



Patentable Subject Matter in the U.S. ***Anything Under the Sun?***

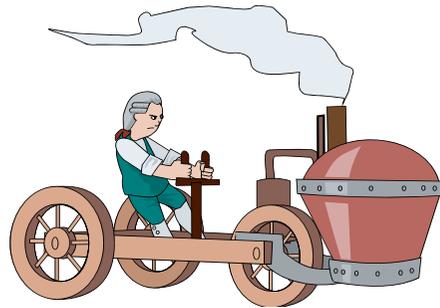
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FINNEGAN

What can be patented in the US?

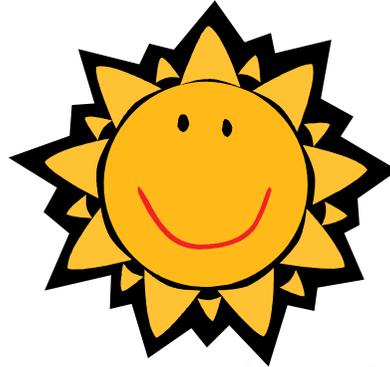
- 35 U.S.C. § 101 authorizes patents for:
 - Machines
 - Compositions of Matter
 - Articles of Manufacture
 - Processes



What can be patented in the US?

- U.S. Supreme Court has held unpatentable:
 - Abstract ideas (e.g., mathematical algorithms)
 - Natural phenomena
 - Laws of nature

What can be patented in the US?



- “[A]nything under the sun that is made by man.”
- Patentable subject matter is generally very broad
- *Diamond v. Chakrabarty*, Supreme Court (1980)
 - Human-made genetically engineered bacteria capable of breaking down multiple components of crude oil

What can be patented in the US?

- The Machine-or-Transformation test

A process is patentable under § 101 only if:

- (1) it is tied to a particular machine or apparatus, or
- (2) it transforms a particular article into a different state or thing

In re Bilski, Federal Circuit (2008)

- Supreme Court Argument held November 9, 2009
- Decision issued June 28, 2010 (the last day of the term)

What can be patented in the US?

Bilski v. Kappos, 561 U.S. ____ (2010)

- Issued June 28, 2010
- The Holdings:
 - The machine-or-transformation test is not the sole test for patentability of processes
 - Business methods cannot be categorically excluded from patentability
 - The Bilski claims recite an unpatentable abstract idea

***Bilski v. Kappos* – The Opinions**

- Majority written by Justice Kennedy
 - joined in full by Justices Roberts, Thomas, Alito,
 - joined in part by Justice Scalia
- Concurring opinion written by Justice Stevens
 - joined by Ginsburg, Breyer, Sotomayor
- Concurring opinion written by Justice Breyer
 - joined in part by Justice Scalia

Bilski v. Kappos – The Majority Opinion

- 5-vote majority – binding precedent
 - First Principles
 - The four categories of § 101 are independent and broad, though not unlimited
 - § 101 is a threshold analysis, with sections 102, 103, and 112 remaining important
 - Machine-or-Transformation test
 - “Ordinary, contemporary, common meaning” of “process” and statutory definition of “process” do not support machine-or-transformation test as sole test
 - Machine-or-Transformation test remains a “useful and important clue” for process patentability

Bilski v. Kappos – The Majority Opinion

- 5-vote majority (cont.)
 - Business methods cannot be categorically excluded
 - Common meanings of “process” or “method” do not exclude business methods
 - Prior user defense of § 273 “acknowledges that there may be business method patents”
- 9-0 decision on particular claims
 - Following *Benson*, *Flook*, and *Diehr*, Bilski’s claims are directed to an abstract idea

Bilski v. Kappos – The Majority Opinion

- Two sections had 4 votes – not binding precedent
 - Justice Scalia declined to join two sections
 - “Times change” section II-B-2
 - Section 101 is a “dynamic provision”
 - “Machine-or-Transformation” test suited for Industrial Age, but not Information Age
 - Broader business methods section
 - Should not exclude business methods from patenting based on history alone
 - At least some Information Age business processes are patentable under section 101

Bilski v. Kappos – Stevens Concurrence

- Stevens concurrence (with Ginsburg, Breyer, Sotomayor)
 - Business methods are unpatentable
 - Statutory definition of “process” in § 100(b) is not helpful
 - Other categories of § 101 imply “process” is not entirely open-ended
 - § 273 does not endorse the patentability of business methods
 - All historical evidence points to business methods being unpatentable
 - Court must balance innovation against patent monopoly
 - Business method patents “more likely stifl[e] progress than promote it”

Bilski v. Kappos – Stevens Concurrence

- Stevens concurrence (cont.)
 - Other points of disagreement
 - Patent Act terms have established limited definitions
 - Machine-or-Transformation test
 - Applies even in the Information Age
 - “Few, if any, processes cannot effectively be evaluated using these criteria.”
 - Majority does not provide clear definition of “abstract idea”

Bilski v. Kappos – Breyer Concurrence

- Breyer concurrence, section I
 - Business methods are not patentable
 - Based on text, history, purposes
- Breyer concurrence, section II (with Scalia)
 - Argues that all agree that:
 - the text of § 101 is not without limit
 - the Court has long viewed the “machine-or-transformation” test as a helpful tool
 - the “machine-or-transformation” test has never been exclusive
 - the “useful, concrete, tangible result” test of *State Street* is not the Court’s test

Bilski v. Kappos

- View from counsel table
 - Did you win or lose?
 - What took them so long to issue the decision?
 - What surprised you most about the decision?
 - What was the most remarkable thing about the oral argument?
 - Will it be another 30 years before the Court revisits the issue of patentable subject matter?

USPTO Interim *Bilski* Guidance

- Not eligible for patenting:
 - Abstract Idea
 - Law of Nature
 - Natural Phenomena
- But “practical application” of one of these is eligible for patenting

USPTO Interim *Bilski* Guidance

- Factors to determine patent-eligibility of method claims
 - Machine or apparatus
 - Particularity
 - Implements method steps
 - Field-of-use or extrasolution activity

USPTO Interim *Bilski* Guidance

- Factors to determine patent-eligibility of method claims
 - Transformation of an article
 - Particularity of transformation
 - Particularity of article
 - Extent of transformation
 - Nature of object transformed
 - Field-of-use or extrasolution activity

USPTO Interim *Bilski* Guidance

- Factors to determine patent-eligibility of method claims
 - Application of law of nature
 - Particularity of application
 - Not mere subjective determinations (e.g., thinking about a law of nature)
 - Field-of-use or extrasolution activity

USPTO Interim *Bilski* Guidance

- Factors to determine patent-eligibility of method claims
 - General Concepts (e.g., principle, plan, theory, scheme)
 - Preemption of concept in other fields
 - Claims known and unknown uses of concept
 - Claims all possible solutions of problem
 - Disembodied concept vs well-instantiated
 - Mechanisms that perform steps

USPTO Interim *Bilski* Guidance

- Factors to determine patent-eligibility of method claims
 - Examples of General Concepts
 - Basic economic theories or practices
 - Mathematical concepts
 - Mental activity
 - Interpersonal interactions or relationships
 - Teaching concepts
 - Human behavior
 - Instructing how business should be conducted

Example of Abstract Idea

- *Bilski v. Kappos*

1. A **method for managing the consumption risk costs** of a commodity sold by a commodity provider at a fixed price comprising the steps of:

- (a) **initiating a series of transactions** between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;

- (b) identifying market participants for said commodity having a counter-risk position to said consumers; and

- (c) **initiating a series of transactions** between said commodity provider and said market participants at a second fixed rate **such that said series of market participant transactions balances the risk position of said series of consumer transactions.**

Example of Abstract Idea

- *In re Ferguson*

1. A **method of marketing a product**, comprising:

developing a shared marketing force, said shared marketing force including at least marketing channels, which enable marketing of a number of related products;

using said shared marketing force to **market a plurality of different products** that are made by a plurality of different autonomous producing company [sic], so that different autonomous companies, having different ownerships, respectively produce said related products;

obtaining a share of total profits from each of said plurality of different autonomous producing companies in return for said using; and

obtaining an exclusive right to market each of said plurality of products in return for said using.

Future Cases: Business Methods

- *Fort Properties, Inc. v. American Master Lease, LLC*, (C.D. Cal. Jan. 22, 2009)
 1. A **method of creating a real estate investment instrument** adapted for performing tax-deferred exchanges comprising:
 - aggregating real property** to form a real estate portfolio;
 - encumbering the property in the real estate portfolio with a master agreement; and
 - creating a plurality of deedshares** by dividing title in the real estate portfolio into a plurality of tenant-in-common deeds of at least one predetermined denomination, each of the plurality of deedshares subject to a provision in the master agreement for reaggregating the plurality of tenant-in-common deeds after a specified interval.

Future Cases: Treatment Methods

- *Classen Immunotherapies, Inc. v. Biogen IDEC*
 1. **A method of determining** whether an immunization schedule affects the incidence or severity of a chronic immune-mediated disorder in a treatment group of mammals, relative to a control group of mammals, which comprises:
 - immunizing mammals in the treatment group** of mammals with one or more doses of one or more immunogens, according to said immunization schedule, and
 - comparing the incidence, prevalence, frequency or severity** of said chronic immune-mediated disorder or the level of a marker of such a disorder, in the treatment group, with that in the control group.

Future Cases: Treatment Methods

- *Prometheus Labs., Inc. v. Mayo Collaborative Servs.* (Fed. Cir. 2009)
 1. A **method of optimizing therapeutic efficacy** for treatment of an immune-mediated gastrointestinal disorder, comprising:
 - (a) **administering a drug** providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder; and
 - (b) **determining the level of 6-thioguanine in said subject** having said immune-mediated gastrointestinal disorder,
wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells **indicates a need to increase the amount** of said drug subsequently administered to said subject and
wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells **indicates a need to decrease the amount** of said drug subsequently administered to said subject.

Future Cases: Isolated Genes and Genetic Methods

- Ass'n for Molecular Pathology, ACLU, et al. v. USPTO, Myriad Genetics, et al. (S.D.N.Y. 2008)
 - 7 Myriad patents on methods to detect a gene that predisposes people to breast and ovarian cancer (BRCA1) and related isolated DNA or RNA molecules
 - Sample patent claim:
 1. **A method for detecting a germline alteration in a BRCA1 gene**, said alteration selected from the group consisting of the alterations set forth in Tables 12A, 14, 18 or 19 in a human which **comprises analyzing a sequence of a BRCA1 gene or BRCA1 RNA from a human sample or analyzing a sequence of BRCA1 cDNA made from mRNA from said human sample** with the proviso that said germline alteration is not a deletion of 4 nucleotides corresponding to base numbers 4184-4187 of SEQ ID NO:1.

Future Cases: Computer-Implemented Inventions

- *CyberSource Corp. v. Retail Decisions, Inc.* (N.D. Cal. March 27, 2009)
 2. A **computer readable medium containing program instructions** for detecting fraud in a credit card transaction between a consumer and a merchant **over the Internet**, wherein **execution of the program instructions by one or more processors of a computer system causes the one or more processors to** carry out the steps of:
 - obtaining credit card information relating to the transactions from the consumer;
 - verifying the credit card information based upon . . . ;
 - obtaining information about other transactions that have utilized an Internet address that is identified with the credit card transaction;
 - constructing a map of credit card numbers based upon the other transactions; and
 - utilizing the map of credit card numbers to determine if the credit card transaction is valid.

Future Cases: Computer-Implemented Inventions

- *Every Penny Counts, Inc. v. Bank of America Corp. et al.* (M.D. FL. May 27, 2009)

A system, comprising:

a network;

entry means ... for entering into the network an amount being paid in a transaction by a payor;

identification entering means ...for entering an identification of the payor;

said network including **computing means having data** concerning the payor including an excess determinant established by the payor for the accounts;

said **computing means** ... for determining an excess payment on the basis of the determinant established by the payor, and

said **computing means** ... for apportioning, at least a part of the excess payment amount

Future Cases: Computer-Implemented Inventions

- *Research Corp. Technologies v. Microsoft* (D. Ariz. July 28, 2009)
 1. A method for the halftoning of **gray scale images** by utilizing a **pixel-by-pixel comparison** of the image against a blue noise mask in which the blue noise mask is comprised of a random non-deterministic, non-white noise single valued function which is designed to produce visually pleasing dot profiles when thresholded at any level of said **gray scale images**.

Thank you.

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