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Should Entrepreneurs Care About Patent Reform Concerning SM Eligibility?

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OUTLINE

- Subject Matter Eligibility History
- Recent Developments:
 - Supreme Court
 - Federal Circuit
 - Congress
- An Entrepreneur's Perspective to SM

ENTREPRENEUR SHOULD CARE ABOUT SM ELIGIBILITY REFORM

- Many questionable PTs that do not fit nicely, *inter alia*, into PT SM
- Questionable PTs are a significant competitive concern & can harm innovation
 - Can deter or raise costs of innovation
 - Can increase defensive patenting and licensing complications
- Relationship between innovation, particularly advances in technology, and small businesses cannot be overstated
 - Small firms innovators extremely effective at producing technically important innovations
 - Produce more highly-cited PTs than large firms on average (twice as likely as large firms PTs to be among the most cited PTs; produce 13 to 14 times more PTs per employee as large firms)
- Therefore, need to rethink SM eligibility standards

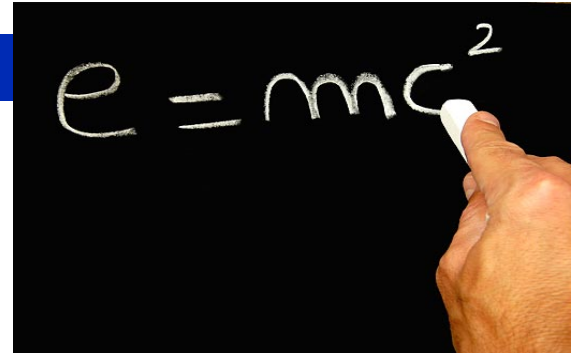
PATENTABLE SUBJECT MATTER

35 U.S.C. § 101: Inventions Patentable

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.

WHAT ISN'T PATENTABLE?

- Laws of nature
- Physical phenomena
- Abstract ideas



CONTROVERSIAL SUBJECT MATTER



- Living Organisms

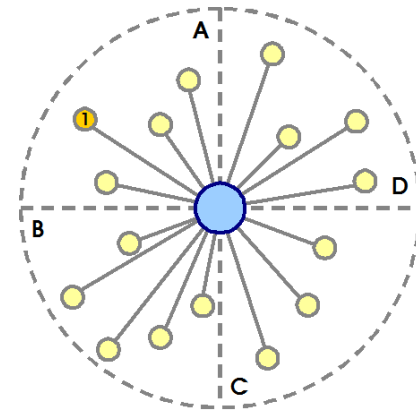
- “Congress intended statutory subject matter to ‘include anything under the sun that is made by man.’”
- The Patent Act covers a “nonnaturally occurring manufacture or composition of matter – a product of human ingenuity.” *Diamond v. Chakrabarty*, 447 U.S. 303 (1980)
- A new and useful purified and isolated DNA compound described by the sequence of base pairs is eligible for patenting. Utility Examinations Guidelines, 66 Fed. Reg. 1092 (2001)

- Computer Software

- Business Methods

State Street Bank v. Signature Financial Group, 149 F.3d 1368 (Fed. Cir. 1998)

- “[T]he transformation of data . . . by a machine through a series of mathematical calculations . . . constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’”



U.S. Patent No.
5,193,056 –
Data Processing
System for Hub
and Spoke
Financial Services
Configuration

State Street Bank (cont'd)

- “We take this opportunity to lay th[e] ill-conceived [business method] exception to rest. . . . Since the 1952 Patent Act, business methods have been . . . subject to the same legal requirements for patentability as applied to any other process.”

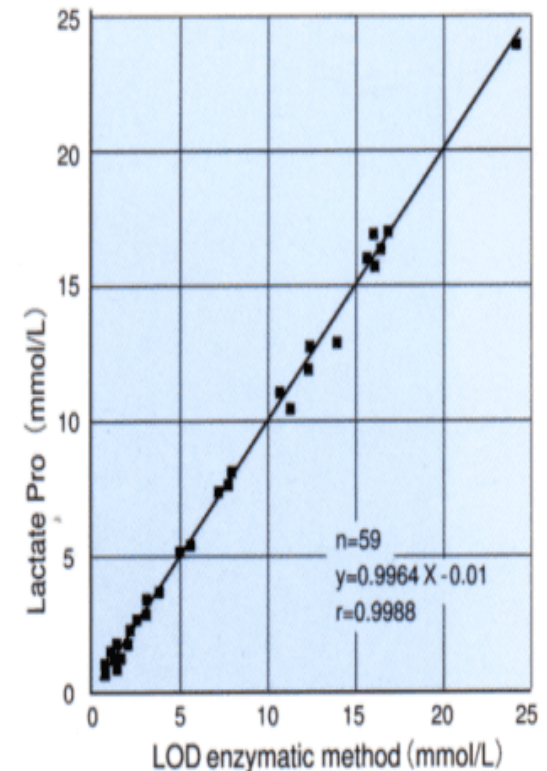
POST-SSB DEVELOPMENTS

- *Ex parte Lundgren* (2004)
 - No judicially recognized “technological arts” test
- New Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (2005)
 - Process patent issued if includes physical transformation or produces useful, concrete, tangible result

***LabCorp. v. Metabolite*, 126 S. Ct. 2976**

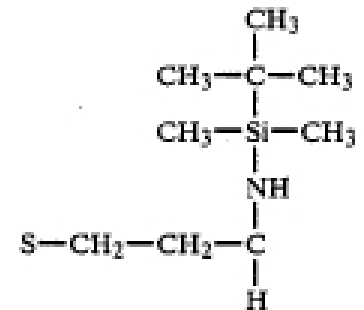
(2006) (dismissed as improvidently granted)

Question: Whether a patent can very generally claim a medical test method that depends upon a basic scientific “correlative” relationship.



LabCorp. v. Metabolite (cont'd)

- B12 and folic acid metabolize amino acid homocysteine (basic law of nature).
 - Inventors discovered relationship between “total” homocysteine and B12 and folic acid deficiency.



LabCorp. v. Metabolite (cont'd)

- Federal Circuit: Did not address “law of nature” argument directly, but relied upon such for finding of active inducement
- S.Ct.: Because issues were not properly raised below, Court dismissed as improvidently granted
 - Dissent (Breyer, joined by Souter and Stevens):
 - Would have found the patent invalid as patenting a “law of nature.”
 - Comment regarding *SSB*: “That case does say that a process is patentable if it produces a ‘useful, concrete, and tangible result.’ But this Court has never made such a statement and, if taken literally, the statement would cover instances where this court has held the contrary.”

***Quanta v. LG*, No.06-937**

(awaiting decision by S.Ct.)

- Chief Justice Roberts: “I mean . . . we've had experience with the Patent Office where it tends to grant patents a lot more liberally than we would enforce under the patent law.”

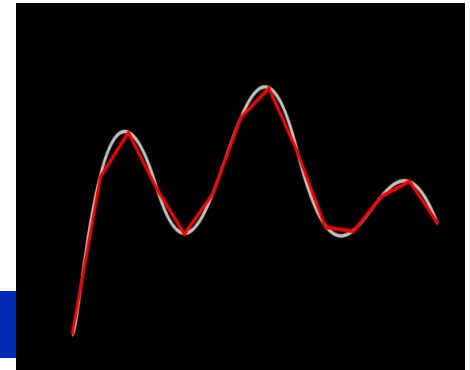


FEDERAL CIRCUIT TACKLES SM ELIGIBILITY CRITERIA

In re Nuijten, 500 F. 3d 1346 (Fed. Cir.
2007)

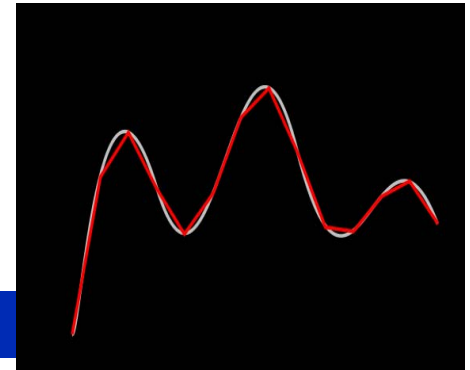
- Technology: Digital Watermarking
 - A new way to add watermarks that results in less distortion
- Types of claims:
 1. New process for adding watermarks
 2. Storage media containing signals encoded by the new process
 3. The signals themselves – rejected by the PTO

In re Nuijten, 500 F. 3d 1346 (Fed. Cir. 2007)



- Signal is not patentable even if tied to a transitory form
- Court could not fit a ‘signal’ into any of the four categories of patentable SM:
 - Process – refused to expand the meaning of process to include items that do not require an action—thus, signal is not a process.
 - reviving the physical transformation test for processes?!
 - Machine – defined as “a concrete thing, consisting of parts, or of certain devices and combination of devices”—thus, signal not machine under this definition
 - Manufacture – limited a manufacture to an “article” produced by man; an ‘article’ is not transient and cannot exist in vacuum – both qualities of a signal—thus, signal not a manufacture
 - Composition of Matter – transient electric signal is not a “chemical union, nor a gas, fluid, powder, or solid”

In re Nuijten, 500 F. 3d 1346 (Fed. Cir. 2007)



- Court on SSB: “The claim *must be* within at least one category [of patentable SM], so the court can proceed to the other aspects of the § 101 analysis.... The four categories together describe the *exclusive reach* of patentable subject matter.”
- Dissent (Linn):
 - The claimed signal is a patentable “manufacture” “in the ‘expansive’ sense of § 101” because “the signal is, in the broad sense . . . an ‘article,’ ‘produc[ed] . . . for use from raw or prepared materials by giving to these materials [a] new form [].”
 - “Manufacture” is not limited to tangible or non-transitory inventions

In re Comiskey, **499 F.3d 1365 (Fed. Cir. 2007)**



- “Technology”: patent application for a method and system for mandatory arbitration involving legal documents, such as wills and contracts
- Claims do no reference and do not require use of a mechanical device such as a computer
- Federal Circuit:
 - “[T]he present statute does not allow patents to be issued on particular business systems—such as a particular type of arbitration—that depend entirely on the use of mental processes. In other words, the patent statute does not allow patents on particular systems that depend for their operation on human intelligence alone, a field of endeavor that both the framers and Congress intended to be beyond the reach of patentable subject matter.”

In re Comiskey, **499 F.3d 1365 (Fed. Cir. 2007)**

- “The Supreme Court has held that a claim reciting an algorithm or abstract idea can state statutory subject matter *only if, as employed in the process, it is embodied in, operates on, transforms, or otherwise involves another class of statutory subject matter, i.e., a machine, manufacture, or composition of matter.*”

SUBJECT MATTER CASES AWAITING CAFC's DECISION

- *In re Bilski*: Method for managing or “hedging” the consumption risk costs associated with a commodity sold at a fixed price; not limited to use of a computer
 - Board:
 - Departed from *SSB* & post-*Lundgren* interim guidelines
 - Suggested 101 process must meet a transformation test of transforming/reducing tangible or intangible (data or signals) SM to different state/thing
 - Relegates “useful, concrete & tangible” standard to a special case only applicable to computer-implemented processes

SUBJECT MATTER CASES AWAITING CAFC's DECISION

- Fed. Cir. ordered rehearing en banc:
 1. Whether claim 1 of the 08/833,892 patent application claims patent-eligible subject matter under 35 U.S.C. § 101?
 2. What standard should govern in determining whether a process is patent-eligible subject matter under section 101?
 3. Whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process; when does a claim that contains both mental and physical steps create patent-eligible subject matter?
 4. Whether a method or process must result in a physical transformation of an article or be tied to a machine to be patent-eligible subject matter under section 101?
 5. Whether it is appropriate to reconsider State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998), and AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352 (Fed. Cir. 1999), in this case and, if so, whether those cases should be overruled in any respect?

SUBJECT MATTER CASES AWAITING CAFC's DECISION

- *In re Ferguson*: Invention focused on the “concept of a marketing company devoted to selling/marketing products produced by other companies in return for a share of their profits”
 - Board:
 - Found that claims were unpatentable SM under § 101
 - Section 101 requires that claim either has a “useful, concrete, and tangible result” or “transform” something into a new physical state
 - Ferguson's claims do not fit either of these categories and were abstract

Patent Reform Bill

- Section 10 renders any tax planning method unpatentable.
- Defines "tax planning method" as a plan, strategy, technique, or scheme that reduces, minimizes, or defers individual tax liability.



AN ENTREPRENEUR'S PERSPECTIVE TO PT SM

- Economic & practical perspective based on the notion of **entrepreneurial risk**
- Why do inventors & authors need IP encouragement when other activities require a reasonable chance to recover costs plus a reasonable profit?
- Risk-reward theory: reward for assuming a risk must be proportional to the risk undertaken
- All businesses take risks; difference lies in certainty of projected outcome looking forward
- Primary risk for ordinary business firm is a **market risk**: risk that consumers won't accept the results of their projects
- True inventor does not know at the outset whether the job can be done at all, let alone what the cost of doing it might be: **technological risk**
 - Neither results nor success are predictable in genuine invention
 - Nature of the endeavor – inventions involving technical risk normally involve question of science & technology

AN ENTREPRENEUR'S PERSPECTIVE TO PT SM (cont'd)

- Business innovations are subject only to market risk – little or no risk they will fail to work at all and so will fail to produce anything of market value
- Patent eligible inventive project is one that involves technological risk – at the outset of the project there is a significant risk that the project will achieve no useful result whatsoever and that regardless of market acceptance, the work and sunk investment will be a total loss
- No rational entrepreneur would accept real technological risk, and therefore the risk of total loss, in the mere hope of recovering costs or some fixed return set
- System providing no more than a fixed return in the face of unlimited risk will only motivate flows of capital away from risky inventive activity into ordinary business, in which risks are more limited and returns more secure

THE ROAD AHEAD



- S. Ct. may well revisit patentable SM
 - *LabCorp. v. Metabolite* signals interest in this area
- CAFC will develop alternative
 - Recent cases appear to reinstate something akin to the “technological arts” requirement
 - *In re Bilski* will probably consider scope of SM eligibility
- Congress might step in
 - But narrow field prohibition to patent tax strategies



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