

## PANEL I: The Patent Landscape with *Bilski* on the Map

Moderator: Jeanne Fromer\*  
Panelists: James W. Dabney\*\*  
Clarisa Long\*\*\*  
Brian P. Murphy\*\*\*\*

MS. SCHAFFER-GOLDMAN:

Hello, we're going to get started. Thank you all for being here today.

Welcome to the 2009 Fordham Intellectual Property, Media and Entertainment Law Journal's Symposium titled, "Functionality: At the Crossroads of IP."

My name is Regina Schaffer-Goldman, and I am the Editor-in-Chief of the 20th Volume of the Journal, which is more affectionately known as the IPLJ.

We are so pleased to see the culmination of many months of preparation today. It is the IPLJ's 20th Anniversary Edition, and we wanted to commemorate this occasion with a fantastic Symposium. As you will see, we have assembled a truly all-star group of legal scholars and practitioners today.

Before we get started, though, we would like to acknowledge and thank some of the people who have been instrumental in making this event possible. First and foremost, I would like to

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thank Emily Nash, who is our Symposium Editor and whom many of you have already met.

Since May, Emily has been working tirelessly on making our Volume 20 Symposium outstanding, and I think she has really outdone herself. Her initiative has brought an excellent group of panelists and moderators together.

When you see her today, please take a moment to thank Emily for bringing this symposium to life. We'd also like to thank Emily's team of IPLJ staffers, who assisted us in getting ready for the Symposium during the past few weeks.

Now, Emily and the IPLJ have also been very fortunate to have the assistance of David Quiles and Helen Herman from the Office of Public Programming and Continuing Legal Education. They were absolutely wonderful in helping us plan and execute this symposium.

We'd especially like to thank David for helping us facilitate this event. David, wherever you are, you kept us on track every step of the way and you really helped this process run smoothly.

We'd also like to thank our faculty co-moderators, Professors Jeanne Fromer and Sonia Katyal. Their recommendations, advice, and wonderful ideas have truly helped shape this Symposium, and their guidance has been indispensable.

Of course, we would be remiss in our acknowledgements if we did not recognize Professor Hugh Hansen, one of Fordham's distinguished Intellectual Property professors. As always, he has given us his thoughtful insight and advice for which we are so grateful.

Special thanks also to Professor Wendy Gordon, whose ideas were invaluable in conceiving this Symposium, and Professor Susan Scafidi, who advised us throughout this summer and fall.

In addition, we would like to thank our excellent panelists and moderators for joining us at Fordham today; as I mentioned earlier, our line-up is unparalleled. We are looking forward to a full day of diverse, insightful, and informative discussions and debate.

Last, but not least, we could not be here today without the IPLJ's editors and staff. We would like to recognize them for all

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of their hard work this year. They are the backbone of our Journal, and we are endlessly appreciative for everything they do.

The IPLJ is a very special place, a haven for IP enthusiasts here at Fordham. Our subject matter runs the gamut from breach of contract issues in college coaching contracts to a consideration of race, personality, and ownership in the digital commons of music.

The four books we put out each year reflect our fascinating and wide-ranging subject matter. We're excited to announce that an electronic version of our upcoming book, our first book of Volume 20, will be available shortly on the web at [www.IPLJ.net](http://www.IPLJ.net). In addition, we have copies of last year's issues for your perusal. Please feel free to help yourself; they're outside.

Of course, we encourage you to consider subscribing to, or sponsoring, the IPLJ. We also encourage authors to submit to our Journal. Throughout the day, feel free to reach out to our Journal members, or visit the Journal office downstairs.

As you'll see, we have amassed a truly unique group of law students. This group includes scientists, musicians, and artists. Their diverse interests and backgrounds help make the Journal office such an enjoyable and dynamic place to be. In short, we are extremely proud of our Journal and its members.

Now to today's events: To give you a brief preview for today, we start out with opening remarks from Fordham's own Dean Treanor. Next, our first panel will examine the Federal Circuit's *In re Bilski* decision, and the Supreme Court's upcoming decision in *Bilski v. Doll*, and how it will change the patent landscape with regard to patent eligible subject matter.

Our second panel today will consider how functionality informs design law, trade dress, and product configuration. After our second panel, we'll break for lunch. Finally, our third panel will consider how trade secrets and other areas of IP can protect advanced technology.

In sum, it is an exciting line-up. We encourage everyone to attend all three panels today. Please note that today's panels will be published in Volume 20 this year, and that will be out in the spring of 2010.

So without further ado, it is now my pleasure to introduce Dean Treanor, who will be delivering opening remarks. As many of you know, William Michael Treanor is the Dean of Fordham University School of Law.

Dean Treanor has been at Fordham since 1991. He is a constitutional law scholar who specializes in constitutional history. Since he's been at Fordham, he has taught a wide range of courses including constitutional decision-making, criminal law, land use, property law, and, of course, intellectual property.

We are so pleased and honored that Dean Treanor will kick off this year's Symposium. So please give a hand in welcoming Dean Treanor. Thank you very much.

DEAN TREANOR:

Well, thank you very much, Regina, that was really a wonderful introduction and I think it really captures the enthusiasm that we at Fordham Law School have about intellectual property.

This has been an amazing week for us at Fordham Law School in the intellectual property world. The last time I was in this room, which was two days ago, Chief Judge Michel of the Federal Circuit, gave a public lecture and that was the culmination of his time at Fordham as a guest of our Intellectual Property Institute.

We're very focused on intellectual property here at Fordham. It really goes back to Professor Hugh Hansen, who really was a visionary in putting intellectual property at Fordham on the map, and it continued with Professor Joel Reidenberg and Professor Mark Patterson. We also have two extraordinary moderators of this Journal, Professor Sonia Katyal and Professor Jeanne Fromer.

This year, we started an IP Clinic, the Samuelson-Glushko Clinic, and Ron Lazebnik is here. We've had some fabulous visiting professors; we have Wendy Gordon and Susan Scafidi, who did so much to put this together. Then we have events like this, which are just a showcase.

I was saying to Regina, as we walked in, that this was really like a rock-and-roll heaven of the IP world; it's an extraordinary program.

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So I want to thank all of the people who did so much to put it together again, our moderators, Jeanne and Sonia, and the fabulous, fabulous IP Journal staff. As we were walking in, Professor Orit Fischman Afori said, “You know, I publish in many IP Journals, but this is the best,” and it’s just true.

So I’d like to recognize Regina, who’s doing such a fabulous job as Editor-in-Chief; Emily Nash, who put together this amazing, amazing Symposium, great, great job. You’re terrific. Managing Editor, Michele Gipp, what a fabulous staff you have.

Just again, Helen Herman, David Quiles, Alice Wong, thanks for making this happen—this doesn’t all happen by accident. Flawlessness has a cost, and you’re the ones who make it all happen.

So I am so excited. It’s going to be a great day. It’s a great symposium. It’s put on by, well, I think we all have to acknowledge the greatest IP journal in the world. So without any further ado, let me turn you over to the first panel.

MS. NASH:

Thank you so much, Dean Treanor. I’m glad he was very modest on behalf of the Journal. I know we got started a few minutes late, so I’ll keep this brief.

I’d just like to begin by introducing Jeanne Fromer. Before coming to Fordham Law School, Professor Fromer served as law clerk to Justice David Souter of the United States Supreme Court and to Robert Sack of the United States Court of Appeals for the Second Circuit.

She worked at Hale and Dorr LLP, now WilmerHale, as an intellectual property attorney. She earned her B.A., *summa cum laude*, in Computer Science from Barnard, received her S.M. in electrical engineering and computer science from M.I.T., and her J.D., *magna cum laude*, from Harvard Law School in 2002.

I think we can all agree, following what Dean Treanor said, that perhaps her most impressive credential thus far is that she is now the Faculty Moderator of Volume 20 of the IPLJ, so without further ado, Professor Fromer.

PROF. FROMER:

Thank you. I agree.

What I'm going to do right now, before I introduce our wonderful panelists, is to provide a little background on the *Bilski*<sup>1</sup> case and then allow our panelists to jump in after I introduce them.

First, a word on how *Bilski* relates to the theme of the symposium today about functionality. Patent law is generally about protecting functional things, but not all functional things end up being patentable.<sup>2</sup>

One of the key questions in the *Bilski* case, which I'll go into a little bit more, is which functional things are patentable. How do you sort between those that are and aren't?

In the *Bilski* case, we've got two inventors who applied for a patent for the following invention: "A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price. . . ."<sup>3</sup> It basically is a method for hedging risk in commodities.

The invention wasn't tied to software in any way. It was the method with the following steps: initiating a series of transactions, identifying market participants, and making the transactions happen between them.<sup>4</sup>

When the inventors applied for a patent, the United States Patent and Trademark Office ("PTO") refused to grant it.<sup>5</sup> The inventors appealed to the Board of Patent Appeals and the Board of Patent Appeals affirmed, and then they took their case to the United States Court of Appeals for the Federal Circuit.<sup>6</sup>

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<sup>1</sup> *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc) (discussing the use of the machine-or-transformation test to determine patent eligibility of process claims), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009), *argued sub nom. Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

<sup>2</sup> *See, e.g., Gottschalk v. Benson*, 409 U.S. 63, 71–73 (1972) (holding that a method for converting binary-coded decimal numbers into pure binary numbers is not patentable subject matter).

<sup>3</sup> *Bilski*, 545 F.3d at 949.

<sup>4</sup> *See id.*

<sup>5</sup> *Id.* at 950.

<sup>6</sup> *See id.*

The Federal Circuit affirmed the PTO's rejection.<sup>7</sup> The court made its ruling against its understanding, based on a number of Supreme Court decisions, that a patent can't preempt fundamental principles, such as laws of nature, natural phenomena, and abstract ideas.<sup>8</sup>

The Federal Circuit's analysis used the Supreme Court's decisions on patentable subject matter to divine the test for patentable processes.<sup>9</sup> Processes are one of the categories that § 101 in the patent law states is patentable subject matter.<sup>10</sup>

What the Federal Circuit saw in the Supreme Court's decisions was that something can be a patentable process if it satisfies either of two tests: it either must be tied to a machine (and that indicates that it's not a natural phenomenon, not an abstract idea), or it must transform an article to a specified different state.<sup>11</sup>

This transformation, according to the Federal Circuit, must be central to the purpose of the claimed process.<sup>12</sup> It can't constitute mere insignificant activity, either before or after the solution.<sup>13</sup> This transformation has to impose meaningful limits on claim scope, according to the Federal Circuit.<sup>14</sup> It can't preempt all uses of the process, in which case it would be akin to an abstract idea.<sup>15</sup>

The court talked about three types of transformations: of physical objects,<sup>16</sup> of signals or data that represent physical

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<sup>7</sup> See *id.* at 966.

<sup>8</sup> See *id.* at 952 (“[T]he Court has held that a claim is not a patent-eligible ‘process’ if it claims ‘laws of nature, natural phenomena, [or] abstract ideas.’” (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981))).

<sup>9</sup> See *id.*

<sup>10</sup> 35 U.S.C. § 101 (2006) (“Whoever invents or discovers any new and useful *process*, machine, manufacture, or composition of matter . . . may obtain a patent therefor . . . .” (emphasis added)).

<sup>11</sup> *Bilski*, 545 F.3d at 961.

<sup>12</sup> See *id.* at 962.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 961.

<sup>15</sup> See *id.* at 957 (citing *Diamond v. Diehr*, 450 U.S. 175, 187 (1981)).

<sup>16</sup> See *id.* at 962 (“It is virtually self-evident that a process for a chemical or physical transformation of *physical objects or substances* is patent-eligible subject matter.” (emphasis in original)).

objects,<sup>17</sup> and of abstract concepts.<sup>18</sup> The court ordered these from most to least transformative.<sup>19</sup>

In applying this test of machine-or-transformation to the method at issue here, the Federal Circuit concluded that the invention at issue was not patentable.<sup>20</sup> The court reasoned that the invention was not limited to any specific machine in the associated patent claims.<sup>21</sup> And, the Federal Circuit continued, the invention was about transforming legal obligations or relationships, business risks, or other abstractions, which did not come close to the transformation that the Federal Circuit and the Supreme Court envisioned as constituting patentable subject matter.<sup>22</sup>

The implications of the Federal Circuit's decision could be enormous. First of all, as per this rule, it is going to be harder to patent business methods.

The implications for software are big. Is software tied to a general-purpose computer, a machine in the classical sense, given that the software is a set of instructions that runs on a general-purpose computer?

Judge Newman of the Federal Circuit talked in her *Bilski* dissent about how the industry has relied on the availability of software patents for quite a long time.<sup>23</sup> Is it wrong to upset this expectation?

As our panelists will suggest today, the implications of *Bilski* may reach even beyond these areas. The Supreme Court recently

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<sup>17</sup> See *id.* at 962–63 (noting that the transformation of raw x-ray data representing physical and tangible objects renders a claim patent eligible, but that a process of graphically displaying variances of data from average values does not (citing *In re Abele*, 684 F.2d 902, 908–09 (Fed. Cir. 1982))).

<sup>18</sup> See *id.* at 963 (“We note that, at least in most cases, gathering data would not constitute a transformation of any article.” (citing *In re Grams*, 888 F.2d 835, 839–41 (Fed. Cir. 1989))).

<sup>19</sup> See *supra* notes 16–18 and accompanying text.

<sup>20</sup> See *Bilski*, 545 F.3d at 962–66.

<sup>21</sup> *Id.* at 962.

<sup>22</sup> *Id.* at 963.

<sup>23</sup> *Id.* at 976 (Newman, J., dissenting).

heard arguments in the *Bilski* case on November 9th, and the Court has not issued a decision yet.<sup>24</sup>

From a sense of oral argument, though, it looks like the patent applicants will lose, possibly nine to nothing. The Supreme Court's oral argument was mostly about deciding the grounds on which the inventors should lose.

The Supreme Court Justices were all over the map during questioning.<sup>25</sup> Some Justices suggested that the Court ought to look to the original understanding of the Intellectual Property Clause in the Constitution.<sup>26</sup> "What are useful arts?" the Supreme Court justices asked.<sup>27</sup> Some Justices suggested that maybe only technological arts ought to be patentable, and not non-technological inventions.<sup>28</sup> Some Justices wondered what the word "Process" in § 101 of the patent statute means.<sup>29</sup> They were interested in statutory interpretation.<sup>30</sup> Others were thinking about the policy implications of allowing business methods or software to be patentable.<sup>31</sup> Others were merely referring to the Supreme Court precedent on abstract ideas, thinking how that would apply in this case.<sup>32</sup> One Justice wondered what Judge Giles Rich, one of the principal influences on the 1952 Patent Act,<sup>33</sup> thought about this issue.<sup>34</sup> The lawyer's answer was that Judge Rich wrote the *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*<sup>35</sup>

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<sup>24</sup> See Transcript of Oral Argument, *Bilski v. Doll*, 129 S. Ct. 2735, argued *sub nom.* *Bilski v. Kappos* (U.S. Nov. 9, 2009) (No. 08-964).

<sup>25</sup> See *id.*

<sup>26</sup> See *id.* at 4, 6–7. The Intellectual Property Clause empowers Congress "to Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors, the exclusive Right to their respected Writings and Discoveries." U.S. CONST. art. I, § 8, cl. 8.

<sup>27</sup> Transcript of Oral Argument, *supra* note 24, at 4.

<sup>28</sup> See *id.* at 12–13.

<sup>29</sup> See *id.* at 20–21.

<sup>30</sup> See *id.*

<sup>31</sup> See *id.* at 6–7, 46.

<sup>32</sup> See *id.* at 17–18.

<sup>33</sup> Patent Act of 1952, 35 U.S.C. §§ 1–376 (2006).

<sup>34</sup> See Transcript of Oral Argument, *supra* note 24, at 17.

<sup>35</sup> 149 F.3d 1368 (Fed. Cir. 1998).

opinion, which had a very broad view of patentable subject matter.<sup>36</sup>

Almost all of the Justices were concerned with wacky inventions.<sup>37</sup> For example, Justice Sotomayor asked whether a method of speed dating would be patentable.<sup>38</sup> Justice Breyer, a former law professor, wondered if he could patent a process for teaching antitrust law to students where 80% of them stay awake.<sup>39</sup>

Some of the Justices were concerned about allowing software to be patented.<sup>40</sup> One had a question about whether software as implemented in a machine—an actual product, not a process—ought to be patentable.<sup>41</sup>

The question that remains open, I think, after the oral argument is how the Justices are going to decide the case. Will they discuss the patentability of software? Will they discuss business methods broadly? Will they confine their ruling narrowly to *Bilski*'s patent application, which is not about software?

With that background in mind, I would like to introduce our panelists who will speak in turn on *Bilski*. Afterward, we will take questions.

First up is going to be Jim Dabney. Jim is a partner at Fried Frank. Before that, he was a partner at Pennie & Edmonds.

Jim has been recognized as a leading lawyer by *Chambers USA: America's Leading Lawyers for Business*, not only in one area of intellectual property, but in the areas of patent, trademark, and copyright. Jim argued two patent cases before the Supreme Court, and he won both of them.

The two cases he argued were *Holmes Group, Inc. v. Vornado Air Circulation Systems, Inc.*,<sup>42</sup> which considered whether appellate jurisdiction lay in the Federal Circuit when there was a

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<sup>36</sup> See Transcript of Oral Argument, *supra* note 24, at 17.

<sup>37</sup> See *id.* at 7, 9–10.

<sup>38</sup> *Id.* at 7.

<sup>39</sup> *Id.* at 9–10.

<sup>40</sup> See *id.* at 42–46.

<sup>41</sup> *Id.* at 42.

<sup>42</sup> 535 U.S. 826 (2002).

patent claim as a counterclaim in a lawsuit,<sup>43</sup> and *KSR International Co. v. Teleflex Inc.*,<sup>44</sup> a case which has changed the landscape of nonobviousness in patent law. Jim is going to be speaking about false positives and negatives in patentable subject matter.

Next up is going to be Clarisa Long. Clarisa is the Max Mendel Shaye Professor of Intellectual Property Law at Columbia Law School. She has expertise in all areas of intellectual property, though her IP experience seems to have begun in patent law.

She has written a lot of significant works in the academic literature, including how patents serve as signals for venture funding.<sup>45</sup> She has also written about the information costs of patent and copyright law<sup>46</sup> and the PTO's attempts to influence the shape of patent law.<sup>47</sup>

She clerked for Judge Alvin Schall on the Federal Circuit. She will be speaking about the culture of the Federal Circuit as a court and how that has contributed to the way patentable subject matter is defined generally, and how it decided *Bilski*.

Finally, we have Brian Murphy. Brian is a partner at Morgan Lewis in the Intellectual Property practice. He serves as a Deputy Practice Group Leader for the Patent Litigation Group. In patent matters, he has represented many pharmaceutical companies, including GlaxoSmithKline, SPI Pharma, and DuPont Air Products Nanomaterials.

In the past several years, he has been recognized as a New York Super Lawyer in the area of intellectual property litigation. Brian will be speaking about *Bilski*'s machine-or-transformation test, in the sense of judicial policy making, and the uncertain prognosis for diagnostic and personalized medicine patents. Without further ado, here is Jim.

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<sup>43</sup> *Id.* at 827.

<sup>44</sup> 550 U.S. 398 (2007).

<sup>45</sup> *See, e.g.*, Clarisa Long, *Patent Signals*, 69 U. CHI. L. REV. 625 (2002).

<sup>46</sup> *See, e.g.*, Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465 (2004).

<sup>47</sup> *See, e.g.*, Clarisa Long, *The PTO and the Market for Influence in Patent Law*, 157 U. PA. L. REV. 1965 (2009).

MR. DABNEY:

Well, thank you for that introduction. How many people in the audience are students, as opposed to practitioners or law professors?

Well, it is a real privilege to address you today. I think you cannot really appreciate what Professor Fromer was saying without understanding that you all are living in an environment that did not exist twenty-five years ago.

That environment is, since 1982 there has been in the United States an intermediate appellate court, known as the United States Court of Appeals for the Federal Circuit,<sup>48</sup> and almost all—the *Holmes v. Vornado* case has left a crack in the firmament of appellate jurisdiction for regional circuits to hear patent cases—intermediate appeals in patent cases, since 1982, have gone to a single, intermediate appellate court. One consequence of that was that there began in 1982 a series of rather significant changes in the way patent law in the United States came to be applied.

People who graduated law school after 1982—and I was not in that category, but I came to the field of patent law after 1982—would tend to educate themselves on the law of patents in a way that was very efficient, which is: let us look and see what this one court of appeals, that has all of this power, has said on the subject because that is probably going to have the most practical use, and we do not need to concern ourselves with sources of law that that court does not apply.

One consequence of that was the development of a body of law that, in the last seven or eight years, has come under increasing scrutiny and, some would say, deconstruction by the Supreme Court.

One of the most controversial of the case law developments that happened after 1982, in the Federal Circuit, was the development that happened in the case that is on page 46 of your course materials. This was a case known as *State Street Bank &*

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<sup>48</sup> 28 U.S.C. § 1295 (2006) (creating the Court of Appeals for the Federal Circuit in 1982).

*Trust Co. v. Signature Financial Group, Inc.*<sup>49</sup> I happen to know a little bit about this case, in part because the patent that was at issue in this case was actually prosecuted by my former law firm, Pennie & Edmonds.<sup>50</sup>

The *State Street Bank* case basically raised the question, which I think of as the “what kind” question: What kind of intellectual conceptions fall within the regulatory scope of patent law?

For most of our nation’s history, we thought we knew what kind of subject matter was and was not protected by patent law. The 1952 Act says there are four categories of things that are protected by patents.<sup>51</sup> Those four categories are: machines,<sup>52</sup> I think we all know what a machine is; manufactures,<sup>53</sup> I think we know what that is; compositions of matter,<sup>54</sup> all the pharmaceutical companies know what that is; and then the fourth category is process.<sup>55</sup>

There has been a great deal of discussion and debate over what is encompassed by the statutory term process, which is very broadly defined in the 1952 Act.<sup>56</sup> Strictly speaking, the question before the Supreme Court in the United States has to do with whether or not the term “process” encompasses the type of novel sequence of legal relationships, entered in a certain sequence, that are claimed in the *Bilski* case.

But all of those four categories are subject to an overarching limitation which is that Congress is only authorized to grant patents for subject matter that is intended to, or does, promote the progress of useful arts, using the 18th century term, useful arts.<sup>57</sup>

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<sup>49</sup> 149 F.3d 1368 (Fed. Cir. 1998).

<sup>50</sup> U.S. Patent No. 5,193,056 (filed Mar. 11, 1991) (issued Mar. 9, 1993).

<sup>51</sup> 35 U.S.C. § 101.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* § 100.

<sup>57</sup> U.S. CONST. art. I, § 8, cl. 8 (“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries . . .”).

I was quite surprised when the Supreme Court took the *Bilski* case, as were many practitioners, because the actual claim in *Bilski*, and the subject matter in *Bilski* is, in many respects, trivial and of no commercial importance.

*Bilski* was a case in which, as you have heard, there was no machinery involved. This was a trading strategy that people had devised.<sup>58</sup> It is the rare commercial activity today that is carried on strictly in a person's head, or with a pencil and paper and does not involve a computer system or anything like that.

So the Supreme Court could render a decision in *Bilski* that does not have anything to do with software, that does not have anything to do with even the *State Street Bank* case. It was clear to me, from the oral argument, that the Justices, at least prior to the oral argument, had not fully comprehended that. In the oral argument, the attorney for the Solicitor General told the Justices that the *State Street Bank* case would have come out exactly the same way under the machine-or-transformation test that the Federal Circuit had articulated in the *Bilski* case itself.<sup>59</sup>

That puzzled at least Chief Justice Roberts, and I am sure it would puzzle many people who are not active practitioners in patent law, and I will try to explain to you more about that.

If you look in your book on page 46, you will find one of the more controversial statements that was ever uttered in United States patent case law decision-making. There is a statement towards the bottom of your materials that says, "Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method."<sup>60</sup>

That statement, which is not supported by any citation of authority, it is just an *ipse dixit*, was quite surprising to a lot of people at the time. But that statement, in the context of this case,

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<sup>58</sup> See *In re Bilski*, 545 F.3d 943, 949 (Fed. Cir. 2008), *cert. granted sub nom.* *Bilski v. Doll*, 129 S. Ct. 2735 (2009), *argued sub nom.* *Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

<sup>59</sup> Transcript of Oral Argument, *supra* note 24, at 41–42.

<sup>60</sup> *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1375 (Fed. Cir. 1998).

did not raise the hard question, because in the *State Street Bank* case, what was claimed was a machine.<sup>61</sup>

You cannot get this from the *State Street Bank* case itself, but *State Street Bank* was a case in which the commercial value of the claimed invention had nothing to do with computer software or computer systems. This was an innovation that allowed for economies of scale to be realized by sponsors of mutual funds whose expense ratios would otherwise be too high.

So some rather clever people figured out that if you would form a partnership that would be treated as a partnership for tax purposes, you could have a whole series of feeder funds run in a fund-of-funds structure. This would allow for the sponsorship, marketing, and sale of mutual funds under circumstances that would otherwise be uneconomic to carry on.

Well, what do you need in order to carry on a business like that? Well, what you need is a computer system that will keep your accounts straight. That will keep track of who owns what, what the daily asset value is in the various feeder funds, how the expenses should be allocated, and how gains, losses, redemptions, and contributions should be allocated.

It was nothing more than a garden variety accounting system, implemented by means of a computer. But unlike most garden variety accounting computer systems, this one was limited to its deployment in the context of a series of legal relationships, in which certain tax and economic advantages were realizable.

So the question in *State Street Bank*, the holding of *State Street Bank*, was that the machine that was claimed in that case was a machine.<sup>62</sup> Well, the patent law has always applied to machines, so of course a machine can be patentable.

The hard question that was not asked, and was not answered, in *State Street Bank*, and unfortunately is not raised and cannot properly be answered in the *Bilski* case is: did that machine in *State Street Bank* differ from preexisting accounting systems in a patentably-significant way? That is the hard question that is not

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<sup>61</sup> See *id.*

<sup>62</sup> See *id.*

raised by *Bilski*, which had the Justices seemingly confused by the Government's position that *State Street Bank* would come out the same way under the machine-or-transformation test as *State Street Bank* did under the law that was applied by the Federal Circuit in that case.

So we come back to the question that is raised in the *Bilski* case, which is the "what kind" question. Based on this dictum that is on page 46 of your case book, and I emphasize it is pure, unadulterated dictum, there was an explosion of attempts to seek patent protection for subject matter that is seemingly described by the statement.

One of my favorites is the patent that was issued in 2003 for a method of jury selection.<sup>63</sup> The patent recites the following series of steps: you get two lawyers in a room; you get a whole set of potential jurors in the room; you go through a peremptory challenge exercise. You all know how lawyers get to exercise challenges for cause and challenges—subject to constitutional restrictions, you cannot do it based on race and all that stuff—but you get to exercise a certain amount of choice over who you want on your jury. Trial lawyers can sometimes make a lot of money by convincing clients that they are really good jury pickers. So this is a method where you get the potential jury pool and you strike off the jurors who you think are going to be adverse to you.

So you create a pool of the struck jurors. Now you have two groups of people, the ones that you think are good for you and the others that you think are not so good for you and then you make your presentation to both sets of jurors. You see whether the ones you think are good for you actually vote for you better than the ones that you struck off. If it turns out that the jurors you struck off are no better for you than the ones that you kept on, that means you are not a very good jury picker, and you need to refine your technique.

So this patent describes a method for improving jury selection techniques. That was a method that was characterized by the Patent Office as a patentable invention and a patent issued to a

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<sup>63</sup> U.S. Patent No. 6,607,389 (filed Dec. 3, 2001) (issued Aug. 19, 2003).

person from New York named Genevie in 2003.<sup>64</sup> I have a copy of it if anybody wants to see it, I can give you the patent number.

That is the kind of allegedly patentable invention involved in the *Bilski* case that raises the “what kind” question. What kinds of intellectual conceptions do we think should fall within the subject matter regulation of patent law as distinct from something else?

As the *State Street Bank* case illustrates, the statutory classifications “machine” and “process” are quite unsatisfactory as dividers between what ought and ought not be patentable. The reason for that is shown by the *State Street Bank* case itself. There is almost nothing that you could think of today that could not be characterized as a machine, almost nothing.

I think most people would agree that music, an original song that someone might write, is probably not an invention, even though it might be novel, non-obvious, and useful. But, you could characterize a song as a process for entertaining an audience. You could describe a machine that outputs certain sounds, which just so happen to correspond with the notes of a song, just as a computer system can be configured to keep accounts the way you can with a pencil and paper.

There is a certain amount of artificiality to discussions about whether or not something is or is not properly classified as a process or as a machine. That leaves unasked and unanswered the hard question, which the Federal Circuit did not have to address because it was an intermediate court, but the Supreme Court in *Bilski* may very well address, which is—what is embraced by the constitutional term useful arts?

This is why many people in the patent community are very worried about *Bilski*. It is rather ironic that those who are financially supporting the *Bilski* petitioners in the Supreme Court did so because they felt that the court of appeals in *Bilski* had gone too far in limiting what all can be claimed to be an invention in the business method patent arena.

It apparently never occurred to those who are supporting this that the Supreme Court of the United States would far more likely

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<sup>64</sup> *Id.*

view the Federal Circuit as having gone not nearly far enough in limiting what cannot be patented as an invention. As is illustrated in one of the briefs that Professor Fromer has included in the materials, the standard that was applied by the Federal Circuit in the *Bilski* case is one that would leave *State Street Bank* decided exactly the same way. That was a machine; therefore it is patentable, right?

So what I would say, I think I am probably—I haven't seen how much time I have, five minutes, I have five minutes left.

The thing I would emphasize to you is that, when you consider what types of innovations are and are not properly subject to regulation by patents, you really need to look beyond the form to the substance. So it ought not be particularly significant that a machine is recited in a claim.

What ought to be significant is the contribution made by the person who applied for the patent—what gives value to what the person disclosed in an application or what the person conceived.

Then you can have a meaningful conversation about whether or not the contribution that was made is one that is fairly characterized as falling within the useful arts, properly understood and properly characterized as falling within any of the statutory classifications, and that will avoid a lot of the artifice that has unfortunately dominated a great deal of the debate over this question.

The *Bilski* case, unlike the *State Street Bank* case, has exposed in all of its nakedness the “what kind” question. In the *State Street Bank* case, since the claims cited a machine, it was ambiguous why those claims were allowed. This has great practical importance in litigation, let me tell you.

If you have, for instance, a patent that recites a computer system that is configured to provide certain asserted valuable, observable behaviors, well, one of the things that you have to do in patent litigation nowadays is to interpret what the claim words mean. This is a process known as “claim construction.”<sup>65</sup> Patent

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<sup>65</sup> Patenthawk.com, Staking a Claim—Legal Backdrop, <http://patenthawk.com/claims.htm> (last visited Feb. 6, 2010).

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claim words are supposed to be interpreted from the point of view of a person having skill in the art of a patent.<sup>66</sup> Well, a patent claiming a computer system is configured to maintain books of account, or to implement an online trading system, or to carry on business activity of some kind, confounds analysis. Who is the person skilled in the art? Is it the person who uses the system, the bond trader, the commodities trader, the online vendor? Is it the programmer who programs the computer system to bring about these behaviors, or is it the computer system?

I had a case in which a patent recited providing a workup system state. The word “state” means something quite different to a person in the field of computer science than it might to someone who doesn’t know anything about computer programming. State is a term of art in one field; it is not in another. Those kinds of complexities arise when you do not focus on the applicant’s contribution, but instead get too caught up in the form in which claimed inventions are patented.

I am going to subside at this point and turn it over to my co-panelists. But I’ll be happy to answer any questions you may have after the others are done. Thank you.

PROF. LONG:

[Please note that Professor Long’s remarks are not published in this transcript.]

MR. MURPHY:

I am just going to rely on a few PowerPoints to try and help my presentation along. So I do not know if anyone can call those up for me.

But good—while we wait for that, good morning everyone. Yes, that would not be me. I am Brian Murphy. I am going to be speaking from a different perspective. It is a counterpoint, I think, in many ways to the issues Jim has raised and it really picks up, I think, probably on the last point that Clarisa was just making about a very interesting analogy to the color white, and how do you know it if you have never seen it before.

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<sup>66</sup> Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

You must understand that underlying this intellectual debate about what is patent eligible and what might not be patent eligible is a very commercially significant dispute between two industries. There is the financial services industry, which is tired of business method patents, tired of being sued, they feel, frivolously, in the Eastern District of Texas, where judgments are being entered against them. Then there are the pharmaceutical and biotech industries. These industries are very fearful that the Supreme Court and even the Federal Circuit have gone too far in using machine-or-transformation as a proxy for the initial threshold of what is patent eligible, which is to be distinguished from, and it is an important distinction, the requirements of patentability.

In my view, the *Bilski* test, particularly for processes—pure processes—goes too far only because it is a mandatory test. It is a mandatory proxy. I think it is a useful test. It is particularly useful in the business method context, it is very useful to limit business method patents and that's what was done.

Perhaps the unintentional consequence is, what do you do in other areas, other scientific industries, like diagnostic methods or genetic screening methods, where focusing on the notion of transformation really does not get you to the heart of the question? Because it is not necessarily the transformation that is the inventive concept, the inventive concept is recognizing a correlation between data and a condition. What is more important than diagnosis?

You cannot treat the patient optimally until you have the right diagnosis and that is what a lot of these method claims are all about.

So my thesis is that the transformational analysis focuses on the wrong question. I hope the Supreme Court considers going back to the so-called Fundamental Principles Exception, where the better question is does the invention as a whole preempt a naturally occurring phenomenon, a natural law, or fundamental principle.<sup>67</sup>

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<sup>67</sup> See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

No one disagrees that a naturally occurring phenomenon is not patentable and that it is a broad test.<sup>68</sup> The point is—it is a low bar.

The reason it is a low bar is because courts have always understood that what inventors really are entitled to is a rigorous examination under the conditions for patentability. The conditions for patentability are in section 101 of the U.S. Patent Act.<sup>69</sup> These conditions are the second part of the test, while the natural phenomenon preemption is the first part of the test. The first part of the test is a very low bar while the second part is a much higher bar.

Just because a process might qualify as patent eligible, absolutely does not mean you're going to get a patent, and that is, I think, part of the visceral reaction, particularly that you get by the Supreme Court Justices, like you saw in *Laboratory Corp. of America Holdings v. Metabolite Labs., Inc.* (“*LabCorp*”).<sup>70</sup> *LabCorp* will be discussed briefly, but the question one has to ask is how that could possibly be patentable, it is too broad.<sup>71</sup>

Maybe the problem in *LabCorp* is that the claim is not particularly claimed or it is overbroad. But is it really not patent eligible?<sup>72</sup> Maybe, maybe. Then the really important question is what test do you apply? Should the court apply the machine-or-transformation test, and particularly the transformation test for process patents regardless of the technology area?<sup>73</sup>

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<sup>68</sup> See *id.* (“This Court has undoubtedly recognized limits to [35 U.S.C.] § 101 and every discovery is not embraced within the statutory terms. Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.”).

<sup>69</sup> 35 U.S.C. § 101 (2006) (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent thereof, subject to the conditions and requirements of this title [35 U.S.C. §§ 1–376].”).

<sup>70</sup> 548 U.S. 124, 125 (2006) (dismissing writ of certiorari as improvidently granted).

<sup>71</sup> See *id.* at 125–27 (Breyer, J., dissenting) (arguing the patent claim invalid as a natural phenomenon).

<sup>72</sup> See *id.*

<sup>73</sup> See *In re Bilski*, 545 F.3d 943, 961–62 (Fed. Cir. 2008), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009), *argued sub nom. Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

We are having some technical difficulties, so I'll try to draw some images for you.

Whenever I'm faced with a difficult intellectual question—and this is certainly a difficult question—I always ask myself what would Mr. Jefferson say?

Those of you who have read *Bilski* are familiar with Judge Rader's dissenting opinion where he quoted Thomas Jefferson's belief that "ingenuity should receive a liberal encouragement."<sup>74</sup> That is, I think, an eloquent statement of the underlying policy and rationale for a broad first step, or low threshold, for patent eligibility.

But even Mr. Jefferson was a little conflicted and recognized the difficulty of drawing lines in the area of patentable subject matter. Years later he also said, "[C]onsidering the exclusive right to invention as given not of natural right, but for the benefit of society, I know well the difficulty of drawing the line between things which are worth to the public the embarrassment of an exclusive patent, and those which are not."<sup>75</sup>

Now I'm a fan of Mr. Jefferson, but I do think we have evolved quite a bit since the notion of an exclusive patent as an embarrassment. But I think it points out that even from the drafting of Article I, Section 8, Clause 8 of the U.S. Constitution which promotes the progress of science and useful arts,<sup>76</sup> there has been some conflict. Where do you draw the line?

But the line is drawn as a matter of policy, not judicial decision making. When you upset well-settled doctrine in the judicial role, you run the risk of stepping over the line. We all know courts consider policy—it is part of human nature and you have to. But it is the role of the legislature to make those policy judgments—not the courts.

Real quickly through the statute, this is what I was referring to as the test on eligibility: "[w]hoever invents or discovers any new

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<sup>74</sup> *Id.* at 1011 (Rader, J., dissenting) (quoting WRITINGS OF THOMAS JEFFERSON 75–76 (Washington ed. 1871)).

<sup>75</sup> Writings from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), *available at* [http://press-pubs.uchicago.edu/founders/documents/a1\\_8\\_8s12.html](http://press-pubs.uchicago.edu/founders/documents/a1_8_8s12.html).

<sup>76</sup> U.S. CONST. art. I, § 8, cl. 8.

and useful process”<sup>77</sup>—we are focusing on process here because that is really what the fight is about—“or any new and useful improvement thereof, may obtain a patent thereof.”<sup>78</sup> That is patent eligibility—very broad and to be liberally encouraged.

Patents are still subject to the conditions and requirements of the title we all are familiar with—novelty, utility, sufficient description, enablement, claim particularity, and definiteness.<sup>79</sup> These are not insignificant requirements.

This is well settled law in multiple Supreme Court decisions, including *Diamond v. Diehr*,<sup>80</sup> cited for different propositions, depending on whether you read the majority or dissenting decisions in *Bilski*, but the quote is, “We have more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed.”<sup>81</sup> This is really, I think, what is underlying this debate.

What has been clear, what is well-settled law, in terms of patent eligibility and particularly of processes, is that a process is not patent eligible if it claims a natural law itself.<sup>82</sup> One cannot claim a natural phenomenon, as *LabCorp* articulates—electricity, metabolic functions that occur naturally in the human body, and the atomic structure are natural phenomena—one cannot claim these things effectively.<sup>83</sup> And, of course, abstract ideas, particularly mathematical algorithms, which apply with particular force in the business method context, are not patentable.<sup>84</sup>

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<sup>77</sup> 35 U.S.C. § 101 (2006).

<sup>78</sup> *Id.*

<sup>79</sup> *See id.* §§ 101, 112.

<sup>80</sup> 450 U.S. 175 (1981). Note that the proposition of *Diehr* is different in *Bilski*'s majority and dissent. *In re Bilski*, 545 F.3d 943, 1011 (Fed. Cir. 2008) (Radar, J., dissenting) (“In reading *Diehr* to suggest a non-statutory transformation or preemption test, this court ignores the Court’s admonition that all recent holdings do no more than restate the natural laws . . . exclusions.”), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009), *argued sub nom. Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

<sup>81</sup> *Diehr*, 450 U.S. at 182 (internal quotations omitted).

<sup>82</sup> “Einstein could not have ‘patent[ed] his celebrated law that  $E=mc^2$ ; nor could Newton have patented the law of gravity.” *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 126 (2006) (Breyer, J., dissenting).

<sup>83</sup> *See id.*

<sup>84</sup> *See, e.g., id.*

Now I will focus on the life sciences patents to add a little context. Generally it has been clear that novel pharmacologic agents constitute patentable subject matter. There are thousands, if not tens of thousands, of patents on novel pharmacologic agents—small molecule drugs or prescription drugs that we consume every day. Isolated DNA and RNA sequences are well established as patentable and are useful in biotechnology companies as probes for assessing binding affinity or for testing potentially new and helpful biological molecules as therapeutics.<sup>85</sup> Recombinant proteins and therapeutic proteins, such as Genentech's Rituxan and Herceptin, are incredibly powerful drugs that are patentable.<sup>86</sup> There is no question they are patent eligible as they both are in fact patented.

Moving down the line, methods of treatment typically claimed in the pharmaceutical arena as administration of therapeutically effective amounts of a drug are classically patentable.<sup>87</sup> There is no need to go into what the transformation is.

A more interesting example is surgical procedures. In the early 1990s, a successful eye surgeon claimed and had patented a pure method of making a particular type of incision in cataract eye surgery.<sup>88</sup> It was clearly purely process and needed only a scalpel and a physician to use it, but the claim was the process for using that particular type of incision. It was a particular practical application of a process, it did not preempt all types of cataract surgery, and it did not preempt all types of eye surgery.

There was never any question that the process was patent eligible. There was an absolute outcry and uproar by the American Medical Association, on a policy basis, that you should not be able

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<sup>85</sup> See, e.g., U.S. Patent No. 6,313,282 (filed July 18, 1997) (issued Nov. 6, 2001) (claiming an isolated DNA sequence which can serve as a terminator region in a chimeric gene capable of being used for the transformation of plants).

<sup>86</sup> See, e.g., U.S. Patent No. 7,297,760 (filed Dec. 15, 2003) (issued Nov. 20, 2007); U.S. Patent No. 5,736,137 (filed Nov. 3, 1993) (issued Apr. 7, 1998).

<sup>87</sup> See, e.g., Nicardipine Pharm. Composition for Parenteral Admin., U.S. Patent No. 5,164,405 (filed Oct. 22, 1990) (issued Nov. 17, 1992).

<sup>88</sup> Method of Making Self-Sealing Episcleral Incision, U.S. Patent No. 5,080,111 (filed June 28, 1990) (issued Jan. 14, 1992).

to enforce such a patent.<sup>89</sup> The issue was not patent eligibility, it was patent enforceability, and Congress spoke. It spoke by enacting § 287(c), which now precludes the enforcement of these particular types of medical procedures during surgery.<sup>90</sup>

I submit that is the more appropriate precedent for what I think we are dealing with now, in *Bilski*. I think you have, in the Federal Circuit's majority decision, a very sophisticated use of a proxy test that, in fact, intentionally narrows patent eligibility, when it should not, but perhaps unintentionally does not appreciate the impact on new technologies, particularly in the pharmaceutical and biotech arena.

Briefly, these types of diagnostic method claims, in *LabCorp*, which we will go to immediately, have been called "determine-and-infer." So determine and infer is a two-step process, a credit to Professor Collins, who has kind of characterized it this way.<sup>91</sup>

The first step is an assay step.<sup>92</sup> It is very physical, very specific: you take a blood test, you run the test, whatever you are looking for, you get a result.

From the result, you infer or make a diagnosis that happens in the mind of the trained physician. That is the process.

If you analyzed it, under well settled law of the Fundamental Principles Exception, the question that should be asked is whether the claim as a whole recites a natural law, a natural phenomenon, extract, idea; or perhaps more usefully, does the claim as a whole define an application of the principle or the phenomenon that has been discovered, that no one discovered before, but happens to be naturally occurring. Is that being applied with sufficient

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<sup>89</sup> See Sabra Chartrand, *Why Is This Surgeon Suing?*, N.Y. TIMES, June 8, 1995, at D1 ("Leaders of the medical community are scrambling to stamp out a trend they think threatens innovation—and a doctor's freedom to offer patients the best care.").

<sup>90</sup> 35 U.S.C. § 287(c) (2006); see also Press Release, Am. Soc'y of Cataract & Refractive Surgery, President Signs Medical Patent Bill; Physicians Freed from Threat of New Medical Procedure Patent Lawsuits (Oct. 1, 1996), available at <http://www.cptech.org/ip/cataract.txt>.

<sup>91</sup> See Kevin E. Collins, *An Initial Comment on Prometheus: The Irrelevance of Intangibility*, PATENTLY-O, Sept. 17, 2009, <http://www.patentlyo.com/collins.intangibility.pdf>.

<sup>92</sup> *Id.* at 1.

particularity so that it does not preempt all uses of the principle, like the surgical method and the incision technique that was patent eligible and patented, but ultimately non-enforceable?<sup>93</sup>

Contrast that to a mandatory *Bilski* analysis. Does the assay step transform a particular article into a different state or a thing? Who cares? Of course it does.

That is not the heart of the invention. The heart of the invention was the recognition of a relationship, and in *LabCorp*, it was a naturally occurring relationship or phenomenon.<sup>94</sup>

The transformation really is not essential. So by design, you perhaps have condemned these types of claims to patent ineligibility without ever having given the Patent Office or the patentee the opportunity to try and get them examined rigorously under the statutory requirements for patentability.

Under *Bilski*, if there is a transformation, the question is if it is central to the purpose of the claim process and not merely what is called “insignificant extra-solution activity.”<sup>95</sup> That is a danger for those in the pharmaceutical industry and the biotechnological arts.

So let us take a quick look at *LabCorp*. This was the so-called determine-and-infer template, and it is a very broad claim. The method is for detecting a deficiency of cobalamin or folate, a naturally occurring human condition, which is a disease.<sup>96</sup>

To detect it, you assay a body fluid, take a blood sample, and run the test, which is clearly transformative, but all you are looking for is this particular homocysteine level. This is nothing new. People already knew how to measure for homocysteine. What was new is somebody who said, “ah-ha,” if you have elevated homocysteine, if you are not within the normal bounds for this blood test, you have a cobalamin or folate deficiency, you are a very sick person, and you need a particular kind of treatment.

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<sup>93</sup> See *supra* notes 88–90 and accompanying text.

<sup>94</sup> See *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 127–28 (2006) (Breyer, J., dissenting).

<sup>95</sup> *In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009), *argued sub nom. Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

<sup>96</sup> See *Lab. Corp.*, 548 U.S. at 129 (Breyer, J., dissenting).

What is not included in the claim is any particular application of the phenomenon. This phenomenon, the correlation between elevated homocysteine levels and a deficiency of these two vitamins, is naturally occurring. No one created it, you are simply observing it, and you can't patent it.

Justice Breyer, in his dissent, which everyone has had a lot to say about, I think, first analyzed it and under the Fundamental Principles Exception noted that the correlation itself is a natural phenomenon, there was really no dispute.<sup>97</sup> That doesn't necessarily end the analysis of patent eligibility because you need to look at the claim as a whole. What else does the claim say? In this case, all it says is you assay to get a homocysteine level.

He said next, in a pre-*Bilski* application of the transformation test, that the claim didn't recite a process for transforming blood or any other matter.<sup>98</sup> In my view, this was clearly wrong. I think it was legally relevant, but wrong. That was part of the problem with applying this test in this area of technology.

He finally answered the question, if you will, as a formulation of the so-called insignificant extra-solution activity concept, and he got to the heart of the matter. The only thing he can find, apart from the assay, which was nothing new and not unique, was the correlation. "I can find nothing [in this claim] that adds anything more of significance."<sup>99</sup> What he was really talking about was, where's the practical application?

*In re Grams*,<sup>100</sup> another case, was interesting because it was noted by *Bilski* in the Federal Circuit. It is interesting because it is really a combination of what I call a determined-and-inferred diagnostic process, but also uses *Bilski*-type algorithms to crunch data. What you're really doing is taking a whole bunch of data from a blood test. You take a blood panel of multiple data points—not just, for example, a homocysteine level—you crunch and you basically program on a computer and you try and tease out and isolate what's causing the illness. But again, that's, in case

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<sup>97</sup> *Id.* at 135.

<sup>98</sup> *See id.* at 136.

<sup>99</sup> *Id.* at 138.

<sup>100</sup> 888 F.2d 835 (Fed. Cir. 1989).

you can't see it, that icon is a thinker, meaning it's a thinking step. So the only assay or physical step is taking the blood sample, followed by a bunch of algorithms or mental processes, which is very clearly found to be non-statutory subject matter, but analyzed, and Judge Michel was one of the panel members on this decision, the claim as a whole covers an algorithm.

They actually explored a different test, called the Freeman-Walter-Abele Test,<sup>101</sup> but the concept was there was no practical application to a process and that physical elements and mere data-gathering was just not enough to cut it.

What I found most interesting was that *Bilski* commented on this case and said, “[I]n most cases, gathering data would not constitute a transformation of any article.”<sup>102</sup> Well, that's true. In the business method context, and in the software context, it's manifestly not true, as we'll see in the *Prometheus Laboratories, Inc. v. Mayo Collaborative Services*<sup>103</sup> case that was just decided, when you're talking about diagnostic methods.

So let's look at *Prometheus*—that is perhaps the most interesting case—recently decided, post-*Bilski*.

In an interesting twist, not purely claimed as a so-called diagnostic method, not just determine-and-infer. What was different? It was looking to optimize treatment. They administered a patient a drug which metabolizes. So you're looking for this thing called 6-TG, just like homocysteine, and you want to find out what the level is in the person's body.

Under *Bilski*, if you're looking at this from the machine-or-transformation perspective, the first two steps, in my view, are nothing more than mere data-gathering in the two-step process, rather than a one-step process.

That is where *Bilski* can lead to a false result, because the wherein clauses, which is supposed to be the practical application

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<sup>101</sup> See, e.g., *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982); *In re Walter*, 618 F.2d 758 (C.C.P.A. 1980); *In re Freeman*, 573 F.2d 1237 (C.C.P.A. 1978).

<sup>102</sup> *In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009), argued sub nom. *Bilski v. Kappos*, No. 08-964, 2009 WL 3750776 (Nov. 9, 2009).

<sup>103</sup> 581 F.3d 1336 (Fed. Cir. 2009).

of understanding this relationship, that if you have too much of the metabolite, or, excuse me, an X-level, you need to increase the dosage. If you have a higher level, the Y-level, you have to decrease the dosage of the drug. Those wherein clauses don't tell you to administer the drug or to increase the dose. They are, I think, accurately characterized by the district court below,<sup>104</sup> who rejected this claim as a warning to say, okay, I have administered the drug. I've measured my level of metabolite. I know it is a warning. It tells you I should increase the dose, or I should decrease the dose. It does not tell you that you need to do it or how to do it, but that does not mean it is not patent eligible.

If you analyzed it under the Fundamental Principles Exception and asked, are you preempting a naturally occurring phenomenon with this claim? The answer is clearly no. It's a simpler test, and you don't run into the, I think, intellectual gymnastics that the Federal Circuit used to try and save this claim. It used, in my view, the improper analogy that it's a method of treatment. It's okay because it's a method—the language was, in effect, it's a method of treatment.

It's not a diagnostic trying to optimize a treatment method. If you wanted to claim a method of treatment, you would have said, in the end, administer the following dosage of the drug. It doesn't say that.

Under a Fundamental Principles Exception test, you would simply say the drug had to be administered by a man, to generate a metabolite level. That is a man-made, if you will, correlation, it's not naturally occurring. It is not someone who is sick and whose sickness is represented by some naturally occurring metabolic function. It is a man-made intervention to create a metabolite level and say, hey, look that is not a naturally occurring phenomenon; this claim is patent eligible.

Again, it doesn't mean the claim is, per se, patentable. But if you use the Fundamental Principles Exception test, however you wish, I think you focus on the better question, which is: are you

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<sup>104</sup> Prometheus Labs., Inc. v. Mayo Collaborative Servs., No. 05cv1200, 2008 WL 878910, at \*6 (S.D. Cal. Mar. 28, 2008) (characterizing the “wherein” clause as “only a mental step” and not requiring any action).

preempting all uses, an entire field of uses of a particular naturally occurring phenomenon or are you not? Are you doing something more? In your claim, is there either a non-naturally occurring phenomenon, as in this case, or is there a practical application or treatment step, whether it's administration of a drug, using a particular surgical technique, or using non-invasive therapy? Whatever it might be, you either need to add that practical step or you need to have something that's not a naturally occurring phenomenon, as in *Prometheus*.<sup>105</sup>

So my real point here is that I think *Prometheus* gives you an excellent example of where the transformation test has limitations that were unintended. It's not particularly helpful to address the questions of what's really patent eligible, what's the inventive concept, and has the claim been drafted that way?

We do need the flexibility of that Fundamental Principles Exception and I think the best question to be asked is the bottom one. Does the process preempt the principle of phenomenon or apply it in a particularized way? If you ask that question, you will get a better result in terms of patent eligibility.

Thank you.

PROF. FROMER:

Okay. Now we're going to have some time for Q&A.

I'd just ask that you please state your name before you ask your question.

MR. MILLER:

Hi. I'm Joel Miller. I have a question for Mr. Dabney.

If I mischaracterize, please correct me, I understood, rather than look at the specific category of 101, you would advocate the contribution that the claimed invention would bring. How would a court, and perhaps more importantly, how would the PTO address whether a claim has this contribution? And clean it up for me, if I didn't state it accurately please. Thank you.

MR. DABNEY:

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<sup>105</sup> *Prometheus*, 581 F.3d at 1336.

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Well, what I basically advocate is trying to avoid allowing a formalism, such as machine-or-transformation, to dominate the analysis.

Every time the Patent Office has to decide whether claimed subject matter is non-obvious, they need to identify the differences between what is claimed and what was previously known. Very often, those differences will lie solely in something like a method of doing business, a set of legal relationships, etc.

The hard question, therefore, simply becomes analyzing whether the differences between something claimed and what pre-existed count for purposes of patentability.

So if the only difference between a particular machine and last year's machine is the tax shelter scheme that it implements, you can isolate on that and say, is this the kind of innovation that qualifies for patent protection, shorn of the confounding that comes from analyzing it as a machine or asking whether the fact that it's characterized as a machine, should that matter at all?

So that's what I was trying to do, to focus on the differences as—in a § 103 context.

MR. MILLER:

So if I understand correctly, you're not focusing so much on eligibility, rather novelty and obviousness?

MR. DABNEY:

No. The debate in *Bilski*, the debate in *Prometheus*, the debate in all of these cases has to do, ultimately, at the end of the day, with whether or not a patent should be granted, on subject matter that's claimed.<sup>106</sup>

We've heard, I think, a fairly compelling demonstration that the discovery that a certain physical correlation between homocysteine levels, for example, and a certain disease condition is not very well-analyzed, in terms of whether it's tied to a particular machine or whether it transforms matter from one state of thing to another.

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<sup>106</sup> *Prometheus*, 581 F.3d at 1336; *Bilski*, 545 F.3d at 943.

But I think most people when they're in the room would instinctively see that there's a qualitative, or an important, difference between that type of discovery and the creation of a dispute resolution process in which you put an arbitration clause in the will, which was the *In re Comiskey*<sup>107</sup> case, which was the only case, by the way, where the Federal Circuit had tentatively provided an answer to the hard question, which is, okay, suppose it's not *Bilski* where it's just the legal relationships and you do have a machine and the only difference is the allegedly novel set of legal relationships that the machine implements. The Federal Circuit's original answer in *Comiskey* was so controversial that they went back, basically, to expunge from the Federal Reporter that portion of the opinion in which the court had basically said that the alleged novel legal relationships do not count in a § 103 analysis.<sup>108</sup> So that's been left for another day, as to whether to do that.

The one thing that no one has said, but what I think is kind of a sleeper issue here, is that the Constitution uses the word "Discoveries."<sup>109</sup>

Now, what obviously happened in the *LabCorp* case, what obviously happened in the *Prometheus* case, what obviously has happened in all these determine-and-infer cases, a person has discovered something. People are afraid of trying to patent things that are characterized as discoveries because of other formalisms that say, "well, you can't patent a discovery, it's got to be an invention," something like that.

It seems to me that there's a big difference between those different types of conceptions. It's a long-winded way to respond, but it's the same question at the end of the day: you have to identify how the claimed invention differs from the prior art.

But the hard question is not going to be whether or not it's wrapped in the machine or whether you characterize it as a

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<sup>107</sup> 554 F.3d 967 (Fed. Cir. 2009).

<sup>108</sup> "Acting *en banc*, the court today vacated the September 20, 2007, judgment in this case, and the panel's original opinion, which is reported at 499 F.3d 1365 (Fed. Cir. 2007), was withdrawn." *Id.* at 969.

<sup>109</sup> U.S. CONST. art. I, § 8, cl. 8.

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transformation or not. I believe it's, at the end of the day, going to come down to whether or not it is the type of conception that falls within the useful arts.

MR. GRAFF:

Focusing on what you just said, and also applying it in the diagnostics area, let's be practical. A doctor observes something in a patient and he may or may not have read the patent or he may have thought of it himself, and he recognizes a relationship between this condition and a particular disease or symptom or whatever, needs vitamin B-12 or whatever Metabolite.

Does it make sense in the real world to say that having thought of this, the doctor is infringing a patent, he owes a royalty or he can be enjoined from treating a patient for the disease because he recognized a correlation that existed and a particular physical condition? Does that make any sense from a commercial point of view, from an economic point of view, is that someplace that the patent law ought to be going, to use Mr. Dabney's phrase, is that the sort of thing that ought to be patented?

MR. DABNEY:

Well, I guess, the answer to a question like that very much depends on how the story is told. If the story is told that researchers, at some major research university spent years and years and years doing basic research to try to understand how the body responds to various external stimuli and after expenditure of years of effort and investment, a Nobel Prize-winning discovery is made, that the way to avoid contracting certain diseases is to respond when a certain correlation is found to exist by drinking a glass of milk or something like that. It may or may not wind up being novel; it may or may not be something that's patentable for other reasons. But it's hard to see why you would say categorically that that's not a discovery within the meaning of the Constitution.

It may be that you can prove that it was inherently anticipated and it's not novel or something like that, but what we're talking about is, I believe, what all is comprehended within the meaning of the phrase "useful arts" in the Constitution. That's what has people so worried about *Bilski*—that the Supreme Court can't duck

that question and at least some originalists on the Supreme Court are quite interested in that question.

So it seems to me that there's a lot of room for argument, whether or not the recognition of a correlation between phenomenon A and condition B is a discovery that can't appropriately be patented.

If it's a truly natural phenomenon, you won't be able to patent it under any of these doctrines here. But if, for instance, you artificially disturb that natural phenomenon by doing a certain thing—

MR. GRAFF:

Well, then *Prometheus* holds, really.

MR. DABNEY:

Yes, and it's really not at all surprising to me.

MR. MURPHY:

I agree. I just wanted to jump in and say it's all in how you claim it. Jim's last point is exactly the seminal point. If you do something to artificially disturb, alter, apply the concept that's been discovered, it's patent eligible and can be tested—but if you claim it, as they tried in *LabCorp* that was just one claim, by the way, for context.

The *LabCorp* claim was the broadest claim, there are lots of other claims that there was no dispute about patent eligibility or even patentability because there were particular methods of carrying out the assay that the defendant Metabolite actually used for a time, paid a royalty, then stopped using and said, I'm not paying the royalty, it's a big commercial fight, that's all that was.

But that particular claim, in its breadth, I think no one—I don't think there's any serious dispute, it's not patent eligible, because of the way it was claimed, as a whole, trying to preempt an entire natural phenomenon, which happened to be a very powerful new discovery. But you can't claim it that way, and I don't think the law should be that broad or should trend in that direction.

MR. GRAFF:

To follow-up, I don't see a huge difference between your characterization of how *Prometheus* should have been decided, which I understood to be a condition that was induced by man and a transformation test. Because as I understand the transformation test, if properly applied, is simply changing something from the way it existed in nature, which is the way I think the Federal Circuit applied it in its decision.

MR. MURPHY:

Yes, I think that the problem I had with it, I think it lends itself, transformation, as applied, particularly in cases like *LabCorp*, *Grams*, and *Classen Immunotherapies, Inc. v. Biogen IDEC*<sup>110</sup> and the so-called transformation, they're focusing on extracting a blood sample or testing it as a transformation.

The administration of the drug allows you to generate a piece of data. Sure, it's a transformation, but that's not really the patentable discovery. What they're focusing on is you're taking that data point and then you're making a new correlation.

I just think the transformation test unduly narrows the focus of the inquiry, that's all, that's all I'm saying. I think, because if you read the decision, the court said it's effectively a method of treatment. That's the problem, that's really the problem I have with it, because it's not.

MR. DABNEY:

There's nothing wrong with transformation as an idea to use in an analysis like this. The problem with it is the same problem that any formalism has, you can't generalize from it very well. You can't abstract it, it doesn't apply and it lends itself to arguments that, well, my legal relationships have been transformed, my economic condition has been transformed, my risks have been hedged, and have been transformed—there were some silly arguments that were made in the *Bilski* case.

So certainly as to many traditional technologies, the fact that crude oil is transformed into various distillates is something that it's easy to see, that that is a process. But it just isn't—it doesn't—to say that that is part of a unitary standard of broad general

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<sup>110</sup> Nos. 2006-1634, 2006-1649, 2008 WL 5273107 (Fed. Cir. Dec. 19, 2008).

applicability without pausing to consider, well, does this fall within the useful arts or not? I'm just going to say, a machine-or-transformation? It seems to me it's an oversimplification.

MR. HOFFBERG:

Hi. Steve Hoffberg. I have a comment and a question.

The comment, I present for three reasons. One is, we're in an academic environment, I want to justify the use—my fiddling with a Smartphone during your presentation, and it also gets to the issue of person of skill in the art and the interpretation of words. There's a definition of the word "Embarrassment" that is "A state of confusion arising from hesitation or difficulty in choosing."<sup>111</sup>

So the common definition we accept today is not the only one and probably is not the one that Jefferson intended.

The question I have is, if a new use of an old machine is presumably acceptable as patentable subject matter, why is not a new function of an old machine?

MR. DABNEY:

Who says it isn't?

MR. HOFFBERG:

Well, that's a question that the Supreme Court is wrestling with.

MR. DABNEY:

Well, no, it isn't, because in the *Bilski* case, there is no apparatus involved at all.

MR. HOFFBERG:

Oh, no, I'm talking about what was said from the bench, in terms of whether an old computer with new software is really just an old computer and not a patentable machine, or whether the software is treated as making it into a new machine.

MR. DABNEY:

I personally will be very surprised if the Supreme Court Justices say one word about software or articulates a holding that is

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<sup>111</sup> Allwords.com, Embarrassment, <http://www.allwords.com/word-embarrassment.html> (last visited Feb. 16, 2010).

at least intended by them to have any impact, whatsoever, on the software industry.

I know why they're worried about it, they have reason to be worried about it, but the case certainly does not involve that. There's absolutely no conceptual problem with saying that a computer system that is configured with software is a novel machine, there just isn't. The difficult questions that come with claims to computer-implemented subject matter are where there is no novelty, or nonobviousness, in the means of implementation, but the value lies in the end-results, the effects produced, the behaviors that the computer brings about. Those types of questions, very often, shade into *Bilski*-type problems because the end-results might be implementing a set of legal relationships. You get right back to the question of what the difference is.

If the difference is a difference that has value because of something that is a business method, then you get into the question that I was trying to deal with, with the question over here. But I don't think that computer software, that the question you're raising is one that there's any serious debate about today, despite what some commentators have sort of tried to shout down from the mountaintop, that *Bilski* is going to spell the death of software. I personally don't see that there's any significant chance of that.

PROF. FROMER:

I think we have time for one more question.

MS. PFAFFENBACH:

I just had a question, in all these cases, whether it's *Bilski* or *Prometheus* or *LabCorp* what is discovered is an algorithm, a relationship; we have X, you end up at the other side with Y.

The inventive part of it, which doesn't seem to be claimed, in the case—well, maybe in *LabCorp*, I'll take *Prometheus*, is that if human, something new made by man, would be to inject another variable, to then make Y enhanced, or decreased. Wouldn't that be—that would be patentable. Would that—is that arguable?

MR. MURPHY:

Well, I mean, I think if I understand you correctly, I think the answer is, yes, it would be patent eligible. It's the human

intervention in some way that needs to be particularized in the claim.

MS. PFAFFENBACH:

Right.

MR. MURPHY:

That allows you to do that, but in the absence of such a particularized step, and it only takes one step, it would not be patent eligible if it's merely the discovery of something that's naturally occurring.

MR. DABNEY:

This question about embarrassment made me think of something that could possibly be something that the Supreme Court does in *Bilski*.

Those of you who have ever taken copyright law know that in some important Supreme Court decisions, after-developed technologies have come before the court. Well, the—does the Constitutional term “Writings” apply to photographs, which were not known at the time of the Constitution?<sup>112</sup> Does the Constitutional term “Writings” apply to player piano rolls<sup>113</sup> or phonograph records and other things that didn't exist at the time?<sup>114</sup>

So if the Supreme Court is going to get serious about construing the Constitution in this case, it would possibly have occasion to consider whether or not this *Bilski* case is in the tradition of those. The problem that *Bilski* is going to have is that in 1787, there was a lot of business going on.

What's claimed in *Bilski* is not exactly like an after-developed technology like phonograph records or photography or something like that. So certainly the questions on the bench from all the Justices, I think, would lead one to think that if that was the direction they were going to go, they would say that this type of commercial activity, hedging, was certainly known at the time of

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<sup>112</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>113</sup> See, e.g., *White-Smith Music Publ'g Co. v. Apollo Co.*, 209 U.S. 1 (1908).

<sup>114</sup> See, e.g., *id.*

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the framing and we cannot, therefore, say that they were going to, no matter what philosophy you adopt—whether it's the originalists or a more, whatever the other alternative philosophy is, I don't want to characterize it—they would lose under that as well.

PROF. FROMER:

Okay. Please join me in thanking our panelists.