アメリカの知財動向

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Introduction

アジェンダ

1．パテントトロール

- PWC, 2014 Patent Litigation Study
  – NPE　全体の28%（2009）→67%（2013）

NPE is defined as an entity that does not have the capability to design, manufacture, or distribute products with features protected by the patent.

損害賠償額平均	NPE（百万ドル）	その他（百万ドル）
1995-1999	5.6	5.5
2000-2004	11.3	5.7
2005-2009	7.3	4.3
2010-2013	8.5	2.5

2．特許適格性―最高裁

特許法101条

新規かつ有用な方法，機械，製造物若しくは組成物，又はそれについての新規かつ有用な改良を発明又は発見した者は，本法の定める条件及び要件に従って，それについての特許を取得することができる。

判例法：例外

- 自然現象 natural phenomenon
- 自然法則 laws of nature
- 抽象的なアイデア abstract idea

2．特許適格性ー最高裁（2）

1854 O'Reilly v. Morse 👎
1888 The Telephone Cases 🙂
1948 Funk Bros. Seed v. Kalo Inoculant 👎
1972 Gottschalk v. Benson 👎
1978 Parker v. Flook 👎
1980 Diamond v. Chakrabarty 🙂
1981 Diamond v. Diehr 🙂

1966年　特許制度に関する大統領委員会報告書

1998 State Street Bank
2001 Amazon One-click

2006 Lab Corp v. Metabolite Labs ?
2010 Bilski v. Kappos 👎
2012 Mayo v. Prometheus 👎
2013 AMP v. Myriad Genetics 👎🙂
2014 Alice v. CLS Bank 👎

O'Reilly v. Morse (1854)

Entitled to patent	Patent (claim) illegal and void
•Making the use of the motive power of magnetism, when developed by the action of such current or currents, substantially as set forth in the foregoing description, … as a means of operating or giving motion to machinery, which may be used to imprint signals upon paper or other suitable material, or to produce sounds in any desired manner, for the purpose of telegraphic communication at any distance. •Interposing a receptacle for heated air between the blowing apparatus and the furnace; a mechanical apparatus, by which a current of hot air, instead of clod, could be thrown in (Neilson)	•I do not propose to limit myself to the specific machinery or party of machinery described in the foregoing specification and claims; he essence of my invention being the use of the motive power of the electric or galvanic current, which I call electro-magnetism, however developed for marking or printing intelligible characters, signs, or letters, at any distance, being a new application of that power. •Propelling vessels by stream •A principle that hot air will promote the ignition of fuel better than cold

The Telephone Cases (1888)

Patent sustained	
•The method of, and apparatus for, transmitting vocal or other sounds telegraphically, as herein described, by causing electrical undulations, similar in form to the vibrations of the air accompanying the said vocal or other sounds, substantially as set forth; Putting a continuous current in a closed circuit into a certain specified condition suited to the transmission of vocal and other sounds, and using it in that condition for that purpose; Bell was the first to discover this fact, and how to put such a current in such a condition, and what he claims is its use in that condition for that purpose.	•The use of a current of electricity in its natural state as it comes from the battery

Funk Bros. v. Kalo Inoculant (1948)

	Not an "invention or discovery"
Each species has the same effect it always had. The bacteria perform in their natural way. Their use in combination does not improve in any way their natural functioning.	•Qualities of these bacteria, heat of the sun, electricity, qualities of metals: manifestations of laws of nature •Discovery of the fact that certain strains of each species of these bacteria can be mixed without harmful effect to the properties of either: discovery of the qualities of non-inhibition: handiwork of nature •The application of it is hardly more than an advance in the packaging of the inoculants… No species acquires a different use. The combination of species produces no new bacteria, no change in the six species of bacteria, and no enlargement of the range of their utility.

Gottschalk v. Benson (1972)

Patentable invention	Not 101 "process"
The "process" claim is so abstract and sweeping as to cover both known and unknown uses of the BCD claims (like Morse) •A novel and useful structure created with the aid of knowledge of scientific may •It is said that the decision precludes a patent for ay program servicing a computer. We do not so hold. (Diehr) If these programs are to be patentable, considerable problems are raised which only committees of Congress can manage	•Method of converting signals from binary coded decimal (BCD) form into binary which comprises the steps of (1) storing the binary coed decimal signals in a re-entrant shift register, (2) shifting the signals to the right by at least three places, until there is a binary '1' in the second position of said register… in a general-purpose computer = a generalized formulation for programs to solve mathematical problems = algorithm = an idea in practical effect (The mathematical formula involved here has no substantial practical application except in connection with a digital computer)

Parker v. Flook (1978)

Patent eligible	Not patent eligible
•The line between a patentable "process" and an unpatentable "principle" is not always clear. •The process itself, not merely the mathematical algorithm, must be new and useful. Indeed, the novelty of the mathematical algorithm is not a determining factor at all. •Even though a a phenomenon of nature or mathematical formula may be well known, an inventive application of the principle may be patented. Conversely, the discover of such a phenomenon cannot support a patent unless there is some other inventive concept in its application.	•An "alarm limit" is a number. •A method of updating alarm limits during catalytic conversion process, in essence, consisting steps of: (1) merely measuring the PV of the process valuables; (2) using an algorithm to calculate an updated alarm-limit value; and (3) adjusting the actual alarm limit to the updated value. (The only novel feature of this method is a mathematical formula.) •Limiting practical application to petrochemical and oil-refining industries (cf. Benson)

Diamond v. Chakrabarty (1980)

	Not patentable subject matter
•1) Process claims for the method of producing the bacteria •2) Claims for an inoculum comprised of a carrier material floating on water, such as straw, and the new bacteria •3) Claims to the bacteria themselves: His claim is not to a hitherto unknown natural phenomenon, but to a nonnaturally occurring manufacture or composition of matter – a product of human ingenuity "having a distinctive name, character [and] use; (cf. Funk) a new bacterium with markedly different characteristics from any found in nature and one having the potential for significant utility •Policy matter? No, the subject-matter provisions of the patent law have been cast in broad terms.	•A new mineral discovered in the earth (created wholly by nature unassisted by man) •A new plant found in the wild •Manifestations of nature (Diehr) •$E=mc^2$ •Newton's law of gravity

Diamond v. Diehr (1981)

Patentable subject matter	Limitation to 101
•Physical and chemical process for molding precision synthetic rubber products as a whole, if the computer use incorporated in the process patent significantly lessens the possibility of "overcuring" or "undercuring" •Application of a law of nature or mathematical formula to a known structure or process	•Laws of nature; Natural phenomena; Abstract idea •A principle, in the abstract, is a fundamental truth; an original cause; a motive •A new mineral discovered in the earth or new plant found in the wild •Scientific truth or the mathematical expression of it

Our earlier opinions lend support to our present conclusion that a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula, computer program, or digital computer.

Lab Corp v Metabolite Labs (2006)

- SCt: Respondent's patent claims a method for detecting a form of vitamin B deficiency, which focuses upon a correlation in the human body between elevated levels of certain amino acids and deficient levels of vitamin B. The method consists of the following: First measure the level of the relevant amino acids using any device, whether the device is, or is not, patented; second, notice whether the amino acid level is elevated and, if so, conclude that a vitamin B deficiency exists. Is the patent invalid because on cannot patent "laws of nature, natural phenomena, and abstract ideas"? Diamond v Diehr
- SG: claim 13 may "involve" an unpatentable natural principle, but it could be patentable if it also "entails the transformation and reduction of an article to a different state or thing." [T]he Court should not grant certiorari because the Petitioner had failed to raise and litigate the issue of patentable subject matter in the lower courts, and that failure meant crucial facts were absent in the record.
- SCt: GRANTED CERTIORARI
  - Whether a method patent setting forth an indefinite, undescribed, and non-enabling step directing a party simply to "correlat[e]" test results can validly claim a monopoly over a basic scientific relationship used in medical treatment such that any doctor necessarily infringes the patent merely by thinking about the relationship after looking at a test result
- SCt: DISMISSED AS IMPROVIDENTLY GRANTED
  - Dissenting by Justice Breyer, with whom Justices Stevens and Souter join

Bilski v. Kappos (2010)

Patent eligible	Not patent eligible
•Business methods may (as included in "process")	•Both the concept of hedging risk and the application of that concept to energy markets: abstract ideas •The concept of hedging (claim 1) and reduced to a mathematical formula in claim 4 are unpatentable abstract ideas •Remaining claims (limiting hedging to use in commodities and energy market and specifying that "well-known random analysis techniques to help establish some of the inputs into the equation): limiting an abstract idea to one field of use or adding token postsolution components (Flook)

Mayo v. Prometheus Lab (2012)

Patent eligible	Not patent eligible
•process reciting a law of nature, if that process has additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself	•Relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage of a thiopurine drug will prove ineffective or cause harm: laws of nature •The relation is a consequence of the ways in which thiopurine compounds are metabolized by the body – entirely natural processes •Process consisting of simply telling linear accelerator operators to refer to the law to determine how much energy an amount of mass has produced (or vice versa) •"administering;" "determining;" and "wherein" steps: not natural laws but … the combination amounts to nothing significantly more than an instruction to doctors apply the applicable laws.

Simply referring to the relevant audience- doctors

Simply telling a doctor about the relevant natural law

Telling the doctor to determine the level of the relevant metabolites: purely "conventional or obvious" "[pre]solution" activity

Mayo (continues)

•As if the principle being well known, the plaintiff had first invented a mode of applying it by a mechanical apparatus •Process included not only a law of nature but also several unconventional steps (such as inserting the receptacle, applying heat to the receptacle externally, and blowing the air into the furnace) that confined the claims to a particular, useful application of the principle •A new drug or a new way of using an existing drug	•Simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract idea •Simply instructing users to use the principle that hot air promotes ignition better than cold air

AMP v. Myriad Genetics 9-0 (2013)

Patent eligible	Not patent eligible
•cDNA is patent eligible because it is not naturally occurring (2. the isolated DNA of claim 1, wherein said DNA has the nucleotide sequence set forth in SEQ ID NO:1) (6. an isolated DNA having at least 15 nucleotides of the DNA of claims 2); creation of a cDNA sequence from mRNA results in an exons-only molecule that is not naturally occurring; not a "product of nature" except insofar as very short series of DNA may have no intervening introns to remove when creating cDNA •Chakrabarty's bacterium was new "with markedly different characteristics from any found in nature" due to the additional plasmids and resultant "capacity for degrading oil."	•A naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated (1. an isolated DNA coding for a BRCA1 polypeptide which has the amino acid sequence set forth in SEQ ID NO:2)(5. an isolated DNA having at least 15 nucleotides of the DNA of claim 1) •Naturally occurring phenomena  Nor do we consider the patentability or DNA in which the order of the naturally occurring nucleotides has been altered.

Alice v. CLS Bank (2014)

Patent eligible	Not patent eligible
2-part test from Mayo: 1) Whether the claims at issue are directed to a patent-ineligible concept 2) If so, if there is any inventive concept- i.e. an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself	•A method of exchanging obligations as between parties, each party holding a credit record and a debit record with an exchange institution…, the method comprising the steps of: (1) creating a shadow credit record and a shadow debit record for each stakeholder party … = the concept of intermediated settlement i.e. the use of a third party to mitigate settlement risk = abstract idea (like Bilski) •Recitation of a computer amounts to a mere instruction to "implement" an abstract idea "on … a computer" •Wholly generic computer implementation in general •Steps of using a computer to obtain data, adjusting account balances and issuing automated instructions: each does no more than require a generic computer to perform generic computer functions
•[the claims doing more than simply instructing the practitioner to implement the abstract idea of intermediated settlement on a generic computer	
Viewed as a whole, simply recite the concept of intermediated settlement as performed by a generic computer, … and no specific or limiting recitation of … improved computer technology	

Alice (continues)

•[Claims offering] a meaningful limitation beyond generally linking 'the use of the (method) to a particular technological environment]	•System claims: what P characterizes as specific hardware – a "data processing system" with a "communications controller" and "data storage unit," for example, is purely functional and generic; the system claims are no different from the method claims in substance- [While t]he method claims recite the abstract idea implemented on a generic computer, the system claims recite a handful of generic computer components configured to implement the same idea

3．特許適格性ーその他

- Alice後のFed Cir
  - In re Roslin Institute (May 8, 2014)
  - Digitech Image Tech v. Elec Imaging, Inc. (July 11, 2014)
  - Planet Bingo v. VKGS (Aug. 26, 2014)
- USPTO
  - メモ (June 25, 2014)

    http://www.uspto.gov/patents/announce/alice_pec_25jun2014.pdf
  - Myriad特許　IPR

４．分析

条文解釈がまず先で、通常の、時代に合った、共通の意味から解釈されなければならない。

特許法101条

新規かつ有用な方法，機械，製造物若しくは組成物，又はそれについての新規かつ有用ないかなる改良をも発明又は発見した者は，本法の定める条件及び要件に従って，それについての特許を取得することができる。

Chakrabarty

Flook

Diehr

Chakrabarty

判例法：例外

- 自然現象 natural phenomenon
- 自然法則 laws of nature
- 抽象的なアイデア abstract idea

立法が示していない制限や条件をむやみに課すべきでない

The concept of patentable subject matter under 101 is not "like a nose of wax which may be turned and twisted in any direction."

５．日本のグローバル知財戦略のための提言

- 専門家の早い関与
- いい専門家
- 法律的＋技術的＋ビジネス的思考

ご清聴ありがとうございました！

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小野奈穂子

- Lerner David法律事務所
  - 知財専門：弁護士70名＋
  - 知財フルサービス（出願～ライセンスその他第三者交渉～訴訟）
  - クライアントとの長期的関係を重視
  - NYマンハッタンの郊外