Drinker Biddle

Subject Matter Eligibility

University of Washington School of Law – CASRIP
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Robert L. Stoll

Drinker Biddle & Reath LLP

35 U.S.C. § 101 – Patentable Subject Matter

- Based on Constitution of the U.S.
- 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 therefor, subject to the conditions and requirements of this title.
- Software-related inventions can be classified as a process, machine, or manufacture

Judicially-Created Exceptions

- Based on case law from Supreme Court, specific exceptions are created
  - Abstract ideas (vague concepts)
  - Laws of nature (naturally occurring chemical reaction)
  - Physical phenomena (principles of gravity, fluid dynamics, mathematics)

Supreme Court Cases on Patent Subject Matter Eligibility

- *Bilski v. Kappos,* Supreme Court (2010)
- *Mayo v. Prometheus,* Supreme Court (2012)
- *Association for Molecular Pathology v. Myriad*, Supreme Court (2013)
- *Alice v. CLS Bank*, Supreme Court (2014)

Alice Corp Case

- Review of U.S. Pat. Nos. 5,970,479, 6,912,510, 7,149,720, and 7,725,375
- Directed to a computer-based escrow service for trades between two parties who are to exchange payment are settled by a third party as an escrow intermediary in ways that reduce settlement risk, i.e. the risk that one party will perform while the other will not
- Similar claim as the claims in the *Bilski* case
- Patents include method, system and device claims for the same software technology for financial transactions

Alice Corp Case: The issues

- Are claims directed to computer-implemented inventions – including claims to systems and machines, processes, and items of manufacture – directed to patent-eligible subject matter under 35 U.S.C. § 101?
- More specifically: Whether claims to a computer-implemented method to mitigate “settlement risk” by an escrow system are patent-eligible under 35 U.S.C. § 101?

Holding

- Method (process), system (machine), and computer-readable medium (manufacture) claims all patent-ineligible under § 101
- The Court decided to use the two-step analysis from the *Mayo v. Prometheus* case, essentially same as Judge Lourie's plurality opinion below in the Federal Circuit *en banc* decision
- Definition of abstractness still arguably vague

Supreme Court's Methodology

- Application of *Mayo* to abstract idea exception
  - *Mayo* considered whether claimed processes relating to "treatment of an immune-mediated gastrointestinal disorder" are patent-eligible
  - *Mayo* focused on the law of nature exception
- *Alice* Court applied *Mayo* test to the abstract idea exception, instead of the law of nature exception
- *Bilski v. Kappos* was the last case to focus on abstract idea exception

Mayo/Alice 2-Step Methodology

- Determine whether claim is directed to patent-ineligible concept, one of the exceptions
- If so, determine whether rest of claim adds significantly more, or enough to ensure the patent in practice amounts to significantly more than a patent upon the ineligible abstract concept itself
  - Consider claim elements individually, and "as an ordered combination," to determine if they "transform the nature of the claim" into a patent-eligible application
  - Search for an "inventive concept"

"inventive concept"

- Has been compared to "point of novelty" test of *Parker v. Flook* (1978) that was rejected by the Court in *Diamond v. Diehr* (1981) in favor of analysis of claim "as a whole"
- Mixes a novelty analysis usually reserved for § 102 anticipation or § 103 obviousness with § 101 subject matter eligibility analysis
- Many have interpreted *Mayo* as resurrecting the long-discredited "point of novelty" test of *Parker v. Flook*
- *Alice* Court argues it is a valid test because the claim is considered as a whole when looking for the "inventive concept"

What is an Abstract Idea?

Many influential judges believe that “abstract idea” cannot be clearly defined, and shy away from providing guidance

> “deciding what makes an idea ‘abstract’ is ‘reminiscent of the oenologists trying to describe a new wine.’” *Accenture Global Services v. Guidewire Software* (Fed. Cir. 2013, dissent by Chief Judge Rader), quoting Judge Plager in *MySpace v. GraphOn* (Fed. Cir. 2012)

What is an Abstract Idea?

- In *Alice*, the Supreme Court again avoided to provide a definition
- "[W]e need not labor to delimit the precise contours of the 'abstract ideas' category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here. Both are squarely within the realm of 'abstract ideas' as we have used that term."

What is an Abstract Idea?

- "An idea of itself" (*Benson*, which quotes *Rubber-Tip Pencil Co. v. Howard* (1874))
- "A principle, in the abstract, is a fundamental truth; an original cause; a motive" (*Le Roy v. Tatham* (1853))
- An algorithm
- A mathematical formula
- Fundamental practice long prevalent in a field (e.g., economics)
- A building block of science, economics, etc.
- Basic tool of scientific and technological work
- Certain methods of organizing human activities

What About Preemption?

- Supreme Court case law shows that preemption is a primary concern
- Does the claim preempt all practical applications of an abstract idea?
  - *Myriad* (2013): laws of nature, natural phenomena, and abstract ideas are "the basic tools of scientific and technological work"
  - *Mayo* (2012): "monopolization of those tools through the grant of a patent might tend to impede innovation more than [] promote it"
  - *Bilski* (2010): "would pre-empt use of this approach in all fields, and [] effectively grant a monopoly over an abstract idea"
  - *Benson* (1972): claim to implementation of a binary-coded-decimal algorithm determined to effectively be a monopoly on algorithm itself
  - *Morse* (1854): claim denied for use of "electromagnetism, however developed for marking or printing intelligible characters, signs, or letters, at any distances"
- Court wants to avoid monopolization of the abstract idea

Enfish v. Microsoft (Federal Circuit)

- Model of data – how elements of information relate to each other claims directed to improvement of computer functionality
  - Not drawn to “abstract idea”
  - Never gets to second step

Sequenom v. Ariosa (*on cert petition*)

The claims in *Sequenom* are drawn to amplifying paternal DNA taken from the mother's blood to detect fetal DNA. This novel process provided a simple and safe way to detect fetal abnormalities instead of using invasive and dangerous amniocentesis.

cert. denied

Question Presented

Whether a novel method is patent-eligible where:

1. A researcher is the first to discover a natural phenomenon;
2. That unique knowledge motivates him to apply a new combination of known techniques to that discovery; and
3. He, thereby, achieves a previously impossible result without preempting other use of the discovery

McRO (Planet Blue v. Activision Blizzard, Appeal Pending at CAFC

Matching the movement of a cartoon character's lips to simulate speech.

"specific technological process"

USPTO Examination Instructions

- Now same analysis used for all types of judicial exceptions, whereas before, *Mayo* used for laws of nature, and *Bilski* used for abstract ideas
- Before, different analysis applied to product claims involving abstract ideas (*tangibility*) than to process claims (*Bilski*)
- http://www.uspto.gov/patents/law/exam/2014_eligibility_qrs.pdf
- USPTO iteratively updating guidelines

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USPTO Interim Guidance on Subject Matter Eligibility

Dec. 2014 Nature-Based Products

1. Gunpowder
2. Pamelo Juice
3. Amazonic Acid

Jan. 2015 Abstract Ideas

1. Malicious Code
2. E-commerce
3. Digital Image Processing

USPTO Interim Guidance on Subject Matter Eligibility (Continued)

July 2015	More Update: More Examples
May 2016 (1)	More Update: Mostly Life Science Examples
May 2016 (2)	Added *Enfish* Example

Court Fix

- Ask Supreme Court to Clarify
- Limited Decisions

Legislative Fix

- Abrogation of 101
- Limited Exclusion

THANK YOU!

QUESTIONS?

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San Francisco, Los Angeles, Princeton,
Florham Park, Wilmington,
Chicago, Milwaukee, Albany

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