

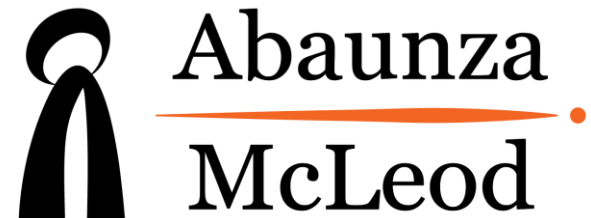
Intellectual Property rights: an overview of policy, innovation & management

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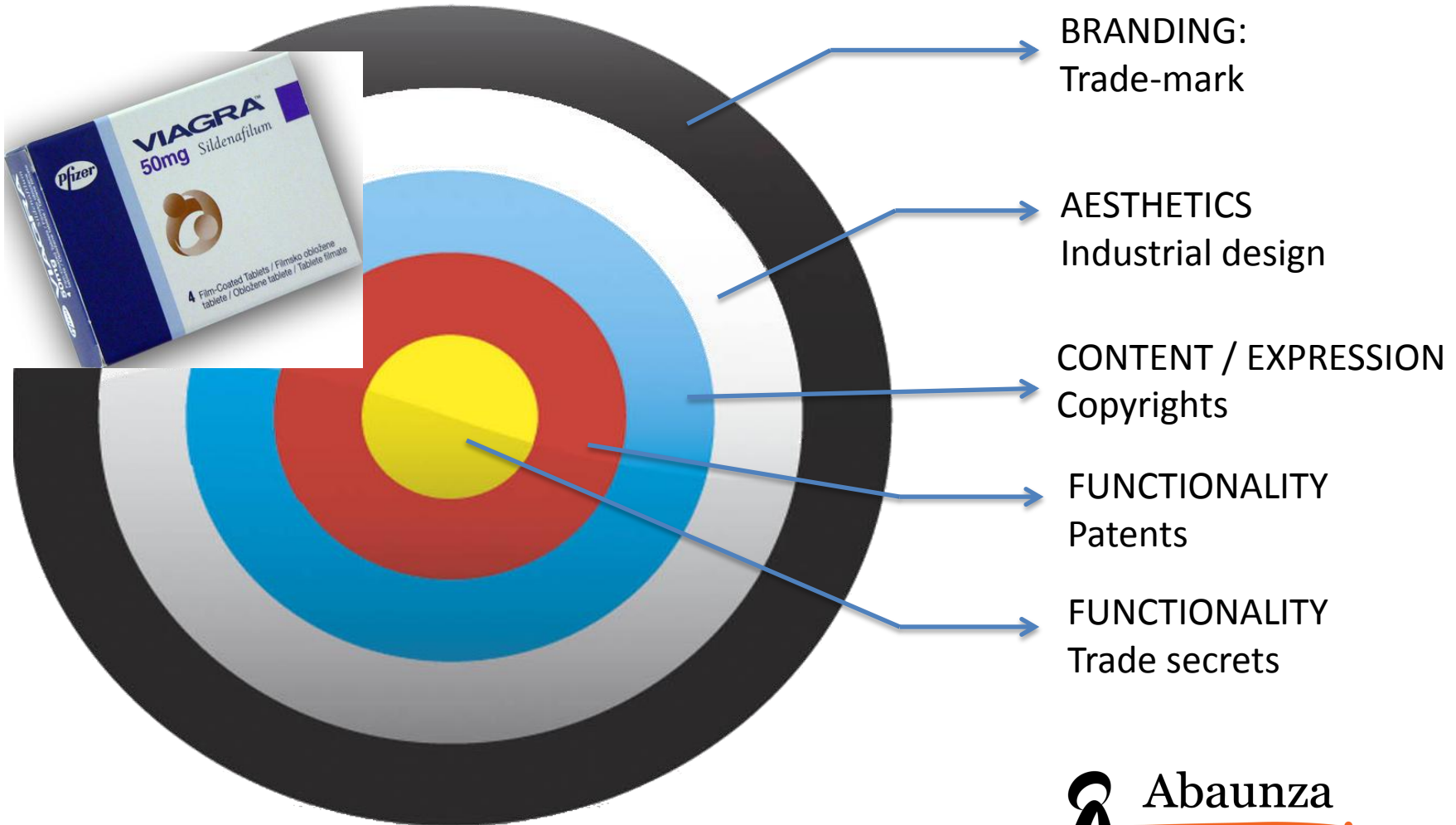
Outline

- A. Abaunza –
 - Intellectual property rights: an overview
- R. Gold –
 - A world of confusion: patent law and the life sciences
- B. Gray –
 - Business methods, abstract ideas and claim construction. The illusive search for the “claimed invention”
- K. Bousfield –
 - Notes on Patent-Eligible Subject-Matter

Intellectual Property Rights: The What

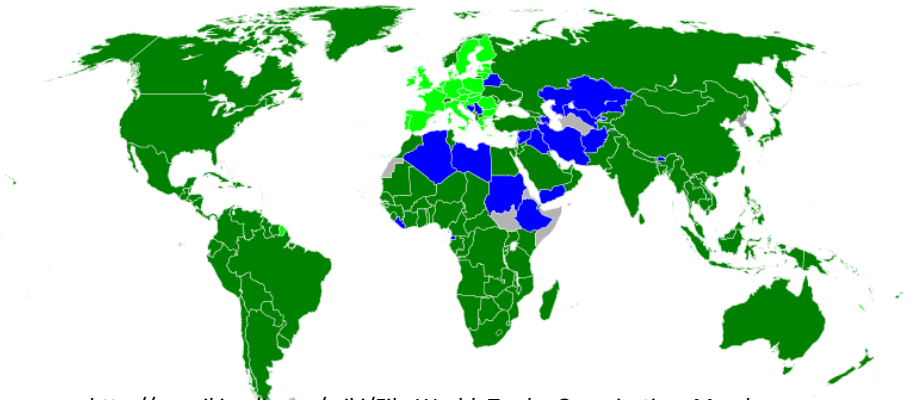
- Intellectual property protection :
 - Intangible assets
 - Patents;
 - Trade-marks;
 - Industrial designs;
 - Copyrights
 - Trade-secrets
 - Contracts - licenses
 - Limited rights to exclude others from using, making, copying, etc.
 - Expensive to develop + Cheap to reproduce = Protection

Intellectual Property Rights: The What



Intellectual Property Rights : The How

- Paris Convention for the Protection of Industrial Property – (Stockholm Act of 1967)
 - Article 4bis (independence of patents for same invention in different countries)
- The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) –
 - Article 7 (Objectives – promote innovation)
 - Article 27 (Patentable Subject Matter – any invention in all fields of technology, except those excluded by the members)



http://en.wikipedia.org/wiki/File:World_Trade_Organization_Members.svg

Intellectual Property Rights : The How

- Five criteria common to all patent laws:
 - Must be patentable subject matter;
 - Must not have been disclosed (new);
 - Must involve inventive step (non-obvious);
 - Must be industrially applicable (useful); and
 - Must be properly / sufficiently disclosed
- There is no agreed international understanding about the definition and interpretation of these criteria
 - Policy space as to how each region or local jurisdiction establish and define them
 - Case-by-case basis interpretation by courts and the issuance of patent examination guidelines

Intellectual Property Rights: The Why

- Protection and enforcement of intellectual property rights should contribute to the **promotion of technological innovation** and to the transfer and dissemination of technology
- **Innovation:** implementation of a new or significantly improved
 - Product (good or service)
 - Process
 - Marketing method
 - Organisational method

Intellectual Property Rights: The Why

- Joseph Schumpeter (1934):

“innovation... the carrying out of new combinations... is the key to entrepreneurial profits.... [innovation] is the only way to create new economic value over the long term“

J. A. Schumpeter, “The Theory of Economic Development” English translation, 1934.

Intellectual Property Rights: The Why

- Promote innovation:
 - Concept of innovation is broader than that of an invention
 - It goes beyond invention, involves economic considerations that relate to market success
 - (1) developing a new idea + (2) putting the idea into practice
 - FROM: Idea / concept
 - TO: Launching new/improved product
 - Not necessarily in correlation with the number of patents held by an entity
 - More ≠ Better
 - New ≠ Good

Intellectual Property Rights: The Why

- Why innovate:
 - Gain competitive advantage
 - Ongoing process in order to survive as an entity
 - Does not occur in a vacuum
- Fostering innovation

Intellectual Property Rights: The Why

- Fostering innovation:
 - Vigorous competition
 - Strong R&D
 - Strong education at all levels
 - Sound policies promoting science-innovation
 - **Efficient and transparent regulatory systems**
 - Intellectual property laws, regulations and guidelines

Intellectual Property Rights: The Why

- Knowledge economy – “Be the 1st one”
 - Creation of wealth based on knowledge and information
 - 1st to know ; 1st to secure; 1st to implement ; 1st to commercialize
- Open innovation:
 - Cooperation between companies, sharing visions, knowledge and resources
 - No more doing R&D alone, but partner with other companies
 - Benefits:
 - Cost for R&D are shared
 - Time to benefit from investment is likely to be increased

Intellectual Property Rights: The Why

- The Economic advantages of IP rights
 - Macro economic level
 - Well construed IP protection regime stimulates economic growth
 - Efficiency
 - Transparency
 - Well balanced mutual benefits (IP holder v. general public)
 - Micro economic level
 - Protecting innovative technology (R&D and development of new know-how) would likely create an asymmetry with competitors and gain a competitive advantage
 - Better positioned in the market to generate income

Intellectual Property Rights: The Why

- Generate value from IP
 - Long term investment
 - Intangible resources
 - Tradable / transferable
 - IP as business insurance policy
 - Freedom to make, sell, use etc.
 - Right to prevent others from profiting of your efforts

Intellectual Property Rights: The Why

- Different methods to generate value from IP
 - Practicing exclusivity: Working the invention
 - Licensing / Cross-licensing
 - Litigation
 - Patent trolling
 - Specific jurisdiction litigation – s.8 PMNOC Regulations Canada
 - Deterring (defensive patenting)
 - Use of IP as collateral
 - Trade, exchange, alliances and financial instruments

Intellectual Property Rights: strategy

- Internal Management Strategy: things to consider
 - Identify the IP that is owned – if any
 - Patent; inventive, useful and statutory subject matter
 - Trade-mark; not confusingly similar to other trade-marks
 - Trade secret; proper NDAs and contractual protection
 - Identify where the business will be operating and anticipate future expansions
 - Protect IP rights using the appropriate legal mechanism
 - Value each IP asset and consider the need in a geographical area
 - Determine which assets are going to be
 - Exploited;
 - Commercialized;
 - Licensed
 - Before marketing a product, ensure that IP rights are cleared (Freedom to operate)
 - Police and maintain your IP rights
 - Trade-mark: use it or lose it
 - Patents: pay maintenance fees

Intellectual Property Rights: strategy

- External Management strategy
 - Public policy issues:
 - Access to essential medicines
 - HIV medicines
 - Compulsory licenses
 - Bio-prospecting – traditional knowledge
 - Jurisdictional specific regulatory issues
 - Patentable? Where?
 - » Patentable subject matter
 - Differences in prosecution
 - Patent utility and sufficient public disclosure
 - US and GB
 - Canada
 - Japan

Thank you!

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Intellectual Property Rights: The How

- *The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) - Article 7 “Objectives”*

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations

Intellectual Property Rights : The How

- Paris Convention

Article 4bis (in part) - **Patents: Independence of Patents Obtained for the Same Invention in Different Countries**

“(1) Patents applied for in the various countries of the Union by nationals of countries of the Union shall be independent of patents obtained for the same invention in other countries, whether members of the Union or not....[...]”

A world of confusion: patent law and the life sciences

Richard Gold
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November 21, 2013
Canadian Science Policy Conference



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CENTRE FOR INTELLECTUAL
PROPERTY POLICY

Outline

- The problem
- The only norm is that there is no norm
- Why this matters in Canada
- How to fix the problem



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The problem

- Uncertainty abroad exacerbates uncertainty in Canadian law
- There exists very little guidance as to key questions regarding the patentability of inventions related to biology
- In this climate, can expect lower investment and lower public research



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No norm is the norm

- Despite hyperbolic statements to the contrary, there exist few norms related to the substantive content of patent law
- TRIPs Agreement (WTO) established a few principles (20 year term, non-discrimination between technology, etc.) but did nothing to settle substantive differences in patent law



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No norm is the norm

- Patentable subject matter
 - No int'l consensus on patentability of natural DNA or other natural substances
 - Even if patentable under some conditions, those conditions differ significantly (e.g. US and Europe)



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No norm is the norm

- Substantive criteria very different
 - No international standard regarding the substantive tests of patentability
 - Europe: technicality, novelty industrial application, inventive step
 - Canada, US, Australia: novelty, utility and non-obviousness



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No norm is the norm

- Also differences in disclosure and enablement requirements (higher in US than Canada, for example)
- Different application of patent law
 - E.g., US state institutions exempt



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Why this matters

- Few Canadian cases relating to these issues
 - Harvard College and Monsanto, two most recent SCC decisions on the issue, are contradictory
 - Monsanto holds that an artificially constructed gene is patentable but says nothing more



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Why this matters

- In US, SCOTUS decision in *AMP v. Myriad* states that isolated, natural sequences not patentable but unclear as to meaning of natural in this context
- Test case in Australia
- In Europe, doubt remains re application of substantive criteria to natural substances



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Why this matters

- Uncertain in which way Canadian law will develop
 - No legislative direction
 - No judicial holdings
- No international norm to follow
- This results in increased uncertainty in Canada that is good neither for investment nor research



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Solving the problem

- Legislation
 - Too little, too uncertain and too late
 - Legislation can only fix the problems we know about and only in the future
 - What about existing patents? What about new technology?
- Test case
 - Only viable solution is to seek judicial guidance in a well-constructed and open process



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Financial institutions
Energy
Infrastructure, mining and commodities
Transport
Technology and innovation
Life sciences and healthcare

 **NORTON ROSE FULBRIGHT**

Business methods, abstract ideas and claim construction. The illusive search for the “claimed invention”

Canadian Science Policy Conference

November 21, 2013

Brian W. Gray
Senior Partner
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TOPICS

1. Software Patents – what is happening with patentability worldwide
2. Rise of software patent claims in U.S.
3. The peculiar position of the Canadian patent system in respect of the North American and world market. How much are we masters of our own destiny?

Software Patentability

“No one understands what makes an idea abstract.”

“After *CLS Bank*, nothing has changed. Our opinions spend page after page revisiting our cases and those of the Supreme Court, and still we continue to disagree vigorously over what is or is not patentable subject matter.”

(quoted by Judge Rader in dissent in *Accenture*)

Software Patentability

What makes an idea abstract?

Examples of abstractness?

Pure algorithm

$$A = \pi r^2$$
$$a^2 + b^2 = c^2$$
$$E = mc^2$$

Software implementing a step by computer that could be done mentally where computer adding nothing new.

Methods of human behaviour or ideas which result in nothing but a number output not tied to a physical phenomenon.

Software Patentability

USA

- Situation confused but simply implementing software on a computer not enough if the recited hardware does not offer a meaningful limitation beyond generally linking the method to a particular technological environment (*Accenture*, pg. 9)
- Cannot take an abstract idea and make it patentable by adding token post-solution components (*CLS Bank v. Alice*, pg. 1279)

CLS Bank v. Alice

Method, computer-readable media, and system claims for exchanging obligations between parties to manage risk in financial transactions are not patentable subject matter under s.101.

Method and CRM claims rejected 7-3. System claims rejected by 5-5 tie

CLS Bank, 717 F. 3d at 1277

Mere reference to a general purpose computer will not save a method claim from being too abstract, but the fact that a claim is limited by a tie to a computer is an important indication of patent eligibility

Ultramerical Inc v. Hulu LLC (Fed Cir 2013)

CLS Bank: Judge Lourie “plurality” opinion

First: Does the claimed invention fall within one of the four statutory classes set out in § 101?

Second: What is the **fundamental concept** in the claim? “[O]ne cannot meaningfully evaluate whether a claim preempts an abstract idea until the idea supposedly at risk of preemption has been unambiguously identified.”

Third: “Does the claim pose any risk of preempting an abstract idea? In most cases, the answer plainly will be no.”

- “With the pertinent abstract idea identified, the balance of the claim can be evaluated to determine whether it contains additional substantive limitations that narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.”

U.S. Approach

Meaningful limitations on abstractness

Does not pre-empt abstract idea

Examples:

A. Patent ineligible

- *CLS Bank v. Alice*
- *Bancorp*
- *Accenture Global Services v. GuideWire*
- *Bilski v. Kappos*

B. Patent eligible

- *Ultramercial* but unusual question of test on summary judgment.

U.K.

Aerotel Test

1. Construe the claim
2. Identify actual contribution
3. Ask whether actual contribution falls within excluded matter
4. Check whether contribution is technical in nature

E.U.

Technical Board of Appeal of the European Patent Office, 11 July 2013, Case T-1670/07 (Nokia Siemens Networks)- Method for planning a shopping trip using a mobile device.

Interaction of hardware with data collected for evaluation by humans. Separate technical from non-technical contribution.

Where claim directed to human behavioral concepts in functional terms or where technical result depends on humans for its effects, such as GUI will be difficult to patent.

New Zealand

- Similar to Aerotel test,
- 2013 statutory provision precluding the patenting of software “as such”
- Look at actual inventive contribution in the claim.

Recent New Zealand Legislation

New clause 10A introduced by SOP 237 reads as follows.

1. A computer program is not an invention and not a manner of manufacture for the purposes of this Act.
2. Subsection (1) prevents anything from being an invention or a manner of manufacture for the purposes of this Act only to the extent that a claim in a patent or an application relates to a computer program as such.
3. A claim in a patent or an application relates to a computer program as such if the actual contribution made by the alleged invention lies solely in it being a computer program.
4. The Commissioner or the court (as the case may be) must, in identifying the actual contribution made by the alleged invention, consider the following:
 - (a) the substance of the claim (rather than its form and the contribution alleged by the applicant) and the actual contribution it makes:
 - (b) what problem or other issue is to be solved or addressed:
 - (c) how the relevant product or process solves or addresses the problem or other issue:
 - (d) the advantages or benefits of solving or addressing the problem or other issue in that manner:
 - (e) any other matters the Commissioner or the court thinks is relevant.
5. To avoid doubt, a patent must not be granted for anything that is not an invention and not a manner of manufacture under this section.

Recent New Zealand Legislation

- The “as such” and “actual” contribution problem.
- Identifying the actual contribution.
- Amalgam of the UK *Aerotel* test.
- Reading the “substance” of the claim.
- Conflict between the literalists, the strict constructionists, the claim is the claim is the claim.
- And the liberal constructionists.
- Strict construction leads to certainty
- Liberal construction can promote fairness and prevent form from overruling substance.

Software Patentability

Australia

RPL Central Pty Ltd. v. Commissioner of Patents [213] FCA 871

An automated process for gathering evidence to assess competency of a prospective candidate relative to a recognised standard by using a computer and retrieving information from the Internet, preparing a list of questions for a candidate and presenting the automatically generated questions to the candidate, receiving responses from the candidate via their computer.

Computer-effected steps gave rise to a change in the state or information in a part of a machine.

Court rejected Commissioner of Patent arguments that the physical effect must be significant or central to the purpose or operation of the claimed process.

The Court said that one should not strip away any aspect of computer implementation and then determine whether what remains is proper subject matter. The computer is an essential part of the invention claimed, as it enables the method to be performed.

Software Patentability

Canada – Fall out from Amazon

- New Commissioner / New Guidelines
- Limited Patent Appeal Board actions since Amazon
- 7 cases cited Amazon and five found computer implemented software patentable subject matter
- Applying essential elements test, computer found essential in claim but...
- Pyrrhic victory as now applying obviousness to reject claim where computer adds nothing to known common general knowledge

Amazon Court of Appeal – November 2011. Purposive construction identifying essential elements must govern but:

1. In determining of whether the application claims patentable subject matter as defined by the claim, the Commissioner can ask or determine what the inventor has actually invented or what the inventor claims to have invented [para 42-43] as long as this is grounded in a purposive construction of the claim.

2. Purposive construction allows the Commissioner to be alive to the possibility that a claim which appears in its face from a literal reading of the claim to be an “art” or “process” may on a proper construction be a claim for a mathematical formula [para 44]

Amazon Court of Appeal

3. A business method does not become patentable subject matter merely because it has a practical embodiment or a practical application or because it is realized by programming the method into a computer [para 61]
4. As method is not patentable if the only inventive aspect of the invention is an algorithm that is programmed into the computer to cause it to take the necessary steps to accomplish the method [para 63] [This is essentially Schlumberger decision]
5. An invention must be something with a physical existence or that manifests a discernible effect or charge [para 66]

Amazon Court of Appeal

6. Physicality requirements cannot be met merely by having a practical application nor by the fact that the method is carried out by the use of a physical tool, a computer, to give the novel mathematical formula a practical application. Applicant in future will have to distinguish the claims of Amazon from Schlumberger.
7. The Amazon Court of Appeal has held that the Judge in Trial Division was wrong to construe the claim literally without a foundation of knowledge as to whether the computer is an essential element of the claim [para 71-72] or expert evidence about how computers work and the manner in which computers are used to put an abstract idea to use [para 74]. This should ensure that schemes, business methods or calculations implemented by means of a general purpose computer are not patentable unless the computer is adding something to the invention itself and not merely a tool for its implementation.

Canadian Patent Office Practice

Notice PN-2013-02

- Purposive construction is to be used not “contribution approach”
- Purposive construction - problem / solution using specification as a whole for claim construction.
- Stands out from U.S., U.K. and N.Z. in not considering “fundamental concept” of claim (U.S.) or “actual contribution” in determining whether invention is abstract software
- Following F.C.A. Amazon ask is computer essential element and if so statutory. Like current Australian test.

Recent Patent Appeal Board Application of Amazon Decision

Progressive Casualty Insurance Re: 2013 Carswell Nat 2330

- Insurance claim statutory. Method of on-line communication between insurer and insured to detect risk
- “Monitoring the operating characteristics” is an essential feature of the solution which cannot be replaced by mental means without having a material effect on the operation of the invention ... statutory but obvious.

Pitney Bowes Inc. Re: 2013 Carswell Nat 2331

- Programmed mailing machine statutory
- Not obvious

Navigation Technologies Corp. Re: 2012 Carswell Nat 5669

- Claims to system for distributing information for a storage media for updating car navigation systems.
- Unnecessary to consider full question of what is statutory in view of obviousness finding, but most claims statutory.

Recent Patent Appeal Board Application of Amazon Decision

More recent unreported decisions.

CD 1337 Pitney Bowes Inc.

- System and Method for selectively replenishing a postage meter
- statutory but obvious

CD 1338 DeRoyal Business Systems, LLC

- Method For The Analysis and Standardization of Bills of Resources
- computer implementation not an essential feature
- claims not statutory.

CD 1339 Fair Issac Corporation

- Fraud Detection Using Predictive Modeling
- Computer not essential. Claims define only data processing and mathematical calculations
- Claims not statutory

Recent Patent Appeal Board Application of Amazon Decision

More recent unreported decisions.

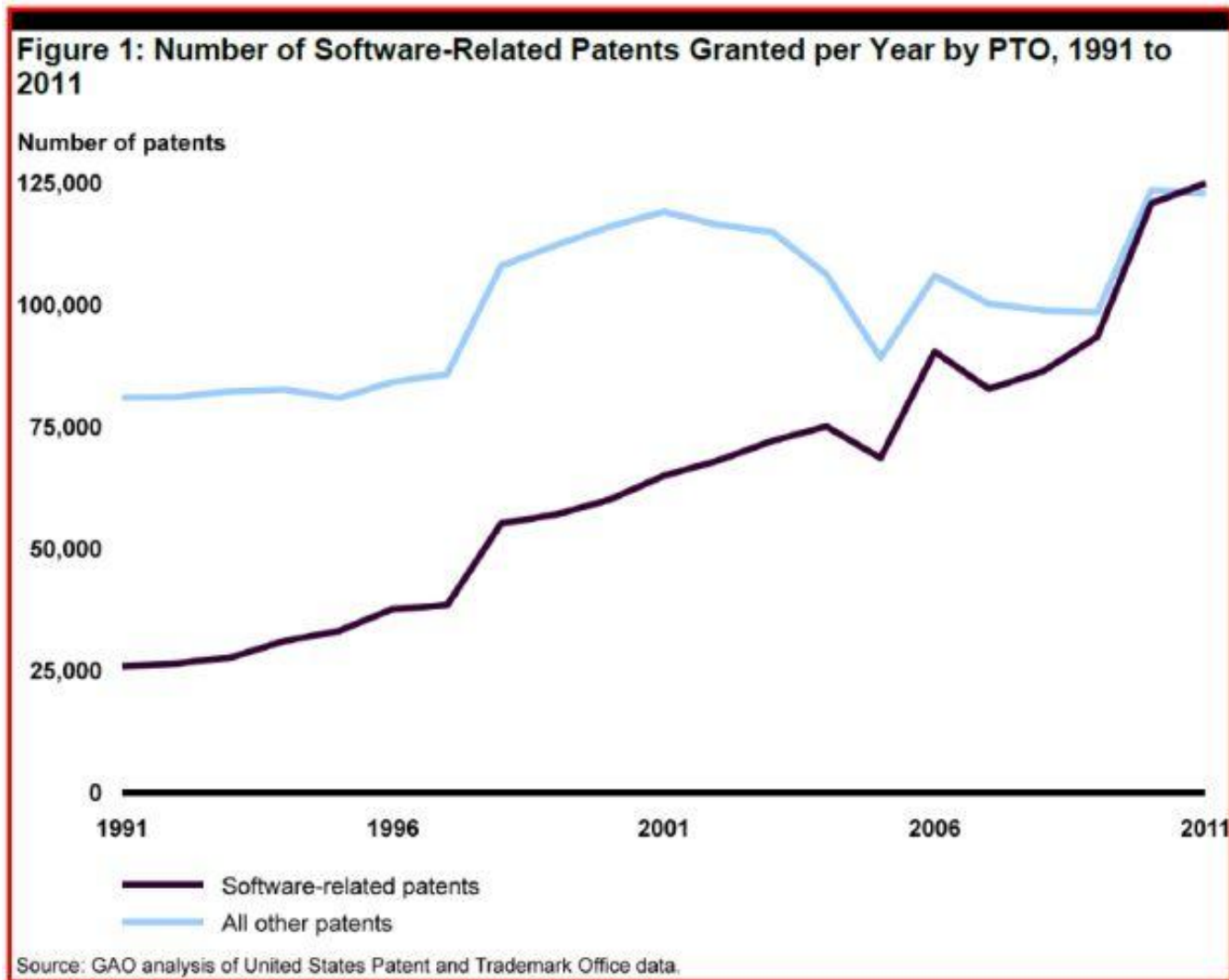
CD 1341 RPX Corporation

- System and Method for Distributed Content Electronic Commerce
- Network limitation essential to the claimed subject matter so statutory
- but rejected as obvious

Rise of Software Claims in U.S.

- U.S. Government Accountability Office (GAO) report AIA mandated study on consequences of patent litigation by NPEs
- Some interesting conclusions:
 - By 2011, patents related to software made up more than half of all issued patents [questioned by many based on expansive definition]
 - Number of defendants in patent cases increased by about 129% from 2007-2011 and software-related patents accounted for about 89% of the increase in defendants.
 - Same period, 46% of the patent lawsuits involved software-related patents
- One representative from retail company noted that historically, all of the patent infringement lawsuits related to products they sold. However, as of mid-2012, ½ of lawsuits related to e-commerce software that company uses for its shopping website – such as software that allows customers to locate their stores on the website.

GAO Study



GAO Study

Stakeholder identified three key factors that contributed to patent infringement lawsuits:

1. Unclear or overly broad patents
2. Potential for disproportionately large damage awards
3. Increasing recognition that patents are valuable asset

1. Claiming of an entire function – like sending an e-mail – rather than specific means of performing that function. Claims asserting to cover an entire technology or future technologies that patent did not originally intend to cover

2. Damages cited 25% rule – now discredited in U.S. and in Canada (*Varco v. Pason*). However, note while no jury trials in Canada, it appears accounting of profits is roaring back as remedy, \$52 million in *Varco* case and damages of \$120 million in *Merck* case.

3. UPSTO new guidelines for claims with functional language adopt uniform terminology in cooperation with software industry

Peculiarities of the Canadian technology market.

The peculiar position of the Canadian patent system in respect of the North American and world market. How much are we masters of our own destiny? Is a Canadian patent system that enlarges the scope of protection to cover more than the U.S system covers helpful ?

Canadian patent disproportionately harmful to Canadian business as it can prevent sales from home base throughout North America.

U.S. based business can operate in 90% of NA market without restriction from Canadian patent.

Canadian business can be seriously damaged by patent more restrictive than in the U.S. but can only really dominate a significant portion of the NA market by getting a U.S. patent.

What does this context say about the value of broad software patents in Canada?

International



*associate office




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Notes on Patent-Eligible Subject-Matter

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November 21, 2013

Bereskin & Parr
INTELLECTUAL PROPERTY LAW

Problems With Patent-Eligible Subject-Matter

- 1. Information Technology
- 2. Pharmaceuticals and Biotech
- 3. Patent Quality
- 4. Collateral Damage

What is a patent-eligible
invention?

The Patent Bargain:

- Enabling disclosure of invention – s-s. 27(3)
in return for
- Claims for subject-matter in which exclusive property or privilege is sought – s-s. 27(4)
 - No enabling disclosure = No patent

Requirement for Disclosure - *Consolboard*

a) What's the idea?

b) How do you do it?

Four Pillars of a Patent Claim

- (i) Statutory Subject-Matter
- (ii) Useful
- (iii) New
- (iv) Not Obvious

Confusion of Subject-Matter Issues with Non-Subject-Matter Issues

- Subject-matter = Nature of the invention
- Novelty/Obviousness = Scope of the invention
- Abstract/Mere idea/Aggregation
= Incomplete invention

(1) “*Science & the useful Arts*”

- Patent-eligible subject-matter must pertain to an (industrial) art or science – s-s. 27(3)

- Starting Point = US Constitution, Art. 1, S. 8:

“Congress shall have the power . . . to promote the progress of *Science and the useful Arts* by securing, for limited times, to authors and inventors the exclusive right to their writings and discoveries.”

- Canadian law copied from US law

(2) Statutory Class Pigeon-Holes

Invention must fall in a statutory class:

Useful art,

process,

machine,

manufacture,

composition of matter

- Or an improvement of any of them.
- Patent Act, s. 2 “invention”; 35 USC 101.

Business Methods v. Schemes For Conducting Business

- Issue is not the word “method”
 - I.e., not a s. 2 (Canada) or 35 USC 101 statutory pigeonhole analysis
- Issue is whether “Schemes for Conducting Business” qualify as “art” or “science”
 - s. 27(3) (Canada) or US Const. Art. 1, s. 8 analysis

Big confusion in US and Canadian courts

-
- *Bilski*, per Stevens J.:

“The Constitution allows Congress to issue patents “[t]o promote the Progress of . . . useful Arts,” Art I, s 8, cl 8. This clause is both a grant of power and a limitation *Graham*, 383 US at 5. . . . “This is the standard expressed in the Constitution and it may not be ignored. And it is in this light that patent validity “requires reference to [the] standard written into the Constitution.”

(3) It helps to start with an invention ...

All patent-eligible inventions must have:

- (i) idea or mental conception;
- (ii) means by which to practice the invention; and
- (iii) a linking of (i) and (ii) to form a coherent whole*.

* *Permutit v Borrowman*, [1926] 4 DLR 285, 43 RPC 356 (PC); *Rice v Christiani & Nielsen*, [1930] 4 DLR 401, [1930] SCR 443; *Wright v Brake Service Ltd*, [1925] Ex CR 127 (Can Ex Ct) at 130; affirmed [1926] SCR 434 (SCC); *Klaber's Patent* (1906), 23 RPC 461 (HL) at 469; *Mayo Collaborative Services v Prometheus Laboratories, Inc*, 132 S Ct 1289 (2012) per Breyer, page 11, lines 1–10.

(3) Lack of Completed Invention: Abstract Idea

- Mere idea without practical embodiment
- Mathematical formulae/scientific principle
/abstract idea
- = **Idea without practical means**
- Contrast:
- Exercise of professional/human judgement or skill
- = **Idea without fully enabling disclosure**

(3) Lack of Completed Invention – Cont'd: Aggregation

– Aggregation

Often confused with obviousness. Consider:

I claim:

- 1. A bulldozer and a grapefruit configured and adapted to be co-operably coupled thereto.*

Patent-eligible subject-matter?

*Not-to-be-emulated drafting style, suggestive of disreputable ancestry, chosen for purposes of illustration only.

(3) Lack of Completed Invention – Cont’d: Aggregation

- Individual elements notoriously old and obvious? Yes.
- Combination novel? Yes.
- Combination non-obvious? Yes.
- Combination has utility? Yes.

- Patentable? No.

- There is no coherent integrated “whole”.
- Juxtaposition of known elements with no integration.

Aggregation =

Practical Means without Inventive Idea

(3) Lack of Completed Invention – Cont’d: Cosmetic Enhancement

- *Diamond v. Diehr* *Parker v. Flook*
- *CLS Bank v. Alice* *Schlumberger v. Commr of Patents*
- *Lips’ Application* *In re Nuijten*
- *SAP v. Versata Dev. Group* *Accenture v. Guidewire*
- *Mayo v. Prometheus ?*

- Cosmetic enhancement: attempt to change the nature of non-patent-eligible subject-matter into an invention by meaningless limitations on scope.

**Cosmetic Enhancement = lack of
integrated linking of idea and means**

(3) Lack of Completed Invention – Cont’d: Cosmetic Enhancement

- *Diamond v. Diehr*:

“Similarly, insignificant post-solution activity will not transform an unpatentable principle into a patentable process. To hold otherwise would allow a competent draftsman to evade the recognized limitations on the type of subject-matter eligible for patent protection.”

Physicality?

- Armstrong - FM Radio
- Morse Code
- Chatfield – US parallel processing patent
- Rantzen – UK signal processing patent

- No logic in distinguishing software from functionally equivalent electro-mechanical apparatus

- “Physicality” is problematic in law and logic

- “Physicality” is driven by *Lawson* failure to understand difference between s-s. 27(3) and definition of “invention” under s. 2

Abstract?

- Supported by history and principles of patent law
- Indicative of an Incomplete Act of Invention
- Problem: litigated claims usually have value because they are not abstract, but altogether too practical and pragmatic
- “Abstract” can be a catch-all guise for refusing subject-matter is neither “*Science*” nor the “*useful Arts*”
- (a) conclusory; (b) arbitrary; and (c) impossibly elastic.

“Abstract” = Unpredictable approach inviting great abuse.

Abstract?

- *Bilski*, per Stevens J.:

“The patent before us is not for a principle, in the abstract, or a fundamental truth. . . . Nor does it claim the sort of phenomenon of nature or abstract idea The court, in sum, never provides a satisfying account of what constitutes an unpatenable abstract idea The Court essentially asserts its conclusion This mode of analysis (or lack thereof) may have led to the correct outcome in this case, but it also means that the Court’s musings on this issue stand for very little.”

Patent Quality

- Proposed Patent Quality Solutions:
 - (1) “First Let’s Kill All the (Patent) Lawyers ...”

(Shakespeare, Henry XI, Part 2, Act 4)
 - Fetter Examiner’s Latitude to Respond to Submissions Arguing Points of Law
 - Result: Punishes Small Inventors and Start-Up Innovators Who Cannot Afford Expensive Prosecution and Appeals

Patent Quality – Cont'd

- Proposed solutions to patent quality problems:
 - (2)“Reject More Applications”
 - Equates “Patent Quality” with low allowance rate:
= Heightened emphasis on rejections on technical grounds
- Contrary to purpose of *Act* “to promote the progress of Science and the useful Arts.”
- Punishes the innocent with the guilty
 - Contrary to basic principles of justice
 - Contrary to basic principles of administrative law

Patent Quality

- Proposed solutions to patent quality problems:
 - (2) “Reject More Applications” (Cont’d)
- Contrary to bargain of disclosure-for-claims
 - Good-faith disclosure has been made; too late to retract
 - Rejection on non-art-based grounds gives unfair windfall to inventor’s competitors
 - Contrary to Supreme Court of Canada precedent requiring a judicial anxiety to uphold validity of useful claims and not to be “too astute” in making technical objections.
- Favouring infringers and copiers over innovators is contrary to central purpose of the *Patent Act*

Patent Quality

- Proposed solutions to patent quality problems:
 - (3) Raise Administrative Hurdles
 - Aggressive multi-part requirements for restriction
 - Refuse clerical corrections
 - Raise obstacles to corrections of inventorship and applicant entitlement
 - Punishes the meritorious as much as the non-meritorious
 - Effect is to force abandonment of property by small entities that cannot afford multiple divisionals
 - Again: Windfall to infringers and copiers defeats basic purpose of the *Patent Act*

Patent Quality

- Proposed solutions to patent quality problems:
 - (4) Arbitrarily impose new administrative tests lacking a basis in Canadian law:
 - “Problem and Solution”: No basis in s. 27(3)
 - Contrary to SCC decision in *Consolboard*
 - Inventive step/Inventive concept approach:
 - No Basis in s. 27(4)
 - Not consistent with peripheral claiming

Patent Quality - Software

- Proposed patent quality solutions:
 - (5) “Prohibit Software Patents”
 - A.k.a. “Prohibit Computer-Implemented Inventions”

(Solution proposed by banks and health insurance companies – *Amazon.com v. Canada* (A.G.))

Patent Quality - Software

- All software = Collection of method steps
- “Algorithm” = synonym for “Method”
- If Method is patentable, how can converting it into software make it unpatentable?
- Software unpatentable, but use of functionally equivalent mechanical/electromechanical devices converts into patentable matter?

Patent Quality - Software

- Where does statute say some methods are not methods?
 - Fails test of finding a basis in the statute
- How does law distinguish “Business Methods” from Ordinary “Methods”?
 - Fails test of providing clear guidelines to the public
- Prohibition is indiscriminate between meritorious and non-meritorious
 - Fails test of basic principles of justice
- US 4,183,083 of Chatfield non-patent-eligible?
 - Prohibition empirically excludes known examples satisfying “Science” test
- Conclusion: Blanket software prohibition cannot be the correct solution.

Patent Quality

- Anti-Inventor Approach:
 - (a) Is Contrary to the Purpose of Having a *Patent Act*;
 - (b) Undermines the Dignity and Integrity of the Patent Office;
 - (c) Undermines Canada's Reputation and Credibility and Influence
 - (i) with Trading Partners;
 - (ii) with other Patent Offices
 - (iii) in the IP Community;
 - (iv) with Innovators.
- Innovation is the life-blood of a knowledge-based economy
- Institutional hostility to innovators is not consistent with a desire to be a leading innovator nation.

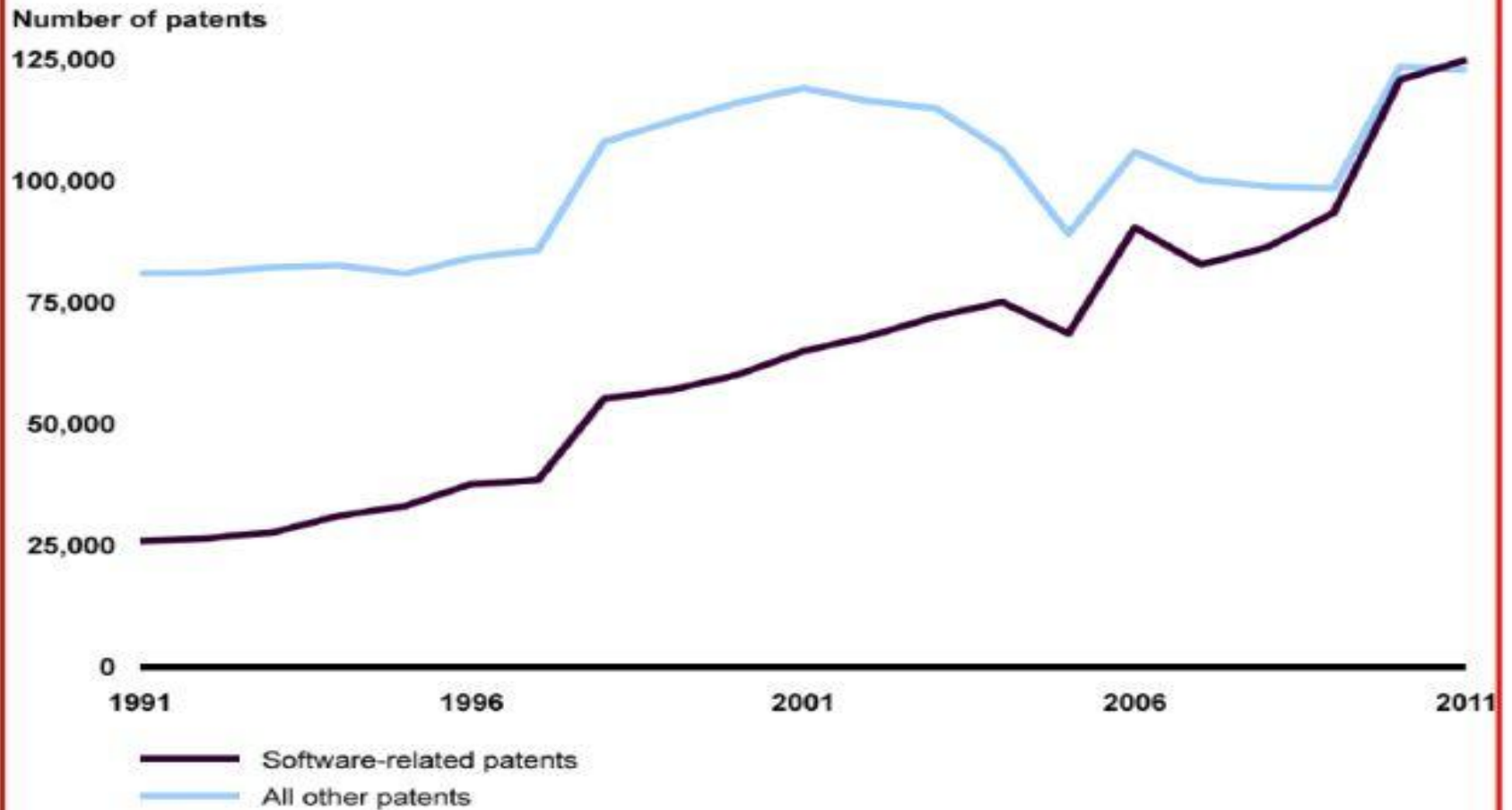
Too Many Patents?

- “Let’s get rid of all these patents”
 - The rallying cry of the Infringer.

-
- The US Software Apocalypse ???
 - (See GAO Chart From. B.W. Gray Presentation)

Is it ...

Figure 1: Number of Software-Related Patents Granted per Year by PTO, 1991 to 2011



Source: GAO analysis of United States Patent and Trademark Office data.

Or is it ... ?

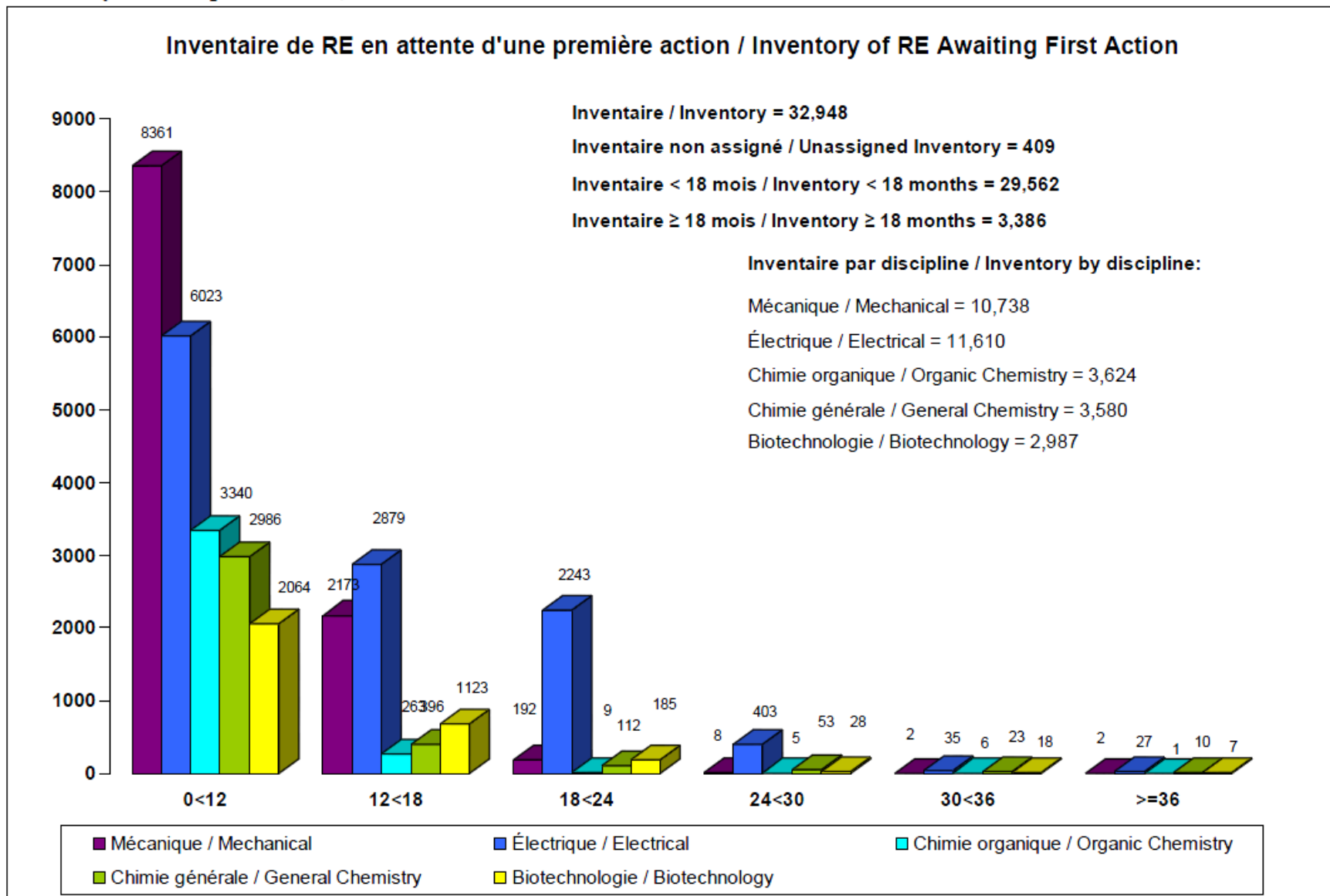
Class 705 Application Filing and Patents (From USPTO Website):

*This data is based on information available as of May 5, 2011

Fiscal Year	Class 705 Serialized Filings	Class 705 CPA-RCE-R129 Filings	Class 705 Total Filings	Class 705 Issues
2002	6,774	626	7,400	494
2003	6,387	1,310	7,697	486
2004	6,681	1,731	8,412	291
2005	6,976	2,056	9,032	711
2006	8,352	2,532	10,884	1,195
2007	9,843	2,925	12,778	1,333
2008	10,293	4234	14,527	1,643
2009	8,229	7,160	15,389	1,725
2010	8,495	8,736	17,231	3,649

-
- Some numbers from CIPO ...

Inventory as of September 30, 2013:



Trolls in Canada?

- Irregularities In English Grammar:
 - “Patent Troll”
 - “Non-Practicing Entity”
 - “Canny Investor in Undervalued Property”
- Too Many Patent Trolls in Canada?
 - Try naming ten

Trolls in Canada?

Not so Much

- US Litigation:
 - Each Party Bears Its Own Costs
 - Contingency Fees
 - Patent Trials Before Juries
- Canadian Litigation: Costs Follow The Event
- Consequence:

Bigger Risk For Unmeritorious Litigation In
Canada

Collateral Damage

Are “Trolls” the real danger to
Patent law in Canada?

Collateral Damage

- Serial distortion of existing Law and Procedure - *In Terrorem* reaction to *State Street* and to PMNOC/Pharma:
 - “Physicality”
 - Abuse of “Abstract”
 - Unicorn hunts for “Inventive Concept”, “Actual Invention”, and “Promise of the Patent” contrary to s-s. 27(4) and 27(3)
 - “Doctrine of Sound Prediction”
 - De-Facto Repeal of Re-Issue: Section 47
 - Abuse of Restriction Practice
 - Abuse of Obviousness-Double Patenting Rejections
 - Debasement of the MOPOP as a practice guide

The Real Problem in Canada:

Over-excited attempts to deal with a
US litigation problem

=

- (a) Damage to property rights of innovative businesses in Canada;
- (b) Hasty, ill-considered distortion of Patent law in Canada .

Err in haste, repent at leisure.

Patent Quality

- How do we improve patent quality?

We do injustice to the public by allowing unmerited claims.

We do injustice to innovators (and the public) by rejecting meritorious claims.

Patent Quality

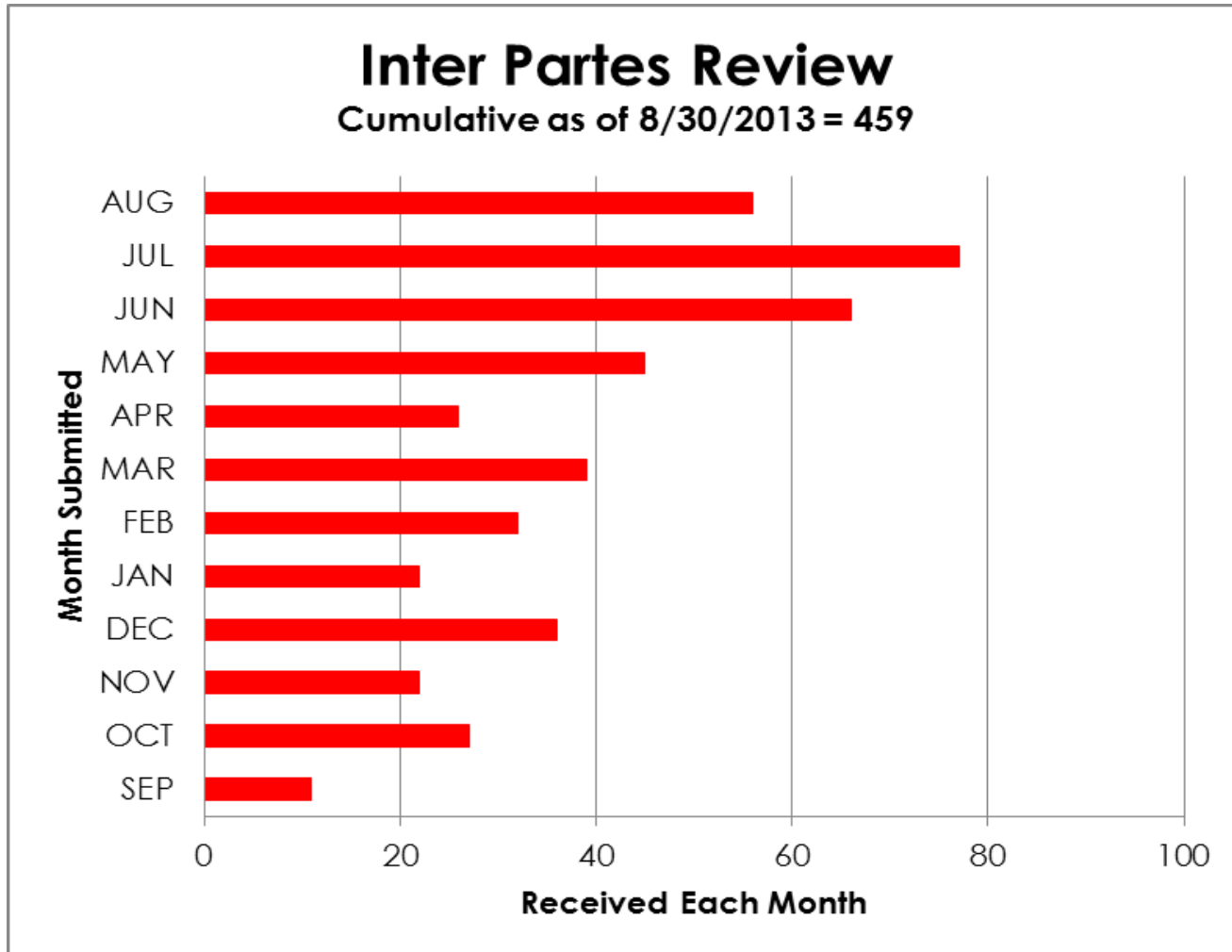
The measure of patent quality is not the number of allowances or rejections, but how often the Examiner gets *the right answer*.

No substitute for the hard work of highly-trained examiners doing careful searching and making thorough art-based examination.

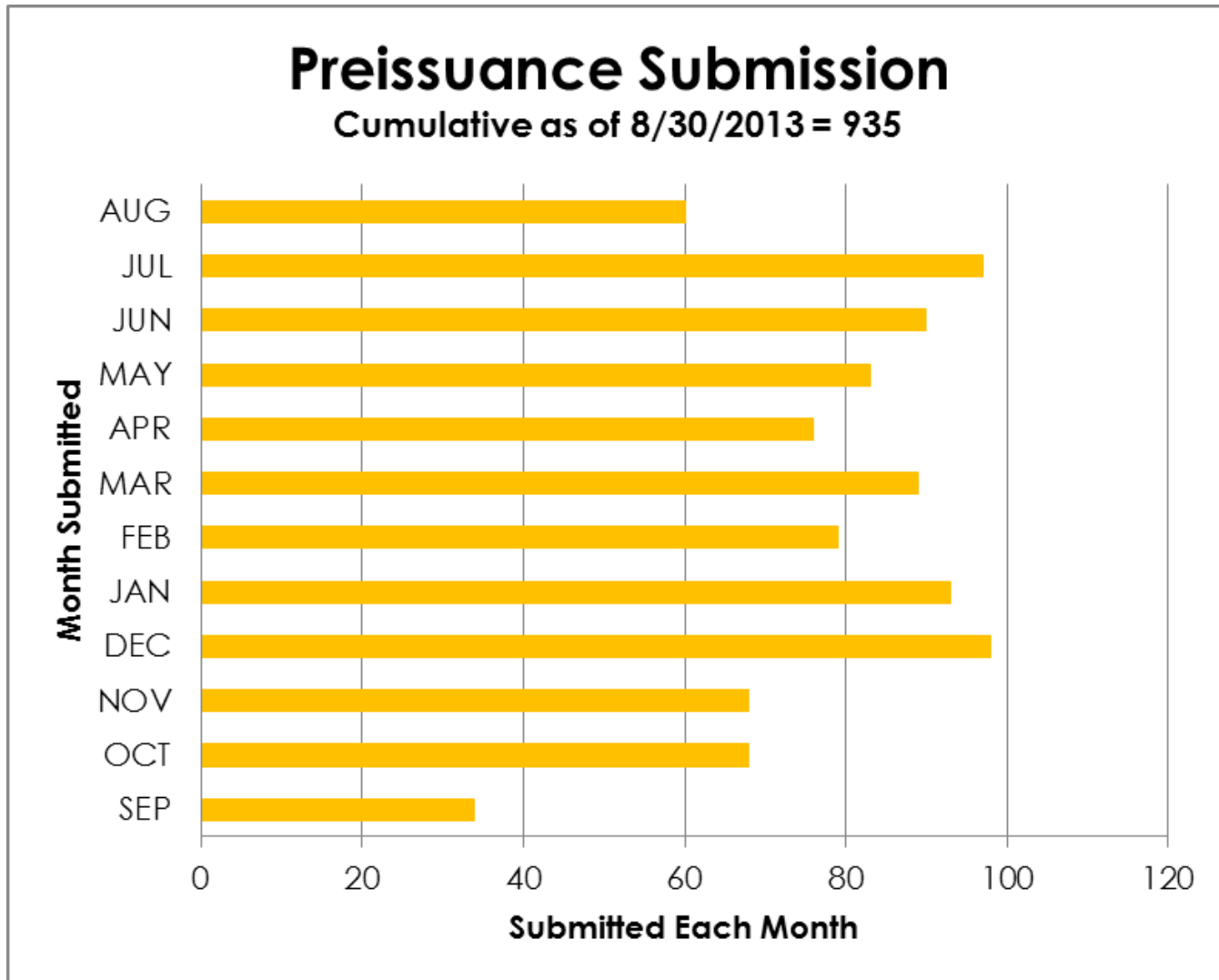
Patent Quality

- Reforms by USPTO:
 - More Examiners
 - Better Training of Examiners
 - A Work in Progress
- Improved pre- & post-grant procedures – AIA
- Removal of formerly abused provisions on best mode and inequitable conduct - AIA
- Addressing litigation problems?

USPTO Stats so far ...



USPTO Reported Stats, cont'd.



Patent Quality – Cont'd

- US Courts are slowly working their way toward the solution on subject-matter ...

-
- Existing cases do not provide useful guidance: *Bilski* majority; *Mayo v. Prometheus*; *CLS Bank v. Alice* (in Canada: *Amazon.com*)
 - Stevens J., in *Bilski*: Constitutional requirement of “*Science and the useful Arts.*”
 - Test of coherence in *Diamond v Diehr*, *Mayo v. Prometheus*
 - Not there yet.

The Claim in *CLS Bank v. Alice*

- 33. A method of exchanging obligations as between parties, each party holding a credit record and a debit record with an exchange institution, the credit records and debit records for exchange of predetermined obligations, the method comprising the steps of:
 - (a) creating a shadow credit record and a shadow debit record for each stakeholder party to be held independently by a supervisory institution from the exchange institutions;
 - (b) obtaining from each exchange institution a start-of-day balance for each shadow credit record and shadow debit record;
 - (c) for every transaction resulting in an exchange obligation, the supervisory institution adjusting each respective party's shadow credit record or shadow debit record, allowing only these transactions that do not result in the value of the shadow debit record being less than the value of the shadow credit record at any time, each said adjustment taking place in chronological order; and
 - (d) at the end-of-day, the supervisory institution instructing ones of the exchange institutions to exchange credits or debits to the credit record and debit record of the respective parties in accordance with the adjustments of the said permitted transactions, the credits and debits being irrevocable, time invariant obligations placed on the exchange institutions.

CLS Bank v. Alice, Fed Cir., en banc

- 4 separate, inconsistent, opinions
+ a “reflection”
= No useful guidance to the public

= As foreseen by Stevens J., in *Bilski*

-
- Does Claim 33 pertain to either:
 - (a) Scienceor
 - (b) the “*useful Arts*”?

CLS Bank v. Alice, cont'd

- Apply Stevens, J., concurring opinion in *Bilski* to *CLS Bank v. Alice*.
 - Clear guidelines to the public
 - Easily applied
 - Based on fundamental patent principles

Subject-Matter Rejected: Empirical Results

Non-Patent-Eligible Arts:

- The fine arts, such as methods of playing musical instruments; executing sculptures, drawings, portraiture; theatrical presentation; literary compositions
- Methods of practicing a profession, such as methods of surveying land, plans of architecture, methods of practicing law
- Plans for becoming rich
- A plan for the better government of a State
- A plan for the efficient conduct of business
- A plan for cooperative trading
- A plan for securing the payment of a discount
- Methods of medical treatment
- Arrangement of information on a chart
- Methods of taste testing beverages

Empirical Results – Cont'd

Claims Not Upheld

- Methods involving financial matters:
 - Methods of accounting and book-keeping
 - Methods of conducting an auction
 - Methods of buying and selling securities
 - Methods of hedging risks in commodities trading
 - Calculating values of an investment portfolio
 - A personal financial management system
 - Methods of tax planning
 - Methods of making checks on credit applications
 - Method of detecting fraud in a credit card transaction
 - A plan for securing the payment of a discount

-
- Maybe there is a better way ...

Order of Inquiry under the *Patent Act*

- For the Applicant entitled to seek the protection of the claims:
 - 1. Purposively construe the claims to ascertain
 - (a) the meaning of the claims to a person of ordinary skill in the art having a mind willing to understand being neither benevolent nor harsh, but fair as between the inventor and the public; and
 - (b) whether the subject-matter of the claims is both disclosed and enabled by the specification as filed.

Order of Inquiry – cont'd

- 2. As purposively construed, is the claimed invention:
 - (i) more than merely an idea that floated through the inventor's brain, i.e., more than a purely mental idea?
 - (ii) more than a mere aggregation of parts?
 - (iii) an idea or conception; and a practical way of realizing the idea?
 - (iv) directed toward a coherent whole?

Order of Inquiry – cont'd

- 3. If there has been an act of invention:
 - (a) Does the claimed invention fall within “science and the useful arts”?
 - (b) Does the invention fit in one of the statutory class divisions?
- Demonstration of a physical transformation of matter is a sufficient, though not necessary, condition to meet this test.

Order of Inquiry – cont'd

- 4. If otherwise statutory, is it subject to an explicit statutory exclusion under s. 27(8)?
- 5. Does the subject-matter have utility?
- 6. Is the invention new, i.e., novel under s 28.2 of the *Patent Act*?
- 7. Is the invention obvious, i.e., does it meet the requirements of section 28.3 of the *Patent Act*?

Concluding Comments

Patent Law in a Knowledge-Based Society



Thank You

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Bereskin & Parr
INTELLECTUAL PROPERTY LAW