

FEDERAL TRADE COMMISSION

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In the Public Hearing on:)
COMPETITION AND INTELLECTUAL)
PROPERTY LAW AND POLICY IN)
THE KNOWLEDGE-BASED ECONOMY.)
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WEDNESDAY, JULY 10, 2002

Room 432
Federal Trade Commission
6th Street & Pennsylvania Ave., NW
Washington, D.C.

The above-entitled matter came on for public hearing, pursuant to notice, at 9:45 a.m.

WORKSHOP CHAIRPERSONS:

- HILLARY GREENE, FTC
- WILLIAM COHEN, FTC
- FRANCES MARSHALL, DOJ
- EDWARD POLK, PTO

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Waldorf, Maryland
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1 PANEL ON: FEDERAL CIRCUIT JURISPRUDENCE: SUBSTANTIVE
2 TRENDS AND ANALYSIS

3 PANELISTS:

4
5 DAN L. BURK, Julius E. Davis Professor of Law,
6 University of Minnesota Law School

7 ROCHELLE C. DREYFUSS, Pauline Newman Professor of Law,
8 New York University School of Law

9 JOHN F. DUFFY, Associate Professor of Law, William and
10 Mary School of Law

11 STEPHEN G. KUNIN, Deputy Commissioner for Patent
12 Examination Policy, United States PTO

13 GLYNN S. LUNNEY, JR., Professor of Law, Tulane Law
14 School

F. M. SCHERER, Roy E. Larson Professor of Public

33

1 P R O C E E D I N G S

2 MS. GREENE: Good morning. On behalf of the
3 Federal Trade Commission and the Department of Justice,
4 it's my pleasure to welcome you to the first of two days
5 on Federal Circuit jurisprudence.

6 Previously, we discussed how patent law
7 implicates a complex cast of institutional characters,
8 including the Federal Circuit, the PTO and Congress.
9 Today's focus will be primarily on the Federal Circuit's
10 affect on the substantive trends and analysis of patent
11 law. Tomorrow, the focus will be largely on antitrust
12 law, choice of law and jurisdictional issues.

13 Before moving into the substance of why we're
14 here today, let me do some brief introductions. My name
15 is Hillary Greene, and I'm in the General Counsel's
16 Office here at the FTC, and the Project Director for
17 IP.

18 To my right is Bill Cohen, who is the Assistant
19 General Counsel for Policy Studies in the Office of the
20 General Counsel.

21 To his right we have Francis Marshall, who's an
22 attorney at the U.S. Department of Justice, who's headed
23 up their team on these joint hearings.

24 Then to my left we have Ed Polk, whose children
25 are safely off to school, and who is an Associate Solicitor

1 for the PTO and who has been a repeat performer. Thank
2 you for joining us again.

3 Obviously, we're all here because of today's
4 extraordinary panelists. Many, if not all of you,
5 don't really need an introduction because your
6 reputations precede you. But it's been our sense that
7 once we get done with the introductions, the moderators
8 lose complete control, so I'm going to just line up all
9 the panelists in a row and just run through introducing
10 them very briefly.

11 We have Dan Burk, who is Julius E. Davis
12 Professor of Law at the University of Minnesota, where
13 he holds appointments at both the law school and the
14 center for bioethics. He is an internationally
15 prominent authority on the law of IP, specializing in
16 areas of cyberlaw and biotechnology. He teaches courses
17 in copyright, patent, biotech law and is the author of
18 numerous papers on the legal and societal impact of new
19 technologies.

ThenuoehMo2eB5eyllaverreyfussrk, who id the10Professor of I
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1 spent several years as a research chemist. She is
2 currently a member of the National Academy of Sciences
3 Committee on Intellectual Property Rights in the
4 Knowledge-Based Economy. Most importantly for my
5 completely selfish purposes, she is a consultant to
6 the Federal Trade Commission for these hearings.

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1 November of 1994.

2 In this capacity, he participates in the
3 establishment of patent policy for various patent
4 organizations under the Commissioner of Patents,
5 including changes in patent practice, revision of the
6 Rules of Practice and Procedures, and establishment
7 of examination priorities and classification of
8 technological arts.

1 in terms of creating some of the intellectual foundation,
2 which has shaped much of today's inquiry. Invariably,
3 when people talk about seminal pieces dealing with the
4 relationship between innovation, IP and competition,
5 your works are mentioned.

6 Next, will be Gerry Sobel. I'm going to hold
7 off introducing him until he joins us later today.

8 We also have Herb Wamsley, who has been the
9 Executive Director for the Intellectual Property Owners
10 Association since 1983. The IPO is a trade association
11 that serves approximately a hundred large companies,
12 along with small businesses, universities and individuals
13 who own patents, trademarks, copyrights and trade secrets.

14 In 2001 he was named by Legal Times as one of
15 the 22 individuals who are making a difference in the
16 way intellectual property is protected today.

17 Two things characterize today's panelists.
18 Obviously, one is their incredible caliber. We've
19 really gotten the best of the nation's scholars and
20 practitioners. The second thing, what really amazes
21 me, is they were all willing to come to Washington,
22 D.C., during the summer. I'm grateful for that.

23 Just let me say that I realize that the trip
24 here was not easy for a lot of reasons, ranging from
25 having newborn children at home, to people having to cut

1 vacations short, as well as just the rigors of travel,
2 so I'm very grateful that you all took the time to be
3 here.

4 With it clear that I'm grateful that you all
5 are here, let me explain how we want to put you to
6 work.

7 We've conducted more than I think it's 30 public
8 hearings in the six months since our hearings first
9 began back in February. What we need to do is continue
10 on with the process of integrating what we have
11 learned, and while that sounds a bit pat, it really
12 speaks a lot to what we are seeking today.

13 What we hope to do today is to bring together
14 two powerful themes which have been running throughout
15 the hearings. One is looking at sort of the
16 institutional dimension, typified by the Federal
17 Circuit. The other of which is the role of social
18 science, mainly economics.

19 To grossly oversimplify, what we need to do is
20 systematically understand what the Federal Circuit has
21 been doing. By that we mean identify the substantive
22 trends, and then we want to normatively assess those
23 trends, and economic analysis provides one mechanism
24 for doing so, and that's what we have planned just for
25 the morning.

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1 Then in the afternoon, we're going to revisit
2 these general themes, but within the context of several
3 specific examples, and how the development of patent law
4 and economic analysis fit together is exemplified by
5 questions such as whether the placement and weight, the
6 legal presumptions or burdens applied in granting or
7 litigating patents, reflects proper assessments of the
8 trade-offs that adhere in the patent system.

trade-offs that adhere in the patent system. It what 5 ton uwn B esse 9 dgp 5 p wif

1 case. I've been doing that for five years, and I have
2 read about 750 precedential patent and trademark
3 opinions of the Federal Circuit during that time.

4 Looking at those cases, I came up with five
5 trends that I would like to go over with you as to what
6 I see is happening in the court, in a general way,
7 without getting into too many technical details. The
8 first four of those, I will go through pretty quickly.
9 The fifth one, I'll talk about a little bit more.

10 The five trends that I have discerned in the
11 past five years of Federal Circuit cases are: One, the
12 Federal Circuit has issued more antitrust opinions that
13 have attracted attention. Two, the Federal Circuit has
14 attempted to narrow the doctrine of equivalents. Three,
15 the court has published a very large number of opinions
16 on patent claim construction. That has been their most
17 popular single topic recently. Fourth, the court has
18 issued fewer fraud and inequitable misconduct opinions
19 in the past five years than in the previous times.
20 Finally, in a line of recent cases, perhaps still
21 emerging, the court appears to be imposing a greater
22 evidentiary burden on the U.S. Patent and Trademark
23 Office to explain its finding of obviousness.

24 Deputy Commissioner Kunin may have more to talk
25 about on that topic and others later, but let me briefly

1 run through the five trends.

2 More antitrust opinions that have attracted
3 attention. Actually, the number of opinions in the
4 antitrust area out of the Federal Circuit is a pretty
5 small, when you compare it with their patent opinions
6 and may be smaller after the very recent by the United
7 States Supreme Court in the Holmes Group case having to
8 do with jurisdiction, which is more of a topic for
9 tomorrow, but the court has decided a number of cases
10 that have attracted attention.

11 In '97, they decided the Virginia Panel
12 Corporation case, which overruled a lower court finding
13 of a Sherman 2 Act violation involving threats to
14 enforce a patent. Also in '97, they decided a case
15 having to do with post-sale restrictions and said those
16 were not necessarily improper.

17 In '98, they decided en banc the Nobel Pharma
18 case, which had to do with choice of law. In that case
19 they also decided, under the facts of that case, that
20 bringing a suit on an invalid patent that was invalid
21 because of an intentional failure to disclose the best
22 mode was not an antitrust violation.

23 In the Bard case, in 1998, they decided that
24 there was an antitrust violation in the situation where
25 the patent owner had redesigned a biopsy gun to prevent

1 competitors' needles being used with the gun.

2 Finally, it is the last two perhaps that attracted
3 the most commentary. The Intergraph Corporation case in
4 1998 overturned a preliminary injunction preventing

1 In the Graver Tank case, it was the function-
2 way-result formulation of the test they used. Basically,
3 the cases had decided that if your patent is not
4 literally infringed, you can still have an infringement
5 under the doctrine of equivalents, if the differences
6 between your claim and the accused your device are
7 insubstantial.

8 Some of the judges of the court seemed to call
9 that law into question in dissenting and concurring
10 opinions. The Hilton Davis case in 1995, a little
11 more than five years ago, was an en banc opinion
12 with several dissents and concurrences. That case
13 went to the Supreme Court, and it was decided in 1997
14 under the name of Warner-Jenkinson Corporation v.
15 Hilton Davis Chemical Company. The Supreme Court
16 confirmed the continued applicability of the Graver
17 Tank case and, in my judgment, provided little new
18 guidance.

19 Since the Warner-Jenkinson case by the Supreme
20 20 Court, I believe there has continued to be a trend in
21 Federal Circuit opinions to interpret the doctrine of
1.t-6s8b7o be a trend in

1 rule that the Federal Circuit had formulated for a
2 situation where the claims of a patent have been amended
3 during the prosecution in the Patent and Trademark
4 Office.

5 The Supreme Court instead has adopted a rule
6 that the patent owner has the burden of proving that the
7 amendment made in the Patent and Trademark Office did
8 not surrender the full scope of the patent or the claim
9 beyond the literal meaning.

10 I believe the Federal Circuit still is intending
11 to interpret the doctrine of equivalents narrowly, and
12 the very recent Cooper Cameron Corporation case this
13 year, they took a strict interpretation of the all
14 elements rule. That's the rule that doesn't allow
15 elimination of a claim interpretation entirely when
16 applying the doctrine of equivalents.

17 Another important case, again this year, is the
18 Johnson & Johnston case. An en banc opinion by the
19 Federal Circuit several weeks ago, in which the court
20 held that there is no doctrine of equivalents for
21 disclosed but unclaimed subject matter.

22 A third trend is the very large number of
23 published opinions on patent claim construction. Patent
24 claim construction, of course, has always been something
25 that the Courts have struggled with. Patent owners and

1 businesses, competitors of patent owners are generally
2 seeking certainty. They're seeking precise information
3 on the coverage of patents.

4 I think the trend over the last five years
5 started with the Markman decision by the United States
6 Supreme Court in '97, in which they affirmed the Federal
7 Circuit on the proposition that construction of patent
8 claims is exclusively within the province of the court.

9 Since the Markman case in '97, the court seems
10 to have made an effort to expound on claim construction
11 rules in a large number of precedential opinions. I've
12 seen many opinions where there seems to be nothing else
13 about the case that's notable, and perhaps there is no
14 new rule of law, but the court has elected to declare
15 the opinion a precedential opinion rather than
16 unpublished, non-precedential because the opinion goes
17 into the facts of the case, explains at some length how
18 the Federal Circuit arrived at its construction of the
19 patent claims.

20 An important case was the Vitronics case in which
21 the court, the Federal Circuit perhaps first laid down
22 clearly the rule that in construing the claim, you have
23 to look first to the so-called intrinsic evidence. That
24 evidence is the language of the claim itself, the
25 specification of the patent, the written description

1 that is, and the prosecution history in the Patent and
2 Trademark Office that is of record. You look at the
3 extrinsic evidence only if the intrinsic evidence
4 doesn't give you clear guidance.

5 The court, even this year, has continued to
6 publish a great many or quite a number of cases
7 expounding on claim construction rules. For example,
8 in the Beckson Marine case this year, they dealt with
9 the issue of whether limitations from the specification
10 patent had been improperly imported into the claim to
11 narrow the claim beyond the ordinary language of the
12 claim. This is an issue that's come up in a number of
13 cases, and one in which some commentators have said that
14 the court has not been entirely consistent.

15 In the Marketing International case, also this
16 year, they dealt with the issue of whether a statement
17 of intended use in the preamble of the patent claim is a
18 limitation in the claim. In that case, they decided
19 that the statement of intended use in the preamble was
20 not a limitation that narrowed the claim.

21 Then in the CCS Fitness case this year, they
22 dealt with the common issue of whether words in the
23 claim are to be given their ordinary meaning or a
24 specialized meaning that may be discerned from the
25 evidence. In the CCS Fitness case they were dealing

1 with the claim term "member," and they stressed that a
2 term in the claim will be presumed to have its ordinary
3 meaning, and that's the rule they followed.

4 There are a number of other cases, but in order
5 to keep moving along, my fourth trend, which I don't
6 have very much to say about, is that there are fewer
7 fraud and inequitable conduct opinions of the court in
8 the past five years. If you go back to the time when
9 the Federal Court was created in 1982, allegations of
10 fraud and inequitable product in patent cases were
11 rampant.

12 The most common type of fact situation in those
13 cases would be where the accused infringer alleged that
14 the owner of the patent had improperly withheld
15 information, relevant prior art, from the Patent and
16 Trademark Office during the prosecution of the patent
17 application, and because of this inequitable conduct,
18 the patent should be held unenforceable. In one early
19 case in the Federal Circuit, the court called the
20 allegations of fraud and inequitable conduct a plague on
21 the patent system.

22 Many commentators agree it has become a practice
23 to include boilerplate allegations of fraud and
24 inequitable conduct by defendants in nearly every patent
25 infringement case. Now, the trend that I perceive is

1 that there are noticeably fewer opinions by the Federal
2 Circuit in the past five years even dealing with this
3 issue.

4 There are still opinions. For example, in the
5 Aptix Corporation case this year, the court, in a split
6 panel opinion, decided that fraud by the inventor during
7 one patent suit does not render the patent unenforceable
8 in other litigation. They relied on an old Supreme
 Court case in 1933, the Keystone

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1 not sufficient evidence coming up to the Federal Circuit

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1 case then came back to the Federal Circuit.

2 In the meantime in another case, the Federal
3 Circuit had decided that they would interpret or that
4 they would follow the APA by using a substantial
5 evidence test.

6 Now, in the Zurko case, having to do with my
7 emerging trend, the question was substantial evidence
8 from the Patent and Trademark Office of whether a claim
9 for a method of creating a more secure computer
10 environment was obvious.

11 There were two prior art references in that
12 case. According to the Federal Circuit, the US PTO
13 misread the references, and the Patent and Trademark
14 Office Board of Appeals failed to point to concrete
15 evidence in the record of any motivation for one skilled
16 in the art to combine the references to obtain the
17 claimed invention.

18 This year, the very recent In re. Lee case in
19 January, similar issue. Again, the Federal Circuit said
20 that the PTO had not provided the necessary evidence of
21 motivation. They rejected the Board's statement that it
22 would have been common knowledge and common sense to
23 combine the references. They said that the Patent and
24 Trademark Office must set forth the rationale for why
25 one would combine references to find the invention

1 obvious.

2 Now, I'm almost at the end of my dissertation.
3 Mike, could we have my one slide?

4 The question I raise is: What is the meaning of
5 this trend of requiring of a higher evidentiary bar, if
6 you will, requiring more evidence from the Patent and
7 Trademark Office, and is that having an affect on the
8 Patent and Trademark Office?

9 Now, I don't know if you can all see this slide,
10 but I plotted information that I obtained from the
11 Patent and Trademark Office on the percentage of cases
12 that the Patent and Trademark Office Board is affirming,
13 the percentage of cases in which they affirm the
14 examiners, over the period from 1980 to 2002, and the
15 percentage of cases in which the Board reversed the
16 examiner.

17 These numbers don't add up to 100 percent for a
18 few reasons, but the lines show a dramatic drop in the
19 number of cases in which the PTO Board affirmed the
20 examiners, starting in around 1999.

21 Now, does this have anything to do with what's
22 going on at the Federal Circuit? I'll leave that for
23 possibly more discussion later in the day, but I think
24 there possibly is a connection here between the Federal
25 Circuit decisions and what's going on in the Patent and

1 Trademark Office.

2 One possible explanation is that the Board has
3 begun applying the higher evidentiary standard of the
4 Kotzab, Zurko and Lee cases, the examiners are not
5 applying that standard yet, and a lot of them are being
6 overruled by the Board. Very, very few of these cases
7 actually go to the court. It's expensive to take ex
8 parte cases to the court. It's hard to do a meaningful
9 statistical analysis of appeals, I think, from the PTO
10 to the court.

11 The number of cases at the Board, however, is
12 much larger. We're talking about cases in the thousands
13 per year, but there are other explanations. The Patent
14 and Trademark Office has, in recent years, hired a great
15 number of new and inexperienced examiners as a result of
16 the explosion in patent filings.

17 Of course, there's the question of whether the
18 Federal Circuit law is correct, if that is a new line of
19 law. I think there are arguments pro and con there. By
20 raising the evidentiary bar, the Federal Circuit has not
21 necessarily made the obvious standard softer or weaker.
22 The Federal Circuit perhaps is just trying to require
23 the Patent and Trademark Office to put the evidence on
24 the record, make a reviewable record, bring more
25 certainty to this important decision making in the

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1 obviousness area.

2 I won't speculate further on that because I have
3 gone over my time. Thank you for listening to my
4 perception of the trends.

5 MS. GREENE: Thank you very much, and sorry for
6 having to start us off a bit late today, so in response
7 to your five trends, which thank you very much for laying
8 out for us, I know that there's lots of people that have
9 lots of comments to make based on them, so I'm just going
10 to throw out five general questions, and then I would
11 like everybody just to just chime in as they see fit.
12 First of which is obviously what, if any, additional
13 trends do people want to be note as being most important?

14 You prefaced it by saying you were going to
15 focus on the previous five years, and, of course, you
16 actually went back further than that. But I'm curious as
17 to whether there are any trends that emerged,
18 particularly in the early days of the Federal Circuit,
19 that are of particular importance and that we don't want
20 to miss?

21 The second question is: To what extent, if at
22 all, are these trends emerging in ways that are, in some
23 way, industry specific? How do you figure in the fact
24 that, in theory, you have a one-size-fits-all system
25 with the fact that industries have different

1 characteristics?

2 Also, you alluded, at the end, that you had
3 some statistics, and you said it's hard sometimes to
4 get a full sense of what the statistics reveal because
5 there's all kinds of gaps and that type of thing. So
6 I just want to throw out: How do we know what we know
7 in terms of gathering the empirical evidence and what
8 can we do to better identify the trends?

9 Lastly, also you alluded to, at the end, the
10 institutional dimension that we had touched on briefly
11 at the beginning. You have the PTO and the Federal
12 Circuit, and basically I'm just curious as to what is it
13 about the institution of the Federal Circuit that
14 results in these decisions coming out this way?
15 Obviously, we want to focus on the obviousness test when
16 discussing that.

17 Any initial comments?

18 PROFESSOR DREYFUSS: As you see the Federal
19 Circuit basically making it easier to get a patent
20 because of the changes in the standard of obviousness,
21 do you see the court explaining why it's doing what it's
22 doing at all?

23 MR. WAMSLEY: Well, I'm reverting to just being
24 another panelist now. I think in the recent cases, the
25 Federal Circuit has put it more in terms of needing to

1 have the evidence in the record. I don't think the
2 court opinions are addressing whether they're trying to
3 raise or lower the obviousness standard.

4 MS. DREYFUSS: I'm thinking about the biotech
5 cases rather than the ones that you were talking about,
6 the biotech cases.

7 MS. GREENE: Housekeeping. If you want to make
8 a comment, just turn your table tent up and jump in.
9 Steve?

10 MR. KUNIN: I think Rochelle does raise a good
11 point. One of the clear trends, which I think we do
12 see, is as you pointed out, Hillary, that there is a
13 tendency to have some industry specific components.

14 It's my observation that what the court has
15 done, especially in this interface between 112
16 requirements and 103, in the field of biotechnology,
17 in particular, what they have done is they've made it
18 fairly easy to pass muster under Section 103.

19 A couple cases, I'll name three cases in
20 particular, which I think are representative of that
21 trend: the In re. Bard case, In re. Dual and In re.
22 Bell, where the requirements for showing obviousness is
23 structural similarity as well as motivation. The reason
24 I raise those cases is because our foreign counterparts
25 have essentially just the opposite standard of

1 patentability on showing inventive step in those very
2 similar type of fact patterns.

3 Conversely, with cases like Fiers vs. Revel,
4 Regents of California and Eli Lilly, and the most recent
5 case, Enzo v. Gen-Probe, the Federal Circuit has
6 created a very substantial 112 first paragraph
7 requirement, particularly with respect to biotech cases.
8 That has created essentially this whole new body of law
9 as against original claims and has essentially, I think,
10 made it more difficult for applicants, in preparing
11 their cases, to meet the requirements of 112 first
12 paragraph, whereas on the standard of showing what is
13 patentable under Section 103, I think it is easier to
14 establish that something is nonobvious, particularly in
15 the biotech field.

16 I think we see a clear trend in that area of
17 industry specific changes in the standard.

18 MS. GREENE: Dan?

19 PROFESSOR BURK: I wanted to follow-up on those
20 comments by Rochelle and by Stephen and then come back
21 and ask maybe a little bit different question of are
22 Herb Wamsley.

23 I think the trends that they're talking about
24 are correct. If you think about it, the Federal Circuit
25 has a series of policy levers it can use to modulate

1 the scope of protection for a given industry. So, as
2 Stephen has just described to you, for example, they have
3 lowered the bar pretty clearly in biotech for the
4 obviousness standard, making it relatively easy to get a
5 patent. At the same time, they seem to be using section
6 112 to narrow the ability to get a patent. So that the
7 rule seems to be, in biotech, everybody gets a patent,
8 but nobody gets a very broad one.

9 (Discussion off the record.)

10 PROFESSOR BURK: So the rule seem to be in
11 biotech, everybody gets a patent, but no one gets a very
12 broad one.

13 In other industries, I'm going to suggest this
14 afternoon talking more about 112 the trend seems to be
15 different. I have mentioned in some of these hearings
16 before, for example in software, the rule seems to be
17 very few people get a patent, but if you get one it's
18 an really extremely broad one.

19 We may be identifying a number of these policy
20 levers as we're talking here. They can use the doctrine
21 of equivalents to modulate scope. They can use
22 contributory infringement, as Judge Rich pointed out
23 many years ago, to modulate the scope of patents. So
24 the question really is, are they using the right tools
25 for any given industry for what they're going about doing?

1 So, I think those comments are correct, and part
2 of the inquiry may be, is it good to use 103 in one
3 case, or is it better to use 112, or is it better to use
4 the doctrine of equivalents, or use something else for
5 that given type of technology?

6 The other question that sort of struck me, as
7 Herb was talking, and I wonder if he would mention this,
8 I'm trying to think back what the five-year cut off
9 would be for some cases. Since one of my current
10 obsessions is patent misuse, I'm guessing that you're
11 lumping patent misuse cases in with your antitrust
12 cases. Because it seemed to me there was sort of a
13 clear hostility to the misuse claim and quibbling away
14 at it in the Federal Circuit, if I'm thinking about the
15 right five years here.

16 MR. WAMSLEY: Well, on that, I think several
17 commentators have perceived a hostility to the misuse
18 claim. As to whether that is really a difference in law
19 or trend in any way or whether it's some dicta that
20 appeared in some cases, it was hard to tell.

21 MS. GREENE: All right. Glynn?

22 PROFESSOR LUNNEY: I'm going to be talking this
23 afternoon about some of these trends as well, certainly
24 on obviousness and some of the other issues. But let me
25 just say that I think everyone agrees that the Federal

1 Circuit -- part of the reason it was created in 1982 was
2 to render patents somewhat more enforceable than they
3 had been before.

4 I think there was some perceived hostility among
5 the circuit courts towards patents. I think there was
6 one circuit that hadn't held a patent valid and upheld a
7 patent as valid in something like 50 or 60 years. So the
8 Courts were very suspicious of patents, and the Federal
9 Circuit was created, in large part, to replace that
10 suspicion with a forum that was at least neutral, if not
11 somewhat in favor of patents. I think the Federal
12 Circuit has lived up to that reputation, and we're
13 seeing some of that.

14 Now, one of the themes I think that the Federal
15 Circuit is trying to pursue in trying to make patents
16 less of a monopoly right presumptively and desirable
17 and more an ordinary property right is to maybe have a
18 system where you have presumptive validity. So it's
19 relatively easy to get a patent for your particular
20 invention, whatever you contribute, but the scope of
21 the patent is going to be narrow to your contribution.

1 One is, statistically it used to be, before the Federal
2 Circuit came into existence, about two-thirds of patents
3 that were litigated were found either invalid or not
4 infringed or both. Two-thirds of the cases, the patent
5 holder lost. That has nearly reversed since the Federal
6 Circuit.

7 Second, the Federal Circuit imposed new
8 standards for inferring damages, essentially an
9 opportunity cost standard of damages, which has led to
10 extremely high damage awards in a substantial number of
11 cases. And, I guess I'll leave this out of my testimony
12 this afternoon, but it has made inventing somewhat like
13 dancing through a mine field, in which there are so many
14 patents out there, and their validity is so uncertain
15 and their power is so uncertain, that you run a very
16 substantial risk of treading on one and having a leg
17 blown off. This is a detriment to innovation, all
18 else equal.

19 Now, why did this happen? Let me just take one
20 other piece out of my testimony. First of all, I was
21 told by a member of the Judiciary Committee Staff at the
22 time that the Federal Circuit was created that the
23 Congress had no intention, whatsoever, of changing the
24 substance of patent law.

25 To be sure, they wanted more equality among the

1 various appellate courts by creating one, but they did
2 not have in mind to change the substance of patent law.
3 But in creating a court like this, Congress ignored one
4 of the best known pieces of wisdom that had been
5 accumulated over the years by political scientists:

6 Let me just quote from the classic book by
7 Marver Bernstein, Regulating Business by Independent
8 Commission, 1955, pages 116 to 117. "While technology is
9 often needed for the adjudication of disputes, there are
10 grave objections to giving judicial power into the hands
11 of specialists, whose outlook is confined to a single
12 field. The worst defect of our domestic tribunals is
13 the opportunity they provide for narrow, professional
14 instincts and group habits, to insert themselves without
15 let or hindrance, and the main disadvantage of such
16 tribunals is the domination of the judicial process by
17 petty loyalties and outworn traditions, which
18 predetermine the conclusion and render an impartial
19 investigation impossible."

20 I think that in creating this kind of specialist
21 court, Congress ignored this wisdom accumulated by
22 political scientists and that led to changes in the
23 substance of patent laws that could, I'll comment on this
24 more later, be dangerous.

25 MS. GREENE: Steve?

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MR. KUNIN: While I think you have a nice list

1 in terms of the technical line of reasoning and how things
2 work in the real world, and adding that component to any
3 kind of documentary evidence when one is doing the fact-
4 finding to get, as Herb indicated, the substantial
5 evidence requirement met, In re. Guard Side, in order
6 for deference to be given on fact-finding.

7 I think what happens, a little bit, is that
8 maybe we see a high amount of flipping of decisions,
9 either from the Federal Circuit flipping the decision of
10 the district court judge or flipping the decision of the
11 three judge panel of the Board of Patent Appeals and
12 Inferences. It's interesting, I think, that sometimes
13 you have flipping of two kinds.

14 First, it has to do with independent fact-
15 finding where the court is acting in the role of a
16 district court judge in terms of making its own
17 independent findings of fact and not acting strictly as
18 an appellate court; and it's done that even with respect
19 to cases that have come out of our Board of Patent
20 Appeals and Inferences. I think maybe Ed knows the name
21 of the case, I think it's In re. Ruberson which is the
22 case where, actually, astonishingly the court went
23 out and did its own prior art search at a review of a
24 Board decision in making a patentability determination.

25 So you've got that component of the independent

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1 Federal Circuit has required a lot more express, on the
2 record fact-finding, but the question is: Is that a wise
3 decision as where the Board of Examiner could not take
4 their own knowledge and combine it with a piece of prior
5 reference and say: Yes, this is based on my knowledge as
6 a skilled artisan. It would be easy to take this
7 reference and combine it to get this particular
8 invention that the person is trying to patent.

9 So again the question would be: Should there be
10 some more deference to the knowledge of the examiner of
11 the Board without having to go find the prior reference
12 that says something that they would already know in and
13 of itself?

14 MR. COHEN: Ed, just a reminder to Ed and
15 everybody else to speak into the mikes for the benefit
16 of our transcript.

17 MS. GREENE: Glynn?

18 PROFESSOR LUNNEY: I was just going to make the
19 point when we're talking about judicial activism, that I
20 think there's also a distinct trend of the Federal
21 Circuit seeing itself as perhaps somewhat less
22 restrained by Supreme Court decision-making than the
23 other circuit courts around the country.

24 I think stakes were set fairly in the evolution
25 from Parker v. Fluke to Diamond v. Deere. The Federal

1 Circuit seems to have the sense that if it just sticks
2 with a position long enough, the Supreme Court will
3 eventually tire of taking cases on cert. and reversing
4 summarily, and will finally decide that -- maybe
5 the Federal Circuit wasn't so wrong to begin with.

6 So we've seen a lot of decisions recently where
7 the Federal Circuit has been reversed by the Supreme
8 Court. And I think there's a real question of how
9 willing or, certainly I don't think there's any
10 eagerness on the part of the Federal Circuit, but
11 whether there's even a willingness to actually implement
12 the Supreme Court's directive according to not only its
13 strict holding but the spirit as well.

14 MS. GREENE: Dan?

15 PROFESSOR BURK: There's a lot on the table. I
16 wanted to, I guess, start by going back to the earlier
17 discussion about the Federal Circuit as having been
18 given this mandate to sort of either improve patent law
19 or harmonize patent law. That's certainly the
20 conventional wisdom, and Rochelle wrote the classic
21 article many years ago about the dangers of specialty
22 courts.

23 It's an evolving institution, and it's a
24 maturing institution, and it's not entirely clear to me
25 that what we might have said 10 or 15 years ago about

1 the court is necessarily true today.

2 Certainly, the judges that I've talked to don't
3 like to see themselves as specialists, and they'll
4 quickly remind you of all the other things that the
5 Federal Circuit does besides patent law. There's
6 been a fair amount of personnel turnover on the court,
7 and the newer judges are not necessarily from the
8 culture of the patent bar.

9 So if you look particularly at some of the
10 empirical work that's been done, looking at Federal
11 Circuit decisions, in fact by Mark Lemley and John
12 Allison, it may not necessarily be true, sort of our
13 conventional view of the Federal Circuit and the judges
14 in the Federal Circuit, as to how they're going to
15 decide things today as opposed to say 20 years ago. So
16 that's something we might question or something we might
17 think about a little bit.

18 To the extent that they do have this feeling
19 that they need to harmonize or uphold patents, if you're
20 in that position and you're aware that you're creating
21 this mine field that Professor Scherer was talking
22 about, one of the things that you might think about is:
23 Well, if I have to create more patents or uphold more
24 patents, how can I do that without creating such a
25 dangerous mine field or stifling innovation?

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1 That brings me back to your comment about
2 different industries, whether you can use different
3 policy levers and different industries to either make
4 the mines less explosive or space them farther apart or
5 otherwise adapt what you feel you've been asked to do to
6 a particular industry, which is part of the reason I
7 asked about misuse. Because at the same time as we've
8 seen the sort of whittling away of patent misuse in the
9 Federal Circuit, there's been a renaissance of misuse in
10 the other circuits with regard to copyright law to
11 apparently cut back on certain trends and expansion of
12 copyright.

13 If we're not using misuse as a policy lever to
14 do that in patent law anymore, which was done for
15 many years, then what's playing in that role -- if
16 anything? Is some other policy lever used to play
17 that role? So, that's another thing we might think
18 about.

19 Finally, this question about claims
20 interpretation. One of the things that struck me for
21 many years is the, I guess, very underdeveloped, almost
22 naive analysis and approach to claims interpretation
23 and patent law as opposed to other types of textual
24 interpretation of the law.

25 There's very robust case law and very robust

1 analysis of interpretation of contracts, interpretation
2 of statutes. I get a lot of this from my colleagues at
3 University of Minnesota, like Dan Farber, who are very
4 involved in constitutional interpretation, and we
5 haven't had much of that in patent law, and we haven't
6 drawn on that body of experience in patent law.

7 I think it may partly be because we haven't had
8 sort of a unified court we could look at. It seems sort
9 of easy to do this for constitutional law because you
10 sort of look at the Supreme Court and say, Well, what
11 does Justice Scalia do, what does Justice Breyer do and
12 so on.

13 For a long time we couldn't do that in patent
14 law. Now we have a unified court, and we're beginning
15 to see the beginning of emergence of not only this trend
16 towards articulating some ideas about patent
17 interpretation but also some analysis. People like
18 Craig Nard and John Thomas here at Georgetown University
19 are starting to think about, Well, what are the
20 predilections of certain judges on the Federal Circuit
21 towards interpretation? What kind of canons of
22 construction are being used and what type of
23 interpretive methods are being used?

24 So I think that's still in its infancy, but I
25 think Herb's right, we're beginning to see more of that

1 from the court. I think we'll see that develop, and
2 that seems to me to be a positive thing actually because
3 we've been sort of doing it for a long time without
4 thinking about it very much or articulating what we were
5 doing, and I think it's good to have it out in the open.

6 MS. GREENE: John?

7 PROFESSOR DUFFY: Yes. I just wanted to say one
8 of the key questions I think was identified by Professor
9 Scherer, which is the question of whether the court does
10 suffer from some sort of institutional bias? Indeed,
11 that actually made it into the Supreme Court. The
12 concurring opinion of Justice Stevens actually talked
13 about the new rule of jurisdiction as perhaps actually
14 serving as a salutary check on an institutional bias in
15 the Federal Circuit.

16 I think that there's something to be said about
17 that, but there's also something else that's going on
18 here because a lot of what we're talking about this
19 morning or one of the trends that was identified by Herb
20 Wamsley is that the PTO is getting reversed. The PTO is
21 a specialized agency. If you believe in the theory
22 of agency capture, which is the theory, which has
23 generally agency capture has been brought out against
24 specialized agencies like the ICC, the former ICC, the
25 FCC.

1 You would think that a court would be less
2 likely to be captured, perhaps. Because the judges there
3 are insulated much more completely from political
4 influence and from further career aspirations. Maybe
5 that's not true, but you would at least the PTO to be
6 captured too. Sorry Mr. Steve Kunin, but, at least under
7 the theory, you would expect that the PTO would be
8 captured. And here we have the PTO trying to deny
9 applicant patents and the Federal Circuit reversing, so
10 I think maybe something else is going on there.

11 Part of it might be an accretion of power
12 towards the Federal Circuit. If you look at the Markman
13 decision and you look at the decisions, a lot of what
14 the Federal Circuit is trying to do is turn a lot of
15 issues into legal issues, which, of course, then get de
16 novo review at the Federal Circuit. Strengthening
17 record requirements at the PTO also pushes decisional
18 power up to the Federal Circuit, which might be, I
19 think, part of a more subtle bias of a specialized
20 appellate court.

21 The other trend, you asked about trends that we
22 should consider here. I think it is important to look,
23 not just at the Federal Circuit, but at the Federal
24 Circuit's relationship to the Supreme Court.

25 In the first decade of the Federal Circuit's

1 existence, depending upon how you count decisions, there
2 were either two or three cases, depending upon what you
3 count as a patent case, that the Supreme Court granted
4 cert. on, and one of those was summarily reversed, which
5 means that there was no argument, no oral argument in the
6 case. It was just done on the cert. petition, highly
7 unusual thing for the Supreme Court to do, and they
8 basically said to the Federal Circuit: We're not sure
9 what you did, go back and take a look at this. So,
10 anyway, two to three cases.

11 In the next decade, there were 9 to 10 cases,
12 again depending on how you actually count what
13 constitutes a patent case, and in the last term, there
14 were three cases.

15 So in fact we've seen an acceleration of Supreme
16 Court review over this. I actually think the Supreme
17 Court is getting back into the business of the patent.
18 If you look at the cases that the Supreme Court is
19 taking, they often deal with process issues. It's not
20 just like *Markman* where you're dealing with the
21 allocation of power between judges and juries.

22 It's not just *Zurko*, which explicitly deals with
23 the allocation of power between the PTO and the standard
24 of review that will be used for the Federal Circuit. It
25 also includes all the doctrine of equivalents cases, too,

1 I think, which really do deal with the allocation of power
2 ultimately between a jury -- which gets much more freedom
3 than doctrine of equivalents cases -- and the courts,
4 meaning especially the Federal Circuit, which get more
5 power in literal infringement interpretation issues.

6 So, I think that this is a very significant trend,
7 and it remains to be seen how the Supreme Court is going
8 to -- or how the relationship between the Supreme Court,
9 a generalist entity -- is going to play out with the
10 Federal Circuit. But, I think the Supreme Court is
11 actually taking more attention.

12 In some of the comments I'll have later, I'll
13 actually suggest areas where I think the Supreme
14 Court's jurisdiction could be successfully invoked and
15 usefully invoked, too.

16 MS. GREENE: Why don't we turn to Rochelle, and
17 then we'll have Professor Scherer give his presentation.

18 PROFESSOR DREYFUSS: I want to endorse the
19 previous comment. I think it is very important to ask
20 the question: why does the Federal Circuit seem to be
21 suffering some of these specialization problems? And it
22 is important to separate courts from Commissions because
23 there is not the revolving door problem.

24 The people who are appointed in the first place
25 do not necessarily have the same kind of expertise or

1 sort of industry expertise. They come from a variety of
2 walks of life, but there are problems with
3 specialization. I think it is worth pointing out how
4 the problems that might be there play out in the cases
5 because that's how you could correct the problem.

6 One, I think, is this notion of not seeing the
7 area of patent law in a broader context. I think
8 part of what Dan Burk was asking about misuse and this
9 trend about the antitrust cases really shows you that
10 the Federal Circuit isn't really seeing patent law as
11 part of a whole panoply of tools that are used to
12 promote innovation. So, that sort of contextual problem,
13 I think, is something that needs to be thought about.

14 The second is the problem of the self-
15 consciousness about adjudication. I think because the
16 court very rarely has to justify itself to its sister
17 regional circuits, there is less of a tendency to
18 explain what it's doing. It says what it's doing, but
19 it doesn't explain what it's doing. So we've got lots of
20 theories about what's going on, public policy levers and
21 stuff like that. That's great. And if the court were

2 were we are doing that. The idea would be to debate the question of

1 they're in an interchange. Maybe John's right that
2 as the Supreme Court starts granting cert. on more
3 issues, including more substantive issues, they'll feel
4 the need to do that even without having the kind of
5 percolation and cross pollination from other courts.

6 But I doubt it. I think it's very hard to have to
7 explain yourself or very unlikely that you're going to
8 explain yourself if you don't have other courts to do it.

9 I think there's an interesting little irony that
10 came up. Here we have the Federal Circuit saying that
11 the PTO has to provide more evidence of what they're
12 doing and, yet, the Federal Circuit itself takes judicial
13 notice of anything it feels like taking judicial notice
14 of. So there's a certain lack of self-consciousness in
15 the way that they're thinking about their decisions and
16 also a lack of self-consciousness in the way that they
17 think about how their decisions impact the lower courts.

18 So you see a lot of courts of appeals actually
19 thinking about the question: How is this decision going
20 to play out at trial? You rarely see the Federal

1 Because they don't see trial courts the way that other
2 courts of appeals do, so I think lack of self-
3 consciousness.

4 The third thing is kind of out of the
5 mainstream. I mean, they are not in sort of the
6 mainstream of thinking about issues of law. I thought
7 the remedies point that Mike made was such an important
8 point, I really never thought about the fact that the
9 Federal Circuit almost never talks about these remedy
10 questions.

11 Rite-Hite had a whole huge en banc on it, and
12 you have seen very little repercussions of all of those
13 questions coming through the court. Yet, remedies is
14 a big issue in a lot of areas. Other Courts talk about
15 remedies all the time. And here the Federal Circuit has
16 rarely done it.

17 The language interpretation point I thought also
18 was an important point, but notice who Dan was quoting
19 as talking about language, Craig Nard, other law
20 professors, not the Federal Circuit itself. Whereas in
21 other courts, again, the courts themselves talk about
22 these questions, cite to things that deal with these
23 issues of plain meaning, legislative intent. All of
24 those questions do come up in other circuits, and this
25 court rarely mentions them.

1 Having academia do it is great, but having the
2 court do it is a lot more important.

3 MS. GREENE: Professor Scherer?

4 PROFESSOR SCHERER: Could we take a three-minute
5 break before we start?

6 MS. GREENE: We can take a five-minute break.

7 PROFESSOR SCHERER: All I want is three.

8 **(Whereupon, a brief recess was**
9 **taken.)**

10 MS. GREENE: We're going to start up again.
11 Dan, until they fix your mike, you're just going to have
12 to yell. Let's proceed with Professor Scherer. Thank
13 you.

14 PROFESSOR SCHERER: Thank you. Being at these
15 hearings reminds me of the testimony of Judge Learned
16 Hand before the Senate's O'Mahoney committee hearings in
17 1956. Let me quote Judge Hand:

18 "You can find -- I have been at the job nearly
19 fifty years -- there are two schools, and the one school
20 beats the air and says without the patent system, the
21 whole of American industry would never have been
22 developed.... and the other says it is nothing but a
23 beastly method..... No one really knows. Each side is
24 beating the air."

25 I, too, have been at the job nearly 50 years,

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1 phenomena first illuminated by Federal Trade Commission
2 researchers Ron Bond and David Lean in 1977. A third
3 stimulus is the possibility of keeping important deals
4 of an innovation secret; a fourth, the need for
5 imitators to invest nearly as much in R&D as the first
6 mover; the fifth and very, very important emphasized in
7 the new book by William Baumol, among others, the fact
8 that in many oligopolistic industries, firms find
9 themselves on the treadmill. They must either innovate
10 or lose ground. A final, not the only one, but my
11 final stimulus is the advantages firms with well-
12 established marketing channels have over rivals who
13 are less well-positioned.

14 This does not mean that non-patent stimuli are
15 always sufficient to induce investment. We have also
16 identified cases in which the protection of patents is
17 important to investment in research and development.
18 The most important such case occurs when required R&D
19 outlays are high relative to the size of the potential
20 market, but imitation can be quick and easy, that is,
21 with imitator R&D costs much lower than those incurred
22 by the innovator.

23 The classic examples are pharmaceuticals, with
24 their huge clinical testing costs, and perhaps also
25 software. Although it must be recognized that much

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1 There's no recognition, whatsoever, in patent
2 law of a large body of social science research that
3 shows that under certain conditions, inventions become
4 literally inevitable. Indeed, if opposite, the law has
5 gone off in a direction contrary to this insight over
6 obviousness. That is to say, an index of inventiveness
7 is viewed as the fact that an invention has commercial
8 value. When it has commercial value, that's a stimulus
9 to inventors, and sooner or later they're going to
10 invent with or without the patent.

11 We know that -- and I'm repeating now a point I
12 made earlier, and I'll just shorten it -- the consequences
13 of infringing a patent that is determined to be valid have
14 skyrocketed, increasing substantially the risks of
15 bringing a new product to market.

16 We know that innovation has become more complex
17 and more science-based and that the time lags between
18 basic discovery and practical implementation have
19 shortened. Therefore, the sequencing of patented
20 inventions over time, what Suzanne Scotchmer has called
21 the standing on giants' shoulders phenomenon, has
22 accrued much greater importance than it had in the past.

23 In particular, one or more early basic patents
24 can retard or bar innovation by a downstream inventor or
25 developer, slowing down the pace of technological

1 advance, instead of accelerating it, as was the original
2 intent of patent systems. Those are some things we
3 know.

4 The FTC is to be commended for holding these
5 hearings, which should make it clear what is known about
6 the patent system's functioning. The question remains,
7 What next? Let me make a few suggestions.

8 First, it would be useful for the FTC to
9 exercise its traditional sunlight role, which is the
10 reason why President Wilson recommended its creation in
11 the first place, informing Congress of what it has
12 learned through this investigation. That will require
13 some lobbying. You have to induce Congress to open its
14 ears, but I think the Commission is capable of doing
15 that.

16 Second, I do not believe it is possible without
17 significant procedural changes to upgrade the quality of
18 the average issued patent. To move in that direction, I
19 strongly recommend that Congress enact into law an
20 opposition system that will allow those who have better
21 information than Patent Office examiners to challenge
22 patents at an early, pre-litigation stage, that is to
23 say, shortly after publication of application for those
24 applications now subject to publication, shortly after
25 issue for the remainder.

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1 Congress should address explicitly the
2 court-made law encompassed by the doctrine of
3 equivalents. That's a very technical subject, and I'll
4 just leave it at that. A lot is happening, as we've
5 seen, with the Supreme Court entering into the picture.

6 A particularly pressing problem is the
7 possibility that technological progress can be impeded
8 when one patent, or a whole cluster of patents, perhaps
9 held by different assignees, are essential precursors to
10 the commercialization of a technology. I have analyzed
11 such cases at length in my paper, "The Economics of
12 Human Genome Patents," of which the Commission staff
13 has a copy.

14 Stalemates can develop in such cases in two
15 ways. First, when a basic patent has little commercial
16 value in its own right, for example, a sequence of the
17 human genome, but can block a downstream's commercial
18 innovation, bargaining stalemates can emerge.
19 Especially, as my recent research with Dietmar Harhoff
20 and others has shown, when technological and especially
21 market uncertainty leads to widely varying estimates of
22 the upstream blocking patent's value.

23 Second, many inventions may depend upon numerous
24 upstream patents, each of whose assignees attempts to
25 collect his or her little royalty. The problem here is

1 contribute to minimizing such blockages on a case-by-
2 case basis. The consent settlement reached in the Intel
3 case is one example, and I might note that the
4 Commission, in this instance, proceeded in a quite
5 different way than the appellate court for the Federal
6 Circuit proceeded in the Intergraph case.

7 Intergraph's case, viewed in a narrow way, was a
8 bad case. It should have been thrown out, even though
9 Intergraph has been shown since then to hold patents for
10 which Intel appears to have been willing to pay about
11 \$170 million. But it's clear in the semiconductor
12 industry that there were huge blockages of patents that
13 were retarding innovation, and the FTC's settlement of
14 that case opened up the way to continuing innovation,
15 without giving special preference to one powerful firm.

16 The required licensing of key biotech patents in
17 the settlement of the Ciba-Geigy-Sandoz merger filing is
18 another example of what the FTC can do to prevent
19 logjams.

Well, these are some ideas I have, and with

1 the analytical findings between social science and
2 policy-making.

3 So I'm curious as to what do we do now to reduce
4 that gulf further, and what are the biggest
5 impediments?

6 PROFESSOR SCHERER: By we, you mean the Federal
7 Trade Commission?

8 MS. GREENE: For starters, yes.

9 PROFESSOR SCHERER: Yeah. The FTC has great
10 respect on Capitol Hill. And it also has people that
11 know how to talk to the members of staff on Capitol
12 Hill and get their interest. It should make clear
13 that it has useful things to say to the Congress and
14 try to get some hearings started, like those that the
15 O'Mahoney Committee held in the late 1950s.

16 Those hearings produced a set of documents roughly
17 a foot wide on a shelf of books -- the state of
the art was very primitive now. You, the FTC, have to

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1 this horn of plenty. These two directions are
2 conflicting with one another.

3 All I can say is one needs to do it carefully
4 and judiciously.

5 MS. GREENE: Rochelle?

6 MS. DREYFUSS: I was struck by your point about
7 stacking patents and questions of uncertainty in
8 evaluating upstream patents. Everybody has said that

1 are having problems, but nobody has been able to document
2 it.

3 PROFESSOR SCHERER: Well, in genetics
4 specifically, I guess there are two answers. Number 1,
5 a lot of the basic patents in this area are held by
6 universities. Those universities have fairly strong
7 incentives to see their essentially still not-yet-useful
8 patented technology get into commercial utilization.

9 They do that sometimes through nonexclusive
10 licenses. There were several hundred licenses of the
11 Cohen-Bayer patents issued. They do it in a lot of
12 cases through exclusive licenses. The new -- I take the
13 drug, I can't think of its name now -- but the anti-
14 inflammatory, the Vioxin like drugs. The basic patents
15 on those drugs are held by the University of Rochester
16 which has then licensed them out and is taking substantial
17 royalties.

18 So there are incentives for the upstream patent
19 holders to reach deals. They're perhaps more inclined to
20 strike a deal than the private holder may be. So that's
21 one answer.

22 The second answer is, my daughter is a
23 microbiologist, and running her labs costs an awful lot
24 of money because she is paying toll to the owners of a
25 lot of upstream method patents and vector patents, and

1 so the cost of the research she does are increased. The
2 people are quite willing to license her, either sell the
3 stuff to her at high prices or license it to her at a
4 price. But there is a price, and that price does, I
5 don't know how much, but it does slow down biological
6 research.

7 MS. GREENE: Herb?

8 MR. WAMSLEY: I would like to comment on two or
9 three of the points that Mike made.

10 First of all, on the O'Mahoney hearings long
11 ago, I'm almost old enough to have been there for those,
12 but I have seen the voluminous records of those hearings
13 and the very scholarly nature of them and the great
14 amount of statistical evidence that was brought forth.

15 I think that the Congress does deal with
16 intellectual property matters in a different way today.
17 Clearly times have changed I think as you indicated, but I
18 think today, one thing that has changed is that there's
19 a great deal more lobbying by the private sector
20 interests on intellectual property issues than I believe
21 was the case at the time of the O'Mahoney hearings, and
22 I'll review that I represent those interests or some of
23 them.

24 I think the way it works today, Congress often
25 makes changes in intellectual property law that are

1 urged on by those who are doing the lobbying, and that
2 gets to what kind of changes they've been making.
3 Generally speaking, they've been strengthening IP
4 protection, including patent protection, over the last
5 decade or two in response to the lobbying.

6 I think that's because many of the companies and
7 the industries who are doing the lobbying perceive that
8 stronger patent rights are in their economic interest,
9 and with respect to compulsory licensing, of course, the
10 drug industry and other industries, who are doing the
11 lobbying, don't perceive that compulsory licensing would
12 be in their interest.

13 Now, on the question of patent oppositions that
14 you mentioned -- which is something that is under more
15 discussion right now, I believe, in Congress and the
16 government and the industry than it has been in several
17 years -- there appears to be a lot of support for that.
18 Various degrees of various kinds of opposition bills are
19 now pending in Congress.

20 There's one bill that has been already passed by
21 both Houses of Congress in different forms and could
22 become law this year that could have a noticeable affect
23 on the Court of Appeals for the Federal Circuit, getting
24 back to the heart of what we're discussing today, and
25 that bill that may pass creates a right of appeal to the

1 Federal Circuit and the inter partes option proceedings
2 that were set up in '99 under the American Inventors
3 Protection Act.

4 If we have these appeals going to the Federal
5 Circuit by opposers of patents, people who are not
6 asking the Federal Circuit to approve the patent but
7 people who are asking the Federal Circuit to invalidate
8 the patent, you may see a substantial number of those
9 appeals that may give the Federal Circuit more exposure
10 to a different set of customers, if you will, that they
11 don't hear quite so much today. That could have an
12 effect perhaps on the Federal Circuit.

13 Now, finally, we talked about mine fields that
14 are out there and all the patents that are being issued,
15 all the narrow patents. I think you can find quite a
16 bit of support for that among companies that are large
17 patent holders today because those companies that are large
18 patent holders are also manufacturers. They
19 tend to look at the patenting system from both sides,
20 depending on the situation they're in.

21 So I think you can find a lot of agreement about
22 too many patent mine fields being out there. I think
23 it's a subject for a lot of discussion as to how much
24 the Federal Circuit has had to do with cleaning those
25 mine fields. There are so many other factors.

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1 There's the Patent and Trademark Office, my good
2 friend Steve Kunin, who has the responsibility for
3 issuing the patents. There are many things that can be
4 done in the way of better training, more resources at the
5 Patent and Trademark Office, improvements in
6 legislation, and so I would say, Mike, you've covered

1 essentially ignore the patents existing on those drugs
2 and getting a lower price.

3 All of a sudden it stopped, and I had wondered
4 for decades why it did stop. A little bit of research
5 finally gave me the answer. Proceeding through several
6 different statutes, I finally found that there had been
7 an appropriations or foreign aid act amendment put on
8 saying that, from now on, the government will not buy
9 any drugs in contravention of existing U.S. patents.

10 How did it get there? It was introduced as an
11 amendment by a congressman from Indianapolis, one that
12 you might call the Eli Lilly amendment, in House of
13 Representatives that seemed to have about 30 people on
14 the floor at the time. There was just a tiny bit of
15 debate. The conference committee didn't address the
16 issue. All of a sudden the basic national policy
17 gets changed in an extremely obscure way, unless you
18 track what actually happened.

19 Now, on opposition, let me give another
20 anecdote. I worked for Dell Computer about a decade
21 ago. Texas Instruments had succeeded against several
22 smaller firms and was now going on to Dell, which they
23 thought was a weak firm, but they made a mistake. Dell
24 mounted a substantial opposition effort when Texas
25 Instruments claimed that Dell was infringing a submarine

1 patent that Texas Instruments had received that defined
2 the concept of a personal computer. That patent had
3 been issued and gone through the process.

4 What Dell, by investing a substantial amount of
5 money, found was that two years before Texas Instruments
6 filed its patent, which covered the basic concept of a
7 personal computer, an electronics engineer had filed a
8 full description of this same invention in an
9 electronics industry magazine.

10 Now, there's almost no way a patent examiner
11 under the existing system is going to know about that
12 prior literature unless the patent applicant is stupid
13 enough to put that prior reference to the literature in
14 the patent specifications. But, when you have an
15 opposition procedure, those people who have information
16 that is not within the domain of the patent examiner
17 will bring that information forward and get the job done
18 properly.

19 That's where I think its great possibilities
20 lie.

21 MS. GREENE: Steve?

22 MR. KUNIN: I had a couple of comments,
23 principally directed to some of the points that
24 Professor Scherer made and also to follow on with some
25 of the observations on Herb Wamsley's comments.

1 harassing applicants. Then, even if they survive the
2 harassment, they end up with very long patents, 25, 30
3 year, 35 year, 40 year patents, which I don't think is
4 good for society.

5 As far as the aspect of patents, more patents,
6 there are many elements in our 21st Century
7 strategic plan, which we believe, should we get the
8 resources to be able to implement them, will
9 substantially enhance the ability of us to issue quality
10 patents in a timely manner.

11 There's a large number of initiatives dealing
12 with the quality of the people hired, their training,
13 development, supervision, review of cases and the like.
14 We do believe that that is important consideration
15 in terms of having more reliable patents, regardless of
16 how many do get granted in any particular year.

17 The final point that I would like to make is
18 that it's interesting from the standpoint of quality and
19 standards of patentability that, unlike the European
20 Patent Office, where there is no right to judicial
21 review of decisions from the EPO. In the EPO,
22 essentially the examiner's decision can be appealed to
23 a Technical Board of Appeals, and in a very unusual
24 circumstance, there's an enlarged board that might
25 reconsider the Technical Board's decision, but after

1 that, you're just out of luck.

2 I mean, basically if the EPO says it doesn't
3 like your application, you don't get a patent.
4 Whereas, in the United States, as you've seen from
5 the perspective of Herb's chart, you get this kind of
6 ripple effect where if the Fed Circuit says that won't
7 pass muster, then the Board adopts that standard, and
8 they apply to the Examiner's cases, and then you have
9 that ripple effect from the standpoint of impact on
10 standard of patentability.

11 I think there's an interesting aspect going back
12 to the kind of authority that we have. Certainly the
13 Federal Circuit in the Merck v. Kessler case
14 has indicated that Congress has not given the
15 Patent and Trademark Office substantive rulemaking
16 authority. We only have interpretive rulemaking
17 authority.

18 So, for example, we can't write a standard for
19 determining whether the nonobviousness standard has been
20 met. Writing that kind of rule, which in essence says:
21 This is must you do to satisfy the requirement for
22 patentability under nonobviousness, is a substantial
23 rulemaking type of authority, which would be under
24 notice and comment type of rulemaking, but we don't have
25 that kind of authority.

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1 In fact, what we can do is write procedural
2 rules, and what we also do is we use notice and comment
3 for producing what we call examination guidelines.
4 Of course it's interesting when we produce examination
5 guidelines is that sometimes the court decides that when
6 they like them, they use them as part of the reasons for
7 deciding a case. Sometimes the court decides that since

1 look for awhile, and they don't find the car keys, he
2 says, well, can you remember sort of where you lost
3 them? He said, yes, down the street. Then he says,
4 Well, why are you looking here? And he says, Because
5 the light is better.

6 PROFESSOR SCHERER: That's no drunk. That's a
7 drunk economist.

8 PROFESSOR BURK: Exactly. Over the years, I'm
9 actually looking at something right now: when you
10 have something that's not traded in markets so you can't
11 really look at how people value it by the price they pay
12 to market, you go to other sorts of attempts to measure
13 it like contingent valuation and so on. Economists will
14 tell you, and we all agree that economics just kind of
15 breaks down because we don't really know how people
16 value that. We don't really know what kind of policy we
17 ought to have for that.

18 So one of the clear limitations is if what
19 you're looking at isn't traded in a market and you're
20 going to try and measure what it is worth some other
21 way, most of what we have right now in terms of economic
22 theory is not going to be terribly helpful. If it is
23 traded in market, then I'm as much an amateur economist
24 as any law professor. But a lot of things we're probably
25 going to want to think about are not going to be

1 necessarily amenable to the kinds of analysis that are
2 readily available.

3 MR. SOBEL: I would like to take a step back to
4 earlier discussion.

5 MS. GREENE: Absolutely. Hello, Gerry. How are
6 you?

7 MR. SOBEL: Hi. How are you doing?

8 MS. GREENE: We now have been joined by our last
9 panelist, Gerry Sobel, who cut short his vacation to
10 join us and I'm grateful. I'll just say real fast
11 before your comment: chairman of the patent group at
12 Kaye Scholer and a partner in the litigation
13 department. He's tried and litigated many complex cases
14 in over 30 years of practice.

15 What can I say, lots of landmark jury trials,
16 member of the Advisory Committee of the Engelberg IP
17 Institute at NYU and an Adjunct Associate Professor.

18 Yes, your comment.

19 MR. SOBEL: I didn't think my comment was going
20 to elicit that very kind introduction.

21 You asked about the extent of economic analysis
22 in Federal Circuit cases, and why don't I say what I've
23 observed is there, and we can decide later if that's
24 economic analysis.

25 What is there is a discussion, and I've written

1 showing that innovation is the most important source of
2 growth, contrary to what had been believed about
3 intensifying capital and using less labor, but that's
4 old news, and then it's improved on that. It doesn't

1 that I'm like Rochelle, I have not done a systematic
2 reading of the last five years of cases the way that
3 Gerry has or I mean that Herb has.

4 I see the kinds of things that are being talked
5 about. The references in Federal Circuit cases that I
6 have looked at to inventing around an innovation, but it
7 all seems to be folk wisdom, with the notable exception
8 of Judge Newman, who takes an active interest in the
9 outside literature.

10 So my sense is that this is not sort of looking
11 at the growing by even empirical evidence or looking at
12 the sort of rigorous theoretical models that are
13 available. To the extent there is a concern about this,
14 it seems to be, as I say, folk wisdom.

15 The real cipher here is, of course, the clerks
16 because the majority of federal judges and probably
17 state judges sort of rely on the revolving door of
18 clerks coming out of law school to bring new ideas into
19 their chambers. I have to assume some of that is
20 going on law in the Federal Circuit, but if the Judges
21 aren't receptive to what the clerks are bringing in,
22 then it may never appear in opinions.

23 So maybe what we really need to do is take a
24 poll of Federal Circuit clerks to see what they're
25 bringing in to chambers.

1 MS. GREENE: Rochelle?

2 PROFESSOR DREYFUSS: Just to add on to Gerry's
3 discussion of Festo, what's interesting with the
4 Supreme Court opinion is the Supreme Court does not use
5 economic evidence, but they do think about linguistics.
6 They talk about how language is used and what's the
7 capacity of language to capture actual meaning, and
8 that's actually a really stark contrast to the Federal
9 Circuit.

10 With all of those opinions in Festo, there was
11 very little discussion of what we can really expect
12 people to be able to talk about, their cutting edge
13 technology at the time that they apply for their patent
14 and capture that in language. So it's a different social
15 science, and do you call linguistics social science, but
16 it's a different field, which the Federal Circuit is
17 also apparently ignoring.

18 It's useful I think to compare what the Federal
19 Circuit is doing to the odd case that Judge Posner
20 decides or Judge Easterbrook decides, and they don't get
21 a lot of patent cases anymore, but Easterbrook in
22 particular has sat as a district court judge a few
23 times. You see immediately in those cases, I don't
24 actually agree with a lot of what they do, but an
25 attempt to bring economic analysis to it, so I think

1 PROFESSOR LUNNEY: I actually was going to make
2 a very similar point. Maybe I'll expand on Rochelle's
3 point about what's in the briefs I think is incredibly
4 important. I think that for an attorney who gets a
5 case and has a relatively short time to actually brief a
6 case and a rather severe page limitation -- to actually
7 go into detail into the economics, having litigated many
8 or a fair number of cases myself, it's just impossible.

9 Indeed, it makes your case look weaker because
10 if the judge pens up the case and the brief and the
11 first thing they see is some discussion of the economics
12 literature, they'll think: Well, this person has no case
13 law support, so they clearly had to resort to the last
14 refuge of the desperate, which is the economics
15 literature.

16 I think that's a very serious consideration.
17 It's in part why an executive branch body, whether it be
18 the PTO, the Department of Justice or the Federal Trade
19 Commission, with better access to longer hearings, with
20 voluminous transcripts, might be the better forum for a
21 kind of discussion of the economics than some sort of
22 policy recommendation, whether that be a study that
23 then could be cited, an authoritative study, some sort
24 of policy decision.

25 I'm familiar with the Merck case that Steve

1 Kunin mentioned. Actually I was one of the litigators
2 in that case. But I actually think that that does leave
3 some room for to the PTO still to get some deference on
4 certain issues, including issues that might be
5 considered issues of law.

6 That is a more hospitable forum for the
7 economics than the case law. I agree with you that
8 if you look at those briefs, certainly the briefs that I
9 wrote when I was ligating and that the other sides
10 wrote, you won't see a lot of the citations. Maybe
11 antitrust is a very, I think, rare area because there
12 are few decided cases. Cases decided tend to be rare,
13 and everybody knows that there are very few constraints
14 of statute, very few limitations, and the judges really
15 are policy makers.

16 The last point I'll just say is that, of course,
17 it is actually a good thing that the judge's instincts
18 are not to look too much at the economics literature
19 because they're not experts in economics. Judge Posner
20 and Judge Easterbrook are exceptions to the rule, and I
21 think that actually a court, as an institution, would
22 have a great deal of problem actually understanding the
23 economics literature in the time frame that cases are
24 brought before it and in the adversary context.

25 MS. GREENE: Well, it seems that the gulf

P R O C E E D I N G S

1
2 MR. COHEN: I assume we'll be joined by
3 everybody as we move forward.

4 This morning our discussion was designed to be
5 fairly global in nature. We heard discussion regarding
6 some of the overall trends in Federal Circuit
7 jurisprudence, and we considered, in general terms, the
8 extent that economic and policy considerations have
9 played in the Federal Circuit's thinking.

10 This afternoon what we'll do is we're going to

1 at the moment -- who participated in our morning session,
2 and that permits me to jump right in without further
3 introductions.

4 I think that Herb this morning referred to
5 Section 103 and its obviousness inquiry as "the heart of
6 patent law," so let's begin by going right to that
7 heart. We're going to start with two presentations
8 focusing on the obviousness inquiry.

9 Let's start with Glynn Lunney, author of an
10 intriguing article on the topic, that he will help lead
11 us through with the magic of some slides.

12 PROFESSOR LUNNEY: Thank you. My name is Glynn
13 Lunney. This discussion today is based largely on an
14 article, "E-Obviousness," that I presented at George
15 Washington University a couple years ago. It's in
16 published form at the Michigan Journal of
17 Telecommunications and Technology.

18 It concerned, at the time I initially presented
19 it, principally the obviousness issue, where is it,
20 where did it start, where are we now and why are we
21 there. And what I'm going to do in the presentation is,
22 I hope, try to walk through all three of the issues that
23 Hillary has identified for us today, that is, what are
24 the trends in the area, give a positive or descriptive
25 account of why the trends are what they are, what has

1 the Federal Circuit done, and then third try to give an
2 economic analysis that may cast a light on whether we're
3 at the right place on the obviousness issue.

4 The first thing I did in setting up the

1 I think that it's a useful reminder that not
2 everything that we think of as new is necessarily new.
3 These may be cycles that we've seen before, issues that
4 we've seen before, and so certainly it bears looking at
5 how things have gone, not only over the last four or
6 five years, but over the last 50 to 60 years.

7 So I looked at cases, taking six time periods
8 from the pre-Federal-Circuit era. You can see on the
9 slide they start in 1944 and then range up until
10 1981-'82. I realize, of course, that the Federal
11 Circuit was created in 1982, but it didn't actually
12 start rendering any patent infringement decisions until
13 1983 and really got into the groove in 1984.

14 So we have six time periods from 1982 and before,
15 the pre-Federal-Circuit era, and then five time periods
16 from 1984 on, where I read all of the cases involving
17 litigated patents. These are infringement cases. So
18 not appeals from USPTO denials. Moreover, they're
19 utility patents, so anything about plants or designs
20 has been excluded.

21 This is what I found. In the pre-Federal-
22 Circuit era, patents were held invalid, where invalidity
23 was addressed in the opinion at the appellate level,
24 between say 46 and 62 percent of the time.

25 Now, keep in mind that these are appealed cases,

1 and there's a self-selection bias that's going on. Not
2 many patent attorneys are going to take cases on appeal

1 One thing that was interesting to me here is
2 that a second thing we're looking for in patent
3 litigation is certainty. We want parties to be able to
4 predict how the court is going to come out based upon
5 the legal rules, and there's a lot more variability in
6 the outcomes in the post-Federal-Circuit era. In the
7 pre-Federal-Circuit era, the invalidity rate ranged from
8 46 to 62 percent, so plus or minus 10 percent of the
9 average.

10 In contrast in the post-Federal-Circuit era it
11 ranged from 25 percent to 62 percent, plus or minus 24
12 percent from the average, so a lot more variability
13 suggests a lot less predictability. Part of that may be
14 a new court, but I think part of that is something more.

15 The second issue I wanted to look at is what
16 role does obviousness play. It's been described as the
17 heart of the patent system in one sense, the real bar,
18 if you will, in terms of getting a patent.

19 In the pre-Federal-Circuit era, that was clearly
20 true. Between 66 and 80 percent of those patents that
21 were held invalid were held invalid because of
22 obviousness. In contrast in the Federal Circuit era,
23 only between 20 and 50 percent of those patents held
24 invalid were held invalid because of obviousness.

25 So this is not telling us about the pro-patent

1 bias of the Federal Circuit or anything of that sort.
2 These are the patents that were held invalid, how
3 important was obviousness as a means for invalidating
4 the patent? Its importance is certainly diminished,
5 dropping from an average of roughly 73 percent in the

1 "Well, it's so clearly non-infringing that we won't
2 bother to discuss the validity of the patent," but that
3 was a fairly rare result. Only 20 percent of the cases,
4 for all of those various reasons, was invalidity not
5 addressed.

6 In contrast, with the advent of the Federal
7 Circuit, that average shot up quite high. In 60 percent
8 of the appellate cases that were decided since 1984 for
9 the sample periods I looked at, invalidity was simply
10 not addressed, and the predominant reason among that was
11 because the patent was found to be not infringed as a
12 matter of law.

13 So those were my initial results. So the question
14 came to mind, Well, why has obviousness diminished and
15 why is invalidity not being addressed in the cases? And
16 in thinking about that, some of the reasons are clear.
17 In terms of the obviousness standard itself, the Federal
18 Circuit has certainly changed that in two important
19 respects: One, increasing the importance of so-called
20 secondary considerations, or as the Federal Circuit
21 prefers, objective evidence of non-obviousness, and
22 second, it's changed the rules with respect to
23 combination patents, requiring some suggestion or
24 motivation in the prior art for combining elements from
25 different prior art before you can find a patent to be

1 invalid because of obviousness.

2 Those two doctrinal changes have certainly been
3 important, but I think something more is going on, and
4 what I have called it is the "simply property
5 perspective." It was articulated first by Chief Judge
6 Markey in 1983, April 1983, at a speech at the
7 University of Chicago and subsequently made its way into
8 Federal Circuit jurisprudence very early on.

9 "A patent, under the statute, is property.
10 Nowhere in any statute is a patent described as a
11 monopoly. The patent right is but the right to exclude
12 others, the very definition of 'property.'"

13 So by taking patents outside the rubric of
14 monopoly and putting them into the rubric of property,
15 you've not only changed the names -- and unlike Juliet I
16 think names matter a great deal, so what you call a
17 thing will influence how we perceive it -- it seemed to
18 shift the court's perspective on the desirability of
19 patents altogether.

20 Under the traditional perspective, historical
21 perspective, patents were monopoly, but they are
22 monopolies we tolerate because of the incentives they
23 supposedly create for desirable innovation. So it's a
24 matter of balancing the deadweight loss from the monopoly
25 versus the incentives for innovation.

1 Under that approach, obviousness has a very
2 sensible meaning and purpose. What you want to do is
3 weed out those inventions which would not be disclosed
4 or devised but for the inducement of a patent, as the
5 court explained in the Graham versus John Deere case.

6 In contrast, under the simply property
7 perspective, there is no monopoly. There is no
8 deadweight loss. The higher prices that a patent holder
9 for a valuable patent can charge is nothing more than
10 the higher prices that a New York property owner can
11 charge for land in New York. It's simply a reflection
12 that some property is more valuable than others. It's
13 not a monopoly at all.

14 In the absence of any deadweight loss, the cost/
15 benefit balance shifts dramatically in favor of
16 patents. There would be then no cost in a sense to
17 granting patents, except perhaps some transition costs
18 arising from blocking patents, perhaps some things of
19 that sort.

20 In the absence of the deadweight loss, you end
21 up with something like a presumptive entitlement to a
22 patent. If your contribution is new, even if it's only
23 a slight advance, well, you're entitled to a patent, but
24 you're entitled only to a patent with respect to your
25 contribution.

1 So in terms of the trend, it looks like non-
2 obviousness has become important. In a positive or
3 descriptive sense, it looks like the simply property
4 perspective may have played some role in that. And then
5 the third step that I took is to look at an economic
6 model to see if we can make any sense of that as a
7 normative decision or choice.

8 Here I'm a little more skeptical than my share
9 about how much help economics can be in this area. If
10 you ask an economist what's the interest rate going to
11 be in six months, and you gave them a hundred million
12 dollars to figure that out, they would spend the hundred
13 million dollars and they would come back to you and say,
14 "Well, my best estimate of what the interest rate will be
15 in six months is for you to look in the paper and see
16 what the interest rate is today, and that's my best
17 guess."

18 That would be the best that economics could do
19 today. The best that we could do is tell you to look at
20 the paper today, same interest rate in six months. So to
21 think that economics can tell us very much over any sort
22 of long-term period about what the effects of having a
23 patent system or having a particular element, pulling a
24 particular policy lever within the patent system, is I
25 think asking a bit more than maybe what economics is

1 capable of today.

2 Nevertheless, I tried to set up an economic
3 model. And I think economics is useful today as a story,
4 as a parable, telling us something we may not otherwise
5 see, and if it holds together and makes sense, then
6 maybe we should put weight to it. But we should not be
7 quick to leap on to economic analysis simply because a
8 model can be developed that generates a certain result
9 because I can tell you that almost any model can be
10 developed to generate almost any result.

11 So it's a question of whether the model and its
12 assumptions are plausible, a good story. So here's the
13 story I told.

14 Let's say that we have two sets of investments
15 that people are considering investing resources in. We
16 have Set 1. We have Set 2. We have five choices in
17 each, and obviously a profit-motivated person is going
18 to invest in the more valuable choices. But we have what
19 we might think of as the social value, what's the
20 invention worth to the society as a whole, and then we
21 also have a private value, the private return. So those
22 are one thing we need to keep in mind.

23 Second, if we're going to talk about a property
24 system allocating resources, what we should be thinking
25 about is constrained resources. We only have so much.

1 That's why we have to allocate it among the available
2 investments. So here the resource constraint is we only
3 have enough of this creativity, whatever it might be, to
4 do four of these investments. So the question is, which
5 ones should we do?

6 Well, from a social perspective it's clear. We
7 want to pick 1A, 1B, 2A and 2B. Those are the most
8 valuable social uses of the resources.

9 But what happens in the real world? In the
10 real world, there might well be differences between the

1 1B, 1C and 1D. 1D, even though it had a much lower
2 social value than 2A, has a higher private return. So
3 that's where the resources would go in the absence of
4 any patent protection for either Set 1 or Set 2
5 investments.

6 What if we gave a patent to the Set 2
investments only? Well, a patent would give you a

1 patent.

2 Well, what if we go with a low standard of
3 obviousness and give patents for both? They're all
4 inventions. They're all socially desirable. Well, I
5 don't know if they're inventions. They're all new.
6 They're all socially desirable.

7 If we give patents to both, the Set 2 returns
8 remain the same as they were in case 2, same return
9 because same situation. But now the Set 1 investments
10 have a little bit longer lead time period, a little more
11 expensive to work around because they have patents too
12 now, so we bump up their private returns again by an
13 arbitrary amount. And what's a private, profit-motivated
14 firm going to do now?

15 Well, the profit-maximizing set of investments
16 here are again 1A through 1D, and so by giving patents
10

66 Well, t?16

1 inducement of a patent.

2 Now, how do we do that? Well, I think as
3 Professor Scherer did say, we do know some of the things
4 that suggest when invention is not likely in the absence
5 of a patent. And one of those things, let's see if I can
6 get to it, is the creative investment fraction. That is,
7 where you have a large R&D investment in the product or
8 process that you've invented relative to the market
9 price of the invention, and if you combine that with

1 issue.

2 PROFESSOR DUFFY: Well, I'm going to talk a
3 little bit about what I think the economics of the
4 nonobviousness doctrine are and a little bit more about
5 the legal process, and I think you'll find that some of
6 what I say very much complements what Professor Lunney
7 has already said.

8 The first point I want to make is I actually

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1 So again innovation is a natural monopoly. It
2 looks a lot like a traditional natural monopoly because

1 industries or maybe the antitrust literature that maybe
2 some of the regulators at the FTC might be more familiar
3 with.

4 Let me go to my next slide here. The reasons to
5 regulate I think are very much the same. Like a natural
6 monopoly, production by a single firm is optimal. Also
7 we have the theory of destructive competition, which is
8 also in our natural monopoly literature.

9 In the natural monopoly literature, we often see
10 the theory of destructive competition, that if there was
11 not government regulation, competition would drive price
12 to marginal cost so that the fixed cost could never be
13 recovered by firms. And that would be destructive of the
14 firms of the industry, and as a result firms would no
15 longer invest in that industry.

16 I think that that is the same theory in
17 intellectual property law. For a variety of reasons I
18 think it is more plausible in intellectual property law,
19 certainly in some industries, that without regulation
20 people just will not invest in innovation because they
21 know that after they innovate, the price will be pushed
22 down to marginal cost, and they'll never be able to
23 recover their research and development cost.

24 The regulatory technique is a temporally limited
25 exclusive franchise, which is very similar actually to

1 the way we regulated -- the way this country and other
2 countries regulated natural monopoly in, for example,
3 the 18th and 19th Century bridge regulation. And
4 actually Professor Lunney and some judges on the Federal
5 Circuit have drawn this distinction between property and
6 exclusive franchises.

7 I don't think there's as much riding on that as
8 maybe some of the judges on the Federal Circuit think.
9 In fact, actually one of the interesting features of the
10 19th Century bridge regulation is you got this exclusive
11 franchise to build this natural monopoly good, a large
12 bridge that had large sunk costs and very, very low or
13 zero marginal cost. You've got an exclusive franchise.
14 You could charge the tolls during that.

15 One thing is that after your 30 or 40 year
16 exclusive franchise expired, one interesting thing is
17 not only did you lose your exclusive franchise, actually

1 Professor Lunney has already said. I think it assures
2 that the fixed costs of producing the relevant
3 innovation are, in fact, substantial. In other words,
4 it's assuring that this industry that we're going to
5 give an exclusive franchise is in fact a natural
6 monopoly industry.

1 students I always give the cooking chickens with a
2 cyclotron, which is a very expensive machine used for
3 research -- you can get a patent on that. It's useful
4 because it cooks chicken, but whether it will succeed in the
5 marketplace, we don't know and we don't care.

6 So why don't we take that approach with the
7 nonobviousness doctrine? I think there are two answers, and
8 they're quite different in terms of effect of what we think
9 the doctrine should look like.

10 One is a profusion of paltry patents. In
11 other words, you just have thousands and thousands of
12 these patents, a swarm of patents out there. Each patent
13 individually does not impose significant output constraints,
14 but collectively they're very expensive to search and
15 license, and as Professor Scherer said, they may be a mine
16 field. They generate a great deal of litigation due to
17 accidental infringements. You're trying to manufacture
18 something. You step on a patent. You blow your leg off.
19 That's, I think, one reason.

20 I think another reason is, and I think this may
21 actually be at least as significant and sometimes
22 overlooked, are the really economically significant
23 patents. And the key here to realize is that technical
24 triviality does not at all equal economic triviality.
25 You can have an extraordinarily valuable patent that is

1 technically trivial, so that a patent on an obvious
2 development can impose significant output constraints.

3 Now, I have what I think is a poster child for
4 this branch of the nonobviousness doctrine. It's a very
5 important historical case. It didn't generate a really
6 great appellate opinion, so it's not in the case books
7 very often, but it's the case of the Selden patent.
8 This is a patent on the automobile. It was filed by an
9 inventor who was an amateur tinkerer in automobiles,
10 but the gentleman's real skill was he was a patent
11 attorney.

12 He actually got this patent through the Patent
13 Office, and this is the claim language. Actually I cut
14 and pasted the claim language here. It's a combination
15 with a road locomotive. I'm just thinking about my car
16 that I drove up here from Williamsburg to Washington. I
17 have a road locomotive. It has running gear, propelling
18 wheels, steering wheel. It's a liquid hydrocarbon gas
19 engine of the compression type, which means my cylinders
20 compress the gas before ignition. I have a fuel tank.
21 I have a power shaft. I have a clutch, and I have a
22 carriage that conveys me up here.

1 think it covers the rotary engine cars because it
2 requires cylinders, but every other car it covers.

3 I'm not sure whether it covers diesel engines.
4 I'm not sure about that, but anyway, it covers a lot of
5 cars. I thought here I would throw in a drawing. My
6 car doesn't look like that at all, I promise, but the
7 claim language does cover my car, even though this is an
8 expired patent.

9 The points from the Selden experience is, first,
10 to recognize quite frankly that Selden's combination may
11 very well have been novel at the time he made it.
12 That's debatable, but gasoline engines were relatively
13 new at the time, and he might have been the first one to
14 mount one on a car.

15 If he wasn't the first one to mount one on a
16 car, then there clearly was somebody else who was the
17 first person to mount one on a car, and if that person
18 were just as sophisticated with the patent law or
19 willing to game the patent system as much, we would have
20 the same problem presented.

21 Nonetheless, we can think it's novel and still
22 think the development itself was trivial. We know this,
23 I think, for many reasons. Many individuals
24 independently thought to use gasoline engines for cars
25 as soon as the gasoline engine was developed. Of

1 course, you might think it's trivial that any new form of
2 engine that's output is measured in horsepower, is
3 one of the things you might think of doing with it is
4 replacing a horse with it. This patent does impose an
5 unnecessary output constraint, which I think is one bad
6 effect of it.

7 Another key point to recognize about the
8 nonobviousness doctrine is that it is not pro-inventor -- a
9 lax nonobviousness doctrine -- because it can decrease the
10 royalties to other inventors, to people who really did
11 invent. Selden did demand substantial royalties, in the
12 hundreds of thousands of dollars, before his patent was
13 narrowed to the effect of declaring it invalid, although
14 it had only one year left to go. That meant to some
15 extent he was raising prices and perhaps depriving other
16 people who had patents on various pieces of new car
17 technology from some of their rightful royalties.

18 Now, I think that the non-obviousness or the
19 obviousness inquiry has to, in each case, answer the
20 question, Why does a valuable novelty appear? Again
21 we're dealing with valuable novelties, not trivial
22 novelties, and I think the car is a valuable novelty. I
23 think in each case there are two possible explanations.
24 One is the inventor's intellectual contribution. The
25 second is exogenous forces, technological change I think

1 being I think the most important thing for a court to
2 consider.

3 The Selden case: The reason the car with a
4 gasoline engine first appeared at around the time Selden
5 was doing his work was not because Selden was a
6 brilliant individual. It was because the gasoline
7 engine was new. Similarly for one rather famous patent,
8 the so-called One Click patent that's owned by
9 Amazon.com, you might say why is that? If that's such a
10 valuable commercial device, why is it that it appeared right
11 around 1995?

12 The answer might very well be, well, the
13 Internet really took off at that time, and businesses
14 came onto the Internet at that time, and then you have
15 an explanation.

16 Another possibility is a regulatory change.
17 Actually the case that I cite there I think is a case
18 where the Federal Circuit got the right answer, did
19 declare a patent obvious, and they had a basic reason.
20 Actually it was a combination of a common cold drug with
21 ibuprofen in a single tablet, and that had never been
22 done before. And it was very successful commercially,
23 combining ibuprofen with a common cold remedy.

24 Why? Why did it happen in the late 1980s? The
25 case arose later but the patent was in the 1980s. Why

1 did it happen? It was a regulatory change. Ibuprofen
2 became an over-the-counter drug, and as soon as that
3 happened, some firm decided it would be a good time to
4 actually combine in a single tablet the over-the-counter
5 cold drug with ibuprofen.

6 Another possibility is market change, for
7 example, changed costs of materials, which I think can
8 explain one of the most famous cases, Hotchkiss versus
9 Greenwood, or perhaps increased labor cost, Sakraida
10 versus Ag Pro. For those of you that are familiar with

1 there's constantly new technologies arising, then it may
2 be the case that these exogenous changes are accounting
3 for the formation of new combinations, rather than
4 intellectual effort.

5 I want to switch gears now slightly to the legal
6 process. The main case, as Herb Wamsley said in the
7 morning, is Graham versus John Deere. It has three
8 primary factors, which courts and the Patent and
9 Trademark Office are required to make findings on before
10 they rule on obviousness, and then the secondary factors,
11 or objective evidence, as the Federal Circuit says. The
12 other important part about Graham is that it did hold that
13 obviousness is a question of law.

14 The important thing to recognize about Graham is
15 that if you look through these primary factors, they
16 sort of leave you off at the very point you think the
17 analysis should start. You make the finding about
18 what's in the prior art, you identify the differences,
19 and you identify what the level of skill is in the art. But
20 then the decision in Graham really doesn't tell you
21 what to do.

22 You've got this gap. In every case you've
23 identified a gap between what's in the prior art and
24 this invention, this claimed invention. And Graham, you
25 can read the opinion time and time again, it doesn't

1 tell you how to judge whether the gap is sufficient for
2 a patent.

3 So they identify the relevant question, but they
4 don't really tell you how to answer that question,
5 except perhaps with the secondary factors. Except the
6 Court says that these are subtests; they're not the
7 primary tests of patentability -- that's what the Supreme
8 Court has said -- and they may tip the scales of
9 patentability. So one of the key problems with Graham
10 versus John Deere is that it does not give guidance to
11 the lower courts as to how they're to evaluate this.

12 The Federal Circuit has supplied a metric for
13 evaluating this question. I think the key policy issue
14 is whether it's the right metric. To establish a prima
15 facie case of obviousness, the decision maker, either
16 the Patent Office or the judges in a lower court or at
17 the Federal Circuit, have to identify some suggestion,
18 teaching or motivation to combine references.

19 The PTO at the agency level bears the burden of
20 establishing this, although it does receive or it
21 supposedly, at least according to case law, receives
22 deference in interpreting what the references teach.

1 suggestion test, which has become extremely important.

2 Now, here are the features that I think really
3 favor findings of nonobviousness, in other words, favor
4 or tip the scales in favor of nonobviousness. First,
5 putting the burden on the PTO. That's not in the
6 Supreme Court's jurisprudence. That's a feature of
7 Federal Circuit jurisprudence. The suggestion test,
8 again not in the Supreme Court's jurisprudence, only a
9 feature of the Federal Circuit's jurisprudence. An
10 increased importance of the secondary factors, especially
11 commercial success, another feature of the Federal Circuit.

12 And then I think this is one more factor, which
13 is the strong presumption of validity for issued patents.
14 Clear and convincing evidence is required to overcome an
15 issued patent, even if the PTO did not consider the relevant
16 prior art. The presumption of validity continues even if
17 the PTO didn't find the right prior art.

18 Now, of course to those points, I think there
19 are some counterpoints in the case law. One is that the
19

1 because supposedly the Federal Circuit says it will
2 defer to the PTO in interpreting the prior art. I'm
3 sure Steve Kunin will say that that's not really true,
4 but at least you might think that you could imagine
5 perhaps a different court applying the exact same
6 precedents and the exact same case law and deferring to
7 the PTO quite a bit because the PTO would come up and
8 say, "There's an implicit suggestion to combine in this
9 case law," and the Federal Circuit saying, "We defer to
10 the PTO in interpreting the prior art, that's a question
11 of fact," and affirming the judgment.

12 So I think it's a point in the case law. I
13 think it's fair to say that that's not perhaps the feel
14 of the case law, but nonetheless, this is a way -- if
15 the case law were to shift in favor of more findings of
16 obviousness, this is one way to do it.

17 Another way is the commercial success nexus.
18 One of the key features of commercial success, which is
19 an objective criterion of patent validity, many people
20 have noted, including Professor Lunney and others,
21 that if you say commercial success weighs in favor
22 of patent validity, you effectively eliminate the
23 application of obviousness doctrine to situations
24 like the Selden patent, things where in fact actually
25 the patent has commercial value, which tend to be all

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1 most Supreme Court opinions that had a finding of
2 obviousness would fail the suggestion test, that in fact
3 the Supreme Court did not identify any suggested
4 combination in the prior art when it did its analysis.

5 Commercial success: I think one way to limit
6 commercial success as a secondary factor is to try to
7 limit commercial success to situations where the
8 patentee can prove that no exogenous changes account for
9 success and perhaps putting some burden on the patentee
10 to prove that exogenous changes like other technological
11 changes or market changes are not responsible for the
12 appearance of the novelty in the market.

13 The final is the presumption of validity. I
14 think again the Supreme Court has not said that the
15 presumption of validity continues even when the PTO has
16 not considered the relevant prior art. And that would be
17 something that I think the Supreme Court would probably
18 be open to that kind of argument.

19 Greater use of reexamination: We've talked about
20 that. That's equivalent to an opposition, a post-grant
21 opposition procedure.

22 Finally, a sort of change, which no one will
23 like, but this is sort of an idea that I have, which is
24 instead of having the PTO have a monopoly on the
25 examination system, instead actually authorize private

1 firms to examine the prior art. They would have to be
2 paid by the inventor. Some firms, as long as you tied
3 the presumption that the patent was entitled to in
4 litigation, tied to the degree or the integrity of the
5 examination, there wouldn't necessarily have to be a
6 problem, and you might actually get more rigorous
7 examinations.

8 It would be at least interesting to see how the
9 market would shake out. You might have some firms that
10 just issue patents on a registration basis. Those
11 patents might have a presumption of -- with no presumption
12 or even a presumption of invalidity, on the theory that
13 you've just gotten your patent registered, you've done
14 nothing so far, so if you're going to bring this into
15 litigation, you have a heavy burden to prove that you
16 are entitled to a patent.

17 On the other hand, some firms might actually
18 have a gold standard. In other words, they actually
19 might base their reputation and their business model on
20 examining patents very rigorously and making it clear
21 that once they've examined a patent, it's really a great
22 patent. And that could actually be something that could
23 come into evidence in the future of litigation.

24 Less promising avenues I think are to seek a
25 Supreme Court ruling that requires greater deference to

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1 Yes.

2 MR. COHEN: I would like to thank both of you,
3 outstanding presentations. Let's open this up to some
4 discussion. And perhaps we can again start with the
5 general and then move on with the more specific.

6 Let's start with the principles that we heard
7 articulated first. I think I heard from both of you a
8 bit of a recognition of the significance of a "but for"
9 test here as an underlying principle. Maybe we can get
10 some comments from people whether this really ought to
11 be the yardstick against which we're measuring
12 obviousness determinations, and if so, if it is, some
13 comments on how Federal Circuit thinking has applied
14 this yardstick.

15 Anybody want to begin?

16 MR. SOBEL: I would like to make a comment which
17 I think relates to the first thing you said.

18 Both Professor Lunney and Professor Duffy I
19 think said that we want patents, this certainly from
20 Professor Lunney, to induce inventions that wouldn't
21 otherwise be made. And then that was explained further,
22 so if you have a large R&D expenditure in making the
23 invention, we need a patent in order to induce that
24 effort and that expenditure.

25 And the way Professor Duffy put it, if I heard

1 patentable. So that you could think of the development
2 process, using that as an example, and I used this at
3 the trial, as an inverted funnel.

4 So there may be great ingenuity at the bottom of
5 the funnel, but it didn't cost much. But as you progress
6 towards what was called the 914 copier, the first office
7 dry copier, plain paper copier, the expenses got greater
8 and greater. While this may not be inconsistent with
9 what was said, I think it supplements what was said. If
10 you didn't have patents, that investment would not have
11 been made.

12 The Haloid Company, to choose that example
13 again -- and this was part of our defense against Section 2
14 claims -- the Haloid Company wouldn't have made the
15 investment without the patents. That exclusivity was
16 necessary to encourage that work, so I think that kind
17 of amplifies what was said.

18 MR. COHEN: Let's try Mike Scherer on this.

19 PROFESSOR SCHERER: Let me come directly to
20 Gerry's point. That's quite general. That kind of
21 phenomena happens very commonly. In the book a bunch of
22 us did in 1958, we give the case of nylon. And if my
23 memory is roughly correct, DuPont had the basic nylon
24 polymer after an expenditure of about \$200,000, but
25 before you actually had a product that could be used in

1 garments, in fabrics, it was about \$10 million research
2 and development.

3 There's a further complication along the same
4 line which would lead me to go to the bottom line and
5 say, you cannot decide these costs-of-development
6 questions in the context of a specific patent
7 application. You must look at it in terms of a general
8 technological field.

9 Pharmaceuticals, about which I think Gerry
10 knows something, a lot in fact, is an example of the
11 molecule. When you get an interesting molecule, you
12 patent it, and then about that time you start going into
13 clinical trials. And of the molecules that go in the
14 clinical trials, 23 percent on average emerge as
15 approved new drugs. 77 percent drop out for one reason
16 or another.

17 So then you've already had an attrition process
18 during the clinical trials, which are very, very
19 expensive. Then you get the product on the market, and
20 Henry Grabowski's work shows that only about 33 percent
21 of the products that go onto the market cover their
22 average R&D costs, including the prorated costs of
23 failures. And so here is more attrition.

24 If you look at a particular drug, you might
25 conclude, Hey, this particular drug costs very little.

1 You put in 15 million for clinical tests, and, wow,
2 they're making a billion dollars of profits a year. But
3 you have to look at the larger picture of the many
4 failures. And therefore you can only proceed general
5 technological class by general technological class,
6 if you were to try to devise some such standard of

1 examinations, but I won't ask that.

2 PROFESSOR DUFFY: You're right, that I've chosen
3 the word "audit." It's probably not the right word to
4 choose.

5 PROFESSOR BURK: Anyway, I may end up sort of
6 restating what Gerry Sobel said in different
7 terminology. But I guess the thing that's surprising
8 about both presentations, which I liked very much the
9 presentations, but typically the economic analysis of
10 obviousness, as done by Rob Merges and Karen Boyd and a
11 number of other people say more or less what we've been
12 hearing, which is that it's about risk, and it's about
13 the risk of innovation rather than the risk of
14 invention, that invention happens anyway or may not need
15 much stimulus. But the question then becomes, Do we have
16 some very mechanistic type of incentive to get people to
17 overcome the risk of development, of bringing the thing
18 to market. And the suggestion again being that, as
19 Professor Scherer just said, that may go by industry or
20 that may go by technology, which means that you may have
21 differential approaches to obviousness by technology or
22 by industrial sector.

23 Maybe I missed it, but I didn't really hear the
24 discussion of innovation or risk or incentive to develop
25 in the presentations. Maybe that's what was meant by

1 technical complexity versus economic importance, but I
2 didn't hear that, so I would be curious to hear whether
3 that was part of the presentation and I missed it or if
4 it's a different approach.

5 MR. COHEN: Let's hold, Steve, and give Glynn
6 and John an opportunity to answer briefly.

7 PROFESSOR LUNNEY: I won't speak for John, but
8 I'm pretty sure he probably had the same perspective I

1 been created or induced, then we don't need to worry
2 about those things because we're going to give it as
3 long as it's essentially new anyhow.

4 So I guess my point was if we can all agree that
5 we need a standard that serves to weed out, then we can
6 get down to the details of working out what a standard
7 like that would look like, but it doesn't seem to me
8 that the Federal Circuit right now is worrying too much
9 about weeding out patents that would have been created
10 in any event.

11 MR. COHEN: John, did you respond to directly?

12 PROFESSOR DUFFY: I do have a small response
13 probably on the basis of all three comments, and I think
14 there's two important caveats. One is the risk factor,
15 which is no doubt very important when you're trying to
16 figure out what the cost of an innovation is.

17 It's not the cost of the particular person who
18 invented it because after all, you could have someone
19 like Chester Carlson who was out there, who actually was
20 looking for a better way to reproduce papers. And
21 actually he choose a very unpromising technology because
22 he actually knew, I'm sure you're more familiar with the
23 facts than I am, but he actually said that he didn't
24 look into photographic mechanisms because he knew Kodak
25 was looking into that.

1 So he went into an unpromising field and put his
2 resources in that because it was very risky that
3 anything would be uncovered of value. And indeed even on
4 the eve of the 914 copier, you can go back and you can
5 look at Fortune Magazine and say there is this new
6 company called Haloid in New York that's coming out with
7 this crazy thing, and it's incredibly risky and they
8 hope to be able to fit into this very competitive
9 market, and it seems extremely risky that they'll
10 actually make money. Of course, within a couple years
11 profits were raining into the firm.

12 So I think you do have to take into account risk.
13 And you also have to recognize that thousands of
14 investigators might be looking into a problem, many of whom
15 will be unsuccessful, and you have to include the cost of
16 reaching the one innovation. You have to include all the
17 failures in figuring out that cost, and that is a very

ject in much unanticipated

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1 of engine, put it on a carriage with some gears and see
2 how it works. So the first point is risk. I totally
3 agree that that should be included in the calculus.

4 The second point I think really goes to what
5 your theory of the patent system is. Whether you think
6 the patent system is to encourage investment prior to
7 the granting of the patent or after the granting of the
8 patent. Prior to the investment of the patent is
9 traditionally the reward or incentive theory. After the
10 granting of the patent is traditionally known as the
11 prospect theory and named by Edmund Kitch of Chicago and
12 Virginia law schools.

13 I think that there's something to be said for
14 that, but I don't think it's the standard theory of the
15 patent system, that what we really want to do is grant
16 a patent and then encourage investment afterwards, that
17 that's the main function of the patent system. If you
18 really did believe that, you would say the
19 nonobviousness doctrine doesn't make any sense because
20 that's what Kitch said.

21 Kitch said if you believe in my theory, you
22 don't want an obviousness doctrine. And I think that
23 that's right, if you really believe it's to make
24 investments afterwards. You just want to basically give
25 a patent out to any new technological prospect with no

1 filter for obviousness. And then you could say, well,
2 maybe what's wrong with the Selden patent is not that he
3 got the patent but maybe some other games that he played
4 with the patent system, rather than the fact that he got
5 a patent. And maybe he should have been able to
6 monopolize the car industry. He might have led to
7 greater development of cars.

8 So anyway, I think that's a very fundamental
9 question about whether you think it's before or after
10 that we want to encourage the investment. Specifically
11 with the Xerox case, a lot of the investment was after
12 the initial patents, the pioneering patents, were
13 granted. And it's true that the pioneering patents
14 expired about a year after the 914 copier was put on the
15 market, so what really kept things off the market were
16 the follow-on patents. And that investment, the
17 follow-on investment, can be protected by the follow-on
18 patents.

19 MR. COHEN: Steve, you've been patient. Let me
20 turn to you, and I'll also throw out to you and to
21 anyone else who wants to comment, the suggestion test.
22 Has this been a problem, or is it an advance? Any reactions
23 on that as well?

24 MR. KUNIN: Good segue, Bill. I wanted to
25 provide some observations on the presentations that were

1 made. I think it's interesting, as it was already
2 mentioned, that in a limited time in making a
3 presentation, you have to take your best shots,
4 and you leave a lot on the sideline, but I think it's
5 important since we're talking about standards of
6 nonobviousness to kind of take a little bit more
7 of an historical perspective to show that over
8 the history of our patent system, there's been a lot of
9 experimentation.

10 Way back in the early days of the patent system,
11 we had the chicanery of the Flash of Genius Test. And of
12 course subsequent to that, we had, as was mentioned,
13 Hotchkiss versus Greenwood, which was more of a
14 stabilizing influence. And of course we had in 1952 a
15 codification of the case law to really include
16 specifically a Section 103.

17 So there was this history of having a novelty
18 standard, then sort of a common law standard of
19 nonobviousness, but in 1952 we had a codification of
20 nonobviousness as a condition of patentability. And,
21 yes, the Supreme Court in Graham v. John Deere laid out
22 some tests, but I do agree that, in fact, the important
23 aspect of the glue of 103 was really missing from Graham
24 v. John Deere.

25 I think we saw a bit of the problem with that in

1 going back in terms of the experimentation with cases
2 like Anderson's-Black Rock, which reached back to the old
3 A&P/Supermarket case. And I think what that did during
4 the period of at least the 1970s and before the Federal
5 Circuit occurred, and this I think in terms of some of
6 the graphs showing invalidity in circuit courts or
7 district courts, there was a lot of invalidity. Why?
8 Because the test was synergism. If you couldn't show
9 synergism, you couldn't meet the nonobviousness
10 standard.

11 And of course like Flash of Genius, that was
12 also considered to be a form of chicanery and an
13 inappropriate standard. And there was then sort of an
14 evolution, if you will, back to I think you would say
15 more objectivity, and of course this kind of goes
16 through a line of cases.

17 One of my favorite historical cases is In re.
18 Winslow. This, for those of you who don't remember,
19 Winslow is the inventor who has the patents on the walls
20 around him, and then sees that there's two documents
21 that provide an indication of what the way to solve a
22 particular problem that exists in the prior art would
23 be. And it's the "Aha" test.

24 Then later I think we found, even in the early
25 genesis of the Federal Circuit, that in cases like In

1 re Keller in the early '80s that once again did reach
2 back to cases like In re McLaughlin, there was this
3 suggestion, but it was, What would be the collective
4 suggestions based upon what would be presumed to be
5 familiar to a person of ordinary skill in the art?

6 Once again, this would permit one to look at
7 documents themselves and look at the information from
8 the perspective of one of ordinary skill in the art,
9 whether the suggestions might be express, implicit or
10 inherent. But you would glean the level of skill in the
11 art, and you would glean the information principally
12 from the reference documents, but also with some level
13 of technical knowledge and skill.

14 But I think what we find now is that not only must
15 there be a suggestion, it seems like there must be an
16 express motivation. It's almost that if you don't have
17 the glue expressly leading you all the way, there isn't
18 any basis to establish something would have been
19 obvious.

20 You have to connect the dots I think very, very
21 clearly from what is in the prior art. Or obviously from
22 a standpoint of when you're in litigation, you have the
23 opportunity to have some expert testimony on the
24 science, which is I think helpful to district court
25 judges, but is not available in the ex parte types of

1 proceedings that are in front of the Office.

2 I would say that some of the suggestions in
3 terms of corrective mechanisms are ones that I think
4 many authors have written about. One I think is, as
5 opposed to eliminating a presumption of validity, to
6 change the clear and convincing evidence standard to,
7 let's say, a preponderance of the evidence, perhaps being,
8 let's say, a little bit more realistic from the
9 standpoint of permitting the presumption to be rebutted.
10 And then there also have been some authors who have
11 indicated that if there was a really effective patent
12 correction mechanism, whether it's inter partes reexam
12

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1 MR. WAMSLEY: I agree that the presentations by
2 Professor Lunney and Professor Duffy were excellent. I
3 think there was a great deal there that I would judge
4 everybody on the panel could agree on.

5 Now, these hearings are grappling with the
6 questions about how to improve a system that's been
7 around for a long time. Somebody said this morning a
8 lot of these questions are not new.

9 Professor Duffy, the example of the Selden patent
10 in 1895 is an interesting one. According to Ford Motor
11 Company at least, that patent was what in recent times has
been

1 changed things much.

2 Now, another thing that's not new, and I would
3 like to read a couple of sentences from the Graham v.
4 Deere opinion of the Supreme Court in 1966. The Court
5 said: "While we have focused attention on the
6 appropriate standard to be applied by the courts, it
7 must be remembered that the primary responsibility for
8 sifting out unpatentable material lies in the Patent
9 Office. To await litigation is -- for all practical
10 purposes -- to debilitate the patent system."

11 Now, Professor Duffy, I think you said some of
12 us would hate a couple of the ideas you put up there,
13 and you're right. I for one hate the one about
14 different kinds of examination by different authorities
15 some of which would be --

16 PROFESSOR DUFFY: That's just a free market
17 statement.

18 MR. WAMSLEY: It would be a very weak
19 system. We have to remember the interest of the
20 stakeholders who are the competitors of the patent
21 owners and their interest in having certainty at an
22 early stage about what the patent rights are in their
23 industry. And if you don't have a system where the Patent

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1 of figure out what an awful lot of molecules are going to
2 do based upon their structure. And there's enough
3 synthetic chemistry out that that once you figure out
4 the structure, it's not all that hard to build the
5 molecule.

6 So you see the court sort of creating these new
7 tests in order to keep chemical molecules patentable. And
8 the reason that they're doing that is because of the
9 risk of development problem that Mike brought up, that a
10 molecule might be easy to create, but it's awfully hard
11 to get it to market, especially if it's subject to some
12 kind of a clearance procedure.

13 So I wonder whether we shouldn't be thinking
14 bigger and thinking about whether or not we have the
15 right test for obviousness rather than simply discarding
16 it, if you kind of believe as I do, that Ed Kitch had a
17 lot going for what he said in his article.

18 Then the second thing, to speak directly to
19 Bill's questions on suggestion tests and on secondary
20 considerations, and I hate to sound like a broken
21 record, there are institutional considerations in that
22 too. I think part of the reason the Federal Circuit
23 likes the secondary considerations is because they think
24 it's easier for the district court to apply, or they
25 think it will sort of stop the district court from

1 putting a burden on the patentee to rule out exogenous
2 developments. It's always hard to prove something that
3 is not true, so I think the nexus test is kind of a way
4 of having you prove a positive rather than having you
5 disprove a negative.

6 PROFESSOR DUFFY: If I can just comment on that
7 last point.

8 MR. COHEN: Go ahead.

9 PROFESSOR DUFFY: I'm not sure it's hard to
10 prove a negative in this case actually. One thing you
11 could prove is that the starting materials had been
12 available for a decade.

13 PROFESSOR DREYFUSS: You're putting the burden

1 simple invention actually cuts very much in favor of the
2 patentee.

3 The Supreme Court seemed to be impressed that
4 this was a piece of wood that anybody could create, and
5 that in fact makes it look more like it's nonobvious.
6 The lower court detailed not only is this a very simple
7 invention, it's basically the precursor to a modern
8 conveyer belt at a supermarket. This was just a wooden
9 frame that the checker would pull down towards the
10 checkout spot. But the lower court said that the
11 self-serve store had been in existence for two decades,
12 since the Piggly Wiggly first was created, and that was
13 uncontested, and that this had been a problem, the sort
14 of bunching up of people at the checkout counter had
15 been a problem for those two decades, it had recently
16 intensified, but that it was a problem for about two
17 decades.

18 There was this one inventor who came up with a
19 solution using absolutely common materials, pieces of
20 wood and nails, which are around for centuries, and
21 instantaneously that's copied by everybody else, and it
22 solves the problem. It allows the substitution of this
23 device for more checkers essentially.

24 So I think there are many cases where in fact you
25 would be able to prove that in fact the materials were

1 common materials. There wasn't an exogenous change.

1 might look.

2 I think what I was really talking about and I
3 think Gerry Sobel was talking about was a different
4 breaking point, which is before invention versus after
5 invention. And again my bias, like Rochelle's, might be
6 the fact that I'm from biotechnology and from the
7 chemical area where you can very easily generate new or
8 novel creations, but then figuring out what they do and
9 getting them in the market is the expensive point.

10 So at the point where you have the invention in
11 hand and the persons then say, now is it worth getting a
12 patent on, let alone trying to take it to market, you may
13 want to lower the bar or modulate the bar of
14 nonobviousness to make that anticipated value different
15 depending on what industry you're in.

16 Now, that goes back to Professor Scherer's point
17 about creating blanket rules for different industries,
18 which is a version of what we call the rules versus
19 standards problem, which may be what we're talking
20 about. In other words, there's a certain cost of
21 creating a different rule for every industry or every
22 different situation on a case-by-case basis, so we tend
23 to avoid that cost by creating broadly applicable
24 standards. But then the cost is that it's not going to
25 fit the various cases very well.

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1 So you have to balance off the cost of having a
2 standard that doesn't fit your situation very well and
3 generates some social disutility versus the cost of
4 continually going back to somewhere -- the court, the
5 Patent Office, or Congress -- to create a different rule for
6 every new technology that comes along. And part of the
7 problem you're going to see in nonobviousness is trying
8 to figure out those two different standards or having a
9 broad standard versus a lot of individual little rules.

10 MR. COHEN: We can develop that a little bit
11 further after we throw in description and enablement. Let's
12 have Glynn have the last word before the break.

13 PROFESSOR LUNNEY: The last word, I always look
14 forward to that. I want to say two things. One is on
15 this nexus between commercial success and
16 nonobviousness. The standard before the Federal Circuit
17 was somewhat tighter. You had to show causation, that the
18 causation was due to the technological advance. Under
19 the nexus test that the Federal Circuit has applied, it's
20 much looser. As long as the patented invention is
21 incorporated into a successful product, that seems to
22 be enough. Even historically for example, if you could
23 show a very heavy marketing effort, heavy advertising, a
24 large company with good distribution, you would mitigate the
25 claimed causation, but under the Federal Circuit those

1 factors are not enough to eliminate a nexus.

2 The second is this notion of risk, and I think

3 we need to be careful about cause and effect here. The

level of risk in the p2are notneed to be careful about0tticale cd

1 MR. COHEN: We're going to Dan Burk who will be
2 talking about description and enablement.

3 PROFESSOR BURK: I was asked to say a word or
4 three about some of the Section 112 doctrines that we
5 have been making reference to off and on during the day. So
6 this presentation is part tutorial, since those are
7 sometimes less well known than the obviousness standard
8 that we've been talking about. And I'm going to use the
9 T word, the trend word, towards the end of the
10 presentation to try and point out what I think are some
11 trends in Federal Circuit jurisprudence.

12 Hopefully I've kept this short enough that we'll
13 have mostly time for discussion since that seems to be
14 the most productive part of what we've been doing today,
15 I think so far.

16 So first a few words about the enablement
17 doctrine. We typically think of this as being part of
18 the bargain, the quid pro quo, between the inventor and
19 the public, the idea being that we'll give you an
20 exclusive right if you will disclose to the public how
21 to make and use your invention. And then after 20 years
22 or so, the patent will expire, and that information will
23 become part of the public domain for anyone who wants to
24 use.

25 So what we're talking about, when we talk about

1 the Section 112 doctrines, enablement and then written
2 description, which I'll get to in a moment, is not so
3 much a characteristic of the invention such as we've
4 been talking about with obviousness or we might talk
5 about with novelty or some of the other patentability
6 requirements that are actually part of the invention
7 characteristics, but has a lot to do with the document,
8 with the actual patent application and later published
9 patent that is filed by the inventor.

10 It needs to reveal in that document how to make
11 and use the invention. And the catch phrase that comes
12 up is that the person of ordinary skill in the art
13 should be able to make and use the invention without
14 "undue experimentation," quote, unquote, by looking at this
15 document that the inventor has provided us with.

16 And there's a relationship between this disclosure
17 that takes place and how much the inventor can claim. Since
18 this is part of the bargain with the public, the more you
19 disclose to us, the more we'll allow you to claim under your
20 exclusive right. The less you tell us, the less you
21 disclose to us, the less we're going to allow you to claim
22 as part of your invention.

23 Now, there are some areas where, in order to make
24 this disclosure, how to make and use the invention,
25 text just doesn't work well. We talked earlier today

1 about the inadequacy of language in some situations. And
2 the classic example here is when Congress decided to
3 create a new form of intellectual property back in the
4 '30s called the plant patent. It's awfully hard to
5 describe a new variety of a plant, of asexually
6 reproducing plant, well enough to meet the requirements
7 of disclosure in the patent statute.

8 So Congress said, "Fine, you can put a picture of
9 the plant in the patent instead, and that will be your
10 disclosure." And so plant patents as a consequence are a
11 lot of fun to look at because most of them are
12 ornamental varieties of plants, and you get to see lots
13 of pictures of pretty flowers and so on.

14 We have a similar problem that developed after
15 the Chakrabarty case, particularly when biotechnology
16 entered the mainstream of patent law subject matter,
17 that when dealing with biological materials and
18 microorganisms and even multi-cellular organisms, again,
19 it's awfully difficult in many cases to tell someone how
20 to make and use those materials, which may be quite
21 unique. And so the alternative was developed that you
22 could publicly deposit samples of those materials in
23 order to enable those of ordinary skill to make and use your
24 invention.

25 Even if you couldn't tell them how to make it or

1 how to get the materials, you could make it available to
2 them through public repositories, and those are both
3 aspects of enablement that I will come back to in a
4 minute as being important as part of the trends in the
5 Federal Circuit.

6 Now, enablement also shows up in a number of
7 other odd places or unusual but important places in the
8 patent law besides simply the disclosure made by the
9 inventor. We've talked about the inventor's obligation,
10 but enablement also shows up in helping us to define
11 what is relevant prior art in cases.

12 So, for example, if a piece of prior art might
13 prevent you from getting a patent, part of the standard
14 is that the disclosure in that prior art has to be
15 enabling, so that the public already has the invention in
16 their possession, and what you're giving us is not
17 anything that the public didn't already have.

18 The Federal Circuit has increasingly used
19 enablement as an important part of the invention
20 standard, particularly conception. There are a number
21 of cases now talking about the importance that if an
22 inventor has fully conceived of the invention, that the
23 enablement standard is part of that, that you should be able
24 to enable somebody to make and use an invention that you
25 fully conceived of.

1 So the standard has been exported into some
2 other parts of patent law, and that also is important in
3 thinking about some of what has happened in recent
4 trends.

5 The enablement is measured, as I said a moment ago,
6 with regard to this mythical person, sometimes called
7 the PHOSITA, a person having ordinary skill in the art,
8 who is envisioned as a common user of the technology,
9 someone who is not very imaginative. So the legal standard
10 then is, have you enabled this imaginary, legally fictional
11 person to make and use the technology, a little bit like
12 fictional people we see in other parts of law, the
13 reasonably prudent person. And that standard has also been
14 exported to other parts of patent law, and as we'll see in
15 a moment, it's important to some trends in the Federal
16 Circuit.

17 Let me suggest one of the places where these
18 trends seem to come together and which goes back a
19 little bit to a discussion we had a few minutes ago
20 about certain industrial sectors or certain
21 technological sectors and whether you create a rule
22 specific for that type of technology or whether you have
23 a wider blanket standard that covers many areas of
24 technology.

25 If we look at the computer software cases the

1 Federal Circuit has been dealing with in the past few
2 years, with regard to the enablement standard, the
3 Federal Circuit keeps telling us that very little
4 disclosure is necessary for computer software. And so
5 when we look at these patents, the Federal Circuit has
6 told us you don't need to give us the code that goes
7 with the software. You don't need to give us a flow
8 chart. You just need to tell us what the software does,
9 just give us a functional disclosure, tell us what it
10 does.

11 Then the Federal Circuit has said pretty much
12 anybody of ordinary skill could then write that program. So
13 the assumption seems to be in the area of computer
14 software, that the PHOSITA, the person having ordinary
15 skill, is a person of extraordinary skill or someone who
16 simply having been told what a piece of software is
17 supposed to do can very quickly go in and write that
18 code, without being told very much more, that they would
19 be able to do that.

20 We can have a discussion about whether that's
21 really true. If you've done any coding, there tend to
22 be bugs and other problems that maybe that the Federal
23 Circuit doesn't fully appreciate what goes on. But there
24 seems to be a legal standard evolving here of what
25 constitutes ordinary skill and what would need to be

1 disclosed that is unique to computer software and is a
2 relatively low standard for disclosure.

3 This is in contrast to another area that we've
4 mentioned a couple times today, the biotechnology area. And
5 I think it was Stephen Kunin who mentioned some
6 cases earlier today like Fiers v. Revel, where the
7 Federal Circuit is telling us, No, we need to see code.
8 We need to see the sequence of a DNA molecule or the
9 structure of another molecule.

10 Apparently the presumption here is that the

1 having separate claims, the written description served
2 functions that we would today say are served in the
3 claims portion of a patent, putting the public on notice
4 as to what they should avoid so as not to step on one of
5 these land mines that we talked about.

6 At one time the written description told the
7 public what was off limits, what they should avoid in

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1 you're now talking about a new invention, and you need
2 to start over.

3 So it prevents sort of the changing or
4 metamorphosis of the discussion of the invention
5 happening as these documents are filed with the patent
6 office.

7 It's also been suggested that the written
8 description requirement sort of keeps the inventor
9 honest, that we know that the inventor really did invent
10 this because they're able to give us this detailed
11 description. And the underlying assumption here seems to
12 be that if you hadn't actually invented this, you
13 wouldn't be able to describe it in enough detail to meet
14 this requirement.

15 Now, note that I say "has the invention in hand"
16 in quotation marks because you don't have to actually
17 build the invention in order to get a patent on it. If
18 you sufficiently envision the invention so that you can
19 give us an enabling and working written description, you
20 can file a so-called "paper patent" without having to ever
21 build it.

22 Again, the conception of the invention has to be
23 sufficiently detailed to meet this requirement, so we
24 know that you really did invent it, whether it's a paper
25 patent or whether it's a patent that you actually reduce

1 One thing, one trend, using the T word, that the
2 Federal Circuit seems to be using this for, is as a tool
3 to limit claim scope. And we have some cases where the
4 Federal Circuit says, "Well, you have claimed some
5 embodiments of the invention that you didn't describe,
6 and so we're going to limit your claims or even
7 invalidate your claims in some situations because you
8 didn't give us a description. Even though you enabled
9 them, you're claiming too broadly to be commensurate
10 with your written description requirement, so we can use
11 that to kind of check your ability to claim broadly."

12 In biotechnology, again, this seems to have been
13 taken to an extreme. There was some mention of this
14 this morning where the Federal Circuit seems to be
15 saying, "Well, you need to give us a very detailed
16 description of the structure of the molecule, and in the
17 case of genomic types of patents, DNA, that means the
18 nucleotide sequence, not only to enable one of ordinary
19 skill, but even when one of ordinary skill would be
20 enabled, you haven't properly described the molecule
21 unless you've given us this detailed sequence."

22 This shows up especially in cases where people
23 have found and have characterized DNA sequences that
24 might be fairly common, perhaps with slight variations,
25 in other species, and are trying to claim not only the

1 particular molecule that they found but also other
2 similar molecules, a genus of molecules. And the
3 Federal Circuit has said, "Well, we're not going to allow
4 you to do that because you haven't described all of
5 these molecules. You have one of them or a few of
6 them. You've told us how to get more of them, and you
7 told us that the others would be very similar to the one
8 that you have, but you haven't given us a description of
9 them."

10 The sort of pinnacle of this trend was also
11 mentioned by Stephen Kunin this morning, the Enzo case,
12 going back to the practice that I mentioned before of
13 depositing biological materials, which has been the
14 practice for some time now in order to enable people to
15 have the starting materials to practice certain
16 inventions.

17 We now have a case where, following this trend
18 in written description, the Federal Circuit has said,
19 "Well, it's fine to deposit materials for purposes of
20 enablement, you might be enabling people to practice the
21 invention by making the materials available. But you
22 haven't described them, and so deposit will not suffice
23 for written description."

24 I think that was a rude shock to people holding
25 quite a number of biotechnology patents who thought that

1 by depositing materials, they were okay under Section
2 112, and now we learn that, no, they failed the written
3 description requirement.

4 So that's my round-up of where I think the
5 Federal Circuit has been going with written description,
6 with enablement, and I look forward to some questions
7 and discussion about the policy and the economics behind
8 it.

9 MR. COHEN: Before we proceed with that
10 discussion and questioning, let's take our final
11 presentation of the day, which comes from Gerry Sobel.

12 MR. SOBEL: Thank you, a lot of wonderful
13 presentations. I'm delighted to be here. I have to say
14 that my comments do not represent the views of my law
15 firm or any clients. And I have to mention that I wrote
16 a paper that touches on the subject of my remarks today,
17 and it's in the University of Virginia Journal of Law
18 and Technology spring '02 issue.

19 My topic is the development of the doctrine of
20 equivalents at the Federal Circuit, and a subject that
21 came up this morning, its relationship to economic
22 policy and, more precisely here, competition policy. So
23 a word about where we came from on the doctrine of
24 equivalents and the trend, a word that was mentioned a
25 few times, and what the bias is or the way the Federal

1 Circuit thinks about this issue is.

2 So the doctrine of equivalents started in the
3 19th Century. And just to be absolutely clear what we're
4 talking about, I can give you the simple facts of the
5 Winans case. It was a coal railroad car, and the claim
6 talked about a conical shape. And the accused railroad
7 car was an octagonal shape. And the Supreme Court said,
8 "Well, yeah, it isn't conical but it infringes because

1 going to look at the claims a whole. We're going to
2 look at the accused device and consider whether it's
3 enough like the claim as a whole to infringe by
4 equivalency, even though, of course, there is no literal
5 infringement."

6 That view prevailed for a few years in the first
7 half of the '80s. And then in 1987, in PennWalt and Perkin-
8 Elmer, the Federal Circuit got on the track that
9 it's been on since then. It said, "We're going to narrow
10 this doctrine." It didn't use those words, but that's
11 what it did. And it did that by saying, "We need an
12 equivalent for every element of the claim, so we're not
13 going to look at it as a whole anymore. That's gone.
14 We have to find an equivalent for every element. We
15 have to start, of course, by figuring out what the
16 elements are, but it's every limitation essentially in
17 the claim."

18 There was another notion expressed that recurred
19 in Perkin-Elmer in '87. We're concerned about erasing
20 claim limitations, reaching people who would infringe by
21 the doctrine of equivalents but ignoring some claim
22 limitation. That all-elements test was mitigated in a
23 couple of decisions.

24 It said, "Well, you can have two features of an
25 accused device doing the job of one claim element or you

1 could have one for two or you could change the location."
2 And the element didn't have to be in exactly the same
3 place in the claim and the accused device.

4 The next major step was an effort to largely do
5 away with the doctrine of equivalents. And the vehicle
6 was what the Federal Circuit said in a couple of cases
7 was the specific exclusion doctrine. If it's somehow
8 necessary to the claim and it isn't in the accused
9 device, it is specifically excluded by the claim, and
10 there can't be infringement under the doctrine of
11 equivalents.

12 This proved to be a dead end, actually in a case
13 I argued, and the Federal Circuit abandoned it in an
14 Ethicon Endo-Surgery case, where they said, "Well, we
15 can't distinguish something that's specifically excluded
16 from everything that's omitted by the literal language
17 of the claim."

18 In other words, they couldn't tell which was
19 which, and if you treated everything that wasn't
20 literally claimed as specifically excluded, obviously
21 there would be no doctrine of equivalents. And that was
22 inconsistent with the court's own precedent, not to
23 mention the Supreme Court.

24 Warner-Jenkinson came along, another effort to
25 chop down the doctrine of equivalents. This time it was

1 the en banc questions that said, Well, maybe this should
2 be a judge issue, not a jury issue. Maybe this should
3 be equitable. Maybe it should be limited to intentional
4 copying, another avenue for limiting the doctrine.

5 The Federal Circuit majority kept the same rules
6 as before; in other words, the movers for the change in
7 the doctrine of equivalents couldn't muster a majority,
8 and Graver Tank was pretty much affirmed. They said,
9 "We're not going to take it away from the jury. It's not
10 limited to intentional copying." And I'll say a word
11 about prosecution estoppel separately in that case and
12 otherwise.

13 The Supreme Court got the case, and it pretty
14 much started out by saying that we decline the
15 invitation to speak the death of the doctrine of
16 equivalents. And they said we recognize that the
17 doctrine conflicts with the notice function of being
18 precise about what is claimed so that the competitors
19 and the public can know what's covered and what's not
20 covered. But they said we're going to follow in
21 substance Graver Tank.

22 The Federal Circuit had said, in struggling with
23 the test, you look for substantial or insubstantial
24 differences to find equivalents infringement. And the
25 Supreme Court said pretty much the same thing, but

1 that's not the only test. And it didn't say what other
2 test might exist. It endorsed the all-elements rule,
3 which, as I said, the Federal Circuit had been applying by
4 then for many years.

5 There's another notion in the Federal Circuit
6 cases that just became important in Festo. And that is
7 this notion of foreseeability. If the applicant for
8 patent could foresee the embodiment that later turns out
9 to be the accused device, he should have claimed it, she
10 should have claimed it. They didn't claim it, tough
11 luck.

12 That's what foreseeability is. And the Federal
13 Circuit in 1995, the Pall case, said that is not the
14 rule, that's not the law, it's not controlling. And then
in the Sagebrush in 1997, in Fed. Cir. as dictum: Shouldn't

1 Now to turn to prosecution history estoppel,
2 foreseeability has become very important in the last few
3 months in the Festo case. Prosecution estoppel is an
4 integral part of the equivalency doctrine and of course
5 says, and I'm going to try to explain these terms, that
6 when an applicant for patent has narrowed his claims in
7 the course of prosecution, he or she may have abandoned
8 what was surrendered.

9 I should mention that that interestingly comes
10 from Supreme Court law also in the same year as Winans.
11 There's a Shepard case that says you can't capture in
12 arguing an infringement case what you gave up in
13 prosecution. And then it was applied to the doctrine of
14 equivalents by the Supreme Court in 1942 in Exhibit
15 Supply.

16 To get to the Federal Circuit, one issue that
17 was presented to it was, Is estoppel limited to
18 overcoming prior art rejections or does it apply to the

19d of cT subject of the l66N of the (long) joint talk Center fund and

1 when it said that there isn't estoppel, prior art
2 rejection or no, if there's an unmistakable assertion
3 of a position, whatever that is, and they found it
4 sometime.

5 Then there was a debate of the Federal Circuit
6 beginning in the '80s that continued for a long time on
7 whether, as the court called it in the Hughes case, you
8 applied estoppel in a wooden application, as it said,
9 and just said, "Well, if the claim was narrowed, whatever
10 ground was surrendered is gone," or, later on, and the
11 debate continued right into the Festo case, is there a
12 flexible bar? Do you do a close examination to see -- even
13 if the applicant gave up more ground than was absolutely
14 required or if it gave up more ground than was
15 absolutely required to overcome the prior art, perhaps
16 it could recapture some of that ground in equivalents.

17 And the formulations of the Federal Circuit, for
18 example, in the Litton case in the late '90s, said, and this
19 was a remand, "Go back and see what was covered by the
20 prior art, and we're going to find an estoppel for that
21 plus trivial variations and not more, even though it was
22 technically given up" -- I don't want to use the word
23 abandoned -- "given up and not claimed after the claim was
24 narrowed."

25 In the Supreme Court in Warner-Jenkinson in

1 1995 -- well, why don't I start with the Federal
2 Circuit. The Federal Circuit is applying a flexible
3 bar, and when that gets to the Supreme Court, the
4 Supreme Court doesn't dispute that, and in fact remands
5 to see what the reasons were for amending the claim and
6 whether they give rise to estoppel.

7 The Supreme Court was not clear on whether these
8 estoppels were limited to prior art or indeed extended
9 to Section 112. And the new thing the Supreme Court did
10 was to create a rebuttable presumption that if there is
11 an amendment, a narrowing amendment, it's for reasons
12 relating to patentability and that invokes an estoppel. And
13 it's up to the applicant, according to the Warner-
14 Jenkinson presumption, to overcome that.

15 Then comes the very interesting Festo case.
16 Again the Federal Circuit is struggling with equivalency
17 and, I submit, how to narrow it. This time the avenue is
18 estoppel, and they hold if a claim has been narrowed for
19 any reason relating to patentability, it's a complete
20 bar to equivalents for the element that was narrowed,
21 and remember we're doing an element by element analysis
22 still, but you don't do a close examination at what had
23 to be surrendered to overcome the rejections. You
24 don't look at reasons.

25 The discussion is over if there has been a

1 narrowing for that element. And you might say that what
2 was done was to adopt what the Federal Circuit had
3 called a wooden rule in 1985 or so in the Hughes case.

4 What effect did this have? Pretty dramatic
5 because, as some of the opinions pointed out, there are
6 comparatively few claims that are not narrowed in

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1 the Supreme Court says, you are estopped. And that of
2 course circumscribes when you can get infringement
3 coverage by equivalent.

4 The Supreme Court said again there's a
5 rebuttable presumption that the patentee is estopped,
6 and it's up to the patentee to overcome that.

7 Why don't I say something about a hypothesis I
8 have, and I'll close with that. Before I do that, I
9 want to answer Hillary Greene's comment about the extent
10 of Federal Circuit consideration of economics. And I
11 covered it this morning a little bit, but the most
12 discussion of competition and a little bit of economics
13 that the Federal Circuit has done is in the Festo
14 opinions. And there are two views, to oversimplify a
15 little bit.

16 One, the majority's view in the Federal Circuit,
17 no longer the majority after the Supreme Court or no
18 longer the prevailing view after the Supreme Court.

19 I'll just read you a few words here and there:

20 ". . . technological advances that would have lain in the
21 unknown, undefined zone around the literal terms of a
22 narrowed claim. . . will not go wasted and undeveloped due
23 to fear of litigation."

24 So that's the Federal Circuit's point of view.
25 They're looking at competitors, and this is good for

1 competitors because there's less of a deterrent to
2 operate at the edge of the literal patent claim.

3 Judge Michel said in dissent, well, there was a
4 comment about biotechnology, if you change one
5 nucleotide and there's been a narrowing, it's very easy
6 to make a therapeutically equivalent DNA sequence
7 sometimes, and easily avoid the claim. And the same
8 thing could be said about amino acid sequences and was
9 said by Judge Michel.

10 He was critical, calling that and other such
11 changes trivial changes to attempt to get outside the
12 literal meaning. The idea is you look at the
13 prosecution. You look at what element was changed in
14 the prosecution, and you make a small change in that,
15 and then you, according to the now reversed Federal
16 Circuit decision, can't cover that with equivalents.

17 Judge Rader in dissent talked about his concern
18 for free riding and discouraging breakthrough advances
19 and said equivalents should at least cover after-arising
20 technique, meaning new developments, the transistors
21 compared to the vacuum tube.

22 Finally, Judge Newman in dissent, as I said
23 earlier, was more ambitious in talking about this and
24 talked about the difference in risk-taking between the
25 innovator and the imitator, her words, the risk of

1 commercial success in the case of the innovator, the
2 risk of failure, unfulfilled expectations, obsolescence,
3 regulation, technological failure -- those are the words
4 in the decision -- and the imitator bears none of these
5 risks.

6 There was a mention, just to use Chester Carlson
7 because it's such a good illustration, Professor Duffy
8 talked about Carlson avoiding photography, really silver
9 halide photography. Because Carlson was a smart
10 guy -- in fact, he was a patent attorney -- he didn't want
11 to run into Kodak's presumably dominant patent position. I
12 think that's what Professor Duffy meant.

13 So what Judge Newman said, not about that
14 particular thing, but she talked about encouraging
15 leapfrogging advances. In other words, if you can't
16 operate at the edge of the patent claim, you have to

1 its ability to market it that it offered it to IBM. And
2 IBM turned it down because it misread the market
3 opportunity. It wasn't thought that people would want
4 to make copies. But as soon as they introduced the
5 machine, everybody learned that people loved to make
6 copies, and it was a fantastic success. But market
7 success is one of the things that Judge Newman
8 identified.

9 What the Federal Circuit is concerned with, the
10 majority anyway, in Festo, and it comes up in Markman and
11 the cases after that, Vitronics, it's concerned about
12 the accused infringer. It's concerned about improving
13 the situation of those who would closely, why don't I
14 say, design around the patent by giving them notice. And
15 it doesn't ever mention, except in these dissents, but
16 before that it didn't mention, say in Markman and
17 Vitronics, the function that patents have to promote
18 competition. When you have an innovation like, to use
19 xerography again, the plain paper copier, to take this
20 phrase, it sweeps away everything else, carbon paper,
21 wet copying, thermofax. It's all gone.

22 I mean, it's the most dramatic kind of
23 competition. And somebody said, Professor Lunney said,
24 there's no deadweight loss from things that are new, so
25 the argument is that social welfare is greatly improved

1 when you have a whole new copier industry that didn't
2 exist before.

3 MR. COHEN: Gerry, to give us a chance to have
4 some discussion, I'll ask you to wrap up in the next
5 couple minutes.

6 MR. SOBEL: Thank you. I'll wrap up now. The
7 short of the matter is that this view of competition is
8 something like the Black/Douglas view that was applied
9 in antitrust and also in patent matters. Patents are a
10 special exception to a general scheme of competition.
11 You have to limit them. Black and Douglas were the
12 origins of the Flash of Creative Genius test. Black and
13 Douglas dissented in Graver Tank.

14 Well, Black and Douglas had the same view of
15 competition. They didn't look at the incentive to
16 create new innovations. And antitrust has gone way
17 beyond that. The Antitrust Division rejected that view in
18 the '80s. It reversed its position that the so-called
19 no-nos were not permissible. Those were ways of restricting
20 licenses typically. GTE was decided, which was critical
21 of free riding and allowed vertical restrictions where
22 they had been barred before in the Schwinn case.

23 The Federal Circuit has liberalized patent
24 misuse and some of the antitrust rules. And that is an
25 analogy, I submit, for the Federal Circuit to change its

1 calculus and give some thought at least for the majority
2 to the pro-competitive function of innovation.

3 Thanks.

4 MR. COHEN: Thank you. We've tied together two
5 presentations here, one involving description and
6 enablement, and one involving equivalents. They're
7 really not as disparate as that may seem, from one
8 perspective at least. And what I would like to do is, I
9 would like to start the discussion with a very general
10 point drawn from one of our earlier sessions.

11 Suzanne Scotchmer, when she was here, talked
12 about two types of issues, one being the patentability
13 step, which she saw as arising out of the obviousness
14 inquiry -- how far you have to go ahead to get your own
15 new patent -- and on the other hand, the issue of breadth,
16 leading breadth, which both could come from description
17 and enablement, be affected by that; it could be
18 affected by claims interpretation; it could be
19 affected by equivalents -- everything that goes into how
20 broad the initial patent is and its ability to exclude
21 others, where you fall within infringement.

22 What we heard from her was the view that as a
23 competition agency, we perhaps may be more interested in
24 the breadth issues, which could lead directly to market
25 power, as opposed to the obviousness issues, which would

1 tend to lead to a proliferation of patents if done
2 incorrectly.

3 I'm wondering if any of you would like to
4 comment on this. You're not all antitrust lawyers, but
5 some of you may have some thoughts on competition. And I
6 see Mike Scherer's sign is up, and he obviously has much
7 to say on competition issues.

8 PROFESSOR SCHERER: Well, I think breadth is
9 more than a question of a single patent. Breadth can
10 actually be a portfolio of patents, each narrow but
11 together encompassing a field. And that raises the
12 competition policy issues of the Xerox case, which has
13 come up twice now.

14 The FTC's Xerox case, not the SCM versus Xerox,
15 but the FTC's case, which was a case for curious
16 historical reasons that basically I had to decide
17 whether to recommend the settlement that we had
18 negotiated with Xerox to the Commission or not. And I
19 must say it was the scariest decision I've ever made in
20 my life, including the decision to get married. Here we
21 go on one hand versus on the other hand.

22 On one hand, especially as an academic, I
23 considered xerography one of the greatest inventions of
24 the 20th Century. It ranks right next to spell check,
25 on which IBM by the way had a very successful patent. A

1 really great invention. And Chester Carlson did all the
2 kinds of things for which the patent system was
3 designed. Just did not want to interfere with this
4 rewarding process. So that was one aspect of it.

5 On the other hand, the 914 copier had come out
6 in 1959, and we are now into, as I recall, that case was
7 settled in 1975, 16 years later. In one more year, the
8 statutory life of a patent expires. And here is Xerox
9 with a portfolio of one or two thousand patents on every
10 imaginable variant of plain paper xerographic copying. And
11 it just appeared from the situation that by amassing
12 this continuing portfolio of improvement patents, Xerox was
13 going to monopolize the industry, not for 17 years, but
14 forever.

15 That was, it seemed to me, the reason why the FTC
16 had to or should act. It didn't have to act, but it
17 should act and approve the compulsory licensing
18 settlement that Xerox agreed to. As I say, that
19 trade-off decision, and it was a trade-off type
20 decision, was the hardest I've ever had to make.

21 I frequently think about it in hindsight and
22 ask, "Was it the right decision?" And the more evidence I
23 see, the more convinced I am that this was the right
24 decision. Because while the best evidence is a book by
25 the subsequent CEO of Xerox, his name was Kerns, K E R N

1 S -- the book was entitled Prophets in the Dark, P R O P
2 H E T S, not I T S. And what Kerns says essentially is
3 that, "Wow, with our monopoly position we had grown fat
4 and happy and complacent. And it was only when those
5 Japanese entered the market with all their newfangled,
6 lightweight copiers that we learned (A) that it was
7 possible greatly to increase the reliability of our
8 copiers, which is a source of considerable concern to
9 consumers, and (B) that we could improve our production
10 processes greatly and reduce the cost of making copiers."

11 So it seems to me that opening this up to new
12 ideas, fresh ideas was the right thing to do. The tough
13 trade-off question is when. And at least in my view,
14 given that we have had a 17 year statutory patent life,
15 it seemed to be around 17 years was the time to open up
16 the windows, not Microsoft's Windows.

17 MR. COHEN: Glynn.

18 MR. LUNNEY: Dan, it struck me when you were
19 doing your presentation when you put historical
20 artifact up next to description, I was thinking to
21 myself, that may have been true up to about three years
22 ago, but with the provisional patent application, the
23 description in a sense can serve as the claims at least
24 for some limited purposes. So I was curious if you would
25 address that.

1 Then in terms of the doctrine of equivalents, I
2 guess my question here is: Are we talking about the
3 substantive scope of the patent? That is, are we trying
4 to use the doctrine of equivalents to make the patent
5 broader or make it narrower in a substantive sense? Or
6 are we using the doctrine of equivalents simply as a
7 procedural tool, that is, that there is a given scope to
8 the patent that you would be entitled to and if you knew
9 or had a perfect handle on the language that you could
10 use to describe that scope, we would have given you that
11 patent to begin with, so it's simply a procedural device to
12 give you the scope of the patent to which you were entitled
13 if your language had been perfect? I think historically
14 the doctrine of equivalents has been broadened or
15 narrowed as a substantive device designed to govern the
16 breadth of the patent statute. I fear, or my concern is,
17 it's increasingly become simply a procedural question of
18d what are the limits of patent prosecution.

1 older approach in that sense.

2 I guess in that light, Gerry, my recollection of
3 Graver Tank is a little different than yours. My
4 recollection was that the patent did originally have a
5 claim that covered the earth metal silicate welding
6 flux, but that the earth metal silicate welding flux
7 claim got knocked out at the district court because it
8 failed the enablement doctrine.

9 Some earth metal silicates would work as a
10 welding flux, some would not, and so that claim was
11 struck out. They were left with the alkaline earth
12 metal silicate claim, and, I forget which one it was, the
13 manganese silicate or the magnesium silicate, which was
14 not an alkaline earth metal, was therefore outside its
15 literal scope.

16 So you had a claim that went through the Patent
17 Office. They got a claim that would have covered the
18 infringing device literally, and then that claim is
19 struck for lack of enablement, even though the specific
20 -- I think it was the manganese earth metal, the

1 rejection. Otherwise you're right.

2 MR. COHEN: Let's get John's comments.

3 PROFESSOR DUFFY: Well, one thing I think is
4 interesting about the afternoon presentations is these
5 are areas that the Court of Appeals for the Federal
6 Circuit has actually not been favorable to patentees.
7 Both the written description requirement, as Dan said,
8 was the reinvigoration, that was a surprise to many
9 patentees and not a welcome surprise, and the narrowing
10 of the doctrine of equivalents for the last few years
11 has also not been something that patentees as a whole
12 have embraced warmly.

13 So I think it does show that the Federal
14 Circuit, while it may have some institutional biases,
15 its institutional biases are much more complex than
16 simply saying they're pro-inventor or pro-patentee
17 biases.

18 One possible thing to unify this, unify
19 nonobviousness and later this afternoon's presentations,
20 is it really does come down to a vision of what the
21 patent system should be about. If you really believe
22 the patent system is mainly about broad pioneering
23 inventions like Alexandria Graham Bell's patent or the
24 Wright brothers' patent on the stabilization system for
25 aircraft, then you probably don't think that you should

1 worry about written description requirements very much,
2 as long as the inventors have enabled it. And you
3 probably do believe in a broad doctrine of equivalents
4 and a relatively stringent nonobviousness standard, a
5 relatively high standard for actually getting these
6 patents. When you get them, they'll be generously
7 interpreted, but it's hard to get them.

8 The path that the court seems to be pursuing is
9 coherent if you think of patents as being rather small.
10 If you think of the nonobviousness requirement as very
11 modest, patents can issue, but when they do issue, we
12 try and hold them to fairly technical rules. We enforce
13 the written description requirement quite vigorously,
14 and we also enforce the literal claim language. So I
15 think in that sense there's a coherence to the case law
16 that we're seeing.

I actually in the earlier presentation said that I

1 is the main problem, with the claim scope doctrines, you
2 still have to evaluate the technical merit.

3 That's part of Scotchmer's proposals too. You
4 still have to try to evaluate how meritorious is
5 the relevant invention in order to adjust claims,
6 in order to adjust patent scope to fit the relevant
7 contribution. And that is the hardest problem in the
8 nonobviousness doctrine, to figure out whether it
9 meets some sort of substantial nonobviousness in order
10 to grant a patent.

11 So I think that the claim scope, patent scope
12 doctrines are useful to think about, but in many cases,
13 I think you first have to think about nonobviousness
14 doctrine.

15 And also many of the doctrines -- if you take
16 the Selden patent for example, many of the doctrines
17 that might limit patent scope don't really seem to be
18 able to limit that. You could try doctrine of
19 equivalents. It wouldn't work. You could try interpreting
20 the language fairly narrowly. That doesn't really work
21 because the language is drafted so broadly and so
22 capaciously. You could try the written description
23 requirement. Maybe you could argue that would work, but I
24 think even that, given current precedent, would be quite
25 hard.

1 MR. COHEN: Let's give Dan a chance to respond. And
2 perhaps let me throw on the table the further issue
3 of the inter-industry or inter-technology differences --
4 to what extent these are inevitable as the patent law
5 evolves, to what extent they're desirable, and to what
6 extent we ought actively to be thinking about them in
7 one way or in one direction or another in order to try
8 to get an optimal result.

9 PROFESSOR BURK: I think that's actually a part
10 of what concerned me about John's comments, which is
11 that I don't think that, particularly from a
12 technological sector standpoint, that cases are nearly as
13 coherent as he's suggesting.

14 He gave a description of one sector, which was
15 really biotechnology. But if you look at software, as I
16 mentioned very briefly before, the situation was exactly
17 the opposite. There's no enforcement of written
18 description. There's no enforcement of enablement. And
19 although we don't have any very good nonobviousness
20 cases, the Federal Circuit has hinted several times that
21 the flipside of not requiring much enablement or written
22 description is that most of these things are going to be
23 considered obvious.

24 One of ordinary skill can easily write this
25 program just being having been told what the functions

1 should be. The flipside of that is, the person of
2 ordinary skill doesn't need very much to combine the
3 prior art references in order to come up with the same
4 thing.

5 **(Whereupon, a brief recess was**
6 **taken.)**

7 **(Pause in the proceedings.)**

8 MR. COHEN: We can continue.

9 PROFESSOR BURK: So at least in certain areas
10 the description that John is giving us doesn't match
11 what the Federal Circuit has been doing.

12 What concerned me about that is something
13 Rochelle mentioned, which is maybe that hard cases are
14 bringing bad patent law or that the outlying or unusual
15 technologies are driving the development of certain
16 doctrines. And I agree with her that that's clearly been
17 the case in nonobviousness.

18 I think it's becoming the case in the Section
19 112 area. It's not clear to what extent the Federal
20 Circuit is going to take its written description
21 jurisprudence from biotechnology and try to apply it to
22 other technologies, but certainly they haven't done that
23 yet to software so far.

24 So we're seeing evolving, I think sort of sector-
25 specific application of these doctrines. And the

1 question then is whether they've got the right cocktail
2 of approaches in those particular sections, which brings
3 me to your question.

4 I think I'm going to both agree and disagree
5 with Suzanne Scotchmer. I do think that the FTC ought
6 to be concerned with questions of scope, patent scope,
7 but I'm not sure that you can cabin it as neatly as
8 Suzanne did. And John again has pointed to that.

9 If you look at a very traditional patent issue
10 that the FTC would be interested in, which we mentioned a
11 couple times today, misuse, that has traditionally been
12 a constraint on licensing and in particular the
13 contributory infringement doctrine, which is a question
14 of patent scope. We add these additional rights in
15 unpatented items, related items, onto the patent grant and
16 effectively expand the rights of the patent holder. To
17 avoid expanding them too far we created doctrines like
18 misuse to hold that in.

19 Well, Gerry Sobel has described something very
20 similar going on when we're talking about the doctrine
21 of equivalents. We've added on some additional rights
22 to the patent holder by equivalents beyond what would be
23 supported by the literal language of the patent. Is
24 there anything that sort of holds that in check?

25 Well, prosecution history estoppel is one thing

1 that holds it in check. We've also been told by the
2 Federal Circuit in Wilson Sporting Goods and some other
3 cases that the nonobviousness doctrine is something that
4 helps to hold doctrine of equivalents in check.

5 We can look at some other areas of patent law
6 where we would modulate the scope of the patent holder's
7 rights either by sort of a positive grant of new rights
8 outside of the primary rights that the patent holder is
9 given, but there are other doctrines that try to contain
10 that within some sort of reasonable bounds.

11 So when you're thinking about questions of
12 scope, you can't limit yourself simply to things that
13 are obviously questions of scope, like Section 112.
14 Nonobviousness helps to define the scope of patents.
15 Doctrine of equivalents, as you pointed out, helps
16 define scope of patents. But there are a number of other
17 things that are involved in scope that you might not
18 initially think are. And so I don't think you can ignore
19 those other doctrines.

20 MR. COHEN: Steve?

21 MR. KUNIN: I too take issue with the notion
22 that patents should be easy to obtain but difficult to

1 for us to be able to have a very strong role in the norm
2 setting process.

3 I also take, I guess, some issue with the notion
4 that it's good for our system to have different
5 standards in different industry sectors. I think it's
6 really more desirable to have one patent law that's
7 applicable to all technologies, including written
8 description.

9 In fact, we have been very careful in fashioning
10 our examination guidelines on utility and written
11 description and even providing training examples to
12 recognize the fact that there isn't anything
13 specifically written into the statutes that says, "For
14 this area of technology, 103 is to be applied this way;
15 for this area of technology, 112, first paragraph, is to
16 be applied in a different way."

17 I do feel that there is, however, certainly a
18 difference when you look at the way software patents are
19 handled in the court, as against biotechnology. As it
20 was mentioned, there are many cases -- the Fonar case,
21 Hayes Microcomputer, Robotic Vision, are all good
22 examples -- where mere functional description was adequate,
23 not only for enablement but also to meet best mode
24 requirements, which indicates that there's even a
25 suggestion that providing program listings for software

1 cases really is not desirable when, in fact, in the past
2 there was a concern before Fonar that you had to do it
3 to meet best mode requirements.

4 So we have a situation now where we have things
5 like genomic material is being deposited, and then we've
6 got cases like Enzo that throw into some question, but
7 on the other hand, in the software area, there's not a
8 requirement to submit program listings. And these both
9 are coding types of inventions.

10 So I think this at some point will probably sort
11 itself out as the law develops. But I think we'll find
12 interestingly that there has been sort of this
13 historical aspect in the law from the standpoint of
14 predictable versus unpredictable technologies, and based
15 upon that, the way in which the standards are applied
16 are applied with that bias in mind.

17 I mean, when we look, for example, in terms of
18 enablement and we look at the In re Wands factors, you
19 look at things like whether it would require undue
20 experimentation because of the unpredictability of the
21 technology. And I think we find, as software inventions
22 become more complicated, that it's not so ready a
23 situation where just because you know the function you
24 necessarily know how to write the code and how to make
25 the code interoperate in a way that you actually can

1 produce the requisite functionality.

2 So I think we'll see to some degree the fact
3 that maybe there will be more of a convergence as the
4 law continues to evolve. But it seems as though that
5 each time this comes out, it seems to come out to some
6 degree in enforcement proceedings which then sends some
7 signals in terms of whether these issues actually should
8 be handled on a more antecedent basis in the patent-granting
9 process.

10 It's our view that it should be done that way,
11 and that it is really our gate-keeping function to deal
12 with all those conditions of patentability before
13 patents are granted.

14 MR. COHEN: I'm going to take Herb next. But as
15 we do so, I think maybe the rest of you might think
16 about a follow-up question, which is how do the courts, or
17 how does the PTO in its initial assessment, go about
18 determining what's undue with regard to experimentation,
19 and how could this perhaps be shaped in ways that might
20 lead to a more optimal result in enablement?

21 Why don't we get Herb's comments on what's come
22 to this point first, though?

23 MR. WAMSLEY: I was just going to comment on a
24 few comments made around the table and sort of sum up a
25 few things said today. I have to think about your last

1 question. I don't know if I can answer that one now.

2 I wanted to highlight what John Duffy said
3 a while ago, that the Federal Circuit has not been the
4 patent owner's court, at least in recent years. I think
5 if we stand back and look at what the Federal Circuit
6 has been doing as a whole in recent years, it has not been
7 particularly favorable to patent owners.

8 Now, that doesn't mean that they have things
9 right exactly. I don't particularly think there's a
10 problem with the court being a specialist court. The
11 majority of the 12 judges don't come from the patent
12 field. Ironically, perhaps, some of the judges who have
13 been trying to narrow the doctrine of equivalents, for
14 example, have been ones who did come from the patent
15 field. So it's not the patent court.

16 Now, I think what the Federal Trade Commission
17 and the Department of Justice obviously are going to do,
18 when you write your report, you're going to try to
19 recommend the proper balance of a lot of things. Or, as
20 Dan said, you have to get the cocktail right, and
21 there's a mix of things here.

22 Personally I think the things I would emphasize
23 as being important in that mix, a whole bunch of things
24 that were mentioned here, is maybe a little tightening
25 up of the obviousness test. The Federal Circuit may not

1 have that quite right, but I think it's a question of
2 clarification or modification, particularly of the
3 suggestion test.

4 I think that in this cocktail mix, legal
5 certainty, certainty for the competitors, is something
6 that's always got to be kept in mind. If you have a
7 cocktail that has more legal certainty to it, you're
8 going to have less litigation, and less litigation is
9 consistent with competition policy and innovation
10 policy.

11 The way I look at it, patents should be fairly
12 hard to get. But I think it does make sense to look at
13 the patent rights as property rights and exclusive
14 rights, and I don't like the compulsory licensing
15 philosophy.

16 That's how I would sum up the cocktail.

17 MR. COHEN: We're at 4:30. What I would like to
18 do is if anybody has reactions to the undue
19 experimentation question, go ahead and give them, or if
20 anybody has any closing thoughts that they would like to
21 be sure to get in before we're done for the day.
22 Steve?

23 MR. KUNIN: I'll be very quick on the undue
24 experimentation. Basically within the Office, typically
25 finding non-patent literature or patents that, say non-

1 patent literatures typically, that don't qualify as prior
2 art because they relate to things that occurred sometime
3 after the date of the invention, you get indications of what
4 people tried to do and failed to do. And therefore there's
5 actually documentary evidence that can be found that is used
6 in the process of determining whether some things are undue
7 experimentation.

8 MR. COHEN: Rochelle?

9 PROFESSOR DREYFUSS: Yeah. I think as you're
10 thinking about recommendations to make, it's also
11 important to keep in mind the dynamic nature of the
12 patent system. So, for example, on Suzanne's suggestion
13 that you think about scope, it's not going to do any
14 good to just narrow scope because patent people will
15 just get more patents, and you'll just have a lot of
16 patents that are going to cover the same area, which was,
17 I think, Mike's point about sort of a thicket of patents
18 or a portfolio of patents.

19 So the question then is would you rather see one
20 patent or would you rather have people looking through a
21 bunch of patents to decide whether or not they have
22 freedom of operation? I think probably looking at one is
23 better than looking at many.

24 So the obviousness question and the scope
25 question are just totally, intimately related. I think

1 they're related in the way that John said, what's the
2 system for, but I also think they're related to the
3 question of what is an economically viable, useful
4 property right to own. And I think the economically
5 useful right to own is a somewhat broader patent, but on
6 a bigger advance, rather than lots of tiny little patents
7 on not very much advances.

8 I think that's better both for competitors and
9 for the patentee, and I think it's exactly the opposite
10 from the direction which the Federal Circuit has been
11 moving. So sort of making that case I think would be a
12 really important case to make.

13 On undue experimentation, I don't know how much
14 that has to do with competition questions frankly, so I
15 don't know whether you need to worry about that.

16 The other thing is also the trade-off between
17 patents and trade secrets, which we haven't talked about
18 at all. If you make it really hard to get a patent,
19 then people are going to go to the trade secrecy system,
20 and the effect is, what's the effect of that going to
21 be?

22 MR. COHEN: Dan?

23 PROFESSOR BURK: Rochelle talked about the
24 dynamic nature of the patent system. I want to put in a
25 word for the dynamic nature of technology, because

1 someone said a moment ago that undue experimentation is
2 in the cases intimately linked to the idea of inherently
3 unpredictable arts, that there's certain areas of
4 technology that are sort of so mysterious and
5 unpredictable that we're going to treat them
6 differently.

7 The thing that concerns me here is enshrining
8 certain findings of fact from one period of time as a
9 legal standard, so that it carries forward even after the
10 technology has changed.

11 I suspect, for example, that that's something
12 that's happened in biotechnology and maybe in certain
13 chemical areas, that at one time when those industries
14 were immature, the courts looked at them and they said,
15 "Oh, well, it's very hard to predict what's going to
16 happen with this sort of wet stuff, and so there might
17 be a lot of experimentation required if you don't give
18 us a lot of information."

19 That then turns into a legal standard, that
20 we're going to treat these as inherently unpredictable.
21 Meanwhile the technology matures. People who practice
22 in that art know very well how to find a molecule, an
23 antibody, or how to extract a DNA molecule or whatever,
24 and yet the courts continue to treat this as something
25 that we have to be careful about for undue

1 experimentation purposes because of a finding that was
2 made when the technology was immature.

3 MR. COHEN: Okay. I see one more sign up.
4 We'll give John Duffy the last word for the afternoon
5 and for the whole day.

6 PROFESSOR DUFFY: Well, I don't know if I
7 deserve that, but I just wanted to say that I said
8 earlier that the Federal Circuit, if we're thinking
9 about institutional bias, which I think is an important
10 question because the Federal Circuit is an experiment. It's
11 only been around for two decades. It's useful to
12 keep evaluating the experiment.

13 Dan said that the technology is dynamic. The
14 legal technology is also very dynamic here. Claims are
15 only a hundred years old or a hundred and a half years
16 old. These are things that we are developing.

17 If there is a bias here, that might be
18 worrisome. I don't know if it really exists, but if
19 Professor Scherer is right, that there is an
20 institutional bias of a specialty court, it may be
21 something to worry about that might line up some of
22 these things. It's not so much pro-patentee, but really
23 a bias that's the bias of lawyers.

24 What would a lawyer want, a patent lawyer want?
25 A patent lawyer would want a lot of patents and a lot of

1 thank you all so much for your time and your effort
2 today.

3 (Time noted: 4:37 p.m.)

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1 C E R T I F I C A T I O N O F R E P O R T E R

2

3 CASE TITLE: COMPETITION AND INTELLECTUAL PROPERTY LAW

4 AND POLICY IN THE KNOWLEDGE-BASED ECONOMY

5 PUBLIC HEARING DATE: JULY 10, 2002

6

7 I HEREBY CERTIFY that the transcript contained
8 herein is a full and accurate transcript of the notes
9 taken by me at the hearing on the above cause before the
10 FEDERAL TRADE COMMISSION to the best of my knowledge and
11 belief.

12

13 DATED: JULY 17, 2002

14

15

16 DEBRA L. MAHEUX

17

18 C E R T I F I C A T I O N O F P R O O F R E A D E R

19

20 I HEREBY CERTIFY that I proofread the transcript
21 for accuracy in spelling, hyphenation, punctuation and
22 format.

23

24 DIANE QUADE

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