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FEDERAL TRADE COMMISSION

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THE EVOLVING IP MARKETPLACE

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THE OPERATION OF IP MARKETS

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Monday, May 4, 2009

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I N D E X

Page:

Panel 1: The IP Marketplace in the Life Sciences Industries:	3
Panel 2: The IP Marketplace in the IT Industry:	78
Panel 3: Markets for IP and Technology: Academic Perspectives:	169

1
2
3
4
5
6
7
8
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PANEL 1: THE IP MARKETPLACE IN THE LIFE SCIENCES INDUSTRIES

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ERIKA MEYERS, FTC

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of California, Berkeley

SUZANNE M. SHEMA, Senior Vice President and General Counsel,
ZymoGenetics, Inc.

STUART L. WATT, Associate General Counsel and Chief Patent
Counsel, Amgen, Inc.

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P R O C E E D I N G S

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MR. BARR: Good morning. This is the Federal Trade Commission's Hearing on the Evolving IP Marketplace. I'm Robert Barr, Executive Director of the Berkeley Center for Law and Technology. And, on behalf of BCLT and the Competition Policy Center at the Haas School of Business, we're proud to host these hearings.

So I'd like to introduce Suzanne Michel, and we'll get started.

MS. MICHEL: Thank you, Robert.

Welcome to the FTC's final installment of our hearings on the Evolving IP Marketplace. We have taken the show on the road. And we could not have done that without the excellent help of BCLT and Robert Barr and Louise Lee, so we thank them very much.

Our goal today is to examine how markets for intellectual property and technology operate, how they promote innovation, and whether any patent policies could be adjusted to encourage that goal of promoting innovation.

We have a great panel here of experts in the

1 biotech industry. A little later today we'll be examining
2 those same questions in the context of another key industry
3 in our economy, the IT sector.

4 So I'll turn it over to Erika.

5 MS. MEYERS: Hi. My name is Erika Meyers and I'm
6 an attorney with the Federal Trade Commission's Office of
7 Policy and Coordination. And I would also like to welcome
8 you to the May installment of the FTC's Hearings on the
9 Evolving IP Marketplace.

10 It's really great to be out here on the West
11 Coast. And I would also like to thank the Berkeley Center
12 for Law and Technology and the Berkeley Center for
13 Competition Policy for hosting this portion of our hearings
14 and for making it possible for us to hear a broader range of
15 perspectives as we continue to explore the market for

1 buy, sell, and license patents. We'll address some of the
2 difficulties companies face in assessing the patent
3 landscape and the effects of recent court decisions; as well
4 as how patents support innovation and tech transfer.

5 I will follow our tradition of just giving name,
6 rank, and serial number introductions for our panelists so
7 that we can have more time to talk. In alphabetical order
8 we have:

9 Eb Bright, who is General Counsel and Vice
10 President for Intellectual Property at ExploraMed;

11 Dianna DeVore, who is a partner with Virtual Law
12 Partners;

13 Becky Eisenberg, who is the Robert and Barbara
14 Luciano Professor of Law at the University of Michigan Law
15 School;

16 Carol Mimura, who is the Assistant Vice Chancellor
17 for Intellectual Property and Industrial Research Alliances
18 at the University of California, Berkeley;

19 Suzanne Shema, who is the Senior Vice President
20 and General Counsel for ZymoGenetics;

21 And finally, Stuart Watt, who is Associate General
22 Counsel and Chief Patent Counsel for Amgen.

23 So thank you all for coming. We look forward to a

1 great discussion.

2 MS. MICHEL: All right. Thank you.

3 MR. KLEY: Will there be a question-and-answer
4 period?

5 MS. MICHEL: No, but we're happy to speak with you
6 later, and the FTC is accepting comments on the website.

7 I'd like to start by asking each panelist to just
8 give a brief introduction to your company or your client
9 base and why patents are important to you. You know, why
10 were you willing to come here early on a morning and speak
11 with us?

12 Eb.

13 MR. BRIGHT: Okay. So ExploraMed is a medical
14 device incubator and essentially what we do is we start
15 start-ups. And currently we have four that have been
16 started and are in different phases of their life cycle.

17 When we begin to look at the possibility of
18 starting a new company, we hire-in what we call a project
19 architect, who is generally a person with a fair amount of
20 experience as an engineer in bringing medical device
21 technologies to market. And we sit down and we look at
22 areas that we think are not being met for patients or maybe
23 are being under served for patients. And we begin to do a

1 little bit of analysis, a deep dive, and then looking into
2 possible brainstorming ideas, and then ultimately analyzing
3 the IP landscape.

4 If we do find an area that we think is an interest
5 to us, looking into the IP landscape and whether or not
6 there is freedom to operate or other people have already
7 begun to explore that area is very important to us.

8 Oftentimes what we find is that there are usually
9 a fair amount of research that's been done into the
10 underlying mechanism of action of a particular disease
11 state, but oftentimes there's been no connection of a
12 solution of using that understanding that has been studied
13 and researched. And we think that that's a prime
14 opportunity for us to apply a solution where the mechanism
15 of action is known.

16 MS. MICHEL: Thank you.

17 And we'll go around the table, but then maybe come
18 to Becky last because as a professor she is very adept at
19 giving the big picture and pulling it all together.

20 Dianna.

21 MS. DeVORE: Sure. Excuse me. So my name is
22 Dianna DeVore. I'm actually a partner at a fairly new law
23 firm called Virtual Law Partners. And I am the head of the

1 Patent Practice and I'm actually the founder of the patent
2 practice within the firm. That said, I've been with the
3 firm since February.

4 Prior to that I had been in-house for ten years
5 and I have quite a varied background in-house. I have
6 worked in a company that was a subsidiary of a large
7 pharmaceutical company that had 65,000 employees around the
8 world. And I've been part of a two-person start-up company
9 that had the joy of trying to actually raise Series A funds
10 back in last September and October, which was not the most
11 successful thing.

12 At this point I have clients across the board. I
13 have clients that are research institutes. I have clients
14 that are public biotechnology companies. I also do some
15 work for venture capitalists. I do some due diligence work.
16 So I've now been on both sides of the start-up end, from the
17 funders and from the people who are trying to raise the
18 money, so.

19 MS. MICHEL: Carol.

20 DR. MIMURA: I manage the Office of Intellectual
21 Property and Industry Research Alliances, or IPIRA, at U.C.
22 Berkeley. And IPIRA consists of the traditional out-
23 licensing office, the Office of Technology Licensing, which

1 obtains IP rights and licenses those rights to companies for
2 commercial development. And then the sibling division, the
3 Industry Alliances Office, brings in research into Berkeley
4 from the private sector, from companies.

5 And this restructure happened about five years
6 ago. It was deliberately restructured to give better
7 service to the faculty at Berkeley, many of whom have a real
8 need for research funding. In an era of declining federal
9 funds, it became more and more important to have increased
10 federal and foundation funding to support basic research at
11 Berkeley.

12 And we have seen some demonstrable results under
13 this program, but under this program, interestingly, the
14 role of patent licensing then becomes slightly less
15 important. IP rights licensing to the private sector is
16 just one of the activities in IPIRA, and revenue generation
17 is not the goal of that program, but a maximization of the
18 societal impact of research from Berkeley is our goal. So
19 it's not unimportant, but it becomes less important than
20 under a structure where IP licensing is the be-all and end-
21 all of the office.

22 We also have a particular rights management
23 strategy in IPIRA called the Socially-Responsible Licensing

1 Program in which we license specifically to benefit the
2 developing world, low- and middle-income countries
3 worldwide.

4 MS. MICHEL: Thank you.
5 Stuart.

6 MR. WATT: Thank you for holding this hearing here
7 in California. It's probably fitting that you do have a
8 biotech panel in California; this industry was basically
9 born in this state, out of the research labs of its
10 universities and venture capital start-ups here in
11 California.

12 In these hearings today as well as the prior
13 hearings that you've held on patent reform, you've heard a
14 lot of voices and views about the need for change in our
15 patent system. And, while we understand the views of the
16 other industries, we have a different view. The U.S. patent
17 system has served the biotech industry very well over its
18

1 We have over 16,000 employees worldwide, over 8,000
2 employees in California. And last year we spent over \$3
3 billion on research and development.

4 As you know, biotechnology is a high-risk, high-
5 cost industry. On average our products take 12 to 15 years
6 to develop from the early-stage research to the market. The
7 average cost of that development is over \$1.2 billion. One
8 out of a hundred products make it to the market. And of
9 those that make it to the market only about a third generate
10 sufficient profits to cover their development costs.

11 So in that kind of environment where you have this
12 high-risk, high-cost gain going on, it's vitally important
13 that we have the means to protect our products, and patents
14 are the primary way to do that. Without an effective patent
15 system, our business model basically falls apart. And so we
16 rely on the ability to obtain meaningful patent protection
17 and the ability to enforce those patents, if necessary, to
18 protect our products.

19 Hearing these other voices you might ask the
20 question, why is biotechnology important in this debate?
21 After all, some of these other industries, the IT industry
22 for example, they employ more people. They generate more
23 revenue, more dollars. They have a bigger voice, perhaps.

1 They make all kinds of gadgets that we rely on to do our
2 work, to communicate with one another, to educate ourselves
3 and to entertain ourselves.

4 But I think I can answer the question why
5 biotechnology is important in this discussion very simply:
6 Your lives will depend on it. At some point in your life or
7 the life of a family member, you will need one of the
8 products that biotechnology has produced to save your life.
9 You'll consider it a miracle drug.

10 In the United States millions of patients have
11 been served by Amgen's products and they depend on our
12 products to preserve their health. In the era of healthcare
13 reform, trying to save dollars, help drive down healthcare
14 costs, biotechnology is uniquely positioned to answer some
15 of the most critical challenges, the most costly and
16 devastating diseases that we face as a society, be it
17 cancer, heart disease, Alzheimer's, autoimmune diseases,
18 bone diseases. The list goes on and on. And biotechnology
19 has the promise to produce the products that will offer
20 cures for those diseases.

21 And we ought to be investing in biotechnology. We
22 ought to ensure that we have sufficient incentive for that
23 investment and we ought to protect that investment through

1 thank the Federal Trade Commission for having these hearings
2 and for inviting me.

3 AUDIO TECHNICIAN: Oh, excuse me. It just went
4 off. I think you flipped on the switch on there. On the
5 top there, the switch.

6 MS. SHEMA: Now is it on?

7 AUDIO TECHNICIAN: Try that one.

8 MS. SHEMA: How about this one?

9 AUDIO TECHNICIAN: There you go.

10 MS. SHEMA: Okay. Start again.

11 I'd like to thank the Federal Trade Commission for
12 having these hearings and for inviting me. You're asking a
13 lot of good questions. And the scope of your outreach has
14 been impressive. And, including this panel, it's
15 interesting to get the full lifespan of a biotech company.

16 ZymoGenetics is a public company that discovers,
17 develops, and commercializes therapeutic proteins. We're no
18 longer a start-up and we're not yet as successful as Amgen,
19 but we're trying.

20 In many ways our story is typical for biotech
21 companies. ZymoGenetics was founded by university
22 professors based on research that came out of universities.
23 And we were funded by investors who believe in patents.

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1 MS. EISENBERG: I'm Becky Eisenberg. I'm a
2 professor at the University of Michigan Law School. Unlike
3 the other panelists, I'm not directly involved in the
4 biopharmaceutical industry or in representing clients. I
5 have been an academic observer and I have been sometimes an
6 advisor, generally an unpaid advisor, to National Institutes
7 of Health, National Academies of Science, various public
8 sector organizations who are interested in the regulation of
9 innovation, interested in the patent system.

10 I have been writing about intellectual property
11 issues for the biopharmaceutical side for 25 years now.
12 I've seen things shift. It's been quite interesting. In my
13 own interests, at an earlier point I was focused very much
14 on sort of early-stage, upstream research and development,
15 and I've been getting more interested in what's happening
16 downstream, looking at drug development and looking even
17 further downstream to the point of generic entry and what
18 happens when these patents are actually litigated. And,
19 from that perspective, sometimes finding that the patent
20 system doesn't seem to be doing as much work as people might
21 have assumed it's doing for them and kind of trying to put
22 all that together.

23 So I'm here to listen really as much as to talk.

1 And I'm very eager to hear the perspective of other people
2 who live with the patent system in a way that I don't, to
3 get a sense of why it is that they prize their patents so
4 highly. Exactly how it is that those patents help them.

5 MS. MICHEL: Great. That's great.

6

1 purpose of the Federal Trade Commission to prepare a report.
2 I appreciate your input and we would be happy to take
3 comments. I'd be happy to talk with you. I've talked with
4 other people in this room, on the phone, and very much
5 appreciated their insights and input, so I would be happy to
6 do that. I'll give you my card following this. Thank you.

7 Carol.

8 MR. KLEY: Companies don't invent things,
9 inventors do.

10 MS. MICHEL: Carol.

11 DR. MIMURA: Certainly from the university
12 perspective, basic research comes primarily from public
13 funding, from federal and state grants, increasingly from
14 foundation grants. And I mention that one of the roles of
15 our office is to bring in corporate funding from the private
16 sector.

17 Often after one or two decades of basic research,
18 a company will realize that a particular laboratory is
19 getting slightly closer to commercialization or slightly
20 closer to having something that could be relevant in the
21 marketplace. At that point they're often interested in
22 learning more. And they can engage in a sponsored-research
23 agreement with that lab in which the professor and the

1 company mutually agree on a particular scope of work and its
2 budget to be funded by the company. And then with paying
3 full overhead costs, they then can receive IP rights to that
4 which is invented, using their funding.

5 MS. MICHEL: Eb.

6 MR. BRIGHT: Yes. I'll speak from two
7 perspectives. One is in my current role and, to his point,
8 we are inventors. We sit down and come up with ideas on our
9 own. We research those ideas in cadaver labs and benchtop
10 tests and those types of things. We look for other research
11 in the field of intellectual property. Sometimes it's new
12 patent publications. Many times it's through clinical
13 research. So that's -- I consider the research that you
14 find in clinical publications and other journals to be a
15 source of intellectual property that goes right along with
16 the publications in the patent publication system.

17 The second is from my previous role before joining
18 ExploraMed I was at Guidant Corporation. And Guidant was a
19 very large medical device company, made up of a number of
20 different smaller to mid-size companies that were acquired
21 over the years.

22 And we had within Guidant Corporation both
23 internal incubators, if you will, to free up dollars to

1 allow some of our brighter, more creative engineers to
2 think, you know, freeform and try to identify new business
3 areas for the company. Because when you're a public company
4 and you have obligations, fiduciary obligations to your
5 shareholders, you have to make sure that you're generating
6 new revenues year after year, and, in particular, very nice
7 margins. It benefits all of us and it's what our retirement
8 accounts are made up of.

9 And also we would look to the start-up community
10 or to the university community to also bring forth new
11 ideas, new solutions to problems which we could develop.
12 And I think that it's an important aspect of the overall
13 economy that that exists because there are some people who
14 are very good at coming up with new ideas and testing those
15 ideas, but they are not very efficient in then delivering
16 them to patients, delivering them to physicians to be able
17 to use.

18 And one of the things that the Guidants of the
19 world, the Amgens of the world and others have going for
20 them is that they have extremely efficient sales and
21 marketing organizations that allow them to get access to the
22 physician community and, ultimately, to patients. And with
23 the infrastructure and the investments that they've made in

1 that area, it's an efficient use to then take intellectual
2 property that's been created by smaller organizations and
3 move it through that channel.

4 MS. MICHEL: Dianna.

5 MS. DeVORE: Yes. So I actually work with a
6 number of different entities that have different ways of
7 creating IP and different types of inventors as well. So
8 one group that I work with is actually a research institute
9 in the Bay Area. They receive a lot of their funding
10 through federal sources, such as NIH. They are doing a lot
11 of the very fundamental research in areas that are extremely
12 important for human health.

13 And the patents that come out of that are patents
14 that are actually the brain child of the people who are
15 working in the laboratories and doing the research. And the
16 scientists are very, very heavily engaged with the patent
17 process, at least in my particular instance, and work very
18 carefully with the Technology Transfer Offices to try to
19 create not just intellectual property that covers the
20 fundamental finding that they have but that may have some
21 sort of commercial use downstream.

22 So even in the very early stages with some of my
23 clients we're already trying to craft patents that we think

1 will be able to create value in some sort of therapeutic
2 development scenario.

3 In another case that I have, I have one client who
4 is a serial entrepreneur and he has worked in a very
5 successful Bay Area company. He's also started a company in
6 San Diego that was quite successful and now he has a small
7 company. And he does a lot of collaborative research with
8 different universities. He currently has four different
9 agreements in place and a lot of his funding actually comes
10 from the Small Business Innovation Research Program, through
11 the SBA. And so he applies for these grants, has very
12 specific, applied ideas about how certain research might
13 work. And then he forms really good collaborations and
14 working relationships with these different inventors in the
15 universities and research institute to try to further that
16 and to try to create patents out of that. And again, we
17 will then be able to protect some products down the stream
18 for his company.

19 MS. MICHEL: Thank you.

20 Becky.

21 MS. EISENBERG: So I see a couple of problems with
22 these -- some of these early-stage patents that make me
23 wonder how it is that they provide value to firms that are

1 developing products. One of course is just the timeframe of
2 product development in the life sciences that often early-
3 stage patents will be near their end by the time a product
4 gets to market; and the other is just a general -- just
5 doctrinal obstacles to the validity of these patents that
6 often the Federal Circuit has been holding invalid one way
7 or another, often on written-description grounds; early-
8 stage patents that are trying to stake out a dominate
9 position in future product development. So that makes me
10 wonder why it is that firms find these early-stage patents
11 so interesting or valuable.

12 MS. MICHEL: And, Suzanne and Stuart, also if you
13 could talk about how your companies obtain early-stage
14 research. To the extent which it's internally developed
15 versus you might like bring it in from a university or a
16 start-up and then how the IP plays a role especially in
17 light of the kinds of problems that Becky has talked about.

18 MS. SHEMA: Sure.

19 MS. MICHEL: Or any part of that, because I
20 realize that was a multi-part question.

21 MS. SHEMA: Yeah. I like your question, Becky.
22 ZymoGenetics participated in the bioinformatics land rush of
23 the 1990s. And what that was all about was pure discovery,

1 discovering genes in the human body that nobody knew
2 existed.

3 And there was a race onto the Patent Office to try
4 to claim those genes. And it was -- there were a lot of
5 questions about how does one adequately claim one of those.
6 How much do you need to know about it before you can trust
7 your patent will be good.

8 Fortunately, we think we guessed right and we
9 filed very robust patent applications. But, getting to your
10 point, Professor, is you have to be very smart about where
11 you put your money. There's a lot of possibilities for
12 discovery and a lot of ideas of how these discoveries can be
13 put to work, but for any company, mine included and I'm sure
14 Amgen is the same way, because development is so expensive,
15 you have to pick which ones you think are going to make it
16 all the way to the marketplace. And a big part of that is
17 assessing the strength of the patent.

18 So your comment about all of the guidance that we
19 get from the Federal Circuit on written description and now
20 obviousness and other things, it's frustrating in some ways,
21 but in other ways it helps us because there are guidelines,
22 there are standards. So we're able to look at our own
23 patent portfolio and have a sense of which ones are the most

1 robust patents and applications.

2 It also helps us assess our competitors' work and
3 look at their specifications and tell will they ever get any
4 claims out of this application. If so, what will those
5 claims be. How broad will they be.

6 So the body of law that's developed from the
7 Federal Circuit in biotechnology is extremely robust and
8 holds us to a very high standard. Our patents are very
9 difficult to get and very expensive to get. At the end of
10 the day, the data that we have to put in, but it's -- if you
11 pay attention to them and you invest enough time, you can
12 get a good sense of which ones are good.

13 MS. MICHEL: Suzanne, does your company do the
14 early-stage research itself? Do you import it from a start-
15 up or university or a mixture?

16 MS. SHEMA: It's a mixture. We have scientists
17 who do very basic discovery work in a focused area. And we
18 work selectively with university professors who perhaps have
19 models that we don't have or who can contribute a piece of
20 the technology that we don't have. But our strategy is
21 basically homegrown.

22 We do have one molecule that we in-licensed from a
23 university that we turned into a development project and

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1 It's important to have that mix.

2 I completely agree with the issues Becky raised
3 around the early-technology patents, the term and the scope
4 of those patents. It is a challenge. The best advice that
5 I can give to those in that area is that you need to take a
6 technology to the point where you actually have a more
7 concrete idea of what the product opportunity is. Either
8 the target or the product opportunity. That will make your
9 patents a lot more valuable, to us as well as to yourselves.

10 MS. MICHEL: Okay. Dianna.

11 MS. DeVORE: Sure. I just wanted to get back one
12 thing that Becky said. I think -- you know, the Federal
13 Circuit is providing guidance, but we also have to remember
14 that there is the interplay between the Federal Circuit and
15 what they hold and the Patent Office and how they apply it
16 in terms of the prosecution of the patents. And one thing
17 that we're seeing more and more of is there is sort of a
18 squeeze on the inventors as they're requiring more written
19 description, but yet there is this obviousness issue.

20 So some people might find themselves in a
21 situation where they don't have sufficient written
22 description to be entitled to broader scope of invention and
23 yet if that becomes published, then it's then held against

1 to a particular product in the future. So some of the
2 companies literally are starting with nothing more than a
3 marquee name, a very prominent professor and a management
4 team, and that first patent that is just a particular
5 platform that later when proven can provide future patents,
6 improvement patents with the claims that are on point to a
7 product.

8 MS. MICHEL: What is the role of the patents in
9 getting the funding for the early-stage research? We've
10 heard Carol talk about the university professors developing
11 something in a lab, perhaps with government funding, and
12 Stuart mentioned how Amgen will bring in products rather
13 than that first basic discovery. What happens in between
14 those two events and where does the funding come from and
15 what is the role of the IP?

16 Eb.

17 MR. BRIGHT: Okay. Yeah, our companies are
18 venture-backed companies and IP is always one of the very
19 first questions they ask. So, you know, to the point
20 earlier, a management team is very important and IP is
21 pretty much number two right behind it.

22 The amount of due diligence and the -- you know,
23 when I was at Guidant the amount of time that I spent

1 questioning the other side about their intellectual property
2 and now that I'm on the receiving end, the amount of time
3 that I spend answering questions on the IP is significant.

4 MS. MICHEL: Dianna, could you speak to that?

5 MS. DeVORE: Sure.

6 MS. MICHEL: We have a lack of experience.

7 MS. DeVORE: You know, I think we're talking about
8 the raising of money around a patent as though it's going to
9 be just that single patent. I think one of the things
10 that's really important to the venture capitalists I have
11 worked with is the ability to claim the ongoing rights to
12 any of the IP that comes from the future research.

13 So in terms of the people who are involved with
14 the company, in terms of the management, it's making sure
15 that as the company makes different innovations, that it
16 will have the appropriate rights to those innovations. And
17 that can be through a number of different mechanisms, or it
18 can be something that's developed in-house if the scientist
19 should come directly in-house with the company. I think
20 that and the ability to actually operate in their particular
21 area is very important.

22 So as well as having the rights, the exclusivity
23 for certain inventions and innovations, it's the ability to

1 actually practice those. Because just because you have a
2 patent doesn't mean you can practice it. You may have other
3 patents that are blocking in the area or things that may
4 need to be licensed in, and I think with the due diligence
5 process, that's a big part of it, is making sure that not
6 only can you carve out your little area of technology, but
7 that you actually have the ability to practice it without
8 being blocked.

9 MS. SHEMA: I was just going to make that exact
10 same point. I would agree with Earl that due diligence has
11 gotten more and more rigorous and the questions get better
12 and better with every round of due diligence.

13 Potential investors, potential acquirers put a lot
14 of effort in determining not only a company's IP position
15 but how exactly are you going to deal with the competition
16 in a space. Very sophisticated questions based on --
17 they're not even claims pending maybe, it's just
18 specifications that are out there. And we're expected to
19 analyze those specifications, make the best guess you can of
20 which types of claims will issue and will survive.

21 So the view right from the start-up all the way to
22 the marketplace, everybody's got a really strong, clear view
23 of trying to see all the way through to the market that

1 you'll be able to carve out a niche for yourself and have
2 market exclusivity for enough time to recover the costs that
3 it takes to make those inventions and others.

4 MS. MICHEL: Let's talk about that process then.
5 In the early stage, of thinking about the research and
6 trying to assert certain freedom to operate way out into the
7 future, what are the difficulties in doing that?

8 Suzanne, you mentioned needing to look at a
9 specification and try to predict the claims that will come
10 out of it. How difficult is it to do that? What is the
11 source of the difficulties?

12 MS. SHEMA: When I talk to our patent staff one of
13 the difficulties is the disconnect that was mentioned
14 between the Federal Circuit and the Patent Office. We can
15 apply what we understand to be the law, and then they say:
16 But then there's the Patent Office, what will the examiners
17 actually do.

18 And basically what we do is we try to follow the
19 law as it's been stated by the courts, and say we just have
20 to assume the Patent Office will do its job. And then if
21 bad patents are issued, we'll deal with those in the courts.

22 But just the broader question of the freedom-to-
23 operate analysis, they start -- it's early and often. We

1 practicing nearly 20 years ago, we had a set of factors to
2 follow. The obviousness pendulum started to swing to where
3 it was, you know, harder and harder to find an invention
4 obvious. And now I think we've swung way back past where we
5 started. And then so that uncertainty and that swinging
6 makes the job more difficult because of the
7 unpredictability.

8 So anything that would bring certainty no matter
9 where the bar is set, I think would help.

10 MS. MICHEL: When you mentioned the Federal
11 Circuit bright line test, were you thinking of the eBay case
12 and obviously the Supreme Court becoming involved in that
13 issue?

14 MR. BRIGHT: That's one, but I think also, you
15 know, if you look at KSR, that's another one that is
16 significant. So it seems like there's been a couple and
17 there's a couple more coming that are problematic.

18 MS. MICHEL: Becky?

19 MS. EISENBERG: So I'm interested, a number of you
20 have made observations about the disparity between the
21 Federal Circuit and the PTO, as if the PTO has some
22 different agenda than the Federal Circuit, and I'm trying to
23 puzzle through how -- you know, what -- how you would

1 characterize. Is the PTO more generous or less generous
2 toward patent applicants? Because I think the views of the
3 PTO seem to be something that the Supreme Court is looking
4 to for guidance on when they should be reversing the Federal
5 Circuit.

6 So I'd be interested in getting more of a handle
7 in how you see the PTO different from the Federal Circuit.

8 MS. MICHEL: Dianna.

9 MS. DeVORE: Sure. I guess the first thing I
10 would say is there is not one Patent Office. There are as
11 many Patent Offices as there are patent examiners. And so
12 there is a bit of variability.

13 I think most of them have huge dockets. Most of
14 them have a lot of things to get through. And so what their
15 main impetus is is trying to make sure that they actually
16 get through their docket, have the ability to examine
17 things, and to do the best job that they can. And I do

1 when certain legal aspects get introduced into that, I think
2 it really complicates their own specific process. So that's
3 one thing that I would say.

4 I also --

5 MS. EISENBERG: More variability, more
6 uncertainty.

7 MS. DeVORE: More uncertainty. But I also think
8 that there was a very good point that Eb made, which is the
9 difference between the Federal Circuit and the Supreme
10 Court. One area of uncertainty that I know has been an
11 issue at least with a number of companies I've worked with
12 is this experimental exemption that was introduced by *Merck*
13 *v. Integra*, which basically says that if something is
14 related to an FDA submission, that it is considered an
15 exemption under 271(e).

16 However, there is a footnote that says: Oh, and,
17 by the way, we don't mean research tools.

18 Well, the facts of the case look an awful like
19 they were using a research tool, so the amount of
20 uncertainty that I think was introduced with that particular
21 ruling from the Supreme Court has left a lot of people
22 wondering: Okay, well, what next. And the Federal Circuit
23 is now starting to distinguish that case and to have more

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1 difference between the Federal Circuit and the Patent
2 Office. As a matter of policy, we need to fund the Patent
3 Office. We need to give these people enough time, enough
4 workers to do the work. As we've said, biotechnology is
5 very dependent on patents, and that means a well-functioning
6 Patent Office. That means they need to have enough people
7 there.

8 The other disconnect sometimes between the Federal
9 Circuit and the Patent Office is when the Federal Circuit
10 makes a statement beyond what was perhaps necessary in the
11 holding, and I'm thinking of *KSR* here. The facts of that
12 case, it's not difficult for me at least to see that that
13 invention was obvious with current, with existing law. And
14 for the Federal Circuit to induce the notion of obvious to
15 try, what scares us in biotech is what will the Patent
16 Office do with this new weapon. I'm saying because it was
17 obvious to try, it's easier to leap to a conclusion of
18 obviousness, and that's particularly in hypothesis-based
19 disciplines, as is biotech.

20 You do an experiment because you can hypothesize
21 what will happen. It's a thin line then to cross of saying,
22 well, it must have been obvious to try. And while it may
23 have been obvious to try, you don't know how the results are

1 going to come out.

2 So my hope is that the issue gets corrected in the
3 Patent Office and the courts, but at this point with the *KSR*
4 language, that's causing some consternation and fear of what
5 the Patent Office will do.

6 MS. MICHEL: We've been talking about the
7 difficulties in identifying whether there's freedom to
8 operate in a particular area. How does that uncertainty
9 affect the funding decisions? Of a venture capitalist or
10 maybe even of a particular company that's thinking of going
11 down a particular road, how much certainty do you need to
12 decide, okay, this is an area where there's open space,
13 where I might be able to get a patent? Any thoughts on
14 that?

15 MR. BRIGHT: I would say that it's dependent on
16 the size of the opportunity.

1 concept works, develop a product, and then at the end of the
2 day not be able to commercialize that technology.

3 The litigation is expensive, but not nearly as
4 expensive as the development. Oftentimes for us to bring a
5 product to market in the medical device space, we're
6 spending usually in the neighborhood of 75,- to \$100 million
7 in order to bring that to commercialization. So once you've
8 made that kind of investment, you don't want to be stopped
9 at the doorstep of the commercialization.

10 MS. MICHEL: How -- oh, Suzanne.

11 MS. SHEMA: They're all case-by-case analyses.
12 You look at the claims. You look at whether it covers the
13 product or a method of making the product. You look at
14 whether you can engineer around it. And, very importantly,
15 what's the expiration date. Because, as we know at least in
16 therapeutic proteins that are used as therapeutics, it takes
17 a long time to get to market. So will the patent even be
18 around by the time we launch the product.

19 MS. MICHEL: Okay. Dianna, and also I'm wondering
20 how savvy are the decisions that venture capitalists make in
21 deciding whether to inject those key funds with regard to
22 these pretty technical patent issues that we're talking
23 about with regard to freedom to operate?

1 MS. DeVORE: Well, I think most venture
2 capitalists use attorneys who are trained, be they in-house
3 attorneys at the venture capital firm or attorneys such as
4 myself, to actually look through the portfolios. So
5 generally the people who are looking at the questions of
6 freedom to operate have a pretty good idea about that area
7 of technology because they tend to be specialists in it.
8 And so I think that the freedom-to-operate analysis is
9 getting more and more savvy.

10 I do think that in terms of the freedom-to-operate
11 analysis, one thing people are looking at more is also not
12 just are there patents out there that could be problematic,
13 but is there the possibility of licensing those patents in.
14 So if the patent that is problematic is held by a vendor or
15 a university that is, you know, giving nonexclusive
16 licenses, that's one thing. If it happens to be held by who
17 you think will be your closest competitor, who just doesn't
18 want you to get the product to the market, that's another
19 thing entirely.

20 So it's a case-by-case analysis, but it's also a
21 little bit more sophisticated in terms of not just is this
22 going to be a problem but if this looks like it could be a
23 problem, is there a way to solve it, be it design around or

1 actually working with the other group. And a lot of the
2 companies that I worked with, they go and they approach
3 these other groups and sometimes it even leads to a
4 collaboration that can be fruitful.

5 And that's another thing that venture capitalists
6 are looking at right now. With a lot of the very-early-
7 stage opportunities, they're not just looking at
8 opportunities singly anymore. They're saying, well, you
9 know, this looks really interesting, but there's this other
10 opportunity over here that we think will be complementary.
11 And if you put the IP portfolios together, now you really
12 have something. So there's more and more bundling of
13 opportunities at the very early stage that we're starting to
14 see in order to create a stronger patent portfolio in the
15 early stages of the company.

16 MS. MICHEL: This concept of licensing-in to
17 create freedom to operate is interesting. There was
18 discussion in some of the academic literature about the
19 problem of the anticommons, that there are just too many
20 patent rights needed to make any particular product, that
21 perhaps no one would pursue that product and that research.

22 Do you see that happening, for instance, in the
23 situation in which there is not enough open space or do you

1 see it being -- as taken care of through the licensing?

2 Or, Becky, I know some of the academic research
3 just talks about professors, at least, going ahead anyway
4 and doing the research. Do you have any thoughts on that?

5 MS. EISENBERG: Yeah. I'd really be very
6 interested in hearing from the other panelists on this, so I
7 don't want to say much. The academic literature, I think,
8 has been focusing, as you say, Suzanne, mainly on the really
9 early-stage, upstream research and finding that mostly
10 people ignore patents. But of course what really matters
11 is, are these technologies getting developed further? Are
12 they being brought to market?

13 When will a lot of patents look like an
14 opportunity for partnering and creating a broader, strong
15 portfolio, and when will an abundance of patents in an area
16 look like, you know, maybe we really ought to be investing
17 somewhere else.

18 MS. MICHEL: Another concept related to licensing
19 -- please respond to that. I didn't know if anyone -- also
20 when those licenses are exclusive versus nonexclusive then,
21 and what the thinking is there when dealing with this kind
22 of thing. Eb.

23 MR. BRIGHT: I'll just speak to an example of the

1 drug-eluting stent. So the drug-eluting stent has a
2 catheter, it has a stent. It has some kind of coating on
3 the stent and it has some kind of drug on that stent. And
4 so typically there's usually at least 50 to 100 different
5 patents that cover different aspects of that stent system.
6 And so in order to bring forward a next-generation stent
7 system, you either need to wait till certain of the patents
8 have expired, which in the catheter art that is beginning to
9 happen -- most of them are more than 20 years old now or
10 will be in the next two to three years -- or you need to
11 enter into licenses or cross-licenses. And that, generally
12 speaking, is what has occurred.

13 I would say that in some technologies there has
14 begun to be in the medical device field an, essentially,
15 hallow or cloud of a fair number of patents. And I think
16 that that's a good thing, because generally what that means
17 is that that marketplace for that idea is saturated. And
18 it's important for people to now turn their attention to
19 other areas that aren't being served and use their creative
20 talents in that new area. And then it allows the people who
21 are most efficient and who have established those first set
22 of patents to commercialize their technologies, get the
23 payback for the investments they made, and then move on to

1 next-generation technologies.

2 MS. MICHEL: Carol, when universities license out
3 patents in this sphere, biotechnology and the life sciences,
4 how frequently are those licenses exclusive? Are they
5 offered nonexclusive and what's the thought process?

6 DR. MIMURA: I would say that about half are
7 exclusive and half nonexclusive. For the most part, start-
8 up companies and small companies generally require an
9 exclusive license to anything that would require a long and
10 arduous R & D timeline, something that's very expensive and
11 very long to develop.

12 Certainly research tools or something that should
13 be made very available to any and all comers are generally
14 licensed on a nonexclusive basis, but those are very general
15 guidelines.

16 Certain industries such as the IT industry prefer
17 a nonexclusive license, often royalty-fee nonexclusive
18 license. They're often interested simply in freedom to
19 operate. The rationale there being that if they're
20 licensing-in something that is going into a chip and that
21 chip is already covered by 250 patents, they really don't
22 want to have a running royalty to the licensor to
23 commercialize what is simply an incremental improvement over

1 the prior art, and that is their proprietary product. So
2 there are some industry-specific differences in IT, the
3 chemical industry, the oil and gas industry.

4 Certainly in biotech most of the licenses are
5 exclusive, to induce investment.

6 MS. MICHEL: Stuart, you mentioned that Amgen will
7 be interested in bringing in a product from a start-up.
8 Could you talk about the role of the patents in Amgen's
9 making that decision but also the role of nonpatent aspects
10 of the start-up, like the management team. What goes in to
11 making the decision of whether a particular start-up or
12 product is one that you'd want to bring into the company for
13 further development?

14 MR. WATT: It's a mix of factors, it's a balance
15 of considerations. We look at the product opportunity. We
16 look at the competition. We look at certainly the patent
17 landscape. And any of those can be a no-go. Certainly the
18 patents are a no-go and frequently they are where we don't
19 have either freedom to operate or we don't have sufficient
20 protection around the product or we don't think we can
21 develop sufficient protection around the product in order to
22 provide exclusivity sufficient to reward the investment.

23 MR. BRIGHT: I'll just add one other thing. I

1 think that the people and the underlying technical
2 expertise, if you already have the technical expertise in-
3 house, then you're less likely to be interested in keeping
4 the people and it's more about evaluating the technology and
5 the IP. But if they do bring a core aspect that you don't
6 have in-house, then you're more likely to want to try to
7 encourage the people to stay on and make that a bigger part
8 of your analysis.

9 MS. MICHEL: Stuart, are the people ever a factor
10 for your company's decision to bring in a product or a
11 start-up?

12 MR. WATT: Sure. We've -- in a broader sense,
13 we've acquired early-stage research companies, and we've
14 done a couple here in the Bay Area where the people were an
15 important consideration into what are we acquiring, because
16 they didn't have product opportunities, immediate ones, and
17 they had early-stage research. And so we're looking at what
18 kind of people can we ask to join Amgen and can they
19 participate in our research efforts. So, yes, in that sense
20 people can be a very important consideration. In fact, they
21 were the main purpose of the acquisition.

22 MS. MICHEL: Okay. Carol, I know U.C. Berkeley
23 has a very interesting arrangement with the -- in creating

1 the Energy Biosciences Institute with BP. Could you just
2 describe that a little? Tell us about that?

3 DR. MIMURA: Sure. BP, as a major oil and gas
4 global enterprise, was interested in exploring alternatives
5 to fossil fuels. And they hired, several years ago, Steve
6 Koonin, who had been the provost at Cal Tech. And when he
7 came to London he said: Well, you know, this would seem to
8 be an impossible task, to look at the feasibility of
9 biofuels since BP has over 100,000 employees but we only
10 have three biologists.

11 So again he was faced with this classical, you
12 know, build it in-house or partner or acquire the expertise.
13 So he conceived a global competition to compete for \$500
14 million in research funding on alternative energy over a
15 ten-year period. And the U.C. Berkeley Lawrence Berkeley
16 Lab and the University of Illinois at Urbana-Champaign
17 submitted an application, according to the guidelines in the
18 RFP, which outlined several parameters, including that the
19 proposal would have to propose both open and proprietary
20 research and would have to include one option to obtain IP
21 rights on a nonexclusive, royalty-free basis. But other than
22 that it was somewhat wide open because, after all, they were
23 interested in what some of the preeminent universities have

1 come up by way of a proposal.

2 So they realized also that the things that BP
3 didn't have that they would want a partner to have would not
4 only be in the area of hard sciences -- engineering,
5 chemistry, biology, virology, structural enzymology -- but
6 also land-use issues, because, after all, feedstock and
7 agricultural economics are the component of biofuels, and
8 schools of public policy. So they were focusing on schools
9 that could deliver a package.

10 So -- and in particular we were very excited to
11 apply because BP also had the foresight to realize that the
12 early inventions coming out of this new science of biofuels
13 would be very early stage. And, in typical fashion, they
14 would probably be commercialized through start-up companies.
15 And of course Northern California is a great place to start
16 companies. We have no shortage of private capital here to
17 fund our start-ups and we have a very entrepreneurial
18 faculty and very entrepreneurial environment.

19 So the particular hypothesis that we were drafting
20 and negotiating a contract to was that the great corporate
21 labs of the world, such as Bell Labs and Xerox Park, are on
22 the decline. And so the hypothesis is is there a role for
23 academia to step into this void, to have somewhat of a

1 deal. U.C. Berkeley and the University of Illinois are
2 actually renting space to BP. And in this rented space BP
3 can perform proprietary research.

4 The open research done in our academic
5 laboratories, as usual, is typically performed by students
6 and postdocs. That research is all owned by the academic
7 institutions. Research performed in BP's proprietary rented
8 space is owned by BP and can be confidential.

9 The open research will be published and is just
10 according to business as usual, academically-appropriate
11 research that will be published often and consistent with a
12 particular dissertation.

13 And, let's see, what else. About 50 research
14 groups have been funded in the first year, and 130 faculty
15 are involved.

16 In terms of the licensing, if IP arises from the
17 funding the owning institutions can patent, but BP will
18 always have a nonexclusive license to practice that which it
19 provided funding for. BP can also elect, if it chooses, an
20 exclusive license to those IP rights.

21 And all of our exclusive licenses, of course,
22 because we license with the goal of public benefit, retain
23 rights to practice those inventions for our own behalf, on

1 our own behalf, and to transfer those rights to others in
2 the nonprofit sector for their education and research needs.

3 We negotiated a cap on patents in terms of
4 remuneration. Should BP elect an exclusive license, they
5 only have to pay up to a maximum of \$100,000 per year per
6 patent. However, if something is extraordinarily
7 successful, beyond our wildest hopes, there is a bonanza
8 clause stating that if in such an event then that \$100,000
9 cap goes away.

10 There is also a clause, because BP like so many
11 other companies, is interested in freedom to operate, if to
12 practice the foreground IP, BP requires a license to the
13 background IP owned by one of these participating
14 institutions. To the extent that background IP is necessary
15 to practice the foreground IP and to the extent it's
16 available, BP may license those patent rights as a bundle
17 for a prenegotiate fee of \$20,000 each or \$50,000 for a
18 package.

19 MS. MICHEL: Is this a unique kind of agreement in
20 terms of its scale or...

21 DR. MIMURA: It is the largest academic university
22 agreement to date. And it combines federal, -- because the
23 Lawrence Berkeley Lab is DOE-funded -- state, and industry

1 funding in sort of a triple helix of funding and resources
2 to bring to bear on a common problem that we all care about,
3 you know, finding alternatives to fossil fuels.

4 MS. MICHEL: Are there other such collaborations
5 between the private sector and academia on a smaller scale?
6 Are you seeing more of those and do you see them in the life
7 sciences?

8 DR. MIMURA: We have hundreds of such sponsored
9 research agreements, but on a much smaller scale. Usually
10 one company and one lab or one company and several labs,
11 especially in the life sciences.

12 Often biotech, life science companies license IP
13 from us because our IP is so very basic. They often choose
14 to then sponsor research in that same lab to fund the
15 improvements and make sure they can have an exclusive
16 license to what is invented, using their follow-on funding.

17 It's unique in that we have the real estate
18 component collocating BP researchers with open researchers
19 in an academic environment.

20 MS. MICHEL: Is this a relatively new trend or
21 something that's been going on for a while?

22 DR. MIMURA: The practice of public-private
23 partnering is not new but the specifics of this agreement

1 are unique so far and the magnitude of the agreement.

2 MS. MICHEL: Have others had any experience with
3 this kind of relationship between private sector and
4 academia or does it sound like a useful thing? Would you
5 expect to see more of it in the future? Or any thoughts on
6 how maybe it ought to be pursued?

7 MS. DeVORE: I guess I have one question on that.
8 Most of what I have worked on in terms of these sorts of
9 partnerships is, you know, as Carol said, much smaller and
10 limited. And I think that has a lot of pros and cons.

11 One question I have as to this bigger construct is
12 if BP has a nonexclusive license to anything that they have
13 funded, how will that impact on anything that the University
14 of California might want to do with other companies going
15 forward and will that, in effect, be a sort of chilling
16 effect on the technology that BP decides not to exclusively
17 license?

18 DR. MIMURA: Right. That's a good question.
19 Thank you. They have a nonexclusive license or an exclusive
20 license, for that matter, only in their field. So to the
21 extent something is applicable to another field outside of
22 energy, that particular license won't block the development
23 of a new application, another application.

1 patentable in various combinations that are still important
2 to the product. And so being able to use continuation
3 practice to go after A, B, and C; and then A, B, and D is
4 very important to us.

5 In terms of our freedom-to-operate analysis, it
6 does, you know, create work for us to do when somebody else
7 owns the portfolio and they have pending applications going.
8 It's one of the very first questions we ask ourself once we
9 see a patent that's issued or we see a publication that's
10 interesting, is we go to see if it's still got an active
11 family and begin to study the file histories of each of
12 them.

13 It goes back to our issue before about the
14 predictability and the case law, and being able to look at
15 the specification and making a reasoned judgment as to what
16 the Patent Office is going to allow and what they're not, or
17 what ultimately the court is going to uphold, even beyond
18 the Patent Office.

19 And I think Stuart made an important comment just
20 a little bit earlier about making a decision about whether
21 or not to acquire a company. It would also apply to the
22 decision about whether or not to further commercialize a
23 technology. And that is what is the -- you know, the

1 freedom to operate -- the adequate amount of protection
2 around a particular idea and that oftentimes you will take a
3 pass on a company because you look at their IP and you say,
4 I could design around that or others could design around it,
5 and so therefore it doesn't have great strength and you take
6 a pass on it.

7 MS. MICHEL: Suzanne.

8 MS. SHEMA: Okay. So from the point of view of
9 protecting our own inventions, continuation practice is
10 extremely important, at least for two reasons. One of them
11 is it takes a while to educate the examiner. Our
12 applications are very thick, very complicated. They have to
13 be in order to satisfy 112. We have to disclose a lot.
14 And, frankly, the examiner often doesn't read the whole
15 application the first time through. So the more
16 opportunities we have to communicate with and discuss with
17 the examiner, the better the examination will be. And you
18 just need continuations in order to do that.

19 We also have situations where you learn more about
20 the particular variations of your invention as data are
21 developed. So more and more our inventions have to be
22 claimed structurally. You can't just claim how they
23 perform, what the function is. You have to claim the

1 they'll get out of the Patent Office and that will survive
2 in a court challenge.

3 MS. MICHEL: Stuart.

4 MR. WATT: I agree that the continuation practice
5 has great relevance to our industry and it's not an effort
6 to enlarge the scope of what you're entitled to claim. It's
7 more an effort to come to an agreement with the patent
8 examiners, what's the right language, what are the right
9 words to use to describe your invention in the claims.
10 Having said that I'll come back to a contrary example in a
11 second.

12 And I think the purported vices of continuation
13 practice are largely overblown. And they've largely been
14 addressed by the 20-year patent term and the availability of
15 prosecution now on public databases, so you can track
16 applications in the Patent Office and see what's happening,
17 see what arguments are being made, see what the examiner is
18 saying about the application. So there's very little
19 surprise anymore in what things might issue.

20 The contrary example is we were developing a
21 product that's actually on the market now. And for many
22 years a competitor, a patent portfolio was pursuing claims
23 that had certain limitations in them so it clearly did not

1 cover our product. And so we felt comfortable in going
2 forward in development of that product in putting this
3 billion dollars of investment into the product. Somewhere
4 along the line someone woke up. I don't know whether they
5 got wind of our product or somebody else's product, but they
6 changed direction in the prosecution strategy and were able
7 to obtain claims that arguably did cover our product. At
8 least we weren't surprised, we saw it coming because they
9 were publicly available through the Peer Database system.
10 And, fortunately, for the product and the patients who
11 needed this product as the initial therapy in a new area, a
12 license was available. And so we were able to take the
13 license to that patent when it did issue with claims that
14 were redirected through continuation practice.
15

1 MS. EISENBERG: Yeah. No, I just wanted to say
2 that as an outside observer I have found the debate over
3 continuations particularly fascinating and sort of
4 surprising of how strongly people are attached to the status
5 quo, which doesn't -- I wouldn't have expected from the
6 outside to be entirely in the interests of the innovation
7 community.

8 I would have thought maybe it serves the interests
9 of the PTO, which now wants to change it, more than it
10 serves the interests of the innovators. So I'm really sort
11 of puzzled. I kind of want to push and hear more about
12 this, because I would think that, you know, it's nice to
13 have some flexibility for your -- I mean like everything
14 else in the patent system, you feel differently about your
15 patents than you feel about other people's patents, but to
16 the extent that freedom to operate is an issue I would think
17 that the current system of continuation practice would
18 increase the costs of trying to figure out. I mean Suzanne
19 was talking earlier about needing to really look at your
20 competitor's specification and sort of think through what
21 else they might have up their sleeve that might step forward
22 to sting you later on.

23 And that seems like a problem, that you would want

1 to have to be construed more narrowly, otherwise in the
2 current system it's unreliable.

3 MS. MICHEL: Yeah. Dianna, I was talking about
4 the medical device area, how do you feel about that in the
5 more biotech area?

6 MS. DeVORE: Well, I mean I think one point I
7 would want to bring up is that especially in the post-KSR
8 period that people are more and more looking at
9 reexamination to try to redefine the scope of issued claims,
10 as well as litigation. And, you know, I think being able to
11 have clarity that way, again it depends which side you're
12 on, but reexamination is becoming a much more common tool in
13 conjunction with litigation than it used to be. And I think
14 people are looking to have the Patent Office reinterpret the
15 scope of certain claims, especially in the light of some
16 case law that now applies that may not have applied at the
17 time they were initially 0 0.005mr:0.00 0.00 0.00 rgBT57.6000 2xD(9)

1 patents mean. They don't have the technology understanding.

2 The patent, the claims are written to somebody of
3 skill in the art, and the Federal Circuit doesn't have --
4 even though their caseload is down right now, they don't
5 have the time and understanding necessary to really dig into
6

1 coming up with common languages, common nomenclature. And,
2 to some extent, the Patent Offices have helped us.

3 We have the Sequence Listing Rules that are part
4 of the Code of Federal Regulations that say how we must
5 describe the structural aspect of our inventions. There are
6 organizations like HUGO and GO that work to try to come up
7 with common language about genes' functions and their
8 structures. So on a voluntary basis participants in the
9 biotech community are trying to come up with this common
10 language.

11 I'm also encouraged that the law of indefiniteness
12 seems to be growing and I think there are other industries
13 that could benefit from this even more than biotechnology.

14 Getting back to one of the questions you asked
15 about, do we ever look at a patent and struggle with what
16 does it mean: Of course, you always do. You always have to
17 analyze claim construction, but there have been times where
18 I've looked at a patent and I say I can't even tell from the
19 specification what they mean by this.

20 And, this was several years, I turned to the body
21 of law on indefiniteness, and it was not very well
22 developed. That is changing with the *Datamize* case and with
23 cases that are coming in its wake, which I think it's very

1 sue them that that is a termination of the license. So I
2 mean people have basically responded to the *MedImmune* issue
3 by making sure they have the appropriate language of the
4 contracts.

5 MS. MICHEL: We've talked a bit about *KSR*. *eBay*,
6 we'll just go down the list here. *eBay*, is that raising any
7 concerns for you in the new approach to evaluating
8 injunctions? Perhaps it's not a major concern then in this.

9 MR. BRIGHT: You want me to take that one? It's a
10 major concern for me. Go ahead, Stuart.

11 MS. MICHEL: Stuart.

12 MR. WATT: Amgen has a high-profile case, that the
13 issue of injunctive relief was decided after *eBay* and one of
14 the first instances where the *eBay* factors were applied in
15 the context of a biotechnology patent case.

16 And we had a very fine judge, federal judge in
17 Boston that for a while was contemplating out loud the
18 prospects of granting a compulsory language to our
19 competitor. And compulsory licensing in our industry would
20 be devastating. And fortunately in his own words he pulled
21 back from the brink and saw the wisdom and the value in
22 enforcing patents. Patents are an exclusionary right.
23 That's what the essence of a patent grant is. And if you

1 don't have that, then the patent system is undone.

2 And he saw the value in granting the injunction.
3 We fully met all the factors and the injunction was issued.
4 So it is a great concern. We think the courts will sort it
5 out and we think they're headed in the right direction.

6 The Federal Circuit case that prompted the *eBay*
7 decision, again it's this rigidity that the Federal Circuit
8 is taking in some of their cases in order to provide more
9 direction to the district courts that prompted the Supreme
10 Court review and the Supreme Court reaction. And so it was
11 unfortunate.

12 You know I think in other industries, in other
13 circumstances the *eBay* decision opened up a lot of doors.
14 It took away some of the hammers that some of the patent
15 owners were holding against the accused infringers. But in
16 biotechnology, in the therapeutic product business as a
17 whole, we need the ability to enforce our patents and
18 excluded competition for the life of the patents.

19 MS. MICHEL: Eb, you mentioned that it is a
20 concern.

21 MR. BRIGHT: Yes, especially for a small, you
22 know, start-up company that is bringing new products to
23 market. With the larger companies being able to make a

1 calculated decision about the likelihood of a permanent
2 injunction has gone down, and they are potentially going to
3 be able to get what in essence is a compulsory license after
4 the litigation, that would be a business decision that, you
5 know, would be easier for them to make based on their
6 existing revenues and profits. And that would be to the
7 disadvantage of start-up companies.

8 MS. MICHEL: The law will -- Suzanne.

9 MS. SHEMA: So from ZymoGenetics' perspective, we
10 frankly have more discoveries than we can afford to develop,
11 because of the cost of clinical trials. And so we could
12 find ourselves in a situation where a competitor is
13 developing a product that we have a patent on, but we don't
14 have the money to fund development of that product. So I'll
15 echo Stuart's thoughts, that we have to avoid imposing even
16 more bright lines on these evaluations and say: If you're
17 not developing the product that's covered by the patent,
18 you're not entitled to an injunction because not all
19 situations are the same. You may simply have to choose
20 other products that you're developing at the time, but
21 you've still gotten a patent on that technology, you've
22 still delivered that invention to the public, and you should
23 be entitled to your injunction after applying the standards.

1 to hold a gene claim obvious, even though the prior art did
2 not contain any sequence or any structural information for
3 that gene. And, in essence, the Federal Circuit held that
4 the *KSR* decision overruled the *In re Deuel* standard on which
5 biotechnology had lived for a decade.

6 And so the Patent Office is taking a much more
7 aggressive view of obviousness in biotechnology. And, based
8 on *KSR*, the Federal Circuit seems willing to affirm that --
9 although I have to say we think the facts of that particular
10 case are very distinguishable from most circumstances that
11 we face -- but what it will mean is that we will be bearing
12 the burden of showing why we are entitled to a patent as
13 opposed to the statutory role of the PTO, which is to tell
14 us why we're not entitled to a patent. And so applicants
15 can expect they're going to bear much more of the
16 responsibility to explain what about their invention was
17 nonobvious, unexpected, and have to go through that proof,
18 and that opens up a lot of issues with respect to
19 disclosures and potential and in equitable-conduct issues,
20 all the things that are we are very much concerned with in
21 our dealings with the Patent Office.

22 MR. BRIGHT: Although I would just add onto the
23 end of there, we have a situation right now where we've

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1 art.

2 MS. MICHEL: Carol, when start-up companies come
3 to you to license or when a university is thinking of
4 licensing out the technology, do these concerns about the
5 potential invalidity of any patent that might emerge come
6 into play, are they discussed?

7 DR. MIMURA: Sure. Licensees are, especially
8 start-up companies are often cash poor and then they always
9 must take into consideration how long and arduous this
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1 statutory changes to the system and how that might affect
2 the biotechnology industry. Are damages important in how
3 your companies and clients value and use their patents or
4 the potential for the size of the damage awards? And do you
5 have concerns about potential changes?

6 Eb.

7 MR. BRIGHT: Yes. I think they're extremely
8 important. And, you know, the mandatory apportionment of
9 damages that could potentially occur under the law in the
10

1 can make a tremendous impact in its market acceptance, in
2 the response to the marketplace of buying that particular
3 product and technology.

4 MS. MICHEL: Thank you.

5 Stuart.

6 MR. WATT: While it is true that we are most
7 interested in obtaining injunctive relief in cases in which
8 we're trying to enforce our patents, damages play an
9 extremely important role in deterring infringers and their
10 activities. And so it's important that we get the damage
11 calculations right and we don't do anything to lessen or
12 weaken that deterrent role of damages.

13 MS. MICHEL: Well, one thing's for sure --

14 Suzanne.

15 MS. SHEMA: I think it's been interesting to track
16 the proposed solution to the damages issues in the IT
17 industry. When I read the original proposal of damages
18 should be or a reasonable royalty should be based on the
19 specific contribution over the prior art, I looked at that
20 and I said you mean the claim. That's what a claim is
21 supposed to do, is it's supposed to be clear from reading a
22 claim what the invention is. And then later there was
23 another proposed solution of essential features, that a

1 reasonable royalty should be based on essential features.

2 And again I think that's the claim. It takes us
3 back to Section 112, second paragraph, that if you're trying
4 to solve that problem of what is the invention, solve it at
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P R O C E E D I N G S

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MS. MEYERS: We're ready to get started with our second panel, The IP Marketplace and the IT Industry. We'll explore similar issues as we did in our first panel but from a different perspective of companies in the information technology sector.

Our panelists, more or less in alphabetical order, are:

Tim Crean, who is the Chief Intellectual Property Officer of SAP;

Ron Epstein, who is CEO of IPotential;

Horacio Gutierrez, who is Corporate Vice President and Deputy General Counsel for Intellectual Property and Licensing Group at Microsoft;

Chip Lutton, who is Chief Patent Counsel at Apple;

Alex Sousa, who is Counsel at Innovalight;

Earle Thompson, who is Chief Intellectual Property Counsel at SanDisk;

Lee Van Pelt, who is a partner with Van Pelt, Yi and James;

And, finally, John Amster, just under the wire,

1 who is Co-CEO of RPX Corp.

2 So thank you all for joining us and let's get
3 started.

4 MS. MICHEL: All right. So we're going to talk
5 about the role of patents in the IT industry. We're going
6 to devote two hours to a topic that could take a week and
7 we'll see what we can do.

8 I want to start by giving each of the panelists
9 three minutes or so to just introduce your company, how
10 patents work for your company or your clients, because I
11 think that's really central to why you've all generously
12 given your time here today.

13 Why don't we start with Lee and we'll move around
14 that way.

15 MR. VAN PELT: Yes. I'm a patent prosecutor and I
16 represent some large companies, but I represent probably
17 more sort of the classic Silicon Valley start-ups are
18 probably the majority of our clients. And I think that's
19 probably -- describing them is one of the reasons I'm here,
20 and we see clients that need patents on the one hand in
21 order to encourage investment and get investment from
22 venture capitalists so they can argue that their technology
23 just won't be copied, but, on the other hand, who view

1 patents as a risk factor as well. And it's very interesting
2 to me since the last hearing with the reforms we've had how
3 the balance has sort of changed between -- to a start-up:
4 Are patents more of a positive issue or a negative issue?
5 And that's really one of the things I'm interested in and
6 would like to comment on today.

7 MS. MICHEL: Okay. Earle.

8 MR. THOMPSON: All right. I'm Earle Thompson with
9 SanDisk Corporation. I will say, I'll do the normal oral
10 disclaimer: The views and opinions are mine, not to be
11 imputed to the corporation. That being said, I'll explain a
12 little bit about how SanDisk operates, how it got started,
13 and how patents are extremely important to SanDisk.

14 What SanDisk got started doing was trying to force
15 a technology, in this case, EEPROMs into doing an unnatural
16 act: We wanted to make mass storage units. And EEPROM was
17 never designed to do that. And so we had to figure out how
18 the system operated in that and also improve the memories.

19 As part of that, the company recognized that in
20 order to take advantage or to really grow the market and to
21 drive the prices down, to where new markets would open, it
22 had to make this a commodity. And to do that it had to
23 license. And so SanDisk has always had a model of licensing

1 its technology.

2 Now one of the things that you get into when you
3 actually are in the commodity business is you realize at
4 some point the barriers to enter are so low that if you do
5 not have a way of still funding your R & D, the people who
6 can enter it without having any R & D expense or anything
7 else can under sell your price and drive you out of
8 business. Consequently, licensing is still a major issue
9 for SanDisk, and so royalties are very important to it
10 because we continue to innovate in that area, we continue to
11 pour hundreds of millions of dollars a year in R & D, but we
12 continue to drive down the prices and open up new markets.

13 MS. MICHEL: All right. Thank you.

14 Alex.

15 MR. SOUSA: Okay. Thank you. Innovalight is a
16 solar cell manufacturing company, so I guess you can say we
17 provide the electrons for the IT industry. By combining
18 precision inkjet printers with proprietary silicon
19 nanoparticle inks, we intend to produce solar cells with
20 both high efficiency and at a low cost.

21 We are in the process of launching what we think
22 will be a revolutionary commercial,
23 clean-energy product, but until we do we're living on

1 somebody else's money. Right now we're literally 50
2 employees, a building, a few manufacturing and lab tools,
3 and a patent and trade secret portfolio. So patents are
4 pretty important to us right now.

5 MS. MICHEL: All right. Chip.

6 MR. LUTTON: Thank you, Susan and Erika and thanks
7 to the FTC for continuing leadership in helping us address
8 the health of the U.S. patent system.

9 At Apple we like to say that innovation is in our
10 DNA. Founded just 33 years ago, Apple's played a definitive
11 role in the creation of three information technology
12 markets: The personal computer, the digital media market,
13 and most recently a new class of full function mobile
14 computing devices. In each market we rely most heavily on
15 the power of new ideas to inspire a new generation of
16 consumers for products that sometimes they themselves did
17 not realize that they wanted before. That's the power of
18 great ideas. Apple's truly a company whose strength and
19 growth are nourished by continuous innovation.

20 A healthy and functioning patent system is
21 critical to companies like Apple and the information
22 technology industry. I listened to the last panel, I want
23 to say unlike some of the life sciences companies that the

1 product or service at all. And at any given time somewhere
2 between a third and a half of those cases involve patents
3 that were sold or offered for sale in the months preceding
4 the lawsuit.

5 I'll save my comments about what to do about this
6 and how to address it, but we see all sides of the patent
7 system and we feel like the problem that we -- the way that
8 we experience the patent system now does give rise to this
9 duality, where on the one hand we have very strong uses for
10 patents in our day-to-day business, do lots of IP-related
11 transactions on a regular basis, and yet we're confronted
12 with a litigation-driven reality that doesn't replicate or
13 even match in any way the real world experience that we have
14 with valuation and use of patents.

15 MS. MICHEL: Horacio.

16 MR. GUTIERREZ: So I work for Microsoft.
17 Microsoft's the largest software company in the world. And
18 we invest about \$9 billion a year in research and
19 development. It's one of the largest R & D budgets in the
20 world. We are a company that essentially would not exist in
21 the absence of intellectual property, not only patents but
22 also copyright and trademarks and all kinds of intellectual
23 property.

1 Like some of the other companies that have talked
2 before, we see the IP system and world from both sides. On
3 the one hand, we are one of the top patentees in the U.S.
4 and around the world. We also get sued very frequently.
5 And this is one area in which we're ahead of Apple: We have
6 55 pending cases against us. The number of active cases in
7 which we're defending ourselves has essentially quadrupled
8 over the last ten years. The large majority of those are
9 cases brought by nonpracticing entities. A large majority
10 of those are in the Eastern District of Texas. So that is
11 clearly an area that we think a lot about and that causes us
12 to incur significant costs.

13 We, on the other hand, you know have to invest a
14 significant amount of money in procuring IP licenses from
15 third parties. We not only develop our own patent
16 portfolio, which recently we crossed the 10,000 U.S.-issued
17 patent mark just a couple of months ago, but we also acquire
18 patents in the secondary market and we also license-in
19 patents from third parties as well as license out. We have
20 since 2003 an active patent-licensing policy that unlike
21 many other companies in other industries -- we actually will
22 entertain and license on commercially-reasonable terms
23 almost any patent that we have in our portfolio.

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1 community come together to agree upon policies, legislation,
2 rules which can help the patent system fully reach the
3 constitutional goal of promoting the progress of the useful
4 arts.

5 Now SAP is the world's leading provider of
6 business software, such as ERP, offering applications and
7 services that enable companies of all sizes and more than 25
8 industries to run their businesses more efficiently and more
9 effectively. The company has more than 86,000 customers in
10 over 120 countries and invests billions of dollars each year
11 in research and engineering.

12 Now SAP's success is due in large part to our
13 ability to innovate. And because SAP continues to
14 consistently bring new innovations to the market, we look to
15 the patent system to play a vital role in protecting those
16 innovations. However, certain preconditions must exist
17 before the patent system in general and the evolving IP
18 marketplace in particular can wo0 ltogether to agree upon policies,

1 notice to the public of the property protected.

2 Third, the damages methodology used to value the
3 issued patents must be clear and consistently lead to
4 valuations which neither over compensate nor under
5 compensate the patentee.

6 Now over the past several years, however, on the
7 occasions when patents of low quality have issued with vague
8 and amorphous patent claim and claim boundaries, especially
9 when coupled with an approach to damage calculations that
10 can be baffling to lay jurors, this has led to some damage
11 awards untethered to actual harm.

12 So it is only after we adequately address these
13 issues that the IP marketplace in the IT industry and the
14 patent system itself can fully reach the constitutional goal
15 of promoting progress of the useful arts.

16 So I'd like to thank you again for inviting SAP to
17 these hearings and I look forward to discussing these topics
18 with you.

19 MS. MICHEL: Great. Thank you.

20 John.

21 MR. AMSTER: We'd like to thank you as well for
22 inviting us to participate in the panel. I'm Co-CEO of RPX
23 Corporation. RPX is the first independently-funded

1 defensive patent aggregator. And we view our goal as very
2 simply to buy as many patents as we possibly can that would
3 otherwise be asserted against the companies who are our
4 customers. Our customers pay us an annual subscription fee
5 and get a license to every single thing that we buy.

6 Our fee is capped out at \$4.9 million a year for
7 the largest companies in the world. And it's a scalable
8 model where we have a price that goes down for a start-up
9 company would be \$35,000 a year.

10 We will never assert patents and we do that
11 because we think it's very important to have a pure model in
12 this space which is solely focused on defensive buying and
13 not focused on what one would consider to be traditional
14 patent licensing. The best proof of that in our model is
15 the fact that year in and year out we will charge the same
16 rate, despite the fact that we will be buying \$100 million
17 and up a year worth of patents and still charging the same
18 amount of money.

19 The goal of what we're doing is taking what I
20 would call a business model approach to the problem that
21 Chip and Horacio and Tim have mentioned, which is the
22 increasing NPE problem, which is a hundred percent of what
23 we are focused on. And our approach to this is to be able

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1 reality. And I think if you ask me which one is the most
2 common approach, I would say for the most part, depends on
3 what metric you look like to determine which one's more
4 common, but the reality is that when there is a technology
5 that we think is very promising and we think it's a
6 technology that we would benefit from incorporating into our
7 own products, we would look at acquiring the company if
8 we're talking about a small type of company.

9 And there are a number of reasons for that, but
10 one of them is you're trying to acquire not only the patents
11 or the IP that you have, you're trying to bring in the
12 people who developed the technology, who know the technology
13 best, and who can help you really explore the ways in which
14 it should or could be integrated into your products. But it
15 really depends on the kind of technology you're talking
16 about.

17 If you're talking about technologies that are, you
18 know, IP rights on commodity technologies or standards
19 based, or others where there isn't really a differentiating
20 value in bringing it, what you're trying to do is enabling
21 your products to work with a certain kind of commodity or
22 standards or broader-licensed technology, then you won't
23 have the option to bring the operation in and the people.

1 And how you decide which of these you would choose
2 depends on a number of factors, including the degree of
3 control that you want to exert, but also the direction that
4 you want to go with the technology. How much do you want to
5 reshape it and how much are you looking to change it, maybe
6 retain the basic underpinnings but then reshape it. And if
7 that is to a very high degree, then an acquisition's the
8 more appropriate vehicle to be able to exercise that
9 control.

10 MS. MICHEL: When you're looking at an acquisition
11 how important is the patent position of the start-up that
12 you're acquiring?

13 MR. LUTTON: It's important. It's important
14 because it demonstrates the bona fides of the technology.
15 It's important because it represents the opportunity to
16 determine the future course of that technology beyond just
17 what's inherent in trade secret and knowhow protection. So
18 it is important. And how important kind of depends on
19 exactly what you intend for the technology, but it certainly
20 is a valuable metric and important part of the source of the
21 value.

22 MS. MICHEL: Horacio, you also talked about
23 acquiring companies. The same question: How important is

1 In some ways you can think about it as a continuum
2 from if the technology is core to your company's product,
3 you're going to be on the acquisition end of the spectrum.
4 You're going to build it or buy it yourself. And if it's
5 less core, you're going to be on the standards and open
6 source end of the continuum. You get to pull from this rich
7 set of tools.

8 MS. MICHEL: All right. Lee.

9 MR. VAN PELT: Well, it's my experience companies
10 are acquired for a number of reasons. They're acquired for
11 their engineers, in many cases. They're acquired for the
12 customers they've been able to capture and they're acquired
13 for their technology.

14 An example of a company I think was acquired for
15 the customers it had is YouTube. I don't think Google
16 learned a lot technically from YouTube, and I don't know,
17 but I imagine one of the first things they did when they
18 acquired the company was to fix the sort of baling wire and
19 chewing gum together system they had to deliver video,
20 probably, and made it the first class thing you'd expect
21 Google to be able to have.

22 On the other hand, companies are acquired for
23 their engineers, sort of at the life-end of their cycle

1 where they have not really succeeded, are acquired for a
2 lower amount of money that probably wouldn't be enough, if
3 that was what was thought was going to be the company would
4 yield at the beginning of the processes, would not have
5 attracted investment.

6 I think where patents come into greatest
7 importance is when the company is going to be acquired for
8 its technology and for its engineers. And what the patents
9 do is they support the point to where the value of the
10 company isn't just: We hire all the people, or: We figure
11 out how to copy the technology, which often doesn't take
12 that long.

13 What patents do for a start-up is support the fact
14 that the company is going to sort of be the whole package:
15 The engineers and the technology. They own the technology.
16 In order to get the whole package you've got to acquire the
17 company for a higher price, a price that really
18 prospectively would have encouraged the investment in the
19 company, to begin with.

20 And I think that's what patents really are -- you
21 know, patents divorced from real advance in technology. I
22 think they're a drain on the system. It's a parasitic
23 thing. But patents combined with a good technology that's

1 developed are what really enable a start-up to be acquired
2 for a price that is going to be enough to encourage more
3 start-ups to be funded and to start. And that's really, I
4 think, the most important thing about what I do, is the
5 encouragement of the flow of capital from people that have
6 money to people that have brains. Because that's something
7 happens better in Silicon Valley than anywhere in the world.
8 And I think that's the most important thing we want to
9 preserve with our patent system.

10 MS. MICHEL: Alex, then Earle.

11 MR. SOUSA: I think that all other things being
12 equal, it probably depends how big you are or, more
13 appropriately, how much money you have. From the
14 perspective of a start-up, you know, you generally don't
15 have the money to acquire short of a fire sale. And
16 particularly early-on licensing is usually a better low-cost
17 option. If you take the time to look in a pile you'd
18 probably find a couple ponies that you could have for a
19 reasonable price.

20 You know many universities, for instance, will
21 give you an exclusive option on a license for just a few
22 thousand dollars. And these licenses, in turn, can be used
23 to raise money. So from our perspective, from a start-up

1 perspective, licensing and, more particularly, the options
2 on licensing are a real, low-cost effective way of getting
3 technology. And if you decide you need the technology later
4 on, then you can invest the money or pay the fees or
5 purchase it outright, you know, when you have the money to
6 do that.

7 MS. MICHEL: Earle.

8 MR. THOMPSON: Well, not all acquisitions of
9 course are with start-up companies. I mean, you know, we
10 have bought some companies that, well, basically were about
11 as old as we were and in the same market space. And there
12 you may be acquiring engineering. You may be acquiring some
13 customers. You may be doing that as an expansion of your
14 own management strengths, because you may find that the
15 other company has certain skill sets that you don't have.
16 Again, that being said, I've never acquired a company where
17 the patents were not a key element in acquiring a company.

18 We do -- on the other hand, when we license out,
19 there's only two ways in which we do it. It's either a bare
20 naked patent license or we engage with a joint venture of
21 the company, in which case there's actually a technology
22 exchange that goes on when you're jointly doing something.
23 You know, that may be a little different in other industries

1 where you have to transfer technology as well as license a
2 patent. Usually at least in the semiconductor and product
3 business that we're in, we don't find it necessary in most
4 cases to provide the technology, just the bare licenses are
5 sufficient.

6 MS. MICHEL: Is one of the reasons for that that
7 you work in an industry that's very standardized?

8 MR. THOMPSON: It really doesn't have to do so
9 much with standardization, but if you look at who -- for
10 example, our competitors would be in the semiconductor
11 space, they're usually many times our size. I mean I'm
12 competing with the Toshibas and the Samsungs and the Hynixes
13 of the world and they already have a massive amount of
14 technology themselves. And so it's not necessary for me to
15 transfer more than what the patents teach us in many cases.

16 MS. MICHEL: Okay. Ron.

17 MR. EPSTEIN: Well, I'm actually going to build a
18 little bit on what Earle says. There's an additional way of
19 obtaining technology transfer in the tech industry and I
20 think the simplest label would be competitive intelligence,
21 and that is looking at what other features other people in
22 the marketplace have and deciding to put those features in
23 your products. I think that's a time-honored tradition.

1 The simplest example would be the iPhone was
2 incredibly innovative in bringing a complete touchscreen
3 interface. And I think within months you started to see the
4 other cellphone companies start to copy that innovation in
5 an attempt to stay even in the marketplace.

6 Given that many technologies, once the idea is out
7 there, it's a relatively trivial engineering effort to copy
8 that. You know, patents obviously play a role,
9 particularly, I think Chip mentioned this in his opening
10 remarks, for highly-innovative companies to make sure that
11 they capture the scope of the innovation, particularly what
12 we like at IPotential refer to as a eureka technology. Once
13 you've heard of it, it's relatively easy to copy it, as well
14 as ingredient technologies like what Earle's company does.
15 Once you understand how to make flash memory, it's
16 relatively easy to do that again and again.

17 MS. MICHEL: John.

18 MR. AMSTER: I wanted to just make a quick comment
19 on the value of patents in M & A transactions because while
20 I think it's true that my background is primarily in M & A.
21 More M & A than it is IP. While it is true that there is a
22 lot of attention paid to patents, there's not a lot of value
23 placed on them, in general.

1 And one of the things that the secondary market
2 has brought to M & A transactions is that there is an
3 ability to value patents separate from the actual M & A
4 transaction. I think we're seeing a lot more evidence of
5 that. As an example, when I resold Intertrust Technologies,
6 Intertrust was sold not for its engineers, not for its
7 ability to create standards around digital rights
8 management, it was sold for patents. But we ran a process
9 to try to sell both and what we determined was that the best
10 way to sell the company was to sell the patents without the
11 software, without the engineers, without all of the burdens
12 that went with the normal business.

13 After that I started an M & A practice for Ocean
14 Tomo and the basic idea was working with small companies
15 when you're looking at your strategic alternatives to hire
16 an advisor who actually understood how to do the patent
17 piece of the transaction. And what resulted, we did six
18 engagements and in all but one of the engagements there was
19 a separate transaction of somehow transferring some rights
20 and the patents separate from the rest of the business in
21 order to generate more value.

22 The best example of that was Commerce One, which
23 in bankruptcy was about to be sold for four and a half

1 million dollars, the whole company. And when we got
2 involved, we were able to sell the patents for fifteen and a
3 half million dollars, and still sell the company for four
4 and a half million dollars.

5 Very recently, and again, it's the development of
6 the secondary market for patents that's enabling this. Just
7 recently SGI went into bankruptcy with a \$25 million cash
8 offer to buy the company and all of the core patents. As a
9 result of the active secondary market, the ability to
10 promote and potentially sell the patents separate, the deal
11 that ended up getting done was more cash, fewer patents
12 going to the ultimate buyer. So that what I think we're
13 seeing is that while value, while it's important
14 strategically on the patents, historically there hasn't been
15 a way of valuing it. The secondary market enables that to
16 happen, which I think is beneficial for shareholders and
17 companies.

18 MS. MICHEL: Does this concept of valuing patents,
19 moving back to the context of the patent being transferred
20 for the purpose of whoever acquiring the patent to actually
21 engage in a new technology that the acquirer has not
22 participated in before, trying to do something new, how do
23 you value the patent in that situation as opposed to a

1 secondary market? How much do you have to look up, for
2 instance, what other patents are out there and is that a
3 problem?

4 From either the acquiring perspective or from the
5 start-up trying to transfer its technology perspective.
6 Lee, is a start-up worried about what other patents are out
7 there that might be blocking its technology?

8 MR. VAN PELT: Well, start-ups worry about that to
9 some extent, but, in general, a start-up is not going to be
10 sued by larger companies or by patent trolls because, you
11 know, patent -- the reason they sue larger companies is the
12

1 think that's where the risk comes in, is to where there's
2 this sort of low-quality patent out there that costs a lot
3 of money to get rid of.

4 MS. MICHEL: Okay. We'll come back to the ink
5 blot claim problem in a little bit. I think it's an
6 important topic today.

7 Is the potential -- trying to understand the value
8 associated with the patents when the technology is
9 transferred from the start-up to the manufacturing company,
10 do these issues come into play in trying to assess that
11 value, that the likelihood that someone else might come and
12 sue on the technology later, or is it just not part of the
13 discussion?

14 Horacio.

15 MR. GUTIERREZ: Absolutely that comes into
16 discussion. That's one of the things you think about. And
17 just valuing IP is one of the most complicated, imperfect
18 things that I've ever seen. When I started working in this
19 area I had this vision of there being a very scientific
20 process of looking at a patent and being able to determine
21 what was the inherent worth of that patent. I've learned
22 that, in fact, the process is a lot more subjective than
23 many people would think.

1 features, you could say the value of the -- the marginal
2 value of the incremental patent is questionable or is
3 relatively low. If you're a large company who wants to
4 enter new businesses, and sometimes you enter new lines of
5 businesses in which you're frequently bumping against
6 established patent portfolios of other incumbents, then the
7 patents themselves have intrinsic value. What it is, it's
8 hard to determine and it's really up to you and how much
9 you're planning on investing in the area, but when you're
10 entering into a new area and you feel that you're exposed,
11 one of the tools that companies will use is the acquisition
12 of patent portfolios in the market.

13 And in those cases acquiring the patents alone
14 would have value. It's a little bit of a build versus buy
15 type of approach, the same that you would use in: Do I
16 develop this software myself or do I get the software in
17 from somebody else? I think in the patent area there's a
18 little bit of that analysis that happens too.

19 MS. MICHEL: I knew this would be a talkative
20 group. As part of that what we'd like to understand a
21 little bit is how much the patents are encouraging the
22 innovation Horacio talked about going into a new area, for
23 instance, and wanting to get patents to cover that, so that

1 there's the issue for a larger company. And then there's
2 the issue for maybe a start-up of needing the patents to
3 attract funding.

4 So if you could talk about the role of the patents
5 in developing the new technology initially.

6 Alex.

7 MR. SOUSA: For us, my company was originally a
8 lighting company and we have switched over to solar, which
9 is sort of like lighting in reverse, if you think about it.
10 And we did -- well, it kind of is, right. We did a lot of
11 due diligence, a lot of research, because we actually make a
12 raw material. We make a particle, a silicon nanoparticle.
13 We put it in an ink. So we're sort of a vertically-
14 integrated company and we did a lot of due diligence: Ways
15 of making particles, ways of creating these dispersions.

16 In many ways my company is kind of a like a
17 biotech company because we use organirany p5t7ike a

1 also have marketing value. We acquired one or two famous
2

1 there was an assertion against the start-up and the acquirer
2 looked at that as a big risk factor that drove the value
3 down a lot. And I've certainly seen the issue that comes up
4 in acquisitions where if the price isn't agreed upon, the
5 larger the acquirer says: Well, we'll just adopt the
6 technology without acquiring you, and there the patents are
7 important to make sure that they -- you know, that the
8 start-up -- or the company being acquired has some power.
9 So they can be pro-competitive if they're sort of in a
10 balance of things, or they can cause problems. And I think
11 really the answer is better-quality patents are good and
12 lower-quality patents just cause noise and friction in the
13 system.

14 MS. MICHEL: John, then Ron.

15 MR. AMSTER: So I would say in general that I
16 think what Lee said is right. Depending on the technology
17 area when it comes to raising money that venture capital
18 firms and angels are very -- have historically been very
19 focused on patents.

20 My experience is that they have been focused not
21 in a very educated way. And what I mean by that is they get
22 very confused between defensive value and freedom to
23 operate.

1 I always found it amusing -- and they have been
2 getting better, and I say this having spent a lot of time in
3 the last year talking to venture capital firms and now
4 receive phone calls on a very regular basis with people
5 assessing patents in kind of the right way.

6 But historically what they would say is: Do your
7 patents cover what you've developed. And that goes to what
8 Chip had said before about the bona fides of the technology.
9 Is this patentable. You know, is this a step forward in
10 some way.

11 If you think about it from an investment
12 standpoint they should be focused on what patents do you
13 have that read on the competitors who are going to sue you
14 when you're coming in the marketplace, and they historically
15 have not focused on that very much.

16 I think that they are starting to understand that,
17 which is why you are seeing more and more venture capital
18 firms almost encourage their portfolio companies to sell
19 their first sets of patent portfolios. In other words:
20 This is what we had when we walked in and raised our first
21 round of financing; we've got the freedom to operate under
22 these features that we were able to patent; we are now going
23 to sell those as a means of financing the company and we are

1 going to focus now on the future development of our
2 portfolio, on things that are actually defensive, which were
3 the things that really add value.

4 And I think you see the same thing in M & A
5 transactions, which is very rarely do you see somebody
6 willing to pay more money to get a company -- you see it,
7 but very rarely, -- where they pay more money to get a
8

1 I looked him up on Wikipedia, and sure enough it was Bob
2 Probstein, who was one of the key inventors of DRAM, looking
3 to sell his patents that he had developed separate from his
4 earlier corporate allegiances.

5 So there are individual contributors out there.
6 There are individuals who do contribute to the weight of
7 innovation that ultimately gets adopted in the marketplace.
8 To say that you must, in addition to being an innovator,
9 also have expertise at attracting capital and operational
10 experience in order to be deemed worthy of receiving
11 compensation for that invention seems a bit of a stretch.

12 MS. MICHEL: Chip.

13 MR. LUTTON: In both the context of technology
14 transfer and in the context of a start-up, the value and
15 necessity of having patents is, as I think a number of
16 panelists have said, very difficult to define objectively
17 and have just one answer to. And one reason for that I
18 think is, again, as others have alluded to basically, the
19 very subjective -- it's a very subjective issue.

20 The patent value and its necessity to an
21 enterprise is judged really in relation to the business
22 options that it creates for that enterprise in the context
23 of their other business commitments and model. So a patent

1 that may directly cover a competitor is -- doesn't have the
2 same value in the hands of an enterprise that has no
3 willingness for whatever reason to assert it in that way. A
4 patent may be extremely valuable for licensing but have very
5 little value to a company that is not willing to license
6 their technology.

7 So the context and the business option, one way to
8 look at a patent, sort of it secures the option to have a
9 certain business model if that fits with the rest of what
10 the enterprise is doing, which sets up the possibility that
11 a patent is worth a whole lot more to one company than it is
12 to another depending on what that company may be willing to
13 do with the patents or what stage it's at.

14

1 companies with commodity businesses where they clearly do
2 value it, they value it. In other words, you can say to
3 them: Well, okay, great, but what are you -- these guys are
4 willing to pay. You know, you're willing to buy the company
5 for \$20 million, I've got somebody willing to buy the
6 patents and give you a license, but they're willing to pay
7 me 20 million, so I can get 40 million. What are you
8 willing to pay me for just the technology with the patent
9 license?

10 In most situations -- again most -- there is a
11 price. You're not willing to pay 20 million anymore, but
12 the point is there value creation to be had by looking at --
13 the way different people look at it, there's value creation
14 to be had.

15 MR. THOMPSON: I'm not going to argue. I'm just
16 saying I'd be the one willing to pay 40,-.

17 MR. AMSTER: Right. Exactly.

18 MS. MICHEL: Alex.

19 MR. SOUSA: Yeah. You know, I tell the folks in
20 my company this, that patents are in some ways kind of like
21 insurance, right, you can use them to manage your risk. And
22 they keep telling me: Alex, let's acquire this, acquire
23 that. So-and-so's going out of business, let's get this,

1 get that. But they don't see the money part of it. See,
2 insurance isn't free. You have to pay for it.

3 And if you try to eliminate your risk you will go
4 bankrupt. It's impossible. The best you can do is minimize
5 it and manage it. So I try to convey the sense of, you
6 know, think of it as insurance and what is the expected
7 value or the chance of being sued, you know, or if we
8 possibly go into a certain area maybe in the future and try
9 to get some economic analysis. Because if you don't have a
10 lot of money, if you're a start-up, you know, you can only
11 make so many bets at the casino table, right, and you got to
12 make the bets wisely. And there are some things that maybe

1 portfolio -- do you feel that you need to build a large
2 portfolio to be able to operate defensively in that way? Do
3 the numbers matter and why do they matter? Any comments on
4 that?

5 Horacio.

6 MR. GUTIERREZ: They absolutely matter, from a
7 defensive perspective. Now that's not the only reason why
8 you get patents. The defensive perspective is ka8

1 time soon, we know that we both have exposure because we
2 both have a significant patent portfolio and therefore the
3 decision to move against a company will be colored by the
4 exposure for your own product lines and their patent
5 portfolio. When you're litigating against someone who has
6 no product and there's an asymmetry in there that makes the
7 heft of a patent portfolio less relevant, so that is also
8 not the only -- defensive is not the only perspective, but
9 is one that these days we think a lot about because so much
10 of our litigation burden comes from companies that don't
11 have the same exposure to your portfolio as you have to
12 their patents.

13 MS. MICHEL: You said defensive was one side of
14 the ledger. What's the other side?

15 MR. GUTIERREZ: I would say the most important
16 perspective from the long term is your ability to protect
17 your own innovations. All the companies around here are
18 investing significant amounts of money on developing
19 products. Those of us who are in the software industry,
20 particularly here who do mostly software understand how low
21 the barrier to entry in that market is. And we also
22 understand that if your software -- if all of your software
23 platform becomes a commodity, then in the long term you're

1 really going to be competing against people who have the
2 ability to manufacture appliances using your software with a
3 cost structure that you're not going to be able to compete
4 with.

5 So in the long run, particularly you put it in the
6 context of the globalization of markets and competition, in
7 the long run having the ability to protect your investments
8 and continue to differentiate the features and functionality
9 that your product offers is the difference between having a
10 viable software business or not.

11 MS. MICHEL: So you're talking about using patents
12 in the classic patent theory sense of: I have an exclusive
13 right then for this innovation?

14 MR. GUTIERREZ: Yes.

15 MS. MICHEL: How much do the other companies use
16 their patents in that way? How is that important to you?

17 MR. CREAN: We haven't seen a lot of exclusive
18 licensing, you know, sue to obtain an injunction in the
19 software industry at this point in time. We've seen more
20 cross-licensing, freedom-to-operate kind of behavior. But I
21 agree philosophically with everything that Horacio said.

22 MR. GUTIERREZ: Just to be clear, in the history
23 of Microsoft as a company we've sued three times. So it's

1 not like, you know, we're out there aggressively and broadly
2 litigating. But it is an option and it is one of the
3 reasons why you build a patent portfolio, is because there
4 are going to be situations in which you want to know that
5 you're going to be able to protect your investments.

6 MS. MICHEL: Earle.

7 MR. THOMPSON: Yeah, one way of protecting a
8 commodity is to be able to exclude people, which is what
9 you're -- the other way is to try to get a return via a
10 license royalty, which is the model that we have followed
11 over the years. That becomes increasingly difficult at
12 times. You know, and I've been in the commodity business
13 before.

14 My prior history was with Texas Instruments and I
15 went through the DRAM wars, where again it became a
16 commodity. You had entrants coming into there that had not
17 spent the R & D. The barriers to entry were low and
18 basically were driving you out of business, at which point
19 the only way you could stay in business was, again, to get a
20 license royalty. You know, that's a very similar model
21 basically to where I am today and it's another way of doing
22 it. It's somewhat more difficult at times. There comes a
23 point where you go: Well, should I really just exclude

1 people?

2 And in our case we've chosen not to do that
3 because that has enabled a lot of products. It's enabled
4 iPods, the solid state disks that you see today, the
5 flashcards, things like that totally replacing film. So
6 there is another way of doing it.

7 MS. MICHEL: So if heft is important in the patent
8 portfolio, what drives the decision to develop those patents
9 internally versus going out and buying those patents on
10 perhaps a secondary market? Is it more common to go out and
11 buy those patents?

12 Ron.

13 MR. EPSTEIN: Yeah. So counter to the heft
14 argument is the scalpel argument. I think when I started in

1 As a consequence I think the licensing marketplace
2 has moved very strongly in the direction of what we call
3 fact-based licensing, what we called fact-based licensing in
4 my Intel days, which is demonstrating actual use. As a
5 consequence, there has been an increasing value in capturing
6 patents that have demonstrated value, that is, there are
7 issued claims that you can show actually are infringed by
8 folks. And there's a very simple rule in patent prosecution
9 which is that you only obtain patents where you spend R & D
10 dollars, right. I would assume that's a fair summary.

11 The people who might have patents that read on you
12 don't necessarily have to compete with you. That is, we've
13 been focusing an awful lot on NPEs, but I'd still say 70
14 percent of the defensive licensing we do is corporate-to-
15 corporate licensing negotiations. And it's not always true
16 the company has a good defensive portfolio. So there's been
17 a change in the marketplace here, where Broadcom is a
18 perfect example of this.

19 Broadcom had a big victory last week. I'm not
20 sure about this, but I'd say almost all of those patents
21 were purchased, right, for strategic reasons. So obtaining
22 a patent portfolio today for chief IP counsel, and I don't
23 want to speak on behalf of people who were here who were

1 chief IP counsel, but I've chatted with most of these folks
2 before, you're required now to have a strategic portfolio.

3 You have patents that actually are lined up with
4 meaningful business objectives. And where you look in your
5 own patent portfolio and you find you have patents that are
6 unrelated to those business objectives, those are surplus
7 inventory and free to be monetized through sale; and, for
8 where you have holes, then the right answer is to purchase
9 those patents. And today at IPotential we talk to over 300
10 companies, all actively buying patents to fill holes.

11 MS. MICHEL: You said required now to have a
12 strategic patent portfolio. Does that suggest that the
13 situations change, that the strategies have changed over
14 time?

15 MR. EPSTEIN: Absolutely.

16 MS. MICHEL: What's that timeframe and why do you
17 think they've changed?

18 MR. EPSTEIN: Well, I think -- I left Intel in
19 2001 and I think there was still a weight-of-numbers theory.
20 Today I think there's a pretty good consensus that it's a
21 prove-it kind of environment, and a lot of that has to do
22 with I think the increasing sophistication of the
23 marketplace.

1 When I started in patent licensing there were few
2 people doing patent licensing, very few people. Some of the
3 innovators I can see here in this room. But today I think
4 that a lot more people understand that patents have value.
5 It's a market that's increasingly liquified over the last 20
6 years and, as a consequence, easier strategies are going --
7 you know, removing away from the easier strategy and more to
8 the more sophisticated licensing negotiations.

9 MS. MICHEL: Tim.

10 MR. CREAN: So patent acquisition in a secondary
11 market needs to be part of the IP portfolio plan and
12 strategy, so I agree with Ron. One challenge to acquiring
13 some assets in the open market is that some of the
14 licensors, some of the sellers value those assets at a
15 litigation level. And so if your plan is not to go out and
16 license and litigate or have an offensive licensing program,
17 it at times can be challenging to justify the purchase price
18 that is currently in the marketplace.

19 MS. MICHEL: So you're suggesting that the value
20 of the patent to someone who wants to litigate it is much
21 greater than the value of the patent to a company that wants
22 to use it defensively?

23 MR. CREAN: Yes, if you're just going to put it in

1 possibility of recovery far, far in excess of what a patent
2 would be worth in the real world.

3 So I'll keep distinguishing between kind of the
4 real world where patents, I think, are used a lot, and more
5 of a fictional world where the litigation system can give
6 rise to uncertainties or theories that many times multiply
7 the value of a patent in any commercial enterprise, so.

8 MS. MICHEL: Before going next to your second
9 point, you've said that it is a good thing to have this
10 market be developing. Why?

11 MR. LUTTON: Well, I think it is because, well,
12 for one thing, if you have a long track record of R & D
13 investment, you develop a portfolio that develops over a
14 long period of time and especially in a fast-moving industry
15 like the information technology industry, patents take a
16 long time to acquire. Sometimes by the time you get the
17 patent it's not that relevant anymore. Sometimes your
18 products have moved on to something very different and the
19 availability of your own patents in that space is several
20 years down the road, and so to be able to move into a market
21 and very quickly assemble a portfolio of rights that are co-
22 extensive with your current products or your current needs
23 is really important anywhere.

1 I mean, it allows patents to work the way they
2 should work, which is in conjunction with a business
3 objective and a commercial enterprise as opposed to sort of
4 separate from them. So I think it's a good thing, to be
5 able to freely trade assets and put them into -- deploy them
6 in a context where they can be used appropriately. But,
7 again, I want to make sure we caveat it with what's really
8 going on in the market right now. And it may just be sort
9 of the stage of the market, but...

10 MS. MICHEL: Any other comments on why it's a good
11 thing to have these markets for patents developing?

12 John.

13 MR. AMSTER: Yeah. I would echo what Chip just
14 said and say it in a different way. What if you are a
15 software company that decides you're going to go start
16 making handsets? And you are going to be competing with a
17 different set of competitors, you haven't had the last ten
18 years to develop a patent portfolio. The ability to go out
19 and obtain a defensive patent portfolio in that type of
20 situation I think is very valuable.

21 Then there's the situation Ron talked about which
22 I think should not get short shrift, which is there are
23 plenty of individual inventors who invent something and are

1 entitled to receive some compensation for the fact that
2 they've made an advancement in the useful arts and they've
3 received a patent for it. And what they invented is now in
4 the market, they just couldn't be the ones to bring it to
5 the market. That's an easy -- that's a harder one for
6 people to get comfortable with.

7 But take the situation of the failed company. I
8 mean SGI's a great example. That company could end up
9 getting liquidated. Who knows what's going to end up
10 happening. Would anyone argue that they didn't make
11 advancements that are now deployed in the market and those
12 patents aren't valuable? Is it really worse if they get the
13 money for that from their lenders, who are then going to go
14 hire contingency counsel and sue people versus selling it to
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1 Section 112, it's patent damages in a reasonable royalty
2 context. That's at the core. And if we don't fix that
3 we're going to see problems farther down the system, where
4 people try to fix it, but the root cause is in those three
5 areas I think.

6 MS. MICHEL: Horacio.

7 MR. GUTIERREZ: No, first I'd like to echo what
8 Tim just said. At the conceptual level the existence and
9 development of a secondary market, it is hard to argue that
10 it is not a good thing.

11 I think from the perspective of a company like the
12 one in which I work in, it provides choice, it provides a
13 number of options that wouldn't be there in the absence of
14 it. Which is not to say the secondary market today is
15 perfect, and it is not to say that it is as transparent as
16 it should be. On the other hand, it is to a certain extent
17 an incipient market. It's one that is just being created.
18 And it will take some time until there is a liquidity and
19 the approach to valuation that really makes for a
20 transparent and more efficient market.

21 The other point that I would make is that
22 typically when I've heard discussions about the secondary
23 market for IP, the premise for the discussion or the

1 assumption for the discussion is that somehow there is a
2 causal relationship between the creation and growth of the
3 secondary market and some negative phenomenon, such as the
4 explosion in patent infringement litigation and others.

5 And to me that is like blaming real estate brokers
6 for the collapse of the real estate bubble. Even though you
7 will find a correlation between the growth in the secondary
8 market and the number of transactions and the value of the
9 market and the explosion in patent litigation, although you

10

1 excesses in the litigation world.

2 MS. MICHEL: John, you're nodding. Do you agree
3 with that?

4 MR. AMSTER: I do. The statements about
5 causation, I a hundred percent agree with.

6 The one comment I would just make, which is
7 slightly different, is I'd say I've been fairly active in
8 this market for five years, there has not been any price
9 escalation. I think prices have absolutely remained very
10 constant. There's always the occasional bizarre thing and
11 there's always going to be, you know, what I would refer to
12 as the truly crazy entrepreneur-inventor who's not willing
13 to sell.

14 But I think what has happened is right, the cause
15 -- I agree with everything you guys are saying. There's a
16 fundamental problem with the way certain elements of the
17 patent system work, with the expectations in damages, and
18 because of that you're going to have outliers. And it's
19 those outliers that I think have really driven a lot of the
20 investment into fueling this litigation. It's hedge funds
21 who see a verdict against RIM and then decide, hey, we've
22 got \$2 billion to invest, how much does it cost us to buy
23 one of these patents; gee, we can buy 500 patents for \$5

1 million and give them to somebody and let them litigate them
2 for the next ten years and maybe we could get \$500 million
3 -- okay, we'll do that.

4

1 in the secondary market of patents that are being sold
2 specifically for the purpose of being put into litigation,
3 and a lot of times with the claim chart or even a draft
4 complaint and lawyers already picked, which happens a lot.

5 And we get a fair number of those offered to us
6 with our name on the complaint, presumably so that we'll
7 step up to the plate and buy that patent rather than see it
8 be asserted against us later, which is tempting, you know,
9 and so it has the desired impact.

10 But specifically thinking about that use of the
11 secondary market, and John's comment that over five years he
12 hasn't really seen an escalation in pricing, I wanted to
13 follow up on that because it may be that the individual
14 patent that, you know, would have sold for five or ten
15 million dollars, the outlier is still a five million dollar
16 asset today, but with the increased volume coming into that
17 market and so many more assets being offered based on the
18 potential for litigation, the potential to bring a lawsuit
19 at that \$5 million number, what's happening is kind of the
20 same thing is happening with litigation generally and that
21 is that the value of just the convenience settlement, the
22 cost of litigation type dynamic, where you just buy it to
23 get rid of it, is becoming cumulative and is mounting.

1 And so, again, for a company like Apple with 30
2 lawsuits against us and then many more assets being traded
3

1 entire industry. That there are, in fact, needs for dealing
2 with this problem, which is that ten years ago the cost of
3 using innovation contributed by individual inventors and
4 failed competitors was zero. It was zero ten years ago.
5 Today it is more than zero.

6 Obviously those who build and sell products would
7 like to pay as little as possible for access to these
8 innovations in the area of innovations from individuals and
9 failed competitors. There needs to be ways to address this
10 rather than one-on-one white knightism. You know, I don't
11 want to give this as a commercial for John, because there's
12 plenty of other ways to handle this problem. But in the
13 end, you know, these are all probabilistic and in my
14 experience pricing pretty much settles out at roughly what
15 those probabilities are.

16 I know what a -- there's a reason why I can tell
17 what a \$1 million patent portfolio is and a \$5 million
18 patent portfolio is with a 70-percent degree of certainty
19 which, by the way, is what Colin Powell is sufficient for
20 committing troops to war, right, so it's got to be at least
21 a reasonable number.

22 And the reason for that is is they look like that.
23 And when I started Intel's patent purchasing program in the

1 late '90s, \$1 million per great patent was the price. And,
2 you know what, that's still what it is.

3 MS. MICHEL: Do others think that's the going
4 rate, \$1 million per patent? I just --

5 MR. EPSTEIN: Per great, great.

6 MS. MICHEL: Great patent, okay.

7 MR. GUTIERREZ: I think what you're seeing is
8 you're seeing a tier system for patents that has emerged as
9 a result of the secondary market. And they're a handful of
10 those patents in the market that will command that kind of
11 price. And there's a ton of patents that you just look at
12 from the nuisance value of the litigation. And there are
13 some that are somewhere in between and you're starting to
14 see some trends with respect to pricing come out of that,
15 which is in the long term not really a bad thing.

16 The other thing with the secondary market is that
17 with this debate we need to resist the temptation to
18 generalize. There are different players operating in this
19 market that operate under different kinds of economics and
20 for different purposes. I mean, would you even talk about
21 contingency law firms as part of this market? They
22 typically don't buy patents. They don't necessarily buy
23 patents. Sometimes they do, but many times they just enter

1 into contingency arrangements with the holder of the patent
2 and I think most of the problem really comes from there.

3 There are some firms that are assertion-based
4 firms. You look at Acacia or things like that. Their
5 business model is to buy patents so that they can litigate
6 against some other firms.

7 There are others that are portfolio-licensing
8 types of entities that operate, if you will, it's not a
9 perfect analogy, but they're kind of patent pools that are
10 there to aggregate patents and then license. So there's a
11 whole range of them. And I think the analysis of how
12 productive or constructive or positive their engagement is

1 Lee, you've brought up the term "ink blot patent."

2 MR. VAN PELT: Sure.

3 MS. MICHEL: What do you think?

4 MR. VAN PELT: Sure. You know what I mean by that
5 is, for example, a patent where the words in the claim are
6 perhaps only used in the claim. If you do a search on a
7 term in the claim and you look in the specifications of the
8 patents, you don't find the term.

9 At that point it's very hard to tie down exactly
10 what the word means if it's not even used in the rest of the
11 patent, and that happens. So the idea that claims have to
12 be definite, the principle, that patents can sort of be
13 filed and then the claims can be massaged over the years,
14 and continuations and continuations in part is a problem and
15 it's an issue that, you know, the courts have done so much
16 with the *eBay* case and the *KSR* case to improve things. But
17 I think definiteness in the claim, support in the claim, and
18 the one interesting judicial doctrine is that you can sort
19 of write your claims and then several years later see your
20 competitor's products and change your claims specifically
21 only after seeing what someone else has done is an
22 interesting principle that I think needs to be addressed --
23 would be helpful if it was addressed by the courts.

1 But the issue is really the Patent Office can do a
2 lot and has done a lot in terms of improving the
3 definiteness of claims, but there's still all these patents
4 that have been issued over the years where literally you
5 look at the claim and it doesn't match anything you learned
6 in the specification.

7 And perhaps another thing that could happen is
8 that's not a basis for reexamining a patent now. You can
9 only reexam based on published prior art. If you could
10 expand perhaps what you could reexam on a patent you could
11 fix some of these patents in the reexam process, which is
12 much, much less costly for companies, that might be a good
13 idea as well.

14 MS. MICHEL: Alex.

15 MR. SOUSA: I think the solution is just basically
16 better writing. I mean right now the passage rate of
17 patents is I think around 40 percent, is roughly what -- and
18 I think that's a good thing. The reality is there's a lot
19 of crappy applications out there.

20 And I used to be a patent prosecutor myself. And
21 usually what happens -- I'll tell you guys the truth. What
22 happens is at a law firm you see an inventor in a company.
23 You spend ten minutes with them. They have: I have this

1 idea for kind of something this.

2 You squiggle something on a sheet of paper. You
3 know, the partner gives it to the associate who goes back
4 and generates 30 percent of a patent application and makes
5 some of it up and guesses. But we didn't call it -- we'd
6 called it inferring. We would infer things, and then this
7 gets submitted. And then you have kind of, sort of a crappy
8 patent. And then this gets prosecuted and they just wear
9 the examiner down and these things get issued, all right.
10 And that's the source. The source is there's just crappy

1 with the stuff that was issued at a time when the philosophy
2 was more: People who file patents are the customers of the
3 Patent Office and we need to help our customers get patents.
4 I think that there is that era which caused sort of the
5 bubble in patent filings and the bubble in patents getting
6 issued that probably shouldn't have been issued. Those are
7 out there and represent a cost and a drain on companies.
8 And a better regime for handling those is something we need
9 because of this era that we're in, that the rate has
10 changed.

11 MS. MICHEL: Lee and Alex, do you think that
12 stronger application of 112 doctrines would help with this
13 problem?

14 MR. VAN PELT: Absolutely.

15 MR. SOUSA: Yeah. Yes.

16 MS. MICHEL: And written description requirement,
17 enablement, definiteness, do you break those down in any
18 way, or all three?

19 MR. VAN PELT: I'd -- well, they're of course
20 broken down, and I think you have to. be you sort of the
21 written description requirement I think is one of the most
22 important. This sort of principle the courts are having in
23 the *LizardTech* case, line of cases, that a very narrow

1 disclosure of something supporting -- you know, claiming the
2 whole field is another issue that's -- that I think is
3 really important. That's one of the things in my patent law
4 class we focus on the most. How much scope are you entitled
5 for a given disclosure? That's a question the courts are
6 struggling with and it's probably going to be one of the
7 most important issues in the next couple years that they
8 struggle with.

9 But the written description requirement, you have
10 to be able to see that -- the specification should show that
11 the inventor was in possession of the invention at the time
12 the patent was filed. That's, I think, the bulwark against
13 this principle that the claims sort of evolve and morph and
14 end up meaning something in the example you gave, which I
15 think happens but is not the majority of the case and
16 certainly not something that happens all the time; but --
17 that where you have sort of this sort of ten minutes from
18 the inventor and it becomes something it never was.

19 MR. SOUSA: You know I think something that the
20 Patent Office would not admit but I think the general
21 philosophy is: You know, hey, come on, you pay a thousand
22 bucks, we'll look at it, do some prior art. You know, I
23 mean, come on, if you really have a problem with it, that's

1 what the courts are for, right?

2 Because, let's face it, what is it, less than one
3 percent of all patents get litigated, so it would be from an
4 economics perspective it would probably be uneconomical to
5 really do a thorough search and really do a thorough job on
6 every patent that goes through, so they do a cursory
7 inspection, right? You know, they do a cursory exercise and
8 they figure: Hey, you know, that's what the courts are for.
9 You know, if you have an issue with it, that's what the
10 courts are for.

11 And I think that they wouldn't admit that, but I
12 think that that is sort of the philosophy, that, you know,
13 --

14 MS. MICHEL: Alex and Lee, what's your impression
15 of the extent to which the Patent Office enforces the
16 written description requirement and enablement in the
17 mechanical and electrical arts? It's clearly very strongly
18 enforced in biotech, but what do you think about in your
19 area?

20 MR. VAN PELT: Well, I think that what happens --
21 I mean the issue really is not so much driven that the
22 patent -- I don't think the Patent Office has the attitude
23 that you're describing, Alex, but I think that they have a

1 limited number of resources they are given to examine a
2 given patent. And, you know, if a patent's filed with a
3 very lengthy specification and the claims are complex, it

4

1 often the terms themselves can sound sort of generic.
2 "Processing," well, is that the narrow meaning of processing
3 or a broad meaning. And storing something, are you going to
4 look at what the inventor actually said was how you stored
5 and where you stored or are you just going to say storing
6 means keeping it.

7

1 surrounding the claims.

2 Ron.

3 MR. EPSTEIN: Yeah. I'll just provide this
4 comment, because I actually think the debate's good and, in
5 the end, no one can argue with the importance of patent
6 quality and no one can really argue that there are
7 systematic issues that are preventing patent quality.

8 But you know I will point out that any process
9 that takes five years to engage inherently is going to head
10 towards a low-quality product. I mean, when I was at Intel
11 we were taught all about process management, and quality is
12 delivered through a known process with check-in point. So
13 without getting into a broad indictment of the overall
14 patent system, you know, if you've got a patent prosecutor
15 and it's five years from the time they write the initial
16 patent application, by the time that patent issues they
17 probably have a few other things to worry about in the
18 intervening five years.

19 As a consequence I think you get a real departure
20 from quality. If nothing else, if we could compress the
21 time so people are paying attention in a more compressed
22 time, I think that alone would get you much a better-quality
23 answer.

1 MS. MICHEL: Horacio.

2 MR. GUTIERREZ: I'll just briefly say that one
3 cannot really overstate the importance of this. I really
4 think it's probably one of the most important areas of
5 discussion.

6 I feel often when one looks at the debate
7 regarding patent reform, whether it be, you know, in the
8 Senate or in the House or in other kinds of reform of the
9 system, because of the political dynamics one ends up
10 focusing on things that really come later in the process.
11 And you're trying to address the consequences of failures
12 that have happened in the system much earlier in the
13 process.

14 And, you know, more robust postgrant review
15 procedures are a good thing, but that shouldn't be the
16 primary means by which you're going to solve a quality
17 problem. And I think that stricter disclosure requirements
18 under 112 and more enforcement and attention into it, as
19 Chip was saying, by the Patent Office is perhaps one kind of
20 administrative patent reform that would have the ability to
21 be the most effective to addressing these things.

22 There are litigation-abuses issues and there are
23 unpredictability in the context of it. It's a complex

1 issue, but I would say, because you were talking about root
2 causes, I think it is right to put attention on this issue
3 as one of the key root causes of the overall problem.

4 MS. MICHEL: So damages, how do the amounts that
5 might be awarded in court affect the price of the patents?
6 Why are damages important to you? A couple of you have
7 brought it up a couple of times, so I'll just throw it out
8 there generally.

9 Anybody want to talk about damages?

10 MR. GUTIERREZ: We have the privilege at Microsoft
11 of having three of the top ten verdicts against us. And
12 we're striving to be at the top all the time, so we're...

13 MS. MICHEL: Three of the top five even?

14 MR. GUTIERREZ: No, it might be two of the top
15 five.

16 MS. MICHEL: All right.

17 MR. GUTIERREZ: And it is a huge problem. Anybody
18 who knows anything about this knows that patent cases are
19 complicated on the law. They're made even more complicated
20 because of the patent-quality issue that we've talked about.
21 They are clearly complicated on the technology.

22 And when you have a system in which all kinds of
23 expert testimony, whether it's relevant or sufficient or

1 not, can find its way to a jury, you are going to have --
2 you are going out find a lot of unpredictability on the
3 outcomes.

4 It gets a lot better when you go on appeal, but in
5 the process you've had to fund this litigation and run with
6 the business uncertainty of having those huge verdicts sort
7 of hanging over your head.

8 MS. MICHEL: John.

9 MR. AMSTER: So I think that some of the damages
10 awards out there have a very clear impact on people's
11 expectations. I guess what I would say so I think it's very
12 important that there be more certainty and limitations put
13 on the potential for damages. And I think that's going to
14 be something that will help, but I would caution that it is
15 not going to make a problem go away, because there's always
16 going to be people who believe that they are the exception
17 to the rule somehow. In any system like this there always
18 will be need for exception.

19 And when we talk about the secondary market, in
20 particular, the discount that we're talking about, from an
21 expected-litigation outcome, is so significant that even
22 putting significant limitations on it, you know, you're
23 still going to need sellers to be a different level of

1 costs without a high potential for return.

2 So, again, there's great variability in the
3 quality of patents and without doubt there's been some big
4 verdicts on some really crappy patents. On the other hand,
5 there's been some big verdicts on really good patents as
6 well.

7 So if you want to shut down the overall patent
8 licensing marketplace, if you want to shut down the

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1 patent law, and you know the injunction issue has been
 2 essentially fixed by the eBay case, by moving it more to a
 3 reasonable standard.

4 And, on the damages issue, I think courts have
 5 taken a similar approach of, you know, that there are not
 6 going to be hard and fast rules, that they're going to make
 7 a reasonable determination. But if you get the patent
 8 that's valid, the patent that is a high-quality patent, then
 9 you ought to be able to get revenue for it and you ought to
 10 be able to get royalty revenue from it. And that's not a
 11 bad thing.

12 MS. MICHEL: Earle.

13 MR. THOMPSON: Yeah, I'll go a little bit further
 14 than what Ron did as far as, you know, what you shut down.
 15 What you really will shut down is the entire innovation,
 16 because there is no reason to invest in the R & D. Become a
 17 free rider on somebody else's investment and just build the
 18 end product. But, otherwise, there's no reason for me to go
 19 spend that money. I'll go live off of him over there.

20 And eventually when evel00 .6.yjsve ofn thnexter

1 idea. So it's not a very good thing to really put sharp
2 limits.

3 MS. MICHEL: Chip.

4 MR. LUTTON: I just want to say the issue for me
5 in the damages context is not the specific verdicts that
6 were excessive. It's the uncertainty that's engendered by a
7 standardless application of 15 factors in front of a jury in
8 a process that doesn't provide the discipline of any tying
9 necessarily to what this patent actually represents in terms
10 of the value that it could have obtained outside of this
11 hypothetical or fictional courtroom exercise.

12 And, just anecdotally, we routinely see two and
13 three orders of magnitude deference in the valuations that
14 are espoused by an expert for one side and an expert for the
15 other side in front of a jury. If you've got a thousandfold
16 difference in what people say the patent's worth, that issue
17 should not be going in front of a jury. There's a real
18 problem in the law that permits that kind of uncertainty to
19 be carried forward into a civil litigation context and then
20 presented to a lay jury.

21 What that says to me is that there's more need
22 both in gatekeeping procedural function and in a substantive
23 function of bringing these results back into a narrower

1 range that replicates what actually can be reproduced in the
2 real world, with comparable assets and in comparable
3 circumstances -- maybe the same assets in some cases. But
4 to indulge the idea that every patent is an entitlement to
5 go in front of a jury and ask for whatever you want under
6 this 15-factor test, open-ended test, is not a service to
7 promoting true value around IP.

8 And kind of to Ron's point that, well, if we take
9 this uncertainty out of the system, then all patents become
10 less valuable, I mean, I think you got to remember, I mean
11 we are issuing 2-, 3-, 400,000 new patents every year in the
12 country. We can't afford to overinflate all of them in
13 order to preserve the sense that, well, some of them might
14 be valuable, we need to have them all push this degree of
15 uncertainty in order to make sure that we continue to
16 invest.

17 I think the fact is that that some patents may be
18 worth less than what it costs to go to court. And, you
19 know, frankly, contract disputes have the same problem, slip
20 and fall have the same problem. It just so happens that
21 patent litigation is very expensive, so the threshold is
22 higher. But I don't think we should beat ourselves up and
23 try to make sure that every patent by virtue of the

1 uncertainty in the damages law has some enhanced value just
2 so that it can be traded in this way.

3 So I really come at it very differently, and I
4 don't think that we can afford to overinflate damages in the
5 way that they are. And I think we need to -- I think it is
6 this litigation construct that I think gives rise to what is
7 becoming increasingly a tax on really productive use of
8 innovation in intellectual properties.

9 MS. MICHEL: If you have such wildly different
10 valuations of a patent, you talked about a thousand-times
11 difference, going to a jury, what's the source of that huge
12 difference? Does it indicate a lack of transparency in the
13 market, is there anything we can do to increase transparency
14 in the market? Would it be helpful?

15 MR. LUTTON: Can I answer that?

16 MS. MICHEL: Yeah, please.

17 MR. LUTTON: I would just -- and I mean I won't
18 get into the details of what it might look like, but I think
19 transparency in the marketplace, better information about
20 the actual selling price, the actual licensing price of
21 intellectual property would be extremely valuable and would
22 go a long ways towards giving something that's real to point
23 to as a comparable instead of something that's a fictional

1 construct.

2 MS. MICHEL: Would that require some sort of
3 mandatory reporting of licenses, though?

4 MR. LUTTON: It wouldn't require it, but I think
5 that might be an idea that would be useful.

6 MR. AMSTER: We're having businesses that publish
7 rate cards and do large volumes of patent transactions say
8 what they're going to buy, say how much they spend on it,
9 and basically report and let people know what they charge
10 companies to license it. I mean not as a plug, but I
11 completely agree with the transparency.

12 And I think what's important in looking at the
13 damages debate in particular is not to go to hyperbole.
14 There is a long way to go to create transparency that is far
15 from putting unrealistic limits on the value of a patent, so
16 that's like saying because we have MLS and can see what
17 houses are sold for, no one's going to invest in real
18 estate. Because we're creating rates that are publicly
19 traded and you can see that, no. Right, in any market there
20 is a degree of efficiency -- of transparency that can be
21 established through a variety of means that will help the
22 situation.

23 So I'm not talking about making it -- having a

1 damages system that doesn't make it valuable for people to
2 invent, and I don't think we should think about that,
3 because there is a huge spectrum of change that can happen
4 that doesn't come anywhere close to making it not valuable
5 to invest in R & D and develop patents and then be able to
6 monetize them, yet still eliminate that order-of-magnitude
7 difference when people walk into court.onetize them, yet still elimi

1 And if it's not comparable, the court should be bouncing
2 that evidence.

3 And Judge Rader recently did that in the *Cornell*
4 case and at least to a partial benefit of HP, not a full
5 benefit, but it's that type of gatekeeper function which I
6 think can be helpful, but it's not enough.

7 One of the problems that leads to this
8 unpredictability, at least in certain cases, and the damages
9 awards are not always unpredictable and they're not always
10 over compensatory. But there are enough which are that it
11 can provide an in terrorem effect on those who are largely
12 in the defendant's chair in these kinds of cases.

13 But I think that it comes from having the *Georgia-*
14 *Pacific* factors given to a lay jury. And if you think about
15 what we're trying to do, we're trying to take an
16 intellectual property asset -- which you can't feel, you
17 can't touch, you can't see, right, it's just described by
18 words -- it's a legal document on a technical subject
19 matter, and we give it to those who don't know the law,
20 don't know the technology, aren't used to dealing with this
21 industry, and then we give them a list of many, many factors
22 and say: Now tell us what the value of this asset is.

23 I think one of the things we try to do in the

1 amicus brief is we try to talk about how can those factors
2 be better framed. And it's talking along the axis of the
3 judge playing the gatekeeper to ensure that the evidence
4 that gets through to the jury is of a similar royalty base,
5 a similar royalty percentage, a similar license scope,
6 covering a similar patent. And that when you do that --
7 and, by the way, the *Georgia-Pacific* factors actually fit
8 into that kind of instruction very nicely -- that when you
9 do that you are framing the issue for the jury to think
10 about those factors instead of just tossing these factors
11 over to the jury in a way in which must confuse them. It
12 just must confuse them.

13 And then you get these awards that come out, some
14 awards that come out that are just wholly untethered to the
15 underlying value of the patent or the actual harm suffered
16 by the plaintiff.

17 MS. MICHEL: Ron.

18 We'll just go around and then we'll wrap up.

19 MR. EPSTEIN: You know, I think between Chip and
20 Tim here I think some really good points have been made
21 here. I think the danger or the trouble we're all trying to
22 figure out is that the distinction between a high-quality
23 invention, which is a major contributor to the value

1 proposition of the product which incorporates it, and
2 something that's trivial is hard to bring down into
3 algorithmic kind of way of understanding what its direct
4 relationship is.

5 And, you know, I think Southern Pacific tries to
6 get at that, but by nature technology's too -- I'm sorry --
7 *Georgia-Pacific*. You know, I'm thinking of the train I
8 take. Anyway, I think those standards try to get at it, but
9 this is inherently a question where it's very difficult to
10 understand in some generalized way how you're going to value
11 the value of a particular invention with particular
12 production ahead of time with some sort of algorithmic rule.

13 I think finding a way to provide clarity that does
14 not take away the opportunity for a true innovation to be
15 properly compensated but, nevertheless, has predictability
16 would be the goal of everyone.

17 MR. GUTIERREZ: Yeah, just to your point regarding
18 mandatory disclosure requirements, I am very skeptical that
19 mandatory disclosure requirements for licensing first would
20 do anything to help with this problem, but second that it's
21 appropriate.

22 I think there are a number of -- there are
23 concerns anybody that the disclosure of sensitive business

1 information that would come into it. I think there are
2 mechanisms to have licensing information come to light.
3 Certainly the defendants in the context of patent
4 litigation, to the extent that they've done licensing in the
5 past, that's information that would come to light. There
6 are mechanisms to have it come to light when the plaintiff
7 has entered into those.

8 But in general I would say in line with the
9 comments that we've made, that this is a market that is
10 nascent in many respects. And it would seem to me that from
11 a regulatory perspective that we ought to err on the side of
12 caution before starting to regulate and require things that
13 we really don't know what kind of impact they would have in
14 the marketplace.

15 MS. MICHEL: Alex.

16 MR. SOUSA: Yeah. You know what, when I was at
17 law school I ended up externing for a federal magistrate
18 judge. And I would like to tell you it was because of my
19 charm or my academic brilliance, but I'd be lying. The
20 reason I got the job is because I'm an engineer. And he
21 wanted an engineer on his team, because he handles IP cases.

22 So at the court there was a lady who was in charge

1 yeah, and they specialize in death penalty law because
2 that's sort of a body of law unto itself. And I think a
3 great idea would be in each federal court to have somebody
4 who's a technical person.

5 I mean most federal judges are very good, but they
6 tend to be English majors, right. Very few federal judges,
7 I would imagine, are engineers, chemists, biologists. And
8 IP cases are engineering, you know, computer science,
9 biology. So they should at least have something on their
10 staff who can at least generally understand what this stuff
11 is before you get the bottle of the experts started, so.

12 MS. MICHEL: Earle.

13 MR. THOMPSON: Yeah. On the -- you know, picking
14 up a little bit more on the mandatory disclosure of
15 licensing terms and things like that, one of the biggest
16 issues is not everybody is in the same position. You know I
17 may be cross-licensing somebody who has a very substantial
18 portfolio. Obviously that vastly affects what a royalty
19 rate may be, and there may be no royalty in that situation
20 or there may be somebody who is willing to come into the
21 field and there's more to it. You know just a raw
22 disclosure of that kind of data, absent the entire thing, is
23 absolutely worthless to most people and, in fact, would

1 probably be quite confusing at the end of the day. Well,
2 why did this person get zero and this one six percent. It's
3 the same thing.

4 So I sort of agree, I don't really know how you
5 would implement any kind of mandatory disclosure that would
6 be useful.

7 MS. MICHEL: All right. Lee.

8 MR. VAN PELT: Yes. And we see this issue when
9 companies are obligated to grant a RAND license, or a
10 reasonable and nondiscriminatory license in a standard
11 setting. Well, one of the frustrations is, well, what's
12 discrimination, because all the companies are different that
13 are getting licensed, so you're not discriminating against.
14 So does that mean the royalty rate's the same?

15 It's very different without seeing a whole license
16 to be able to determine what -- whether to compare rates.

17 MS. MICHEL: All right. Very good.
18 Unfortunately, we need to conclude to take a lunch break and
19 come back for the afternoon. This has been a super panel.
20 Thank you very much.

21 The FTC, we're taking comments until May 15th.
22 You can submit them on our website and we're also happy to
23 talk to anyone who has more input for us. Thank you very

1 PANEL 3: MARKETS FOR IP AND TECHNOLOGY: ACADEMIC

2 PERSPECTIVES

3 MODERATOR:

4 JOEL SCHRAG, FTC

5 PANELISTS:

6 HENRY CHESBROUGH, Adjunct Professor, Haas School of

7 Business, U.C. Berkeley; Executive Director, Center for Open

8 Innovation

9 BRONWYN H. HALL, Professor of Economics, U.C. Berkeley;

10 Professor of Technology and the Economy, University of

11 Maastricht

12 ROBERT P. MERGES, Wilson Sonsini Goodrich & Rosati Professor

13 of Law and Technology, U.C. Berkeley Boalt Hall School of

14 Law; Director, Berkeley Center for Law and Technology

15 MARSHALL C. PHELPS, Corporate Vice President for IP Policy

16 and Strategy, Microsoft Corporation

17 ROSEMARIE ZIEDONIS, Assistant Professor of Strategy, Stephen

18 M. Ross School of Business, University of Michigan

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P R O C E E D I N G S

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MR. SCHRAG: Okay. Good afternoon. And welcome back to the FTC's hearings on the evolving IP Marketplace. My name is Joel Schrag. I'm an economist in the Bureau of Economics at the Federal Trade Commission. And it's my pleasure to welcome you to our panel on Academic Perspectives on Markets for IP and Technology.

And we really are delighted this afternoon to have a great group of panelists with us who spend a great deal of time thinking about how these markets work and the role that patents play in these markets. So we're hoping to talk a lot about the issues of whether these markets are working well and potentially what sort of public policy changes could make them operate even better.

We have one panelist who unfortunately was unable to be with us today physically, but we've arranged to have her here electronically. And I think what we'll do is hear from her first. The panelists are each going to have an opportunity to do a short presentation on some topics or questions that they particularly want to emphasize. And

1 days of presenting work with Bronwyn, so this is quite fine.

2 And, Bronwyn and Hank, hello. And hello to others
3 on the panel and at the event.

4 So one nice thing about participating, as Joel
5 gave us some flexibility, in just presenting trends and
6 things that we thought might be relevant either directly to
7 the topic at hand, which is how these markets for
8 intellectual property actually function or not, which may be
9 the case of my presentation.

10 So one of the things that I would just like to
11 focus on is the role of start-ups. We traditionally think
12 of them as sources of new technology, so for those of you
13 there in the Wells Fargo Room and near San Francisco, we
14 think of this with, of course, Google and search-engine
15

1 innovative activities and also the patenting activities of
2 larger public firms relative to start-ups.

3 Now there are several reasons why, in part because
4 we lack the comprehensive SEC-required databases like
5 Compustat and others for public or private -- I mean for
6 private and smaller companies. There are databases like
7 Corptech, and Venture Economics, and VentureOne, which are
8 extremely useful, but they also have reporting biases that
9 we need to be aware of when using them.

10 There are also pesky name changes that for the
11 entrepreneurs in the room I'm sure that that makes a lot of
12 sense when you're redirecting your companies, but it sure
13 makes it hard to track your patenting activities because
14 it's hard to then match which company names are the same
15 company and bundle patents accordingly.

16 Then, of course, many companies exit either
17 through acquisition or liquidation sometimes two, three,
18 four years after founding, which makes it difficult to then
19

1 markets for patents as alluded to earlier. Perhaps one
2 example of that is the Commerce One, the controversy
3 surrounding the Commerce One patents that come of course,
4 generated multiple millions in revenues at auction.

5 So the goals of my presentation, moving on to
6 slide 3, are really to provide some framing around this and
7 maybe even tying together some material that perhaps was
8 discussed in the IT and life science panels earlier from
9 today. So I'd like to provide just some summary statistics
10 that I have compiled on patenting activities of start-ups in
11 two information technology sectors, semiconductor devices,
12 bridging on to some work that Bronwyn and I have done
13 together, and then software. And then I'm tracing those
14 patterns over a fairly long period of time from the mid-
15 1980s through 2005. Of course that is particularly
16 interesting in the context of software, where we've had a
17 lot of legal rulings, both in the case of copyright and in
18 patents, particularly through the decade of the 1990s.

19 Now for a perspective, which I think is sometimes
20 lacking, we tend to either focus on IT or we focus on life
21 science, but for perspective I'd like to place some of these
22 trends alongside comparable statistics in one life science
23 sector which I have selected as medical devices.

1 Now the data that I am going to be showing you are
2 part of an ongoing study of patents and entrepreneurial
3 firms financing that in the process of working on some of
4 which is coauthored with David Hsu at Wharton.

5 So going to slide 4, the sample of firms that the
6 data are based on, so basically what I've done is to collect
7 a similar cohort of start-ups, these are all US-based
8 companies that were founded during the period of 1987
9 through 1999, which then gives us, you know, the period of
10 years postfounding to track their patenting and also
11 financing activities.

12 Now all of these companies received at least one
13 round of venture financing. And part of the reason that
14 restriction is on there is one of my primary data sources is
15 VentureOne, which has been a really useful source of data,
16 not just on founding years, but on name changes of these
17 companies. So we emerge basically the VentureOne financing
18 data with a pretty extensive search of Delphion for the
19 searches of US patents awarded to these companies through
20 2005.

21 So going to slide 5 the sample size is reasonably
22 large. I've got about -- so if you look at the bottom of
23 the slide -- about 300 semiconductor device start-ups,

1 from a slightly different angle lets us kind of, I think,
2 get a clearer picture of the intensity with which start-ups
3 in these sectors are filing patents. So here I'm going to
4 just take an average to depict how aggressively the average
5 startup in each sector is filing patents. And as a proxy,
6 what I am doing is using the cumulative amount of funds
7 raised. So this is private equity raised preexit,
8 regardless of whether that exit is liquidation, acquisition,
9 or IPO.

10 So moving to slide 7, this is a plot of what I'm
11 calling here are the average propensity to patent. Normally
12 when we compute these statistics for public companies, we
13 denominate this by R & D spending. I don't have that for
14 private companies, so that's why I'm using this cumulative
15 amount of funds raised.

16 So to interpret these statistics, here it looks
17 more like the medical device companies and semiconductors
18 are -- the gap between those is actually more narrower than
19 may have been suggested at just the cumulative volume of
20 patents. This suggests, just to focus on medical devices in
21 the middle, that the average start-up in medical devices is
22 successively filing nine patents for every \$10 million of
23 funds invested. That's about 6.5 patents per \$10 million

1 suggesting that some of these legal rulings that tilted
2 preference more toward software, toward the patenting of
3 software-related inventions and increased actually, I should
4 say, the private value of patents in software-related
5 arenas.

6 So moving on to slide 12, I think another
7 interesting snapshot coming through with the trends in our
8 data is appearing for the subset of companies listed as
9 failed or defunct by 2006.

10 So let's look at the same percentage of start-ups
11 with patents pending, except with that subsample of failed
12 companies in slide number 13.

13 So here we see at the top that -- you know, again
14 it's -- medical device companies file patents regardless of
15 whether they're going IPO or go bankrupt. We have a high
16 percentage consistently of medical device companies with
17 patents that fail. More interesting I think is the upward
18

1 Now a couple of things, I think, are interesting
2 in terms of how we might interpret those statistics. And
3 admittedly my interpretation here is somewhat speculative.
4 But one interpretation could be that this is just part of
5 the overall increase in the propensity of these firms to
6 file patents in the wake, especially in software, of *State*
7 *Street Bank* and some of these other rulings.

8 I think it's also plausible to think about this as
9 the increase in the shakeout of higher-quality, if you will,
10 start-ups in IT sector following the plummet in technology
11 and also financing markets for these companies post-2000.
12 So if that latter interpretation is correct, I think what
13 this means is that you have an increase in the supply of
14 failed and also higher-quality companies that could
15 presumably have both higher-quality technologies to offer
16 and perhaps reasonably valuable patents surrounding those
17 technologies.

18 On slide number 14, this is just to give you a
19 sense that these are not necessarily small numbers we're
20 talking about, even with my sample of only venture-backed
21 companies. Look at the number of failed companies in
22 software. If you add up the number of defunct software
23 companies in funding years that were last funded in 1999

1 through 2001, over 500 of these companies in the sample --
2 of course not all of them have patents, but an increasing
3 share does, as suggested by the earlier slide.

4 So, in summary, going to slide 15, among VC-backed
5 start-ups, I think that these slides show that a relatively
6 large share of resources is devoted towards patenting
7 activities, particularly in the two device or product, you
8 might think sectors, semiconductor devices and medical
9 devices. Now that finding perhaps suggests that IT start-
10 ups and medical or life science start-ups may not be so
11 different as we typically characterize them in the
12 literature.

13 In the overall '87 through 2005 period, clearly
14 the software companies are at a lower threshold in terms of
15 the overall financial resources that they devote. Now
16 looking more at the successful companies that go public,
17 it's highly unusual again for start-ups not to file patents
18 pre-IPO in the two device sectors building on the earlier
19 points. But it is increasingly common for the software
20 start-ups to have patents pre-IPO. For failed start-ups
21 that are disbanded, I think it's interesting to note that
22 within the IT sector, both in semiconductors and software,
23 that steep climb post-2000 in the percentage of failed

1 companies with patents. I think it raises the interesting
2 possibility that this has increased the supply of patents
3 available for the market, if you will.

4 Then my final comments are really some questions
5 that I think are completely unresolved by anything that I
6 have done and I would put on the table for others perhaps on
7 the panel or participants. And the first question is:
8 Well, how important really are failed start-ups in these
9 markets for patents. I told you these patents exist. It's
10 entirely possible that all of them basically were allowed to
11 lapse. I haven't said anything about the share that were
12 reassigned or sold to third parties. I would like to look
13 at that, but I haven't done so yet.

14 I think it's also interesting to think about where
15 that post-2000 shakeout temporarily boosted the supply of
16 high-quality patents. I think that's interesting because it
17 suggests that, you know, five years from now you may have a
18 very different scenario than what we've been dealing with
19 for the last couple of years, at least in IT-related
20 markets.

21 The second point I think is quite important from a
22 policy perspective and that is how important are these
23 patents sales as a means for investors and entrepreneurs for

1 recouping returns to their investments. So I think that
2 it's possibly very important, but I think, you know, it's
3 very important to keep in mind that if these patents are
4 basically sold in bankruptcy proceedings for fire-sale
5 prices, then it's unclear to me how these markets for
6 patents are actually stimulating the financing of these
7 entrepreneurial firm activities.

8 The third question is, to my knowledge, we know

9

1 or the quantity, or the quality, if you will, of these
2 patents being bought and sold on these markets.

3 And then I think the bigger question of all is
4 really what are the implications of those rulings on
5 innovation incentives. So hopefully others on the panel
6 will have perspectives on those issues. Thank you very
7 much.

8 MR. SCHRAG: Great. Thank you very much,
9 Rosemarie. You've raised a lot of very important questions.

10 Our next panelist is Bronwyn Hall who is a
11 professor at U.C. Berkeley. We're taking advantage of the
12 great wealth of resources available at Berkeley in this
13 area. Bronwyn is a Professor in the graduate school and
14 also Professor of Economics of Technology and innovation at
15 the University of Maastricht in the Netherlands. She's a
16 Research Associate at both the National Bureau of Economic
17 Research and the Institute for Fiscal Studies in London.
18 And as I'm sure many of you know, for many years she's been
19 a prominent researcher on questions of innovation. And we
20 are delighted to have her here with us today.

21 DR. HALL: So thanks a lot, Joel, for asking me
22 again to speak. And is Rosemarie still there, or is she
23 off? I was going to say hello to Rosemarie and give her a -

1 So I was going to talk about three topics
2 hopefully quickly, which is why I'm not using slides.
3 Nonpracticing entities, independent invention prior user
4 rights, and some data issues or data needs which are related
5 to the first two.

6 Originally I thought I might repeat the obvious,
7 but I think I'll skip that, about why we want a patent
8 system. I think most of you know why we want it. I think
9 the main thing is to remember that stronger is not better.

10 Nonpracticing entities, people have a lot of
11 different definitions for this and Rosemarie kind of hinted
12 at the issue in her presentation. I am using a real simple
13 definition which is a patent holder that doesn't practice
14 the invention on which he holds a patent. There is a long
15 list actually of benefits that you can imagine from the
16 existence of nonpracticing entities.

17 First of all, from an economic point of view it
18 allows efficient specialization and knowledge production.
19 It allows firms that are good at knowledge production to do
20 that and not be forced into doing other things they may not
21 be as good for -- as good at. It reduces reliance on --
22 returns to scale or scale economies to protect your
23 innovations and trade secrecy. In other words, we might say

1 that one of the features of the high-technology firms prior
2 to strengthening of the patent system in, say, the mid-
3 1980s, was a greater reliance on scale and trade secrecy and
4 keeping things within the firm because that was the way you
5 protected knowledge.

6 So one thing patents might be good at is -- and
7 particularly nonpracticing entities might help here -- is
8 favoring more competition in the knowledge area.

9 Rosemarie's discussion was about this idea that it enables
10 venture capital financing because you have this title to
11 whatever the idea that the firm is prospecting -- the firm
12 is, of course, isn't yet a producing entity so it's useful
13 to have this title.

14 There is actually now a reasonable amount of
15 empirical evidence that does indicate, both in Europe and in
16 the U.S., that ownership of patents within a sector does
17 speed up, maybe, your access to venture capital financing.
18 In other words, there is some evidence that this is true,
19 there's some empirical evidence.

20 The other argument which is an argument that
21 theoretically is extremely correct, and I think it's an
22 interesting question whether it's true in practice, which is
23 that because you have this title the salvage value of a

1 failed dot-com, or some other firm like that that's
2 basically producing intangibles, is now higher because they
3 can sell off the IP if they fail. And, of course, there's
4 huge amounts of uncertainty in start-ups. You don't expect
5 them all to succeed. So it's perfectly legitimate that some
6 will fail that have good ideas or have some piece of
7 intellectual property that's valuable.

8 Given that you've increased the salvage value of
9 such a firm, now you've made it easier to finance such firms
10 *ex ante*. Okay. Now that's a clean financial economics
11 argument, but the question is: How important is it in the
12 behavior of both venture capitalists and firms. And the
13 answer is: I really don't know.

14 There's also some empirical evidence that when
15 you're in a technology that has stronger intellectual
16 property rights you do get more technology licensing and you
17 get earlier technology licensing. It gets distributed
18 faster. Okay.

19 So now what are the costs, because -- costs in the
20 sense of the social welfare costs or the cost to innovation
21 of having nonpracticing entities. I think we all know that
22 there's been an enormous amount of controversy over this,
23 okay, controversy which I think is legitimate but I also

1 think is primarily due to a different cause than the
2 existence of a nonpracticing entity. It's due more to the
3 fact that we had a period, which hopefully is now coming to
4 an end, when a large number of very dubious patents got
5 issued in some technologies.

6 I mean, things have changed, you know. Rejection
7 rates are up. There's various court decisions that make
8 obviousness not as big a problem as it was before, et
9 cetera. But there still is this long period.

10 And the second thing is that the bargaining
11 strength in negotiations is probably too strong for any
12 number of reasons, at least in some technologies, the
13 bargaining strength of a patent holder relative to the
14 patentee. I'm reviewing for some of you the things which
15 you already know, but these are controversial assertions
16 because you can find plenty of people who will say: In my
17 sector it's working great and, you know, this isn't a
18 problem.

19 So why do I think the bargaining strength is
20 probably too strong? Well, the injunction threat is
21 extremely powerful in a -- you know, but we have eBay but,
22 you know, still we don't know yet. We haven't yet seen
23 things play out long enough to know whether that has fixed

1 this problem.

2 Basically the story, of course, is that when you
3 have a complex product, you know like a mobile telephone or,
4 you know, any complex electronic product or even a complex
5 software product that reads on many, many, many patents held
6 by many people the injunction threat is way in disproportion
7 generally to the technology embedded in a single part of
8 this complex product.

9 Now it's possible, it's not impossible, that in
10 some cases that even though it's a complex product and even
11 though it has hundreds of patents reading on it that one of
12 two of them are really, really the important one. But I
13 think that's the exception rather than the rule. And so the
14 threat of shutdown in the face of, you know, one out of a
15 hundred or one out of 200 essentially puts a lot of pressure
16 on a potential infringer to settle rather than to fight and
17 possibly invalidate the patent.

18 We have considerable economic research by my
19 colleagues here in particular -- I'm thinking of Joe
20 Farrell, who's in the room, or Lemley and Shapiro, if
21 Shapiro is not in the room -- that the low-quality patents,
22 which is to say patents that might be invalidated if you
23 reexamined them or had used a higher standard when issuing

1 them, that low-quality patents can be just as powerful for
2 this as high-quality patents because of the fact that, A,
3 there's free riding so people individually don't have enough
4 incentive to invalidate a patent if they are going to
5 benefit 20 other firms when they do it and, secondly, for
6 the simple fact that there is a risk attached to that
7 strategy. The risk is that you lose.

8 And the cost of losing may be so high, especially
9 if you have this injunction threat -- I mean this was the --
10 in a sense Rosemarie and I worked on this in semiconductors.
11 There it was clear that the injunction threat was overall
12 for those firms, for the manufacturers in semiconductors,
13 because the cost of investment in a plant was so high that
14 you couldn't shut it down, even for a month without
15 suffering serious loss.

16 The final story is -- actually there's another
17 issue here that increases the bargaining power -- and this
18 is an area where I think the patent reform bill has been
19 coming and going on, I'm not sure where it stands now -- is
20 the willful infringement issue, which is even if you think
21 there is a good reason to believe you're not infringing,
22 once you got the letter now you're liable for triple
23 damages. And this is a very -- you know, the bargaining

1 point just went up again. I mean, you know, there's a whole
2 list of reasons why there is too much bargaining power on
3 one side relative to the other side.

4 The reasonable royalties principle -- this is a
5 very interesting one. I'm going to tell you this, the facts
6 that we know on this, because the facts we know are too
7 limited and it's precisely for reasons I want to discuss
8 later, the facts we know -- Lemley and Shapiro made a
9 considerable effort to find out what court-awarded royalties
10 were by technology in the case of a reasonable royalties
11 principle being applied, okay?

12 Now this is extremely difficult because most of
13 the time you can't find the settlements. Okay. They're not
14 there; they're confidential. There's various reasons why
15 you can't find them. But they did it on a small subset.
16 And what they found was that the court-awarded royalties
17 were on average 10 percent in electronics and 14 percent in
18 chemicals-bio area.

19 Most of us would say: That seems too small a
20 difference based on what we know about the technologies,
21 okay, that there ought to be a bigger wedge between the
22 electronics reasonable royalties and the chem-bio reasonable
23 royalties. But, you know, you don't actually know how

1 selective this sample is. It's possible the only cases we
2 see are the ones I talked about where, yes, there are 400
3 patents, but only two patents were important, right, in the
4 electronics case. In that case, you know, you might get
5 high reasonable royalties in electronics. It's just really
6 hard to say because the data are really slim.

7 So that's all I wanted to say about -- I mean
8 except for the one -- I could give you a couple of facts
9 about nonpracticing entities. The evidence is fairly clear
10 that patent case filings from nonpracticing entities have
11 increased a lot in the last few years. Now that could be
12 because there is a lot of technology out there to salvage,
13 right? That's one of the things Rosemarie was hinting at.
14 But probably it's also because this is a profitable business
15 opportunity, and it attracts people into the business.

16 I have some numbers from a firm started by Dan
17 McCurdy, who used to be at ThinkFire, now called
18 PatentFreedom, which show that the number of new patent case
19 filings by nonpracticing entities has basically -- since the
20 late '90s it was about 50 a year and now it's up to 300 .00 0.00 rgE

1 Lerner has a piece on patenting in the financial method
2 sector. And there if you're a small entity and you own a
3 patent, the probability of that patent is in litigation is
4 greater than one. Okay, right.

5 Now most people don't think probabilities can be
6 greater than one but, of course, a patent can be in
7 litigation in more than one place. Basically they are being
8 asserted by small entities against large entities in that
9 sector very, very dramatically.

10 Independent invention. I'm aware of my chair here
11 and I'm thinking maybe I'll have to close out, so I'll be
12 fast on this.

13 MR. SCHRAG: We can even always return to it
14 later.

15 DR. HALL: We could always return to it. But I
16 think it's worth getting this out there, because...

17 Independent invention has been proposed by several
18

1 defense, right? I mean if we allowed an independent
2 invention defense there is a discovery that looks like
3 costly to me -- you know, lawyers can say better, but it
4 looks like a lot of discovery to me -- to prove, right, or
5 disprove independent invention.

6 However, there is a benefit which is the fact of
7 independent invention suggests the invention was not
8 nonobvious to persons having ordinary skill in the art,
9 okay, if you can actually prove it.

10 Shapiro shows basically, using simple models, that
11 the welfare is almost always higher if you allow independent
12 invention defense, but that's fairly, you know, that's in a
13 limited setting.

14 Mark Lemley talked earlier at one of these
15 hearings, but I'm not sure that he talked about this. He
16 has a paper in which he suggests four modest proposals,
17 which actually don't go to full independent invention
18 defense, which I think solves some of the concerns that you
19 might have if you went to the full independent invention
20 defense.

21 One of them is that only proved copying be
22 considered willfulness, okay, not independent invention, you
23 know, which kind of reducing, changing the willfulness

1 standard. Using prior user rights instead of independent
2 invention, which is subtly different because it has to do
3 with timing. Prior user rights is a subset of the -- it
4 rules out the simultaneous invention problem.

5 Make simultaneous invention relevant for an
6 obviousness determination when you get to court, if you're
7 in court and you're litigating in this area. Take
8 independent invention into account when deciding to issue an
9 injunction. That should be one of the factors that comes
10 into this qualitative court test of should I issue an
11 injunction here or not. Okay.

12 So the final thing is data issues, and I'll just
13 summarize. One of the reasons we don't have answers to a
14 lot of questions is because the data is really hard to get,
15 the data that we really need, economists really need. They
16 really need to know values. So does everybody else, right,
17 to do these, to do transactions. I mean when the markets
18 for technology, to do transactions, you need to know the
19 value. You need to have a way of estimating value.

20 The two things that we miss most are better and
21 more consistent litigation data and the financial
22 settlements in patent suits. Now that's asking for a lot.
23 Would this cause settlements to happen before a suit is

1 filed, you know, to keep it out of the public eye? I
2 wonder. Okay. I do think that you're relying on the court
3 system; you're relying on public services to settle disputes
4 that in some sense the public is entitled to know what the
5 settlement was.

6 The second one, and it's more feasible I think it,
7 is the financial data for licensing. If you're going to
8 understand this market, you really -- and I'm not the first
9 person to say this; lots of people have said this -- you
10 really need to have some information on the transactions
11 that take place.

12 Now the auction sites are helping here a little,
13 because we're seeing prices coming off the auction sites.
14 But, of course, you have a large amount of licensing going
15 on where you really don't know what the terms are. And it
16 struck me that -- and especially this is an FTC hearing --
17 you know, mergers are reported at a certain level.
18 Alliances are reported at a certain level. Why not require
19 reporting of another arms'-length transaction in the
20 marketplace, which is a patent license, in some standardized
21 way?

22 MR. SCHRAG: Okay. Thank you very much, Bronwyn,
23 for those comments.

1 DR. HALL: Well, I want to take notes.

2 MR. SCHRAG: You put a lot of issues on the table,
3 and I'm sure the people have a lot to say about them.

4 Our next panelist is going to be Henry Chesbrough
5 who is the Executive Director for the Center for Open
6 Innovation at Haas. It's not surprising he would be the
7 Director of that Center since he literally wrote the book on
8 open innovation. His work on this new paradigm has been
9 widely recognized for its important contributions.

10 So, Henry, maybe you wish to swap places so you
11 can do your slides.

12 DR. CHESBROUGH: Sure. That would be great.

13 Well, it's great to be here with old professors,
14 current colleagues, and the rest of us here. I'm going to
15 focus my remarks probably at a little bit more of a granular
16 level than Rosemarie and Bronwyn by going more to an
17 industry view as opposed to a societal view. But the things
18 I want to talk about here I think echo nicely the points
19 that were made in the last two presentations about enabling
20 markets for knowledge, the role of specialization that

21

1 Shall I do that? Does that help?

2 A representation of an industrial R & D process in
3 a firm for many, many years could be taken to be something
4 like a funnel or sometimes you hear this called a
5 "pipeline." And the imagery I think it's quite revealing
6 because whether it's a funnel or a pipeline, it's a solid
7 object that conveys flow through a process so that nothing
8 gets in and nothing leaks out.

9 And you think about the firm that Alfred Chandler,
10 a business historian at Harvard, wrote about, or if you
11 think of Bell Labs and communication technologies in the
12 1960s, and then Western Electric, the Bell system, and all
13 the Bell operating companies around the country, you can all
14 get these representations of a very, very deep but
15 essentially inwardly-focused model of innovation and R & D.

16 And it was at some point that much of this was
17 done in the research organization, and then after a certain
18 amount of development things were handed over to the
19 development organization that was going to take this to a
20 specific market. And that developed new products and new
21 services that got out to the marketplace. And I'm leaving
22 out of this slide all the stuff that goes through channels
23 and distribution out to the market. That's also important,

1 but I suspect less so for today's hearings.

2 For a number of reasons this model I argue is less
3 and less appropriate in most industries, and I don't have
4 time here, although there is a lot of stuff in some of the
5 stuff I've written about what would be behind that, but I
6 think you can better understand innovation today in most
7 industries by thinking of it as an open process where now
8 we've got holes in the funnel so that things are flowing in
9 and flowing out throughout the process, not simply at the
10 very beginning or the very end. And this gets back to these
11 ideas of specialization, knowledge production, thinking of
12 this as a relay race as opposed to a marathon, if you wanted
13 more of a colloquial metaphor.

14 And so ideas can come from both inside and outside
15 at the beginning of the process. And they can proceed to
16 market through the company's own channels, own business, own
17 business model, or they can go to the market through others'
18 channels and business models, et cetera. So there are many
19 ways into this innovation process in this model, and there
20 are many ways out to the market from it, as well.

21 And the rest of the time -- this is important, I
22 think, if we're talking about intellectual property, because
23 intellectual property can enable this division of the

1 small companies. And to a lesser degree, if we looked at
2 patents, we'd see a similar trend but less so. If we looked

1 business model where they actually went after main memory
2 components in IBM system 360s and basically were making
3 replacement parts that were, you know, 10 times faster for
4 less money. And they didn't have all of IBM's marketing
5 assets, but they had a better technology. And there were
6 enough systems out there and Intel was able to figure out
7 enough about how those systems worked that they could plug
8 in their memory and substitute for that.

9 And companies like Texas Instruments and others
10 began to follow this model. But inside the chip it was
11 still all vertically integrated. Intel did all the design,
12 all the manufacturing, and all the rest.

13 In the 1980s that model evolved yet again, in
14 Taiwan this time with ITRI, a government national lab, and a
15 company called TSMC or Taiwan Semiconductor Manufacturing
16 Corporation. And here for the first time the manufacturing
17 of the chip got separated from the design of the chip. So
18 we talk about how much money it takes to run a fab. Bronwyn
19 mentioned this in her last remarks.

20 There's also a lot of money to design chips as
21 well. But with this separation of manufacturing from design
22 we saw a great deal of entry in the late 1980s and early
23 1990s of design-based semiconductor companies, many of which

1 were in the U.S. and many of the patents that you're seeing
2 in semiconductors come out of this period where these design
3 companies are going to outsource the manufacturing, receive
4 the chip back, and then sell their products into their
5 markets.

6 So as we look at these patent data over time it's
7 actually very important to understand the underlying context
8 of these business models, this partitioning or division of
9 labor, because the business models aren't static in these
10 periods. The period that Bronwyn was referring to about
11 trade secrecy in economies of scale matches well to the
12 closed manufacturers who do the whole thing inside.

13 But if you're going to be actually using multiple
14 foundries and this competing on your designs it's a
15 different story. And if you roll forward to today there is
16 much further specialization in this industry where you now
17 have companies that have specialized intellectual property
18 for chip design, or other companies who specialize in IP for
19 manufacturing, process technology; others that will do

20

1 entrance doing specific pieces of the overall semiconductor
2 task rather than an end-to-end manufacturer doing the
3 design, the manufacturing, the construction, and testing,
4 and so forth, all under one roof. Even companies like Intel
5 today, their new Atom processor that goes for those net
6 books that they have, that's actually being built by TSMC.

7 So one of the things we see here is that
8 specialization promoted entry of new companies into the
9 business at a time when capital requirements were rising as
10 fabs were getting more and more and more expensive. If we
11 hadn't had the ability to enable this kind of entry, it
12 would have been a very, very tight oligopoly with only a
13 very few companies able to afford the massive multi-billion
14 dollar investments to do this. But with the discovery of
15 the foundry methodologies and then the more recent further
16 specialization, the cost of getting into the business is
17 much lower, provided you only tackle that one specific piece
18 of the business.

19 And I think, indeed, companies like suppliers to
20 the industry, like Applied Materials, are adding more value
21 with their equipment, which makes it easier for smaller
22 firms to get started. Companies like TSMC now have
23 something that -- their words, not mine -- they call an open

1 large patent portfolio; a lot of capital; have done a lot of
2 licensing deals, some of which have been made public because
3 they are big enough to be material. There was one deal with
4 Microsoft early on. I think it was at \$80 million. Another
5 deal more recently with Verizon. I think that figure was
6 \$265 million. So these are major licensing activities.

7 You had John Amster from RPX, so he probably did a
8 good job of explaining what they are trying to do. In part
9 it's something of a response to the Intellectual Ventures
10 model. We already mentioned patent auctions of Ocean Tomo.
11 We're trying to actually look at those data to contrast what
12 the initial list price was versus what the actual
13 transaction price was and, if we can get it, what the
14 internal evaluation of the company was of that patent before
15 it went through the process, to try to help parse how that
16 actually went through.

17 And I guess the last one I'll mention -- I don't
18 know, Rob, if you're going to talk about it -- is the Merck
19 Gene Index, which I think is another interesting aspect
20 here. I think of this as preemptive publishing where,
21 instead of patenting for the right to innovate, this was a
22 case where Merck decided to preemptively provide a lot of
23 research funding to universities for genetic markers, then

1 compile all that research output, and publish those data as
2 a result of putting that in the public domain making that
3 something that couldn't be patented and, therefore, giving
4 Merck a commons from which they could launch their own
5 investigations and discoveries without fear of being blocked
6 by some enterprising biotech that had a great patent on a
7 particular part of the genome on chromosome 4. I don't
8 think I'll talk more about that or not.

9 So what does this mean? And I think this is my
10 last slide. I think this more open innovation process I
11 began with requires both the buying and the selling of
12 intellectual property. Unfortunately, those markets today
13 are highly inefficient. And like other highly inefficient
14 markets that means there are the insiders and then there's
15 the rest of us. And, frankly, the insiders have a huge edge
16 over everybody else. I haven't done the economics, but it's
17 very unlikely to me that this is likely to be either
18 socially optimal or even allocatively efficient. We can do
19 better.

20 I think where we start to do better is through
21 better information. So where can we provide more available
22 information to try to reduce these price dispersions and
23 information asymmetries between the insiders and the

1 outsiders. And I think we're already seeing in companies,
2 and we'll see this more, preemptive strategies like that
3 Merck Gene Index or others, where companies try to take into
4 their own hands to try to give themselves some protection
5 against the nonpracticing entities or the other challenges
6 that they perceive in their environment that might hold them
7 up. That's it. Thanks very much.

8 MR. SCHRAG: Thank you very much, Henry.

9 I think that we're going to take a very short
10 break since we got started a little late. So we will
11 reconvene at 20 after 3:00.

12 (Afternoon recess taken from 3:15 p.m. to 3:30
13 p.m.)

14 MR. SCHRAG: If people could take their seats,
15 we'd appreciate it, so we can get the rest of the panel
16 underway. Thank you very much.

17 So our next panel is truly needs no introduction
18 here, I'm sure.

19 MR. MERGES: Thank you very much. I'll just start
20 right there then.

21 MR. SCHRAG: You will?

22 MR. MERGES: If you want me to.

23 MR. SCHRAG: Oh, no. Our next panelist is that

1 Rob Merges --

2 MR. MERGES: Okay.

3 MR. SCHRAG: -- who is the Wilson, Sonsini,
4 Goodrich and Rosati Professor of Law and an expert on all
5 things related to intellectual property, so...

6 MR. MERGES: Okay. Even when I ask -- oh, there
7 you are. Okay. See now you guys were all congregating back
8 there, and I couldn't use my favorite trick that I use on
9 students when everybody's not paying attention and they're
10 all kind of wandering around. I always sidle up to the
11 microphone, and I say: Now on the final exam... Boom.
12 Instant attention, you know? Anyway. So no test, no exam
13 today.

14 However, I am going to talk a little bit about the
15 marketplace for intellectual property rights, specifically
16 patents, today. I've got two main themes, and here they
17 are: I am going to talk about asset definition and asset
18 legitimacy. And if I have any distinct value added it's
19 probably on that second point, which is really a lot of what
20 I want to talk about. Okay.

21 So on the first topic of asset definition, you
22 know the basic questions you want to ask when you're sort of
23 evaluating a market is what kind of assets are being traded

1 and how do we establish their value. That's what markets

1 transactions on all three levels. I'll try to explain what
2 I mean by that as I go along.

3 The markets for these things interact in some
4 interesting ways. That's really what I want to talk about.
5 And what that means for my first topic is that the asset-
6 definition issue here is a little bit complicated. Defining
7 the asset that's being transferred takes a little bit of
8 subtlety. It can take some nuance. And we have to be
9 careful, when we're looking at an individual transaction, to
10 really specify what it is we're talking about.

11 So, for example, here's a book coauthored by my
12 good friend Ashish Arora. It's called *Markets for*
13 *Technology*. And in this book Ashish and his coauthors
14 summarize some research where Ashish sets out some findings
15 to the effect that in many cases what we think of as a
16 patent license actually has two components. There is a
17 know-how, a trade secret, an informational component, on the
18 one hand. And then there is the exchange of formal, legal
19 rights, on the other hand.

20 And he finds that at least in some industries, at
21 least for some transactions, the patent serves as sort of an
22 anchor, or a placeholder, or a conversation-starter. And
23 what really is valuable in the transaction is the

1 information that the patent in some ways acts as an anchor
2 for, or that the patent facilitates transactions in, if that
3 makes sense.

4 And I think that's a good example of the general
5 theme I'm getting at, which is if you think only about
6 markets for legal rights, you will miss the fact that a lot
7 of important economic activity happens under the rubric of a
8 patent license, but it's actually information being
9 transferred. And we know in a lot of patent troll
10 situations that what's bothersome about them is that, in
11 fact, there is no information changing hands; it's strictly
12 a legal relationship. It's strictly an agreement to make a
13 lawsuit go away.

14 And what bothers people fundamentally is that the
15 market for the legal right, which is the right to exclude,
16 is not carrying along with it any underlying or
17 fundamentally valuable information. So to some extent some
18 of the complaints about troll transactions are really
19 complains that -- what we have is a kind of bare-naked legal
20 exchange and there's no valuable information changing hands
21 at the same time. So I'm just trying to show that these
22 markets are fairly complicated and they interact at
23 different levels. Okay.

1 Beyond that, when we think about the market for
2 patents, regardless of whether information is flowing or
3 moving along with them at any given point, we have to think
4 about how regularization is going to happen, how this market
5 is going to evolve and develop. And one of the ways that
6 markets evolve and develop is that the rankings, ratings,
7 and various common denominators, rules of thumb, and other
8 transactional efficiencies, transactionally-efficient
9 earmarks, or transactionally-efficient indicators or
10 facilitators come along. So examples of those would be
11 Moody's ratings or the use of square footage in real estate.

12 These create comparability between assets which
13 are not, on the surface, fundamentally comparable. The idea
14 is that experts and people who look at large volumes of
15 transactions can discern commonalities and can come up with
16

1 Another topic that is very relevant when you're
2 talking about market making is transparency. And at least
3

1 disclosure because IP transactions are so idiosyncratic. So
2 these are kind of the pluses and the minuses, okay.

3 That kind of wraps up what I want to say about
4 asset definition, not that that's all there is to say.
5 There's a huge amount to say. In some ways I come back to
6 the question of the interrelationship between information
7 and IP markets in a minute.

8 But I want to move on to my second topic, which is
9 legitimacy which is something that lurks below the surface

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1 the main take-home point on legitimacy. The existence of a
2 market does not by itself confer legitimacy. Okay. I just
3 want to repeat that because I promised that's my take-home
4 point. The existence of a market does not by itself confer
5 legitimacy.

6 That's an implicit thought behind a lot of
7 conversations you hear with respect to trolls, that, well,
8 these are willing buyers; these are willing sellers. What
9 could be wrong? Okay.

10 And my simple point on legitimacy is that that's
11 not enough. You can't stop the conversation at that point
12 unless you're in a group of committed libertarians who think
13 that market exchange is the only value and that voluntary
14 exchange is all that matters. Most people don't agree with
15 that. For the most part society is much more, let's say,
16 discerning. I'll give you some examples of markets where
17 you have willing buyers and willing sellers where social
18 legitimacy is very much not taken for granted.

19 Supply and demand for blackmail is a classic
20 problem in the economics literature because you have a
21 willing buyer and a willing seller, and it's taken people in
22 economics and law in economics a long time of wrestling with
23 it before they finally decided, well, this isn't a good idea

1 to have a market in blackmail, because blackmail is wrong;
2 it's a bad thing.

3 Obviously slavery and various forms of indentured
4 servitude is another example. Another example that comes up
5 which is more in the gray area would be the market for body
6 parts. This is a book called *Black Markets* here.

7 The point is that there is a spectrum of
8 legitimacy and the fact that there's a buyer and a seller
9 and that they are willing to arrive at a market price does
10 not automatically mean that you're on the good side of the
11 dividing line that divides that spectrum. Okay.

12 My simple point for the trolls of the world is
13 they have to be aware of that, because the way the legal
14 system works, it will first see whether there is a willing
15 buyer and a willing seller, and then it will say: Gee, is
16 this the kind of transaction we want to promote. That is to
17 say, is this a legitimate asset being bought and sold? The
18 fact that there's a market is not the end of the discussion.
19 In some ways it's just the beginning. Okay. That's the
20 simple point.

21 So how do I bring that back to the topic of asset
22 definition and the relationship between particularly
23 information and patents or IP rights? Well, here's the

1 simple point there. The market for patents should serve to
2 facilitate the production of information or tangible assets
3 and/or it should promote the progress of industry. That's
4 the constitutional standard.

5 To put it really simply, the way we should judge
6 the legitimacy of this market is to ask whether or not the
7 transactions that the market facilitates are serving a goal
8 or a purpose that we think is valuable. We say, "No," in
9 the case of, let's say, markets for drugs or blackmail. I
10 think there are definitely classes of IP transactions that
11 do promote the progress of industry, that do ultimately
12 facilitate innovation.

13 But figuring out the line between pure rent
14

1 under this rubric are really pure rent seeking and don't do
2 anybody any good, to the extent that these transactions
3 really don't encourage any real innovation, then I think the
4 trolls of the world are going to find themselves
5 increasingly in trouble, and under the gun, and increasingly
6 under a regulatory burden, because that's what we do. If
7 you're a complete on the wrong-side-of-the-line-type
8 transaction, we outlaw you and life gets very difficult.
9 And the way you enforce your rights is you shoot people or
10 you hurt people. That's not an industry you want to be in.

11 If you're on a good side, we say, "Fine," you
12 know, market transfer leading to socially beneficial
13 results. You're fine. If you're in the middle that's also
14 a murky place to be. That's like the market for body parts.
15 We're a little squeamish about it. We tolerate it to some
16 extent. We regulate it. We wring our hands about it. We
17 say various complicated and nuanced things about it.

18 If you're in that kind of a market, obviously we
19 want to set up a set of regulations and incentives that
20 pushes you over on the positive side of the line as much as
21 possible. And I think the reason we want to do that is,
22 again, the transaction isn't serving a socially useful kind
23 of an end and there really is no reason to promote it;

1 there's no reason to encourage it.

2 Just a quick summary of a couple of things that
3 have been said here earlier. I would say that Rosemarie
4 Ziedonis and Bronwyn Hall were talking about some very
5 interesting issues, which I think are whether or not the
6 exit strategy or salvage value of the IP portfolio of the
7 start-up feeds back in any meaningful way into the original
8 funding decision. If it does then, in my terms, the market
9 for salvaged IP ultimately is going to serve some pro-
10 innovation purpose, because it's creating a little more of a
11 positive payoff for the funding entity.

12 If, on the other hand, most of the salvage IP is
13 being bought on the cheap and none of the founders or
14

1 & D or not? A little birdie just told me my time is up, so
2 that's it.

3 MR. SCHRAG: We planned that. Thank you very
4 much, Rob. And I think we're actually done with the
5 projector now.

6 Our final presenter this afternoon is another
7 person who in the IP world probably needs no introduction,
8 that is Marshall Phelps. Marshall is currently the
9 Corporate Vice President for IP Policy and Strategy at
10 Microsoft, where he has global corporate responsibility for
11 these areas. Prior to that he was Microsoft's Deputy
12 General Counsel for IP. And before joining Microsoft he had
13 a 28-year career at IBM, which included serving as Vice
14 President for Intellectual Property and Licensing. And
15 Marshall also has a relationship as Executive-in-Residence
16 at the Fuqua School of Business at Duke University. And so
17 it's entirely appropriate that he's on the academic panel.

18 DR. PHELPS: I was trying to figure out why I was
19 on the academic panel for the longest time. I'm not going
20 to use a PowerPoint, which for somebody from Microsoft is
21 heresy of the highest order, but I thought I'd just take
22 five or six minutes and just give you a couple of quick
23 thoughts about this.

1 I would like to echo some things that we've heard
2 before -- and this could be very dangerous with this bird
3 flying right over my head -- about a different way to think
4 of the markets for intellectual property beyond the way most
5 executives, accountants think about intellectual property
6 and what to do with it.

7 The traditional way that intellectual property is
8 taught is that it creates a negative right. It's the
9 ability to stop somebody from doing something. And my
10 classic story, which some of you have probably heard, is Lou
11 Gerstner arriving at IBM which, give Lou a lot of credit, he
12 saved the company.

13 But in 1992 IBM was down to a hundred days of cash
14 and it was about to go bankrupt. And it would have been the
15 largest bankruptcy -- we since succeeded it greatly, but at
16 the time it was going to be the largest bankruptcy in U.S.
17 history. And Lou arrives from Nabisco. Now what does
18 Nabisco do? It makes crackers and cookies. And Lou had
19 just lost a patent struggle with Procter and Gamble.
20 There's a great book written about this called *The Cookie*
21 *Wars*. And it was over a patent for making soft chocolate
22 chip cookies. And he lost. And so Nabisco was out of the
23 soft chocolate chip cookie business forthwith.

1 And so he arrives at IBM and finds out that
2 there's this guy named Phelps who's out there licensing
3 everything under the sun at IBM. And on his second day
4 calls me up and starts screaming at me, you know, Lou, he
5 doesn't know what to do. He said, "What the hell do you
6 think you're doing? You're out there licensing this stuff
7 when we should be stopping our competitors."

8 Never mind that we had a 1956 consent decree that
9 required us to license this stuff. But, you know, that was
10 not a good example to try to explain to Lou in an irate
11 phone call.

12 So what we did was we took one of these laptops
13 and we pulled off the keyboard and we made little red flags
14

1 to this kind of a thought about open innovation, if you
2 will, to pick Henry's terminology.

3 And I got thinking about that because most of the
4 licenses we did at IBM in the 10 years that I ran this
5 function were really combinations of trading. They weren't
6 just straight intellectual property in the sense of patents.
7 There were an awful lot of pieces of R & D, of trade secrets
8 that went in those things, and then the patents dragged
9 along as the right to use them.

10 And, by the way, that creates a dynamic when the
11 company on the other side can go to their CEO and their
12 board of directors and say: Well, we're also getting a
13 whole bunch of technology here, folks, that we don't have to
14 pay for. My classic example of this was the biggest deal
15 that I ever did. Back in the mid-1990s IBM invented a way
16 to put copper and aluminum on a chip at the same time.
17 Well, copper is highly corrosive and theretofore you
18 couldn't do that. Well, IBM figured that out. The only
19 problem with it, it costs three to five billion dollars to
20 build a plant to do that. And, of course, IBM was cash-
21 strapped.

22 So the day IBM announced that they also announced
23 that they had two licensees, their two biggest competitors

1 at the time: Motorola and Intel. And basically IBM got a
2 free facility out of those deals. Now the beauty of that --
3 and this is the way you have to think about this -- the
4 beauty of trading intellectual property like that for
5 something is that IBM was, at that point in time, working on
6 the next generation. Intel and Motorola weren't. They were
7 trying to get to square one.

8 So, anyway, my point is at the next turn of the
9 crank, who do you think the first people back to the well
10 were? Intel and Motorola. So it's sort of created a *de*
11 *facto* standard in the chip-making industry for this kind of
12 technology at the time.

13 So this was kind of the discussion I had with Bill
14 Gates back in 2003 about how Microsoft kind of needed to
15 rethink itself on these kind of things and quit being this
16 regional Seattle company thinking it made more money than
17 everybody else in the world, *a fortiori*, they're the
18 smartest and everybody breathing the same exhaust on that
19 one giant campus up there in Redmond, Washington, and start
20 to look outwards.

21 And the way I explained it was that you ought to
22 think about this stuff as a virtuous circle. You spend
23 money on R & D. Out of that comes intellectual property.

1 You use the intellectual property to either get licensing
2 revenues or build relationships and that feeds back into the
3 R & D model, and you just keep going.

4 In the meantime, you've created a subsequent or
5 subset ecosystem with the intellectual property you've put
6 out there in the open world. That was kind of my homely
7 example of the thing, and I used to draw these charts all
8 the time. Bill bought that. Bill Gates bought that, being
9 one of the smartest people that I've ever met in my life and
10 certainly highly knowledgeable about intellectual property.
11 He thought that was really a pretty good idea.

12 And so we have been working since that time to
13 kind of change Microsoft from being an inwardly-focused,
14 negative-rights company with intellectual property to be an
15 outward-focused, license all your technology. And in
16 December 2003 we came up with a plan of business. So we are
17 now open for business. We will license everything that we
18 have.

19 So we started down that road. We put 50
20 technologies on our website, and we said come and get them.
21 And nothing happened. We learned a very powerful lesson.
22 And that is you just can't throw technology out there and
23 expect it to succeed. If you really want it to succeed you

1 are times -- and you heard Horacio say we've had three
2 instances where we had to assert that. I should tell you,
3 and I don't -- the reasons we had to assert that was because
4 we found three companies who wouldn't even talk to us. And
5 that's a tough situation to find yourself in. And so that
6 was -- if we could have entered into negotiations none of
7 this would have happened.

8 But I view, in addition to the negative right
9 thing, which everybody on the planet focuses on, you ought
10 to look at intellectual property as a pretty good bridge to
11 collaboration. Now why do I say that? I say that because
12 if you don't have IP rights that are understood by the
13 purveyor of them and the receiver of them, you don't have
14 the necessary scaffolding to build a good, good bridge there
15 between the two sides. So IP rights are really important
16 that everybody understand them, so that if I'm on the
17 receiving end I know what I'm getting and I know what my
18 rights are to use what I'm getting.

19 If I am the giver of those or the seller of those,
20 I know what my rights are and what my ability to enforce
21 them are if something goes wrong and what I can expect on
22 the other end. That's really important in commercial
23 transactions. And I would urge the Commission or anybody

1 else to take that into account, at least the second order
2 effects of what might happen if you try to limit that kind
3 of capability on either side.

4 I wanted to say something that I heard a little
5 bit about today. This is not a trend limited to the IT
6 industry, what I'm talking about here today, even though
7 it's probably most profound in the IT industry, because our
8 products are made up of thousands and thousands of
9 inventions. Windows Vista has 50 some odd million lines of
10 code in it. You might argue there are a few too many. Some
11 have. But there is a lot of invention, a lot of invention
12 that goes in there.

13 And you say, well, that's okay for the IT
14 industry, but it doesn't apply to my industry. Okay.
15 What's your industry? Big pharma. Well, it does apply to
16 big pharma. Big pharma is in deep trouble for the business-
17 model problems that you heard earlier. What are they doing?
18 They're trading IP on the front end. They're running around
19 trying to find small companies that they can buy and do the
20 R & D for them so they can fill up the pipeline, because
21 there aren't just that many more \$1 billion pipelines.

22 So if you look at Eli Lilly, they went and bought
23 a company that was making Cialis. Well, Cialis is that one

1 don't sue each other basically, is what happens. Since we
2 started this in Microsoft we're now up to about 550 cross-
3 license agreements, some with, people would argue, arch
4 enemies, like open-source companies like Novell and things
5 of that nature.

6 So I can just tell you that that is a pattern in
7 the industry that is going on left and right. And so for
8 those who view this intellectual property stuff as building
9 barriers between companies, I would argue the opposite is
10 more likely the case than not. What else did I want to say?
11 Well, I think I've said it all.

12 Just the point is, I do think that IP is this
13 incredible scaffolding that allows all this to work. Does
14 that mean there aren't problems, that we get out of sync,
15 the patent system gets out of whack on occasion and needs to
16 be brought back? Yes, it does. It means we have to do all
17 those things and, you know, eternal vigilance is probably
18 really, really important.

19 So I just wanted to say one thing about the troll
20 problem, whatever. The one thing we are ignoring in this is
21 a lot of these trolls happen to be law firms. And what they
22 do is they go out and they buy these patents. Now I suspect
23 that I'm the number one victim of trolls in the world. It

1 is the deep-pocket theory of justice, and we should never
2 forget that.

3 When you combine that problem with very, very
4

1 because this is another part of the problem. And I'll stop
2 there.

3 MR. SCHRAG: Thank you very much, Marshall, and
4 thanks to all the panelists for some very interesting and
5 provocative presentations. And, unfortunately, Henry has to
6 leave us at this moment to go attend to scholarly business
7 and teach a class.

8 So I think that, Marshall, what you were just
9 talking about, this concept of IP as forming a scaffolding
10 tool is, in some sense, resonant with what Rob was talking
11 about in Ashish Arora's book, --

12 MR. MERGES: Right.

13 MR. SCHRAG: -- you know, the IP playing sort of a
14 focal point. And I'm wondering what people's thoughts are
15 about whether that fact that IP plays this role in sort of a
16 broader technology relationship between the firms that are
17 transacting. Does that mean that we approach technology
18 markets differently than we approach markets, you know, for
19 commodities and services where there are arm's-length
20 transactions? Do we think about efficiency differently?
21 You know, are there -- is it important to distinguish
22 between markets in those different kinds of contexts?

23 MR. MERGES: Well, yeah. I'd say definitely yes,

1 for two reasons. First of all, the data that Rosemarie
2 presented and Bronwyn alluded to a little bit, you know,
3 that's data that shows that there are lots of small
4 companies that hold patents. And a lot of that was directed
5 at sort of the final-period problem or the exit-option
6 problem. But when you sort of dig into the details of what
7 Marshall was saying, which is: Why is it that it's easier to
8

1 it is. What difference can 25 cents make to Microsoft?

2 Well, that makes a lot of sense, except when you
3 multiply it by a couple of billion, which are the number of
4 copies of Windows that have been out there over a period of
5 time. And that's how you get these five, six hundred
6 million, which we've had a bunch of these, judgments,
7 million-dollar judgments against the company.

8 Now Apple is starting to find this problem, too,
9 because now they're after the iPhone and the iPods and
10 what's in those things that they can multiply by -- it's not
11 the amount of money that you're seeking in damages, it's the
12 damn thing you multiply it by that is the huge problem here.
13 So you add all these things up together and you see where
14 the terror is in the system.

15 MR. SCHRAG: I should say that when I put out a
16 question if anyone wants to -- you can indicate it just by
17 raising your flag.

18 DR. PHELPS: Oh, these -- These guys?

19 MS. MICHEL: Rob doesn't have --

20 MR. SCHRAG: Yeah, Rob, your flag has migrated
21 behind the laptop.

22 And, Rosemarie, if you're still on the line and
23 want to interrupt us --

1 DR. ZIEDONIS: Could I contribute something before
2 you move on?

3 MR. SCHRAG: I beg your pardon?

4 DR. ZIEDONIS: Could I contribute something before
5 you move on?

6 MR. SCHRAG: Surely, please.

7 DR. ZIEDONIS: I would think that that last --

8 MR. SCHRAG: Yeah, just feel free to jump in when
9 you want.

10 DR. ZIEDONIS: -- that that last discussion
11 between Rob and I assume that that was Marshall --

12 MR. SCHRAG: Yes.

13 DR. ZIEDONIS: -- speaking last, I think that that
14 illustrates a fundamentally important point that Rob, I
15 think, really did a nice job of discussing, which is we have
16 two, at least two, very, very different types of
17 transactions on these markets. You know, one we can
18 characterize as more that collaborative model where we need
19 that scaffolding to, you know, get as the example that
20 Marshall pointed out, the fuselage to match with the wings
21 and et cetera, et cetera. And clearly that is vital toward
22 getting new products on the market.

23 Now, on the other hand, we also have a fair

1 number, I would argue, of the troublesome, pure rent-seeking
2 type of transactions. And I think, you know, when we talk
3 about these markets for patents and whether they need to be
4 promoted, or facilitated, or encouraged, I think that
5 discussing that, keeping those types of transactions
6 separate and discussing them separately is going to be very
7 important.

8 I guess the only other point I wanted to make is
9 that the study that Bronwyn and I had done on the
10 semiconductor industry, we were looking back farther in time
11 than the numbers that I reported and were looking at entry
12 into the semiconductor industry through the early '80s until
13

1 Marshall that in terms of how do you decide how many
2 resources to put towards patent clearance on the front end
3 and how effective is that as a form of quote/unquote
4 insurance, if you will, against these types of disputes.

5 DR. PHELPS: I would argue it's pretty
6 ineffective. Microsoft right now has 55,000 patents you
7 either sitting in a -- pending in the patent office around
8 the world or issued. Go ahead and try to do clearances on
9 that. It's just huge. You can't know everything. Many of
10 the people who are -- to use the term -- trolls, or
11 nonproducing entities, or whatever you want to call them
12 aren't exactly forthcoming until they kind of see where
13 things are going, and then they can come and see you and
14 say: Gee, sorry to hear you shipped 500 million copies of
15 that.

16 So you don't necessarily find this stuff on the
17 front end. Now I can search against Intel or the major
18 Japanese companies. I can do that kind of work, and we do.
19 We do. But it's the entity that has one patent sitting
20 there somewhere that may or may not be relevant. And, oh,
21 by the way, it may not read exactly on where we are, but --
22 and so the lawyers often want to say, well, you know, we
23 don't infringe that thing. Well, you want to take your

1 chances on that in front of a jury of retired postal workers
2 in Chicago, Illinois? I mean that's what you're facing.
3 And they can confuse everybody with the technology behind
4 these claims, and all of that kind of thing. So it's a huge
5 problem.

6 MR. SCHRAG: Marshall, I don't know if you have a
7 perspective on this, but is it your view, or anyone else on
8 the panel, that this is a bigger issue, the clearance issue,
9 in the IT sector, or does it apply -- Rosemarie talked about
10 medical devices and --

11 DR. PHELPS: Well, it's much harder in my industry
12 because the sheer numbers of or pieces of intellectual
13 property that are in a machine. If I am in the pharma
14 industry or the chemical industry, just to take two other
15 high-tech things, I have a much closer relationship between
16 the intellectual property and the ultimate product. Often
17 one-to-one. I've invented a molecule, and that molecule
18 becomes a blue pill, or a red pill, or something like that.
19 But, you know, I've got 10,000 red pills in here. So it's a
20 much harder problem in, I think, the telecom industry or the
21 IT industry.

22 MR. SCHRAG: Yes, Bronwyn.

23 DR. HALL: Just a footnote on that. It's not just

1 the red pill problem -- I mean, you know, it's not just the
2 one patent per product or the three patents per product and
3 the, you know, hundreds of patents in my laptop, thousands
4 of patents. I liked the red flags. That was good.

5 But it's also that those three patents are better
6 defined, especially in the software area. I mean you have a
7 better idea of what exactly they cover, particularly if
8 you're using the old model of one molecule. I mean there
9 it's -- you know, that's wonderful. In chemistry, the
10 periodic table did a lot for us.

11 But in software, I mean, you know, -- first of
12 all, the language changes depending on the period the
13 patent's written. The language is sometimes tailored to get
14 it into a class so it won't, you know, -- and then there's
15 the problem of: Is it hardware or is it software? Well,
16 most of these inventions you could do them either way, so
17

1 in parts of ICT -- not all of ICT necessarily, but in parts
2 of ICT than in the pharma area.

3 MR. SCHRAG: Is that an insolvable problem, or are
4 there changes that could be made?

5 DR. PHELPS: This does lead you to some of these
6 giant policy conflicts that you see in patent reform and
7 whatever. If my whole business depends on that red pill
8 surviving and not being copied, I am going to fight for as
9 much terror as I can get into the system. I truly am,
10 because my whole business is at risk if I lose that. Right.
11 And I'm happy to have a Marshall, Texas sitting there. And
12 I'm really happy that, you know, I can go for injunctive
13 relief, and all of that kind of stuff.

14 But, boy, if I'm in the ICT world, I am not so
15 happy. And that's why you see this giant battle on patent
16 reform that goes on as we ask the government to choose among
17 its children. And that is a really hard thing for the
18 government to do.

19 MR. MERGES: Yeah, I would say that, Bronwyn, your
20 point is very well taken. And I think we have -- there are
21 some tools that we have to rein in the fuzziness with which
22 -- particularly software patents, you know, that they are
23 allowed to have, I think.

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1 instrument, but it's a lever that would require a lot of
2 finesse to get it right, is my sense.

3 MS. MICHEL: But, Rob, could you just describe
4 what you mean by using the renewal fees as a policy
5 instrument?

6 MR. MERGES: Right.

7 MS. MICHEL: Are you talking about raising the
8 fees --

9 MR. MERGES: Yeah.

10 MS. MICHEL: --

11 MR. MERGES: We've done very little with it. I
12 mean, you know, there are all kinds of ideas you can think
13 of along these lines. We have a very, you know, rough-and-
14 ready approach now. We have certain fees so far in, and
15 then they go up, and then they go up. But, you know, ideas
16 like prepaying for the whole term if you think you've got a
17 winner, prepaying at a discount, or putting it off if you're
18 a little guy and saying: We're going to kind of, you know,
19 get an option to renew at a lower price. And if we raise
20 the money later, we'll pay the back renewal fees.

21 We haven't done anything creative with renewal
22 fees. For the big corporate entity that just does it as a
23 matter of course, raising the fees would probably have the

1 desired effect. It would cause them to weed out the weak
2 stuff. But you can create a more subtle tool that doesn't
3 capture or doesn't end up harming the little guy if you are
4 creative about it, you know, allow him to put it off, allow
5 prepayment at a discount. There's various -- I mean we just
6 haven't done anything with that mechanism. Nothing
7 creative, anyway.

8 DR. PHELPS: Which, by the way, is one of the
9 reasons that patent reform never goes anywhere -- because
10 the little inventors are scared to death of these kinds of
11 things because they kind of have a back seat in this debate.
12 So when you add the small inventors to the black helicopter
13 crowd who think we're trying to undermine the
14 competitiveness of the United States -- a bunch of people in
15 Orange County -- which is true, by the way. I'm not kidding
16 about this. It's what derailed patent reform back in 1992.
17 It was a strange combination of Phyllis Schlafly and Ralph
18 Nader.

19 But we've got to come up with an answer here --

20 DR. HALL: And the finance economists.

21 DR. PHELPS: Yeah. We've got to come up with
22 something here that maybe we have a dual system. Maybe if
23 you're small enough, you know, you don't pay the same fees

1 as everybody else. And we may have to do this so we can --

2 MR. SPEAKER: That's the right -- the right track.

3 DR. HALL: But we already do.

4 DR. PHELPS: Oh, but maybe -- what I am hearing
5 here is we need to do more of that.

6 DR. HALL: Yeah.

7 MR. MERGES: There are more sophisticated --

8 DR. PHELPS: There are more sophisticated ways to
9 do that. And maybe we have to do something that varies by
10 industry a little bit, too. I don't know that answer.
11 Maybe that's how you solve the pharma thing versus the ICT
12 industry. Maybe you have slightly different systems. I'm
13 not sure all that's bad. Although at some point in time you
14 may end up with such a multiplicity you don't know. And the
15 other problem with what I just said, if I thought about it,
16 is the computer industry and the pharma industries are
17 getting very close together, because almost all drug
18 research now is done on computers. So we have to be
19 somewhat careful here of what beast we give birth to.

20 MR. SCHRAG: Bronwyn, did you want to add to that
21 something?

22 DR. HALL: Yeah, I wanted to -- I mean one of the
23 slides I didn't show was the slide on renewal fees, because

1 I agreed with Hank and with Rob that very much that --
2 there's even -- you know, there's an old economic paper, a
3 theory paper, by Mark Schankerman, with a coauthor,
4 Francesca Cornelli, which basically shows that if you have
5 uncertainty over the value of the patent which, of course,
6 you do, which gets resolved, you know, it gets revealed as
7 time goes by at different rates, that renewal fees can be a
8 very good way to basically weed out the junk, because
9 initially you don't know often. In fact, the earlier work
10 by Ariel Pakes sort of shows that you get most of the
11 information in the first five years or so, you know, of the
12 patent life. But, of course, this could have changed since
13 he did the work.

14 When I talk to my friends in Europe one of the
15 features -- there is a good feature of our system, and the
16 good feature is the lower prices for microentities. They
17 don't -- this is a problem for them, because they have
18 higher prices for patents, you know, overall, especially
19 because of the translation fees. And they also perceive
20 themselves as having a problem with new entrants, and start-
21 ups, and so forth, in the high-technology area. And they've
22 resisted having the multiple -- you know, having two tiers.

23 But it seems once you have two tiers, having two

1 tiers of renewal fees and escalating the renewal fees to get
2 the junk out the system -- and not just the junk, but also
3 this stuff you know we had with this -- after .com we have
4 some patents that came back and bit people that were
5 interpreted as -- you know, that weren't actually about the
6 Internet but were interpreted as reading on inventions in
7 the Internet. And it would get rid of that stuff, too,
8 hopefully, you know, the stuff that comes back to bite you
9 10 years later when somebody reinterprets what it was they
10 actually said. You know, if the patent's vague enough you
11 can try to do that.

12 So I'm also kind of in favor of this renewal fee
13 strategy, but there is a downside, which is that what you've
14 just done is create a system -- if you tilt towards renewal
15 fees, now you've created a system where there is this huge
16 incentive to go to the Patent Office and get a patent,
17 right, and make them do a lot of work for something that
18 later on you're going to say, oh, after three or four years
19 I'm not interested in it anymore.

20 Now that has the good side is that puts it in the
21 public domain, which is a good thing, right? So now you've
22 put information in the public domain, but you've raised
23 Patent Office costs, because the money that -- where the

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1 It might be worth more. And so a price that I established
2 in one case may not be the same price in another case,
3 because the needs are different every time. That's part of
4 the problem you face here. It's not like we're selling, you
5 know, a pound of apples where everybody kind of knows what
6 the parameters of a pound of apples are.

7 I go back to that chip model I made. The fact
8 that it was worth an awful lot of money to Intel doesn't
9 mean for another little chip company it's going to be worth
10 that kind of money for a couple of reasons. And one is not
11 the least of which is they couldn't pay it if they wanted
12 to. So you have to be careful of that.

13 The other thing you have to be careful about, and
14 this I would like to just kind of keep in this room, is most
15 of these negotiations take place under confidentiality
16 agreements between the companies for competitive reasons.
17 Company A does not want its competitors to know that it has
18 just licensed something, technology X, from Microsoft and
19 that they're going to go into that business. So you sign
20 these things up under a confidentiality agreement.

21 There is a third problem, and this is the big one.
22 About two years ago the Internal Revenue Service decided it
23 was going to take a look at these licensing deals the

1 companies do between themselves, try to value them, and tax
2 them. What do you think the reaction to that was in
3 corporate America? It wasn't good, let's put it that way.
4 And it died before it ever got anywhere because companies
5 were damned if they were going to have the IRS in there
6 looking at licensing deals, trying to make the very same
7 judgments we're all sitting here saying: Boy, is this hard.

8 DR. HALL: Could you clarify that a bit? I mean a
9 licensing deal involves -- you receive money; it's in your
10 bank account. You know, it's in your profits or not, as the
11 case may be. So what are they looking for?

12 DR. PHELPS: Well, it's not necessarily that you
13 receive money.

14 DR. HALL: So it's cross-licensing?

15 DR. PHELPS: It's cross-licensing.

16 DR. HALL: Oh, okay. So it's cross-licensing, --

17 DR. PHELPS: Yes.

18 DR. HALL: -- which is really tit-for-tat?

19 DR. PHELPS: No, no, no, no. No, no, no. Now
20 most cross-license agreements have another component called
21 a balancing payment that goes on.

22 DR. HALL: Yeah. But, again, that shows up in
23 your bank account. It's --

1 DR. PHELPS: That's true.

2 DR. HALL: Yeah. I mean I don't see what the IRS
3 is worried about. I mean, you know, it's --

4 DR. PHELPS: No, they -- they're -- look, it's --

5 DR. HALL: Quite frankly, I don't see anything --
6 I can -- income.

7 DR. PHELPS: It's any old port in a storm. They
8 were just looking for another -- you know, another way to,
9 you know, make additional money, they thought. But most
10 companies did not want to disclose that competitive
11 information to the IRS --

12 DR. HALL: Well, I don't -- I don't see why they
13 should. It might be an auditing question. But -- but I
14 mean but the money is income.

15 DR. PHELPS: Well, that's what every- --

16 DR. HALL: You know.

17 DR. PHELPS: -- that's what everybody argued. But
18 they were looking at --

19 DR. HALL: Yeah.

20 DR. PHELPS: -- what's the hidden value here? And
21 how do we tax that.

22 DR. HALL: On the idea that you're getting a free
23 gift?

1

DR. PHELPS: e8gason't know what the IRS --

1 DR. PHELPS: You mean for transfer pricing issues
2 or --

3 DR. HALL: Yeah, trans- -- there's a transfer
4 pricing issue that -- that is serious, yeah.

5 MR. SCHRAG: And Bronwyn, I -- I get the
6 impression that you -- you're relatively in favor of more
7 disclosure. And what benefits do you see flowing from that
8 in --

9 DR. HALL: Oh, well, there are two benefits. I
10 mean, one is, of course, the selfish benefit, which is that
11 people who study this area feel like they need to --

12 MR. SCHRAG: More data points.

13 DR. HALL: Yeah, we feel like we need to answer
14 some questions. I mean, it's -- you know, I should say I
15 study this area. I'm mostly unpaid studying this area, so
16 it's not as if it's that selfish. But -- but it's -- we
17 study this area, we'd like to, you know, we'd like to
18 provide answers to some questions. And to do that you
19 really do need values for a random sample rather than for a
20 selected sample --

21 MR. SCHRAG: Right.

22 DR. HALL: -- that decided to tell you what the
23 value was.

1 But the second reason is -- which has been argued
2 by, among other people, Nathan Myhrvold, whom you may
3 remember, is this idea that the markets will develop if we
4 have better information, in general, about the prices of
5 these transactions.

6 Now the heterogeneity is clearly an issue.

7 MR. SCHRAG: Yeah.

8 DR. HALL: The purer -- the pure size
9 heterogeneity, okay? That's solvable about royalty rate.
10 You rate -- I mean, you can -- if you set your royalty rate
11 right then, the fact that this guy's selling 10 and this
12 guy's selling 5 million, you know, you shouldn't be worried.
13 But it's obviously much more subtle than that. It has to do
14 with this -- the things that Rob talked about, which is the
15 know-how, you know, the know-how you need for this, the
16 market they have available is different from the know-how
17 there, so the transactions are heterogeneous.

18 What happens if you make rules like this is firms
19 learn to adapt --

20 MR. SCHRAG: Sure.

21 DR. HALL: -- but it -- of course, this is costly,
22 right? I mean they learn to figure out ways to tell the guy
23 who comes in and says: "Wait a minute. You charged that

1 guy this and I want that price," you know? And ways in
2 which to make it clear that this is a different thing you're
3 selling to them than you're selling to the other guy.

4 Now I thought Hank's suggestion on the settlements
5 was very useful. And the same thing may apply to licensing
6 agreements, okay? Because I think the deal killer isn't the
7 heterogeneity, I think it's the negotiation -- it's the
8 confidentiality restriction. I think that's a real issue
9 which is in this -- in a sector like this, the secrecy when
10 a firm is changing its strategy, you know, as to what the --
11 not Microsoft, but -- I mean, not the guy licensing but, you
12 know, the --

13 DR. PHELPS: Both ways.

14 DR. HALL: Both -- maybe, but -- well, but, maybe
15 both ways. But, like, Microsoft is sort of under a -- I
16 mean, under a microscope anyway, so it's hard to keep too
17 much secret.

18 DR. PHELPS: Well, not for -- not for licensing.

19 DR. HALL: Yeah. But, no, I was thinking more of
20 suppose you license a technology to a firm that has decided
21 to develop a product that the notion that they might want to
22 keep that secret for a while --

23 DR. PHELPS: Um-hum.

1 DR. HALL: -- that seems to me a legitimate
2 business reason. And so you might want to think also about
3 delays in -- shorter delays, possibly, in revealing -- in
4 other words, the -- having a lag in the revealing of the
5 transaction, it seems to me, solves a lot of problems. And
6 the settlements -- I was quite worried about the settlements
7 until I heard Hank's suggestion, and I think that's actually
8 quite useful.

9 DR. PHELPS: Um-hum.

10 DR. HALL: You know, waiting five years and then
11 opening up the records. It's tricky because, of course, --

12 DR. PHELPS: Of course, if it's material --

13 DR. HALL: -- people will lobby for control over
14 the opening.

15 DR. PHELPS: If it's material to one of the
16 companies, it ends up --

17 DR. HALL: It ends up in the 10k, and that would
18 --

19 DR. PHELPS: -- in the -- in your database
20 somewhere, but you can move to redact the dollar figures in
21 that.

22 DR. HALL: Exactly. How do you think we were
23 worried about this? It's because where we get our data from

1 is 10ks.

2 DR. PHELPS: Sure, I know.

3 DR. HALL: Yeah, yeah. And so -- yeah. Because
4 that's the one place you can find out a lot of things.
5 Licensing contracts, I mean, Deepak Kagdes (phonetic) here,
6 he's been collecting licensing contracts from 10ks.

7 DR. PHELPS: Um-hum.

8 DR. HALL: I mean, you know, information on
9 licensing contracts.

10 From -- so there's -- you know, it's the redaction
11 that's killing us --

12 DR. PHELPS: Yeah.

13 DR. HALL: -- and, you know, a delay would help.

14 MR. SCHRAG: So -- well, would you argue that
15 having a limited amount of information about licensing
16 contracts -- is that sufficient, or is that necessary to
17 have the -- you know, the full suite of --

18 DR. HALL: I think this is very tricky to answer
19 because the contracts are complex.

20 MR. SCHRAG: Um-hum.

21 DR. HALL: Right? I mean, you know, we'd like to
22 know what the up-front fee is and what the milestone -- you
23 know, what -- you know, what the royalty rates are, right?

1 But, of course, then the contracts get rewritten the be
2 something very complex and so we haven't asked for enough.

3 DR. PHELPS: Let's -- well, yeah. Let's just pick
4 on that for a second.

5 DR. HALL: Yeah. Yeah.

6 DR. PHELPS: Because, the -- most of the
7 cross-license agreements go like this: It isn't that you
8 have a stack of paper and a ruler and you measure how deep
9 the stack is and you figure out what the differential is in
10 inches and that's worth x dollars. What it's more like is I
11 walk in there with my coal pile and you walk in there with
12 your coal pile and you sit those two piles down and you say,
13 "Aww, my coal pile is bigger than yours, therefore you own
14 me money." And you say, "Ah-Ha. But in" -- "I've got
15 another form of carbon inside my coal pile and I've got the
16 Hope Diamond in there" --

17 DR. HALL: Yeah.

18 DR. PHELPS: -- "and it's worth x to you."

19 And that may be different in ever particular case.

20 DR. HALL: Yeah, I'm afraid I misled -- I'm being
21 -- I -- we're talking at cross purposes here. Because I was
22 not talking about cross-license agreements, --

23 DR. PHELPS: Right.

1 DR. HALL: -- which I view as stand-still, you
2 know, in the mutually assured destruction game. And that's
3 a different game.

4 DR. PHELPS: Um-hum.

5 DR. HALL: We know that game is there, it hasn't
6 -- it isn't the thing that's causing the trouble. It's
7 raising transactions costs for firms, --

8 DR. PHELPS: Um-hum.

9 DR. HALL: -- but it's not the thing that we're
10 most concerned about, which is the nonpracticing entity
11 activity.

12 DR. PHELPS: It's still not, right.

13 DR. HALL: I was talking about one-way
14 transactions, okay, first.

15 DR. PHELPS: Um-hum.

16 DR. HALL: Right? The cross-licensing thing which
17 the semiconductor guys do too. I mean, the first thing that
18 I found highly amusing about that game was that, you know,
19 until I talked to the semiconductor firms about this
20 mutually assured destruction strategy, you know, people had
21 always told me, "Oh, you're just crazy because you're
22 counting patents to measure some form of innovation." I
23 says, "Well, yeah, but the semiconductor firms do it too.

1 or Rob that alluded to this issue. The USPTO, on its
2 website, has an enormous amount of information --

3 DR. PHELPS: Yup.

4 DR. HALL: -- which it puts there in an
5 impossible-to-use way. In this -- in the following sense:
6 If you want to know if a patent has been re-examined or,
7 worse yet, if you want to know if a patent has been
8 invalidated, you might think that looking at the patent
9 bibliographic data would tell you that. But, of course it
10 doesn't. What you have to do is go to PAIRS --

11 MS. MICHEL: Um-hum.

12 DR. HALL: Okay? And dig -- dig down through all
13 the re-exam activity to find the certificate, okay? And see
14 which claims got invalidated.

15 Well, you'd think the natural thing would be to
16 have that -- if it's going to be a good search tool, right?
17 The USPTO database, it should be in the patent record.

18 The same thing applies to the reassignment
19 information, okay? That alone would be a big help to people
20 searching, because right now, yes, the reassignment
21 information is published in the gazette, you know, and so
22 forth, and buried somewhere on the website. But it's not in
23 the patent record.

1 And so there's a list of things like this which
2 are actually available -- existing available data which are
3 -- which the USPTO could do something about at some
4 programming cost.

5 MS. MICHEL: Um-hum.

6 DR. HALL: I suspect it's not the programming cost
7 that's stopping them, it's that firms don't want it.

8 MS. MICHEL: Well, --

9 MR. SCHRAG: Well, we have --

10 MS. MICHEL: If Rosemarie maybe --

11 MR. SCHRAG: What's that?

12 MS. MICHEL: Is Rosemarie there?

13 MR. SCHRAG: What's that?

14 Rosemarie, are you still there?

15 DR. ZIEDONIS: Yes, I am.

16 MS. MICHEL: Okay. Ask her if she has anything.

17 MR. SCHRAG: Rosemarie, did you have any thoughts
18 you wanted to contribute on this area, or...

19 DR. ZIEDONIS: The only thing I wanted to at least
20 acknowledge is, you know, I don't know if this book came up
21 in an earlier reference, but Jim Besson and Mike Meurer,
22 their recent book on *Patent Failure*, I think, has, you know,
23 reasonable arguments in favor of this kind -- we need more

1 transparency and greater notice. So just to be on the
2 record, I think that their book is useful in informing this
3 issue.

4 MR. SCHRAG: Yeah. They actually did testify in
5 earlier sessions of the conference.

6 Well, we have gone over our time and we have
7 several panelists who have been very busy and had to move on
8 to their other obligations. So I think that unless Marshal
9 or Bronwyn would like to make any final comments?

10 DR. PHELPS: No, nothing.

11 DR. HALL: No, that's enough.

12 MR. SCHRAG: We will -- we will adjourn for the
13 evening. And we will be continuing tomorrow with panels on
14 damages and remedies. And I should also mention that we are
15 accepting public comments and we will be accepting them
16 until May 15th. You can find a link for that on our FTC.gov
17 website. And we certainly would appreciate any
18 contributions you want to share.

19 Thank you very much.

20 (Whereupon, the hearing was recessed at 4:40 p.m.,
21 to continue May 5, 2009 at 9:00 a.m.)

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CERTIFICATION OF REPORTER

DOCKET/FILE NUMBER: PO93900
CASE TITLE: FTC HEARING ON THE EVOLVING IP MARKETPLACE
HEARING DATE: MAY 4, 2009

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the digital audio recording transcribed by me on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: MAY 18, 2009

SUSAN PALMER

CERTIFICATION OF PROOFREADER

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation, and format.

NANCY PALMER