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The Patenting of Social Interactions: *Bilski* Before the Supreme Court

**JONATHAN MASUR,** * MATTHEW SAG,** JOSHUA SARNOFF,*** & DANIEL WILLIAMS****

*WELCOMING REMARKS BY: DEAN DAVID VAN ZANDT*

MR. NARAYEN: Thanks, everybody, for coming. We are going to get started right now. Just to introduce myself, I am Vishesh Narayen. I am Editor in Chief of the Northwestern Journal of Technology and Intellectual Property. I would like to welcome everybody to our Fifth Annual Symposium. Before we kick off, I would like to give a little background about the Journal, where we have been and where we are going. The Journal is going to be finishing the publication of its eighth issue this year. We have been around for just under a decade, and in that time we have been cited by Congress. We have published Journal articles that have been cited by the Federal Circuit. In addition, numerous other law reviews and journals have cited our publication. And I think because of our close relationship with the practitioner community, we really are at the cutting edge of IP and technology law. And, of course, all this is made possible by the dedication of our staff and our members, the support of Northwestern Law, and the support and the generosity of our sponsors.

And on that note, I would like to specifically thank our sponsors today. McDonnell Boehnen Hulbert & Berghoff is our platinum sponsor. They have generously returned as a platinum sponsor this year, and they have been very helpful in offering ideas for today's symposium and to help plan for it. I would like to thank them for that. We actually have a number of MBHB attorneys today on panels: Daniel Williams, Michael Baniak, who is also an adjunct here, Donald Zuhn, and Joseph Herndon, who you will see during the panels today. I would also like to thank Knobbe Martens Olson & Bear, who is our gold sponsor. They have also stepped up again this year, and we really appreciate that. We hope it is a continuing relationship that we will have with them. Nicholas Zovko from their Riverside, California office is here today. He's come a long way to join us. He will be participating in our afternoon panel on USPTO and rule making. I would also like to recognize our silver sponsors, Goodwin Procter and McAndrews, Held & Malloy. We greatly appreciate their support, and we hope they will continue to think of us in the future.

† The Journal would like to thank the sponsors that made this Symposium possible. For their generous support, we extend our gratitude to our Platinum Sponsor–McDonnell Boehnen Hulbert & Berghoff LLP, as well as our Gold Sponsor–Knobbe Martens Olson & Bear LLP, and our Silver Sponsors–Goodwin Procter LLP and McAndrews Held & Malloy LLP. Thank You.

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I would like to give special thanks to Evan Boetticher. He's worked tirelessly since last fall to put this all together, and I think it will show in how well organized it is, and I think that's a credit to him. I am sure he will be taking a well-deserved break at the end of the day. Two quick administrative announcements before we get started. If any attorneys would like to get CLE credit for attending today's events, the forms are outside. Just make sure you get a chance to fill them out before you leave. Also, we are starting an e-mail distribution list to announce publication of each issue as well as other events, like this symposium. If you would like to receive those announcements, please be sure to sign up outside. The form is right outside the door. At this time, I would like to welcome the dean of Northwestern University School of Law, Dean Van Zandt.

MR. VAN ZANDT: Thanks, Vishesh. This is an ongoing conference. It's happened every year. I think it's a fabulous thing for the Law School. Certainly, I add my thanks to Evan, because I know what a lot of work it is, and I know what a great job he's done. In fact, the first panel and I were just discussing it, and outsiders were complimenting on how well it was organized. So I think you should take that to heart. IP technology is becoming more and more important. Here at Northwestern, we have seen, actually, an increase in the percentage of our entering students who come with technical, science, or engineering backgrounds. And we have quite a few people who have worked in the industry before they came to the Law School. So it's something that I see is going to be a growth area for a long, long time. In fact, if you look at the information about the legal services industry and where there's been growth in the last couple of years with the economic downturn, the latest reports show that revenues in the industry are down about 10 percent in 2009. There's continued to be growth in the IP area, whether it's IP litigation or other types of IP work. I don't see that stopping in the way technology keeps moving forward.

One of the things relevant to the legal services industry is the case In re Bilski, which you are going to hear something about on the first panel. This patent issue is one that a lot of law firms are starting to look at in terms of whether they can do things that are actually protectable. They are looking at whether they can either sell or otherwise take advantage of various kinds of research, various kinds of forms, kinds of methods of actually doing the practice of law that may be patentable in the future, depending upon the outcome of In re Bilski. The last thing I want to say is something of an announcement. We are right now in the process of discussing with McCormick School of Engineering an arrangement in which we would have a number of McCormick faculty here doing for-credit technology briefings in different areas for our students. That will be a real addition to the students interested in various types of IP. The idea is to have a different way to inform our students about issues in biotech, computer science, electrical engineering type things, or even civil and mechanical engineering because our students end up being out there. They have to understand that stuff anyway, and they have to learn about it, and it's good to have, at least, a good briefing to start off with. So I am very pleased about that.

Finally, I would like to thank Sharon Barner. Thank you for joining us today and being with us and being our keynote speaker. If you have some free time, please come over to the Law School. We are right next door. We have a lot of things going on in the Law School. This building is a mixed building between Kellogg and the School of Continuing Studies. Come over to our main building and look around. I think we have a
The beautiful Law School. So again, congratulations to Evan, Vishesh, and the rest of the Board for putting this together. I think it will be a great day. Thank you.

MR. BOETTICHER: I would like to thank the Dean for his kind words, and we appreciate you starting off what we hope to be a wonderful symposium. Our first panel today concerns a case that has spanned the length of my legal education. On April 10, 1997, Bernard Bilski and Rand Warsaw applied for a patent for initiating purchases and sales of commodities at fixed prices for the reduction of risk. Rather than rejecting the patent for obviousness, the examiner rejected the purely business patent as unpatentable subject matter. The case was heard before the Federal Circuit in October of 2007, one month after my class started law school. An en banc Federal Circuit heard the case May of 2008. After rejecting two other possible standards for patentability, the Federal Circuit ruled the application unpatentable, because it was not linked to machine or transformation. This was not without its dissenters. Last November, the case was argued before the Supreme Court. And at the pace things are going, we may not have a result until after I have graduated, making our dearly-paid-for education obsolete faster than we originally anticipated.

Today we have four excellent panelists that we expect to supplement all of our education. Daniel Williams is a practitioner in this field, who graduated with a degree in computer engineering from University of Michigan, and received a law degree from Harvard Law. Mr. Williams is experienced in a number of technical areas, including software development, operating systems, and microprocessor architecture, as well as both patent and trade secret litigation. Mr. Williams is also the editor of MBHB's Snippets newsletter. Jonathan Masur currently teaches administrative law, patent law, behavioral law, and legal theory at University of Chicago.

Professor Masur received a B.S. in physics, an A.B. in political science from Stanford University, and a J.D. from Harvard Law. After law school, Professor Masur clerked for Judge Posner of the 7th Circuit, and Chief Judge Patel of the U.S. District Court of the Northern District of California.

Matthew Sag is a professor at DePaul University College of Law here in Chicago. He's also been a visiting professor at University of Virginia School of Law and here at Northwestern University. Professor Sag has a varied and international background. He acquired his law degree with honors from the Australia National University and went on to practice law in the United Kingdom and Silicon Valley. Professor Sag is the co-author of the recent article "Taking the Measure of Ideology: Empirically Measuring Supreme Court Cases," in which he considered the effects of ideology on how the Supreme Court rules in intellectual property cases.

Finally, we have Joshua Sarnoff. Professor Sarnoff is a graduate of MIT and Stanford Law, who currently is a professor at Washington College of Law, American University, where he teaches patent law, and is visiting at the DePaul University College of Law. Professor Sarnoff has written numerous articles and book chapters on patent law and has been involved in a wide range of intellectual property legal and policy disputes, including filing an amicus brief on In re Biltski when it was at the Federal Circuit and in the Supreme Court.

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1 At the time of this Symposium, Professor Sarnoff taught at Washington College of Law, American University. Currently, Professor Sarnoff teaches at DePaul University College of Law.
I would like to thank all of you for coming today. I would like to thank our attendees, and I invite the audience to take part in a conversation and open discussion in which we will review the possibilities for the Bilski decision before the Supreme Court. I would like to take this opportunity by starting off the questions by asking Mr. Williams, for starters, and move down the line. What's the big deal? If the Supreme Court does uphold the machine-or-transformation test, that's not necessarily the end of business patents, is it? Because business patents could still be linked to a machine fairly easily. So what would really be the long-term effects of them overruling the machine-or-transformation test?

MR. WILLIAMS: I think it would have an impact. I think it would have an impact on claims like the claim in Bilski, claims of tax strategies, particular business models, such as a pyramid scheme or something like that or a different way of putting together a business’ architecture. I think there are a number of things that wouldn't be easily tieable to a computer implementation. So I think it would have quite an impact. So that's my initial take.

PROFESSOR SAG: I was going to say, the question is, really, do we lose anything that we don't want to lose? I think from the perspective of the live software companies, they can and do patent all their inventions in a number of different ways, and for most companies, Bilski is only going to strip out some claims of some patents if machine-or-transformation is upheld. The real question is, do we lose anything by no longer having patents on things like tax strategies and methods of legal practice?

PROFESSOR MASUR: First of all, I want to say thanks to Evan for organizing this. It's exciting to be on a panel with people who know so much about the issue. One thing I think I want to highlight is that, in my mind, the major question that faces the Supreme Court if, as seems likely, they are going to adopt some version of the machine-or-transformation test, is whether or not they are going to permit general purpose computers to fulfill the machine part of that machine-or-transformation test. So the original Federal Circuit opinion in Bilski was, sort of, ambiguous on that issue. It didn't really state quite clearly whether a general purpose computer would satisfy the machine element, and Bilski's patent doesn't include a computer as part of it.

Immediately after Bilski, the Patent and Trademark Office through the Board of Patent Appeals and Interferences handed down a series of rulings which indicated it did not think that a general purpose computer was adequate to satisfy the machine-or-transformation test. And then, within a matter of months, the BPAI reversed itself. And so the standard in the BPAI, when combined with Bilski, was that a general purpose computer was, in fact, sufficient to satisfy the machine-or-transformation test.

I would say this is the whole shooting match: if a general purpose computer is enough, then nearly everything is in bounds. Software is in bounds. Lots of tax strategies, although, maybe not all, are in bounds. A lot of the methods—standard business methods, including the sort of thing that Bilski wants to do, are in bounds also. The vast majority of the commercially viable sorts of things that people want to patent that we would call business methods or tax strategies, or anything of the like, have to be performed on a computer. If a general purpose computer is excluded, then all of a sudden all of these things might be very difficult to patent, or they might have to be tied to particular types of machinery that will really limit the scope of the patent in important ways. So at that point, business methods, tax strategies, software patents all become
substantially less useful, less powerful property rights. They may protect particular applications using particular pieces of hardware, but they are not going to be particularly strong in terms of general coverage, and a lot of them may not be obtainable at all. Software patents, for instance, might be next to worthless at that point.

¶18 There's a question then at that point about whether we think that those are the sorts of things that are worth losing or may be beneficial to have lost. And I think that Matt has raised all the right questions about that. But I do just want to highlight that the Supreme Court faces a clear crossroads here. And there are indications that the Court may shy away from making categorical statements about the applicability of the general purpose computer, and whether that is sufficient or not. It may want to push that issue aside or leave it for another day, in which case it might very well be, depending on the behavior of the Federal Circuit and the Board of Patent and Interferences, that the floodgates will remain open, and potentially everything that was patentable before Bilski will remain patentable after Bilski, as long as there's some clever drafting.

¶19 PROFESSOR SARNOFF: Most of what I have to say is very similar to Professor Masur. The actual language is a “particular machine,” and you have to figure out whether the Supreme Court is going to say anything about the nature of the invention, and whether different kinds of claim drafting, where you add other pieces of structure or add things that you do the processes on, is really part of the invention for patenting. Then you have the question—whether those things are things you actually want to protect. But it's not just general purpose computers. Looking back at BPAI decisions, there's actually a fairly good summary from 2009 by Sterne & Kessler. You have databases. You have displays of data. You have software. With a few of them, the BPAI is acting inconsistently, but by and large those types of additional structures were found not to be a “particular machine” implementation.

¶20 The much more interesting question is Beau regard claims. And you have directly inconsistent panel rulings as to whether or not the software, which is really just a program set of instructions—that's where the invention is—is the type of thing that can be patented when reduced to a tangible medium of some sort. It's an interesting question. And this goes back to the heart of the Supreme Court's difficulty between Flook and Diehr. You have what's clearly an article of manufacture, which is a hard drive, for example. That's not the invention. The invention is the software. If you put the software on the hard drive and claim them together, do you have now an article of manufacture as your invention or do you just claim the software in an article of manufacture? That's what the Supreme Court has got to figure out: what's the invention? How is it being claimed, and are we going to allow the additional structures to change the nature of the invention for purposes of patenting. We really don't know what they will do with these questions.

¶21 MR. WILLIAMS: This makes me wonder how much is really on the table for the Supreme Court to decide here because the Federal Circuit really said that there's the machine-or-transformation test. Clearly Bilski's claim has no machine; so this is a transformation case. Not only that, but they wrapped the process circle around the entire case. So I am just wondering if they will even weigh in on these other statutory categories. It seems intellectually like it should be the same analysis. If you can or cannot get a patent on a process that's operated by—that's just a computer operating software—shouldn't it be the same result if you claim it as a computer having the
following software, or a computer readable medium having the following software, or software where the rest of the claim is exactly like a method claim would look? So all these things intellectually seem equivalent, but I was wondering procedurally if the Supreme Court is even going to feel like those are issues that are presented to them in this case.

PROFESSOR SARNOFF: Certainly, the U.S. Government said, “Don't go near these issues.” From the argument, as I have wrote in a blog post, I had the feeling that that the Courts would rule extremely narrowly, at least for whatever the majority or unanimous holding of the Court is. There may be concurrences. They may start hitting on some of those issues, but, again, those won't be a majority—just a large plurality of concurrences. So I think you will be left with a desire for more guidance that won't come out of this case.

PROFESSOR MASUR: I think that the Court feels as though its role here is to scale back on the granting of business patents and other things of the sort. So I think there are genuine desires for a narrow holding. And these sorts of questions of the Federal Circuit will be tempered only by the felt need to actually take some sort of a step against widespread patenting of software, tax patents, et cetera. And the Court really sees its role—the Roberts Court, especially in the last several years—has really seen its role as pushing back against what it views as over-patenting in the Federal Circuit and excessive permissiveness there. And so my sense is that the Court would not—I mean, one thing the Court could do is simply reaffirm the machine-or-transformation test, and leave all of the details to the Federal Circuit and the PTO. I don't think that is the easiest outcome. That may be the most likely outcome, but I think that the Court will hesitate at that, because I don't think they will believe that that will represent a sufficient curb on what they view as excessive patenting. It will feel the need to reach out and try to do a little more, despite the fact that a lot of parties, including the Government, have been trying to push it to stick to the very basic outlines of formulating the proper test.

PROFESSOR SAG: I think that the Supreme Court probably went into the Bilski case wanting to do more. But one may suspect, after looking at the oral argument and briefs, that they may realize doing more is more difficult than they thought. So if we see an affirmation of machine-or-transformation, we are at best going to see some general guidance that, I think, is still going to push most of this back down to the Federal Circuit. I just don't think that the way forward looked particularly clear at the end of oral argument for—the critical question is, machine or transformation? Tell me again what a machine is. Tell me again what a transformation is or isn't. I would be very surprised if they said anything that was particularly specific. I think they are going to have to push this back to the group of people who are probably least able to deal with it, which is the Federal Circuit.

MR. WILLIAMS: I think there's a tension between these comments and the fact that they took the case at all. Because in a non-patent situation, where there's multiple Courts of Appeals, such as the 9th Circuit, 5th Circuit, etc., often the Supreme Court takes a case because there's a split. But in the Federal Circuit context, it's a single court that they are deciding whether or not to grant cert. on a case—on a decision from the Federal Circuit. So it seems to me that they wouldn't do it if they think the Federal Circuit got it right. I know it only takes four justices to grant cert. So I would say at least four of them think they didn't get it right. There's just been a history recently with KSR
and Festo and some other cases where the Federal Circuit has done something in the name of certainty; said this is the test. This is it. And the Supreme Court said, “No, it isn't.” That isn't the only test. And the teaching-suggestion-motivation issue in KSR is very analogous to this.

So if the Supreme Court's goal is to curb overpatenting, I don't know that they would have granted cert on a case where the Federal Circuit said no to a claim. I think that what's likely to happen, at least in my view, is something similar to KSR. In KSR, they said if the prior art contains teaching-suggestion-motivation, that can be enough to show obviousness or a reason to combine. But the absence of it doesn't necessarily show the absence of reason to combine. I think this case may come out the exact same way, where they say, yes, if something passes the machine-or-transformation test, fine—it passes 101. But if it doesn't, that doesn't mean it doesn't pass 101, and that—I don't know that they will give much guidance other than that, and that they will probably agree—I would think they would agree that this claim does not meet the standard of 101. But I am guessing they will just find some precedent of theirs where they say that claims or ideas that are too abstract or too abstractly stated are not patent eligible, and just leave it at that. I am not sure how much further they can go. Who knows what they will do, of course. But at least that's my guess about approximately what the decision will say.

MR. BOETTICHER: So at the Federal Circuit level, the Federal Circuit rejected two other possible systems for determining patentability. So going back to what you were just saying, Mr. Williams, is it possible that they might go back to those or say that machine-or-transformation is one standard, and if you don't meet that, then it's possible we will use the other standards? Are they going to create a hierarchy? Are the other two standards that the Federal Circuit, sort of, pushed aside, are they still viable, do you think, or do you think that they are out of the picture at this point?

MR. WILLIAMS: I am not sure whether they will revert to a test, because I am not sure that they ever had a test. And I think even the Federal Circuit wasn't quite sure. It's just a very weird decision, the Bilski Federal Circuit opinion, because they say, we have looked at all the Supreme Court cases, and what comes out of that is that the machine-or-transformation test is definitely the test, even though the Supreme Court said, well, not necessarily. And then they decided that was the test, and then projected their test back on the Supreme Court cases, and gave themselves an “A” for their effort. And even in the Federal Circuit decision, the quote that you would quote in every brief that says what the test is coming out of the Federal Circuit decision, includes a word that just drives me crazy. It says, "A processed claim is surely patent eligible." Surely. If it passes the machine-or-transformation test. So they, basically, came down with a decision that said, this is the test. If it passes this, it is patent eligible. If it doesn't pass this, it's not. But then their own phrasing of that test, basically, says that passing the test is sufficient, but not necessary. So it's a mess, I think.

PROFESSOR SARNOFF: I have a couple of thoughts. First, why did the Supreme Court take it at all? It was an exceptional case, in part, chosen by the Federal Circuit to pull back from the broadest expansion that they had themselves created. They took it en banc, on their own, after argument and before a panel decision, which almost never happens. There were a couple of other exceptional features about the case. It was also timely, I think—and particularly after LabCorp, the Court had signaled they wanted another subject matter. The time was right; it just may not have been the best case to
take, even though it was set up, this vehicle, earlier. I totally agree with your thoughts about KSR as the model.

¶30 The problem is that when you have a test and you say it's not the exclusive test, and you are saying that it fails that test, then you have to come up with some other thing on which to reject the claim as not being patentable subject matter. They don't have a theory here of what, other than machine-or-transformation, makes something patentable, and that's where you are going to get, I think, the concurrences articulating different theories: the technological arts test possibly, and the abstract idea test possibly, and the abstract idea test possibly. Since Justice Stevens wrote Parker v. Flook, I assume he hasn't changed his view that it's a point of novelty test. You need something that is more than extra-solution activity test, and this doesn't meet it. But no test is going to command a majority of the Court for any of those theories.

¶31 So what would the Court do in saying that the invention is not a machine-or-transformation, but it's still not patentable. The only thing I can think of they might do that might pull together nine votes is to say that it just doesn't look like anything we have seen before that we have allowed. It's not like an industrial process and, therefore, it just isn't patentable. My sense is they will analogize to old cases and not come up with anything that's theoretically capable of being extended. And then we are back to the Federal Circuit. What do they do?

PROFESSOR MASUR: The verbal formulation the Supreme Court chooses, I think is a lot less important than particular details of how that verbal formulation is operationalized. So you can have a very lenient machine-or-transformation test. You can have a very strict machine-or-transformation test. You can have a very lenient tangible result test. I think the Federal Circuit said if they went with a tangible result test, it would lead to widespread patenting, including on Bilski's patent. You could have a very strict tangible result test, if you just define "tangible" in a very limited sort of way. So the particularities are what, I think, are important in the question we are raising. And, to a large degree, what we are in agreement on is that the Supreme Court has been having a difficult time sorting out those particularities.

¶33 I think it's also worth noting, I don't think the Supreme Court has a lot of really good options available to it, simply because all of these verbal formulations are not particularly useful. So, it could make an actual technological—say something like, nothing that is a business method can be patented. That raises all sorts of definitional questions. It may open the door for creative patent drafting, and escaping from those sorts of boxes. It could remove all limitations and just say anything that is useful and novel is patentable. I think the Supreme Court doesn't want to do that and sees the patent law going too far in that direction.

¶34 So now it's left with things like machine-or-transformation, with or without computers, tangible result, results that are more or less tangible, and so forth, all of which have their problems and all of which create lots of confusing issues that the Court probably doesn't want to sort out on its own accord. So, it's a problem, in part, with the institutional posture of the Supreme Court. It knows the direction that it thinks patent law should go. It thinks there's been too much patenting, but it doesn't quite have the legal tools to get there. And it doesn't trust the subordinate acts of the Federal Circuit well enough. Because the whole point of this case and this whole line of cases the Supreme Court has taken under the Roberts Court, Merck in 2005, and e-Bay in '06, then KSR, and
MedImmune, AT&T, and Quanta, the whole point of all these cases is that the Federal Circuit is not to be trusted to expand patent rights too far, too fast, too much. So I think the Court is going to be in a real quandary. It might be that they are just going to take the narrowest and simplest option, and opt for something that is, sort of, simple. But I think they will do that with great regret because they don't trust the Federal Circuit to do a good job.

¶35

MR. WILLIAMS: I think they want to tell the Federal Circuit that they were wrong to say that this is the test. And I think they also want to say that this claim, Bilski's claim one, is not patent-eligible subject matter, and that's a difficult road to walk. But what I am hoping they do, and what I think, really, should be the central concept in 101 analysis, is abstraction. And this is kind of my pet issue when it comes to 101. I don't think it should be analyzed exactly like enablement is in 112, but I think it should be, basically, a threshold-like, “112-light” type analysis. I think we should go back to first principles here, which is that the whole point of the patent system is that against the backdrop of not liking monopolies in a free market capitalist economy, we will grant them when we get the commensurate exchange from the inventor of enriching the public with a description of how to do something. And I am not sure that claims like this can hold up the inventors' end of the bargain, because as I read this—kind of just to back up again for a second. So I really think that 112 is a test for whether or not the drafter or the applicant has actually enabled their claim. And I sort of think 101 should be whether or not they even could.

¶36

Again, with the big bargain that the patent system is supposed to be, in exchange for your monopoly, you are supposed to give others in that field something that's portable—kind of, portably useful, that they can take and use in their own business. And as I read this claim, I don't know how you could give this to someone else in this field—whatever this field is—commodity buying and selling, and that they could start from there. I mean, that's the whole point of the patent system, is that someone should be able to stand on the shoulders of what's come before. And this claim, to me—I would read this and say, how do I do this? I mean, how do I identify these market participants? How do I pick these rates? How do I strike this risk balance? You can't turn someone into a good business person or a successful business person by telling them to manage their risk, and to have some transactions and some other kinds of transactions that ultimately arrive at a hedge position for your company.

¶37

First of all, that's not new. But I don't see how you could just tell someone to do that, and then they would be able to do it. So that, to me, is—it's centering around this idea of abstraction. And this is too abstract to be useful to anyone. And so I think it should fail 101 for that reason. I am hoping that's what the Supreme Court says; that the Federal Circuit got it wrong in saying that machine-or-transformation is the test. If you pass it, fine. It satisfies 101. But if you fail it, you don't necessarily fail 101.

¶38

The question is, is what you are claiming too abstract to be enableable? And it just makes me think that this whole preemption stuff that comes through in the Flook and Diehr cases is a red herring. I think it gets it wrong because to me, you shouldn't get a patent just because you are asking for less than what you thought of. And if you come up with a foundational idea, then you deserve a patent with that level of scope, whether it preempts everybody else from doing that or not. By definition, claims do that. They preempt everybody else from doing what they say. And I think you can just track the
cases where they said, yes, this preempts the use of this idea as saying this is too abstract. And cases where they said this isn't preemption, it's a specific application, like the Arrhenius equation in Diehr. And what they should have said in Flook with the alarm limits is that it is not too abstract, because someone could actually take what you have written and go do that, and not have to reinvent it. So, 101 analysis should be kind of like a pre-112 analysis. Ask, is this even the kind of thing that could be enabled? And if it's not, and it's too abstract, then it fails 101. That's, kind of, what I have been thinking about.

PROFESSOR SAG: I don't disagree with what Daniel has said here, but I can't help wondering that if all we are using subject matter eligibility for is to release patent scope, then, perhaps, 112 becomes a little bit redundant with 101. In other words, if we use enablement to police the scope of the patent claims and now are we just going to have two different assessments, really, of patent scope, and no other guidance? Hopefully the Supreme Court will say something useful that reinforces that claims that are too abstract are not patentable subject matter. But if that's all that comes out of this, then it's going to be disappointing.

MS. BARNER: This is the whole concept of scope when you are talking about what's patentable, about line drawing. Where do you draw the line? But yet, when you talk about the Federal Circuit actually trying to draw a line, the criticism is, you can't have a line drawn so that you can give some clear guidance to people about what's patentable and not patentable. So in light of all your discussion that you had, how do you draw a line here?

PROFESSOR SARNOFF: This is why abstraction doesn't work very well, because you have a level of generality problem, about what the actual invention is that you are trying to claim now is too abstract. So take the claim at issue in Bilski. It could be that the concept that one looks to for abstraction is hedging, or it could be that it's a fixed price hedging, or it could be that it's commodities fixed price hedging, or it could be, as claimed, the specific interaction methodology for fixed price commodities hedging. At that last level, it probably is both useful, practical, and fully enabled. The question still is, is this the kind of thing we want? It's not abstract in the same way that we think of scope problems, because you are talking about a practical application of hedging. This is why I agree.

Preemption analysis makes no sense at all, because all you are saying is you figured out hedging. Now all you have to do is write 12 different claims to different applications, and somehow you have avoided the eligibility problem. You swallowed the entire area in small bites. If there's a problem with giving you rights on the big concept, there should be a problem giving you rights on the small one. It is the same type of "thing," even though you have added details about how to limit its scope. So that's why line drawing is not easy here. Line drawing isn't any easier under any of the other tests. So what is technology? May I suggest that's not going to be an easy line. If we are going to do line-drawing—where is the invention, and where is the extra-solution activity? That's not an easy one. It's all about line drawing. Now the question is, what kind of line are they going to give us? I think the unfortunate thing about this case is that when they give us a holding—they are not going to give us a rationale that helps draw the lines in other cases.
AN AUDIENCE MEMBER: Rather than a pre-112 analysis, why not just go straight to 112 or straight to 103, and if it passes those, then do 101? Why is 101 necessarily the first hurdle that has to be jumped for patentability?

MR. WILLIAMS: That brings to mind the fact that the Federal Circuit said in their Bilski decision, I think, that 101 is a threshold, and you have to pass that before you even get to the rest of them. But, I mean, that, to me, is just a question of what order you evaluate these things in. They are all threshold inquiries. You have to pass 112. You have to pass 102 and 103. Intellectually, it may make sense to not have 101, but it's there. And so maybe all it should be is just evaluating whether or not this thing that you are claiming fits one of those four categories that's listed in 101, and then get on to enablement and novelty and non-obviousness, and figure out whether you deserve a patent.

PROFESSOR MASUR: I don't think there is any particular reason to conduct one of these inquiries first. That's what's so odd about Bilski's patent. Even if he wins somehow, improbably enough, in the Supreme Court, he is never going to get a patent, because the thing is obvious. So I don't know why. It almost seems like they invited the rule that 101 is the threshold inquiry just so they could frame the question, and it could be taken up to the Courts. And I want to say something about the line drawing question. I agree with Josh that these are extremely hard lines to draw; maybe harder here even than in many other areas in patent law, just because the boundaries between areas of technology or between what's tangible and what's not are so fluid, and because with clever claim drafting, people are going to be able to skirt those boundaries reasonably effectively. For an effective line to be drawn, it's going to have to be drawn with a great deal of particularity. It's going to be almost impossible to come up with a one-sentence or one-paragraph verbal formulation. Somebody is going to have to make some hard decisions about technology.

I would say also that we are doing ourselves a disservice if we concentrate only on the types of lines that the rather ill-equipped Supreme Court and the completely untrustworthy Federal Circuit are going to draw. An even more important question might be, who else might we want to have drawing these lines? And I should say that the Federal Circuit has done such a mediocre job of setting these boundaries so far that I think it's time to reopen the inquiry into whether Congress should become more heavily involved in these sorts of questions or whether the Patent and Trademark Office is the right forum for trying to make these distinctions. I would be much more interested in seeing the PTO experiment with drawing lines between patentability and non-patentability than having the Federal Circuit muddle through with verbal formulation after verbal formulation.

Although, I agree with the practical fact that it doesn't look like Congress is going to pass legislation anytime soon. We are stuck in this world of second best, in which we have the Courts acting and filling the area, simply because Congress isn't capable of getting there itself. And as for the PTO, the PTO has never actually had the authority to make these sorts of rules on its own accord without being second-guessed by the Circuit Courts or the Federal Circuits after 1982 in all of the particulars. So given the opportunity to actually make rules that stuck, that the Federal Circuit wasn't just going to overturn, I think that there's no reason to believe the PTO would do any worse a job than the Federal Circuit has been doing already, and a much better one. I think at this point
it's worth trying because, to my mind, the tools of common law adjudication that the Federal Circuit is employing here is not up to the task of making these distinctions between what sorts of patents we want granted.

¶48 PROFESSOR SAG: There is one issue in here that probably won't even be mentioned in the Supreme Court's decision, and that is Article 27—of the TRIPS Agreement. TRIPS is part of WTO framework. It's the trade-related aspect. And that article requires that patents shall be available, regardless of field of endeavor, regardless of the field of technology. And I think it's going to be difficult for Congress, consistent with our international agreements, to write the kind of legislation that people who want to see subject matter restricted would have them write. I think pushing these decisions down to courts is easier; it's just harder to bring a WTO dispute about something that's more fluid and messy. And I think pushing it down to the USPTO might be better still from that perspective. That doesn't mean you are immune from international challenge. I also think—it's hard to imagine which country would bring that challenge in the WTO. But the Bush doctrine of ignoring our international commitments is still alive and well in the intellectual property circles. You don't even hear people talk much about the constraints that TRIPS might impose here.

¶49 PROFESSOR SARNOFF: I actually have the opportunity to disagree with everybody here on a number of topics. First, in regard to TRIPS, it depends on whether you are a textualist or a contextualist reader of Article 27. Here we are talking about distinctions that might say these aren't technology. Similarly, when TRIPS was negotiated and ratified, the U.S. and most countries thought the business methods were wholly outside the patent system, and most countries still think so. So I don't think there is a TRIPS violation. That said, I do agree that Congress is not permitted, particularly given the heat of the subject matter issues to ever take on subject matter. So we are not going to get it out of Congress. I will say that I think the PTO would do a good job, and should do a better job with rule-making power, to have some of its decisions stick. They actually were quite restrictive on eligibility and got beaten down by the Federal Circuit during the period in which the Supreme Court was giving the Federal Circuit free reign. They were quite progressive in trying to restrict the expansion of the patent system, until they just gave up. Now they are back in business, which is actually what led up to Bilski and the other cases. In defense of the Federal Circuit here, though, I actually think they are starting to –

¶50 PROFESSOR SAG: No.

¶51 PROFESSOR SARNOFF: I told you I disagree with everyone. I am going to defend at least this opinion on one ground—two grounds, actually. First, you have a nine-judge agreement on one single decision. We are looking for something that was at least the most authoritative holding they could get, and I suspect, pretty strongly, that was the best they could get nine votes for. That's a mastery of negotiation. Not the best opinion. It's got lots of problems. The other thing they did right is, I think they correctly analyzed and interpreted the Supreme Court case law, which is inconsistent and gives little guidance, with the one exception of saying machine-or-transformation is the only test. But even then they say it's the only test for now, which leaves it open to say it's not the only test in another case. So I think they did the best they could. And they have clearly gotten the message, which is—they needed to do something before the Supreme Court did to show that they were “back with the program” of patent law.
Finally, in regard to the reasons that 101 actually should be the threshold; it has two really important functions that people don't understand. The first is that it directs industrial policy. Because if you know that you can't get patents for certain types of things, it will channel funding and channel activity in various ways. This is why, actually, 101 should be a gatekeeper. But depending on the doctrine you adopt, it also has the advantage of saving the PTO tremendous amounts of resources, because in many cases, unlike for novelty, enablement, over-breadth, and obviousness, you can, from reading the disclosure of the application itself, determine that the contribution beyond the discovery is not patentable. So it actually is a much more administrable thing to keep stuff out, and that's why it's a gatekeeper.

PROFESSOR MASUR: None of that is to say that if you are looking at patents, it could be invalid on any different grounds. You have to answer the 101 question before you answer the 103 question.

PROFESSOR SARNOFF: Well, the 101 question actually is usually easier to answer because—at least if you are using point of novelty analysis—all you have to say is, look, if there's no eligible invention, it's clearly an obvious invention also, right?

PROFESSOR MASUR: That doesn't mean in the infrequent case where it is more difficult to answer than 103, that doesn't mean you should be allowed to skip over 101 and move on directly to something else.

PROFESSOR SARNOFF: That's a question for the PTO. That's an administrator choice.

PROFESSOR MASUR: It has become a question of why Bilski is in the Supreme Court, because we only have this case because they felt.

PROFESSOR SARNOFF: I think it should have been rejected on lack of novelty.

MS. BARNER: Let me say here from the PTO's perspective, when you look at the difference between rejecting something on 101 and rejecting it on novelty, 101 becomes much more of a legal issue. Does the law say you can or cannot patent this subject matter? You are not looking at prior art cases, which are subject to dispute. When you go to obviousness or those other things, you will have a more lengthy dispute in terms of resources in time over where those issues may wind up. So if you were picking up an application and you had a legal issue to deal with, and one that could require you to look at lots of prior art, and then be subjected to lots of dispute over whether you read the prior art right, I think your resources would say go to the 101 issue first.

PROFESSOR SARNOFF: Every time.

MR. WILLIAMS: That's fine, if applications are getting filed at all. If there's a harsh 101 standard, and applicants say, it's not even worth it to file this thing—

MS. BARNER: Oh, if that were true.

PROFESSOR SARNOFF: Application 2008-103804, Bank of America the assignee, a method of assessing countries for investment risk. No technology is involved; just assign a code and a certain risk level to the different countries.

MS. BARNER: We will continue to push the edge on subject matter, which they should. And that's part of what the Patent Office does. It, sort of, looks at these things. So there ought to be some limiting factor so that you certainly get the resources amenable to what you are putting in. So it certainly is intended to give people some guidance over what is patentable and what is not. But you will continue to have people who push the edges on those things. That's why you get growth, and where technology areas are. So I
do think that it serves a purpose, but I don't think it would completely eradicate people from submitting applications that don't fall within the standard.

AN AUDIENCE MEMBER: On the line drawing question that you guys were talking about earlier, one of the things that we have seen since KSR is the Federal Circuit taking KSR and reinterpreting it. How are we going to apply this in the chemical context? That became a mess. And what do we do? So could we see a Bilski version that comes out with a pretty broad test that then the Federal Circuit takes and runs with, similar to what they have done with KSR?

PROFESSOR MASUR: I think that's likely; probably the most likely outcome.

AN AUDIENCE MEMBER: Then the fear is kicking it back to the Federal Circuit?

PROFESSOR MASUR: The fear is that any limitations the Supreme Court wants to impose become useless once the Federal Circuit gets a hold of it.

PROFESSOR SAG: It's useful to try to step back and say, "What kinds of things would people like to patent that might be more difficult for them to patent?" My reading is that any piece of software that takes data in one form and, through some new and useful and non-obvious process, converts it into data in a different form, that that's going to be—that's going to be a transformation. And so even not tied to a machine, it's probably patentable. Now, if I am wrong on that, then this is a very significant decision for the patentability of software. And that's just one example. I think that, probably, we are going to see the Federal Circuit, figure those things out case by case. I find it hard to analogize—is this going to be an issue at all in chemistry? It doesn't seem like it would be.

AN AUDIENCE MEMBER: A really important area that affects chemistry and medicine is diagnostic medicine, and we are already seeing this happen. And there's no question that from the viewpoint of medicine, advances in diagnostics are extraordinarily important and profound. Just as an aside, osteoporosis, the current test today is the bone density test. It has virtually no correlation with bone breakage, which is the thing people are trying to solve. And so now there's a lot of investment, a lot of money that's being focused on trying to solve those diagnostic problems as our understanding of the disease advances. But it's exactly those types of things that are now being denied, based on Bilski. So I wonder if you guys have any experience with some of that or some comment on that issue.

PROFESSOR SARNOFF: The short version is, read the brief that I filed in the LabCorp v. Metabolite case. I am opposed to patents on diagnostics where the only invention is the recognition of the natural medical phenomenon. More basically, though, you are just not going to get good guidance out of this case. Remember what this case is about. This case is about a method of interaction for a particular purpose, hedging risk, without any technological limits involved. There is no specific way of doing it, other than that you have to enter into agreements with people. Now, how is that going to translate into diagnostic procedure analysis, software with or without certain types of structures—it's just not going to translate well in terms of the holding. And the Government has told the Court, please don't say anything about those areas. So I just don't see getting guidance on any of these issues anytime soon. The case to watch, of course, is the ACLU case against Myriad Genetics' gene patents, which might have some effect on medical technologies of various sorts. My guess is they will GVR the
Prometheus v. Mayo case and send it back. But then they haven't said anything that helps us to extrapolate from Bilski.

¶72 MR. WILLIAMS: I want to follow up real quick on the point you were making about how 101 shapes economic behavior. And if that is our goal, it seems, to me, that we should grant patents on things that require investment and research and development, like new pharmaceuticals and new cell phones, or whatever. Things that companies wouldn't do; they wouldn't put in the time and money to develop these things if they could just be freely copied, and they would lose the entire value of their investment. That's almost undeniably the case in things that clearly satisfy 101.

¶73 But as far as things like the Bilski claim or pure business methods, you know, corporate structures, all of that kind of stuff, I am not sure that any company would not look for ways to run their company better just because other companies could do it also. I don't think it's the same kind of ex ante analysis. And I don't think there's any need to incentivize businesses to run themselves more efficiently and do other things that improve their bottom line at the end of the year. What we need to look out for is, we need the benefits of companies investing in developing new inventions, whether it's new drugs to help people in a medical way or new gadgets, or whatever, that just wouldn't happen if patents were unavailable.

¶74 PROFESSOR SARNOFF: A two-second response. In the recent NIH report in regard to gene patenting, the views of many of the clinicians are, for certain types of biotechnology relating to genes, that we don’t need these patents, even though the argument is that we need to have these patents for the investment from the corporate side. The NIH view is that we really don't need them, and it's worse to have them for development and innovation. So reasonable minds can differ on the issue. But that's precisely the question, and why this is such an important issue, and why 101 drives people emotionally in a way that most patent doctrines don't.

¶75 MR. WILLIAMS: If there's something like this properly managing your risk, all this kind of stuff, the companies would do anyway, whether other companies are doing it also, I just don't see how the public benefits from giving certain companies a monopoly on such things.

¶76 PROFESSOR MASUR: I completely agree with this framework of analysis. We should be asking the question of whether companies will be taking assertive action regardless. And I agree with a lot of Daniel's intuitions about areas in which we do and do not need patents. It's hard to know a priori whether we are going to absolutely need them or not in a given field. So, it's conceivable—suppose the tax strategies we thought were really valuable for the economy—it's conceivable companies would not innovate tax strategies, spend the money to develop them, if, in fact, they thought a competitor was going to steal the idea right away.

¶77 Similarly with diagnostic tools that you bring up, I don't really know. I don't have any sort of prior intuition about whether companies will spend money to develop diagnostic tools even if they think they can't protect them with patents or the threat of other companies swooping in and stealing the idea is too great. We just have to know on a technology-by-technology basis, or at least we have to have some pretty good rules of thumb to decide. In the area of business methods, we are getting some pretty good rules of thumb; in the area of pharmaceuticals, for instance. In a lot of cases, we have some pretty good rules of thumb. In a lot of these areas, it's just very difficult to know. And
the problem is it's going to be hard for a Court to sort out exactly what to do with the new area.

PROFESSOR SARNOFF: That's the traditional role that expert administrative agencies play; just not so much here. But, hopefully, the PTO will do so in the future, and they will continue to develop over time greater economic expertise to analyze these questions.

MR. BOETTICHER: If the machine-or-transformation method is upheld, does transformation really help us at all? It seems like a pretty vague standard, I mean, even for the law. And you touched upon this a little bit. I mean, is it really going to be a helpful standard or do you think the Supreme Court will bump that down to the Federal Circuit as well, and we will keep putting along with it for awhile?

MR. WILLIAMS: What I would say about the transformation prong of this test is that I think it would be great and very useful and intellectually sound if it was actually compartmentalized to things that transform physical things into other physical things. But when it gets watered down by—I can't remember the name of the case at the moment. It's that case about where you take data that was gathered by an x-ray scanner, and you turn it into this display that shows different parts of somebody's leg bone or something. There's a problem to say that that satisfies the transformation test because the data represents something in the physical world, to me, just makes that test—it's just watered down to the point where it can almost mean anything.

Apparently, Bilski doesn't satisfy it because these are just legal risks and business relationships, and all that kind of thing. But for that case in particular, I am a computer guy so I am kind of in favor of a positive view of software patents and general purpose computers, and things like that. I would have just said it satisfies the machine prong of the test because, number one, it involves this x-ray scanner, which, to me, is particular enough. But even if it didn't, to me, a general purpose computer with particular software A, that's a different machine, to me, than a general purpose computer with particular software B on it. It's just the fact that it's manipulating electrons and carrying out instructions and all this stuff and it's not gears and very mechanical type things. To me, it's just a bias against software and computers. And to say that those aren't two different machines is crazy. Basically, what the inventors in that case built was a machine that could take that data and turn it into some useful display, and that was a machine that worked better than machines that came before it, or a machine that didn't exist before their invention. And so to try to shoehorn that into a transformation test just makes the whole analysis start to suffer from intellectual lack of integrity.

MR. NARAYEN: I kind of wanted to follow up on Professor Masur's last point. It sounded like—correct me if I am wrong. It sounded like the lines or the factor that really matters in Subject Matter Analysis 101 is the field of endeavor; like that's the best way to look at it. So like you said, pharmaceuticals, we have got a pretty good rule of thumb. They need lots of protection. In business methods, I think a lot of people agree that you don't. People would continue creating innovative new business methods, because that's not where they derive their profits. But if that's true, isn't the sort of test that you are trying to construct need to span all these fields of endeavor, isn't that the entirely wrong way to go about it? If you were being intellectually honest, you would say, okay, 101 is about fields of endeavor. Some fields of endeavor, we think, don't need the help of the patent protection, and some do. The Supreme Court is not an expert in it. Neither is the
Federal Circuit. So maybe we leave it to some administrative body that can, sort of, develop expertise based on the experience with patents and different fields of endeavor. I know that's kind of a long, meandering question. But is that what, sort of, you were getting at?

PROFESSOR MASUR: Yes. I mean, I think you have summarized my views pretty accurately. I guess I would say it's not that what the Courts are doing is intellectually dishonest or the wrong idea from the beginning. It's second best. It's the best mediocre proxy for what we really ought to be caring about. It would be much better if we could get directly at the question. The two things standing in the way are, number one, TRIPS is not very helpful; number two, the fact that common law courts just aren't very well equipped to do this sort of thing. They are very good at verbal formulations and general testament to cover all fields. And they are not going to be more specific.

It's probably not a surprise that patent law has the technological neutrality norm where you are not supposed to make field—technological field level distinction. It's probably due in part to the fact that courts aren't equipped to make those choices either from the position of expertise or from a matter of the sorts of rules that courts aren't skilled at coming up with in courts of common law. I don't want to accuse them of bad faith. I just think it's not the best way of getting at the issues that we care most about.

MR. WILLIAMS: I think that fields of endeavor—you would have huge problems. There has to be some business methods that can be enabled and are new and not obvious that some other company can take and make their business work better because of it, and some that are just like—perhaps like Bilski; you know, just stated so abstractly that they don't—that they couldn't even be enabled; that they couldn't help anyone else but the expert who knows how to do this. This is the type of claim that you just couldn't make someone a good, smart, businessman by handing them this claim. And so I don't think that the subject matter exclusions will happen, and I don't think that they should happen, because it's inevitable that some category will have some applications that clearly are a technological advance, and some that clearly are not or would have no chance of passing the other requirements of the patent statute, 112, 102, 103.

PROFESSOR MASUR: If we thought we could make the right distinction by using methods other than Section 101, then we wouldn't even have to worry about Section 102 or 103. We thought we could solve this by looking at novelty and enablement. Then it doesn't matter what we do with 101. We are going to get the right patents, and it's all irrelevant. The problem, why this has arisen, is we think those tools have not been adequate to get us the right patents in a lot of different fields without some input from Section 101. We need something in Section 101 to curb this problem. What we have now is the situation in which patents across all of these fields are very widely available.

The question we should ask is, as between that circumstance or a circumstance in which patents in certain fields are not at all available or circumstances in which some patents in some fields are, maybe, harder to get, which of them is best for the economy for the country generally? I think if you ask people right now, what would be better, the current system of patenting or a world in which no patents on business method software were available, you would get a lot of votes for the latter view; that getting rid of them consistently would be better for the economy across the board. So if we can find some
sort of middle ground, maybe that's the direction we should go. The goal is to find a middle ground. The Court is not going to be particularly well equipped to do that either.

¶88 PROFESSOR SAG: I think one of the issues that tends to get overlooked in this discussion of field by field and patent by patent, is that the basic unit of analysis is not the patent; it's the claim. And there is a structural problem with the patent system in that almost every patent starts with garbage, and ends with something that's entirely defensible. It starts with something really broad and really abstract that is probably not enabled or is probably not novel, or maybe even not proper subject matter. And the PTO is under a lot of pressure. The competence of their examiners is probably distributed along a bell curve, like almost everything else. A lot of bad claims get through in the context of patents that were actually quite defensible. But then we are starting to develop a very liquid secondary market for patents, where entrepreneurs seek out those things that have issued, that have a presumption of validity, and then use them to impose an innovation tax, is one perspective, on companies that are actually out there, making things, engaging in research and development.

¶89 So it would be good if we got something out of the Bilski decision, and the decisions that follow it, that actually, sort of, lift the standard of patents generally. We are not just talking about excluding particular inventions and particular fields. We are also talking about changing the way things are claimed, and hopefully with less bad, vague claims in the system. And many of the problems we are dealing with today are a leftover of the late '90s when, with all due respect, the PTO dropped the ball and went through just a wave of junk. And I am not sure that Bilski is going to help us out here, but my hope is that it would.

¶90 PROFESSOR SARNOFF: It drives you back again to ask, what's the invention in the claim? Because the dependent claim’s structural addition really may not be any creative part of the invention. But it is part of the claim you have to analyze? That is the entire question.

¶91 MR. BOETTICHER: All right. So on that note, I think we will end this panel. And I would like to thank our panelists very much. That was a great discussion. And we clearly have a lot of talent here. For the next part, we are going to go upstairs to Room 540 where we are going to have lunch, and our keynote speaker, Deputy Sharon Barner, will give a speech. Thank you very much.