The PTO has struggled mightily to keep that

down. In that same five-year period, for example, the

3 pendency has gone from 20.8 months to 24.7 months.

4 They're doing a good job of staying paced but that's

5 putting pressure obviously on the PTO in terms of its

resources. The number of filings in that same period

7 rose by 71 percent. Their staffing, on the other hand,

8 rose something like 34 percent, or half the pace. How

9 many corporations do we know of that could handle those

10 kinds of increases in demands on their output or

11 production with essentially staying level or at half the

pace? That's a tremendous burden for any agency to bear,

so perhaps if there is an issue that's the starting point

for solving the issue it is to give them a fair chance to

fight with both hands instead of one hand tied behind

16 their back.

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MS. GREENE: Greq.

18 MR. AHARONIAN: I'll agree to some extent with

19 Robert and David that, as much as possible, keeping up

20 government agencies is always a good thing. I firmly

21 believe that a very effective and reasonable, and

sometimes undue, burden of costs affects that industry

itself, but working with the PTO can solve a lot of these

24 problems.

At the same time, as John kind of jokingly

1 pointed out, every industry for the last hundred years

2 has had this problem, and he said that eventually we

3 resolved it and moved on. At the same time, that means

for the last hundred years this country has been unable

5 to anticipate how to deal with the next thing. We keep

on screwing it up every generation. You'd figure at

least one time we'd say, "Hey look, ten years from now

we're going to get another headache. Why don't we get

9 ready for it now." So in a sense we've been kind of

screwing this up repeatedly for the last hundred years;

and I say screw up because, in the engineering sense,

this is something that can be fixed.

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And as the data I like to toss out all the time shows, industry really isn't doing enough, I don't think. In that case, where industry refuses to take these problems seriously over a long period of time, good or bad, let's bring in someone else. I mean, they might not make it any better or worse, but we've blown our

MS. GREENE: Thank you. Luis.

opportunity and it's time to shake it up a bit.

MR. MEJIA: Yeah, I'll make it very quick here. I just wanted to follow up on Professor Shapiro's comment about settlements most likely being between competitors.

The university is rarely a competitor with a

1 company in which we find ourselves in litigation. Just

2 for illustrative purposes, the university has only sued

3 three companies in thirty years. So we do this very

4 rarely and most of the time hesitantly when we do do it,

because that's really not what we're about.

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The point I wanted to make was that in my experience with the process, and having only very limited experience in this realm, there is oftentimes great pressure to settle, and the pressure seems to come from, again from my limited experience, from judges that don't want to handle patent cases. And then we have to take a look at the possibility of, you know, being overturned and all of the down sides of not settling.

So the point is that I think from the university standpoint I think our avenues are somewhat limited because we don't find ourselves in direct competition with companies in which we can cross-license and have a standard type of a settlement. So I would just throw that out as something to think about. I know it's beyond my experience really to go into any great detail on that, but I do know that from my limited experience that there are some issues there that do tend to be problematic.

MS. GREENE: Thank you. John.

MR. LOVE: I thought I was through but I have

- one more comment in response to Greg.
- MS. GREENE: We'll end on a note of Love --
- 3 what can I say.
- 4 MR. LOVE: What I meant by saying we've been
- 5 through this before is the cycle of what we call emerging
- technologies where the patent activity due to the nature
- of the technology the grants are very broad in nature,
- and I think that's part of what the system is all about.
- 9 You have emerging technologies, you have pioneer
- inventions, the inventors are entitled to broad claims.
- 11 But then the developments come along, patents are issued
- to improvements, and you know, at the end of the cycle
- 13 you have several companies that are competing and seem to
- 14 be doing very well. And again I'll say there are many
- examples of that over the last 20 years and to me that's
- one of the benefits of the patent system.
- MS. GREENE: Okay.
- 18 MR. LOVE: Thanks.
- 19 MS. GREENE: I lied because I did say everyone
- 20 could have their last comment, so Bob.
- 21 MR. TAYLOR: I just wanted to say that it's
- been a great privilege to be part of this group, it's a
- 23 very distinguished and thought provoking discussion and
- I've enjoyed it immensely.

1 Thank you all so much.

1	CERTIFICATION OF REPORTER
2	
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4	AND POLICY IN THE KNOWLEDGE-BASED ECONOMY
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