

101 deja vu

MIPLA Stampede

May 8, 2006

Bradley A Forrest

Schwegman Lundberg Woessner & Kluth, P.A.

Overview

- Prior Supreme Court Cases
- Fed Circuit cases
- BAPI Lundgren case
- New interim guidelines – Oct. 26, 2005
 - http://www.uspto.gov/web/offices/pac/dapp/opa/preognotice/guidelines101_20051026.pdf
 - Comments due in July
- Metabolite

§101 Supreme Court

- In *Diamond v. Diehr*, math, standing alone is nothing more than an abstract idea until reduced to some type of practical application – i.e., a useful, concrete and tangible result.

§101 Supreme Court

- **Gottschalk v. Benson 1972**
 - Can't patent an idea – converting bcd to bc
 - Seeds of preemption
 - Only practical application is in a digital computer
- **Parker v. Flook 1978**
 - Applicant agreed that math was only novel feature
 - Post solution activity not enough – updating alarm limit

§101 Supreme Court

- Diamond v. Chakrabarty 1980
 - Anything under the sun that is made by man
- Diamond v. Diehr 1981
 - Math tied to practical result – opening the press when the algorithm said to do so.
 - Flook distinguished as only calculating a limit, and not applying it to a practical application.

Federal Circuit

- In re Alappat 1994
 - Is claim as a whole just a mathematical concept? Anti aliasing.
- In re Lowry 1994
 - Data structures provide increased efficiency in computer operation
- In re Beauregard 1995
 - Program embodied in tangible medium ok

State Street Holding

- transformation of data representing discreet dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces “**a useful, concrete and tangible result**” - a final share price momentarily fixed for recording...

State Street

- Anything under the sun made by man
- Useful, concrete, and tangible result
- No business method exception
- §§102, 103, or 112 to invalidate
- No business method classification

More Case Law

- *AT&T Corp. v. Excel Communications, Inc.*
172 F.3d 1352 (Fed. Cir. 1999)
 - Key is useful, concrete, & tangible result
 - Do not need physical limitations in claims
 - Data does not need to be transformed

Summary Post State Street

- Question is not what category a claimed invention falls into, but whether the essence of the claimed invention achieves a useful, concrete, & tangible result
- Data does not need to be transformed just applied to achieve a useful, concrete, & tangible result
- Programs are patentable subject matter
- Pure business method can be patentable subject matter
- Rejections should focus on novelty and obviousness and not whether the subject matter is appropriate

Ex parte CARL A. LUNDGREN

- Oct. 2005
- Appeal No. 2003-2088
- Precedential expanded panel decision
- Claim: Compensating a manager based on absolute and relative performance.
- No computer recited.

Ex parte CARL A. LUNDGREN

- 3 to 2 decision with long dissent.
- No “technical arts” requirement.
 - Did not address whether claim was to an abstract idea.
 - Not rejected for lack of useful concrete and tangible result.

Ex parte CARL A. LUNDGREN

- The examiner finds the separate "technological arts" test in In re Musgrave, 431 F.2d 882, 167 USPQ 280 (CCPA 1970); In re Toma, 575 F.2d 872, 197 USPQ 852 (CCPA 1978); and Ex parte Bowman, 61 USPQ2d 1669 (Bd. Pat. App. & Int. 2001)(non-precedential).
- Board: No support in these cases for a "technological arts" test.

Ex parte CARL A. LUNDGREN

- Dissent by Barret
 - Not part of “useful arts” per constitution
 - Means the same as “technological arts”
 - Invention must in some manner be tied to a recognized science or technology
 - In addition to not being merely abstract idea, a law of nature or a natural phenomenon

Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility

- http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf
- Posted 10/26/2005

10/26 Guides

- If abstract idea, law of nature, or natural phenomenon (Judicial Exceptions)
- Eligible if a practical application is claimed
 - Physically transforms an article or physical object
 - Or
 - Otherwise produces a useful, concrete and tangible (UC&T) result

10/26 Guides

- Judicial exception or practical application of a judicial exception?
 - Final result achieved UC&T
 - **Not whether steps are UC&T**

Useful Result

- Utility – MPEP 2107
 - Specific
 - Substantial
 - Credible
- May need to state the practical application in the claim to distinguish the judicial exceptions
- Claim can't be broader than spec that discloses a practical application

Tangible Result

- Recite more than judicial exception
- Produce a real world result
- Opposite of abstract
- Is this another way to say it has a practical application?

Concrete Result

- Substantially repeatable
- Opposite is unpredictable
 - How do you define the result?
- Is this just enablement plus something?

Can't Preempt an Exception

- Cannot claim every substantial practical application
- Examiner must identify the abstraction, law of nature or natural phenomenon and explain why the claim covers every substantial practical application thereof
- Appears like a heavy burden, but how granular can the exception be identified?

ANNEX III

Improper Tests

- Not in the technological arts
- Freeman-Walter-Abele
- Mental steps or human step test
- The machine implemented test
- The per-se data transformation test

Annex III

- If all the steps of a claimed process can be carried out in the human mind, examiners must determine whether the claimed process produces a useful, tangible and concrete result, i.e., apply the practical application test set forth in State Street.

Annex III

- It is immaterial whether one or all process steps may be performed by a human.

Annex IV

- Functional descriptive material that imparts functionality when employed as a computer component.
 - Ok if on computer readable medium
- Nonfunctional descriptive material not ok whether on computer readable medium or carrier signal

Abstractions

- Hand coded machine language
- Assemblers and Macro processors
- Compilers and Interpreters
- High level languages – Fortran, Cobol
- Object oriented – Visual Basic
- Natural language compiler
- “Generate a program that opens the rubber press when the rubber is properly cured”

Annex IV

Signal Claims

- Not a process
 - Not a series of steps
- Not a machine
- Not a composition of matter
- Not a composition manufacture
- Thus, not within the 101 classes

Annex IV

Signal Claims

“On the other hand, from a technological standpoint, a signal encoded with functional description material is similar to a computer-readable medium encoded with functional descriptive material, in that they both create a functional relationship with a computer. In other words, the computer is able to execute the encoded functions, regardless of whether the format is a disk or a signal.”

Signal Claims

- Why do you want one?
- Direct Infringing act each time copy is transmitted – no 271g problem?

Testing the 101 Guidelines

13. A method for detecting a deficiency of cobalamin or folate in warm-blooded animals comprising the steps of:

assaying a body fluid for an elevated level of total homocysteine; and

correlating an elevated level of total homocysteine in said body fluid with a deficiency of cobalamin or folate.

Testing the 101 Guidelines

- Does it claim an abstract idea, law of nature, or natural phenomenon (Judicial Exceptions)?
- Does it claim a practical application of an abstract idea, law of nature, or natural phenomenon?
- Physically transforms an article or physical object; or otherwise produces a useful, concrete and tangible (UC&T) result?
- Preempt a judicial exception?

Correlate

- Lots of issued patents contain this limitation (AIPLA Brief)
 - 6051379 – correlating the presence of the mutation with a predisposition to breast cancer.
 - 5599677 – amount of free PSA in a patient sample is correlated to the existence of prostate cancer
 - 5546800 – correlating negative ion flow with imminent tornado formation

Metabolite

- Petitioner:
 - Patents law of nature ("no actual invention beyond scientific discovery it recites")
 - Claim is not definite, enabled or adequately described
- Solicitor General Amicus
 - Satisfies enablement, written description, and definiteness
 - 101 question not presented before the Court, but if the Court thinks it is, remand
 - Claim appears invalid because it covers prior art

Metabolite (Cont)

Other Briefs Filed

- Intellectual Property Owners Association
- People's Medical Society
- American Clinical Laboratory Association
- American Heart Association
- Financial Services Industry
- AARP
- Public Patent Foundation
- Patients Not Patents, Inc.
- International Business Machines Corporation
- Bar of the City of New York
- American Express Company
- Computer & Communications Industry Association
- Affymetrix, Inc. and Professor John H. Barton
- American Medical Association, et al.

How Abstract?

- Benson – bcd to bc
- Flook – alarm limit
- Diehr – open rubber press
- State Street – computer involved - \$ amount
- AT&T – switches involved – generates a record for each call with value for selected carriers
- Lundgren – no computer – transfer \$ to manager
- Metabolite – a test and a thought

Abstract

- 1. conceived apart from any concrete realities, specific object, or actual instance.
- 2. expressing a quality of characteristic apart from any specific object or instance.
- 8. an idea or term considered apart from some material basis or object.
 - Random House College Dictionary (1975)
- Copyright merger of idea and expression.

A real-world rejection

- The invention uses multiple equations to solve planning and scheduling problems for plant and determines whether a solution is feasible

Useful

- According to the utility requirement, the claimed invention has to be specific, substantial, and credible. Claim 1 is directed toward a mathematical formula without any specific, substantial, or credible result. The formula is never applied to yield a practical application. While the claim recites the solution is a schedule for a manufacturing process, it does not clarify how the mathematical operations are specifically adapted to yield a specific, substantial, or credible result in relation to the schedule for operating the manufacturing process.

Tangible

- As per the tangibility requirement, the claimed invention must set forth a practical application that produces a real-world result. As discussed above, the claimed invention recites a mathematical formula without applying the formula to a specific practical application with a real-world result. Even though the claim recites potential applications of the mathematical formula, there is never any express connection made between the equations and how they yield any results relevant to scheduling. In other words, it is never made clear how the recited equations are adapted to a real-world application. Without relating the equation variables to a particular application that yields a result specific to that application, the equations are meaningless in a real-world context.

Concrete

- Regarding the concreteness requirement, the claimed invention must produce a result that is substantially repeatable or reproducible. Again, as discussed above, there is no meaningful result produced by the claimed invention. Consequently, the mathematical formula per se is abstract and, without any understanding of what the recited variables represent, the results of the claimed invention are not substantially repeatable or reproducible.

§112

- The significance of each variable is not explained in the spec.
- The invention is not the equations, but rather using well known equations and figuring out if the solution is any good.

What to do?

- Amend the claim to include solving a “real-world” problem?
- Interview the case because the examiner does not really understand the invention?
- Add limitations to applying a solution?
- Limit to ice cream plant with numbers for variables in the equations

Dealing with Rejection

- Practical experience with examination:
 - Examiner wants to see a more verbose preamble where a data structure is in a tangible medium and used for a specific purpose
 - These limitations do not necessarily have to be reflected anywhere in the body of the claim
 - Without a more verbose preamble, Examiner may require structural limitations in the body of the claim

Dealing with Rejection

- Results can vary, if you get a 101 rejection call the Examiner, you may be surprised how in most instances the Examiner will only want very minor and non substantial changes in the way the claim's preamble is worded, this reduces unnecessary prosecution history and chances that Festo may apply in any subsequent litigation

Dealing With Rejection

- Rolling 102/103
 - Multiple Office Actions with Different Art
 - Keep on arguing
 - Interview
 - Keep responses short

Dealing With Rejection

- Rolling 102/103
 - don't amend one claim - MPEP 706.07(a)
 - remind of one search recommendation - MPEP 904.03
 - Appeal early and often
 - Use pre appeal brief conference
 - Avoid loss of patent term

Dealing With Rejection

- Rolling 102/103
 - Writ of Mandamus
 - Might be fun to try - The party who seeks a writ of mandamus must show: (1) a duty on the other party to perform the act in question, (2) the ministerial nature of the act, (3) the right to have the duty performed and (4) the lack of any other legal remedy available. The interlocutory nature of being returned to the examiner may derail these attempts.

Summary

- No more “technological arts” rejections
- Include safe claims that are clearly tied to a practical application
- Waiting for case law
- Continued rolling rejections
- Examiners also dealing with rejection by the second pair of eyes
- The PTO is dealing with rejection – bad press