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Patent English in the Context of Patent-Eligibility

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Abstract

The patent system is used to boost technical innovation by granting to an inventor an exclusive right to stop others from exploiting her inventions. The system requires an inventor to file a patent application to a designated governmental agency. To file a patent application, the applicant usually needs a specialist who is familiar with paten prosecution and patent law. To become a patent specialist in Taiwan, a person might have to pass the patent attorney bar exam where "Patent English" is one of the test subjects. But, the scope of "Patent English" has not been well elaborated since the test subject "Patent English" was created. This paper defines "Patent English" as a kind of English for special purposes in the context of patent prosecution. "Patent English" is used to convey thoughts or knowledge from one specialist to another specialist. In the context of patent prosecution, specialists have to address various legal issues when deciding whether to file a patent application. One of those issues is "patent-eligibility." Under 35 U.S.C. § 101, a law of nature, a physical phenomenon, or an abstract idea cannot be a patent-eligible subject matter. In this paper, court decisions related to "paten eligibility" are analyzed to illustrate how a patent specialist should talk about the eligibility issue. First, this paper defines the scope of the context related to patent-eligibility issues. While doing so, this paper also introduces some concepts in the American patent law. Second, several selected court decisions are analyzed in terms of frequent words (e.g., nouns, verbs.) and sentence structure. Those cases are relatively important cases. Before analyzing decisions, this paper will discuss proposed theories related the analysis. This paper has several findings. First, the issue of "patent-eligibility" is often related to a process invention and rarely related to a product invention. A process claim is featured with a claim of several steps. Second, a way to explain why a claim is not patent-eligible follows some pattern. This paper lists some sentence examples that could serve as teaching examples for a course of Patent English.

Keywords: Patent law, patent English, patent eligibility, 35 U.S.C. § 101

在專利適格性下的專利英文

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摘要

專利制度是用來鼓勵技術創新發明的制度，以獨佔權交換發明人的發明揭露。為獲得專利權，發明人必須提出專利申請。相關的文件是由專家所準備，而該專家在我國為專利師。專利師的國家考試科目中有「專業英文」一項，其測試應考者以英語溝通專利事務的能力，即「專利英文」的能力。雖「專業英文」已是考試科目多年，但「專利英文」的內涵還未被完整闡述。本文以 ESP 的角度來看待「專利英文」而認為「專利英文」即專利申請過程中本國專利師與外國專利代理人溝通時所必要的英文能力。專利師必須溝通的法律議題包括「專利適格性」。美國專利法第 101 條延伸的法理為自然法則、物理現象或抽象思想為不適格的專利標的。本文以美國判決為文本來研究如何敘述「專利適性性」的議題。首先，本文界定「專利適格性」爭點的概念。接著，本文選了幾件與該爭點有關的法院判決，以分析常用字彙和語句結構。本文的發現有幾點。第一，「專利適格性」通常與方法專利有關，而方法專利由數個步驟所構成的權利範圍。第二，法院在闡述「專利適格性」時有採取一定的形式。本文列出相關的句型以做為「專利英文」教學之用。

關鍵字：專利法，專利英文，專利適格性，第 101 條

1. Introduction

The patent system is used to boost technical innovation by granting to an inventor an exclusive right to stop others from exploiting her inventions (Chisum et al., 2004). The system requires an inventor to file a patent application to a designated governmental agency (United States Patent and Trademark Office, 2010). To file a patent application, the applicant usually needs a specialist who is familiar with paten prosecution and patent law.

To be officially recognized as a patent specialist in Taiwan, a person has to pass the patent attorney bar exam where "Patent English" is one of the test subjects. But, the scope of "Patent English" has not been well elaborated since the test subject "Patent English" was created. This paper defines "Patent English" as a type of English for special purposes in the context of patent prosecution. "Patent English" is used to convey thoughts or knowledge from one specialist to another specialist.

In the context of patent prosecution, specialists have to address various legal issues when deciding whether to file a patent application. One of those issues is "patent eligibility." Under 35 U.S.C. § 101, a law of nature, a physical phenomenon, or an abstract idea cannot be a patent-eligible subject matter (Chisum et al., 2004).

In this paper, court decisions related to "paten eligibility" are analyzed to illustrate how a patent specialist should talk about the eligibility issue. First, this paper defines the scope of the context related to patent-eligibilities issues. While doing so, this paper also introduces some concepts in the American patent law. Second, several selected court decisions are analyzed in terms of frequent words (e.g., nouns, verbs.) and sentence structure. The frequent words and sentences are selected because they are used in the context of describing patent issues by legal professionals. Before analyzing decisions, this paper will discuss proposed theories related the analysis.

2. Introduction of the U.S. Patent Law

To be protected by a patent, an invention has to be industrially useful, novel, and non-obvious in views of an ordinary skilled person in the art (Chen, 2011). In the United States, the "novel" requirement requires that all elements as a whole of an invention cannot be found in a

single prior art document (Chisum et al., 2004, p. 324). The "non-obvious" requirement requires that an invention has to be non-obvious to the extent that an ordinary skilled person in the art cannot combine more than two prior art documents to come out with the invention (p. 532-537). The "industrially useful" requirement requires that an invention must be useful (p. 735-736).

In addition, an invention has to meet the requirement of "patent-eligibility" that might be part of the "industrially useful" requirement (Chisum et al., 2004, p. 772). An alternative term is "patentable subject matter" (Eisenberg, 2012). An invention for an abstract idea, physical phenomenon, or law of nature is not eligible for a patent (Ibid).

The Federal judicial system in the United States is a three-tier system (Chemerinsky, 2007; Nedzel, 2008).When a law suit for patent infringement is brought by a patentee in the United States, the court of original jurisdiction is a federal district court (Chisum et al., 2004, p. 29). The appellate court is the United States Court of Appeals for the Federal Circuit ("Federal Circuit") (p. 26-27). The final court deciding legal doctrines of the patent law is The Supreme Court of the United States ("Supreme Court") (Abernathy, 2006; Duff, 2010). The Federal Circuit is a specialized court for patent cases. In general, the legal doctrines of the patent law are developed by the Federal Circuit. However, the Supreme Court will step in to review the decisions of the Federal Circuit if the decisions are wrong in terms of the Constitution of the United States or the statutory interpretation of the patent law.

A patent document includes a specification, claims and drawings (Chen, 2011). A claim defines the invention. When determining whether an invention is patentable or whether a patent is infringed, a court looks to the language of a claim. When discussing whether an invention is patent-eligible, the focus is on the claims not what is disclosed in the specification.

3. Methodology

This article focuses on one topic of ESP which is grammatical structures and core vocabulary (Basturkmen, 2006). The examples of the grammatical structures are verb tenses, conditional clauses, and noun phrases (p. 35). To further understand the grammatical preference in the context of patent-eligibility, several court decisions are selected for analysis in terms of frequent words (e.g., nouns, verbs.) and sentence structure.

Two decisions from the Supreme Court are selected for analysis: *Gottschalk v. Benson*, 409

U.S. 63 (1972); *Parker v. Flook*, 437 U.S. 584 (1978). They are picked up because they are key decisions (Chisum et al., 2004, p. 829). Five decisions from the Federal Circuit are selected for analysis: *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008); *In re Comiskey*, 554 F.3d 967 (Fed. Cir. 2009); *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319 (Fed. Cir. 2010); *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010); and *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011). These cases are relatively important cases because they are binding to all federal courts. Additionally, *Cybersource Corp.* was first selected, and other cases are cited in *Cybersource Corp.*

4. Patent English and Patent Eligibility

4.1 Patents at Dispute in the Context of Patent-eligibility

Table 1 shows the claimed inventions in the selected cases. Most of those inventions are methods claims. Two like-product claims are found in *In re Comiskey* and *Cybersource Corp. v. Retail Decisions, Inc.* In *In re Comiskey*, the like-product claim was a system for mandatory arbitration regarding one or more unilateral documents comprising several components, such as a registration module for controlling a person in an arbitration proceeding, an arbitration module for incorporating arbitration language, an arbitration resolution module for requiring a complaint to do something, and a means for selecting an arbitration from a database (p. 971). The Federal Circuit did not rule on the issue of patent-eligibility regarding such the system claim. Instead, it vacated the patent-examining agency's decision to reconsider the issue in accord with the rulings (p. 981-982). In *Cybersource Corp.*, however, the Federal Circuit considered "a computer readable medium" as a method claim because the fundamental structure of the medium claim was based on steps (p. 1373-1374). As a result, patents at dispute in the context of patent-eligibility may always refer to method claims.

Table 1 Claimed inventions in the selected cases.

Case Name	Claimed Invention at Dispute
Gottschalk v. Benson	• A method of converting signals from binary coded decimal form into binary • A data processing method for converting binary coded decimal

	number representations into binary number representations
Parker v. Flook	• A method for updating the value of at least one alarm limit on at least one process variable involved in a process comprising the catalytic chemical conversion of hydrocarbons
In re Bilski	• A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price
In re Comiskey	• A method for mandatory arbitration resolution regarding one or more unilateral documents • A system for mandatory arbitration resolution regarding one or more unilateral documents
SiRF Tech., Inc. v. Int'l Trade Comm'n	• A method for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals
Research Corp. Techs. v. Microsoft Corp.	• A method for the halftoning of gray scale images by utilizing a pixel-by-pixel comparison of the image against a blue noise mask • A method for the halftoning of color images
Cybersource Corp. v. Retail Decisions, Inc.	• A method for verifying the validity of a credit card transaction over the Internet • A computer readable medium containing program instructions for detecting fraud in a credit card transaction between a consumer and a merchant over the Internet

4.2 How to Introduce a Legal Issue

When introducing a legal issue, a court may mention the factual background of a case. The factual background includes the acts of infringement, the details of the patent at dispute, the events occurring in the civil procedure, the arguments from both parties, and the opinions of lower courts or patent-examining agency.

Particularly for purposes of patent-eligibility, we focus on the details of the patent at dispute, the arguments from both parties, and the opinions of lower courts or patent-examining agency.

When describing a patent, or a claim, at dispute, the sentence examples are as follows:

- In *Gottschalk*:

- "They ***claimed*** a method for converting binary-coded decimal (BCD) numerals into pure binary numerals" (p. 64).
- "The conversion of BCD numerals to pure binary numerals can be ***done*** mentally through use of the foregoing table" (p. 67).

- In *Parker*:
  - "[Respondent's process] ***contains*** a mathematical algorithm as one component" (p. 594).
  - "Respondent's application simply ***provides*** a new and presumably better method …" (p. 594-595).
- In *In re Comiskey*:
  - "Comiskey's patent application … ***claims*** a method and system for …" (p. 970).
  - "Independent claim 1 ***recites*** a 'method for mandatory arbitration …" (Ibid).
  - "Claim 1 ***states*** in full: …" (Ibid).
  - "Comiskey's application may be viewed as ***falling within*** the general category of 'business method' patents" (p. 975-976).
- In *SiRF Tech., Inc.*:
  - "Claim 1 ***recites***: …" (p. 1331).
  - "Claim 1 … is expressly ***directed*** in its preamble ***to*** 'calculating an absolute position …" (p. 1332)
  - "[Claim 1] also ***refers to*** 'computing absolute position' by …" (Ibid).
- In *Research Corp. Techs.*:
  - "The invention ***presents*** functional and palpable applications in the field of computer technology" (p. 868).
  - "These inventions ***address*** 'a need in the art for a method of and apparatus for …" (Ibid).
  - "This court also ***observes*** that the claimed methods ***incorporate*** algorithms and formulas …" (p. 869).
- In *Cybersource Corp.*:
  - "We first ***address*** claim 3 of the [patent], which ***recites*** a method for verifying the validity of a credit card …" (p. 1370).
  - "Claim 3, … , ***reads*** in its entirety: …" (Ibid).

- "[W]hile claim 3 ***describes*** a method of analyzing data …, nothing in claim 3 ***requires*** an infringer to use the Internet …" (Ibid).
- "All of claim 3's method steps can be ***performed*** in the human mind, or by a human using a pen and paper" (p. 1372).

When mentioning the arguments made by the parties, the sentence examples are as follows:

- In *In re Comiskey*:
  - "Comiskey has ***conceded*** that these claims do not require a machine" (p. 981).
- In *SiRF Tech., Inc.*:
  - "Appellant also ***challenge*** the Commission's finding …" (p. 1331).
- In *Cybersource Corp.*:
  - "Cybersource ***acknowledges*** that the 'Internet address' recited in step (a) …" (p. 1370).
  - "Cybersource further ***concedes*** that the 'map of credit card umbers' recited in step (b) …" (Ibid).

When summarizing lower courts' or administrative agencies' decisions, the sentence examples are as follows:

- In *SiRF Tech., Inc.*:
  - "The ALJ ***held*** that … and therefore ***found*** them directed to patentable subject matter" (p. 1332).
- In *Research Corp. Techs.*:
  - "[T]he district court ***held*** on summary judgment that the asserted claims … were invalid under 35 U.S.C. § 101" (p. 866).
- In *Cybersource Corp.*:
  - "[T]he district court ***found*** that claim 3 recited …" (p. 1368).
  - "The court further ***found*** with respect to claim 2 that …" (Ibid).

4.3 How to Present Legal Doctrines and their Applications

- In *Gottschalk*:
  - "***Here*** the 'process' claim is so abstract and sweeping as to cover …" (p. 68).
  - "We do not ***hold*** that no process patent could ever qualify if it did not meet the requirements of our prior precedents" (p. 71).

- "The mathematical formula involved here has no substantial practical application except in connection with a digital computer" (Ibid).

- In *Parker*:
  - "The rule that … ***rests***, ***not on*** the notion that …, ***but rather on*** the more …" (p. 593).
  - "The obligation to determine what … must ***precede*** the determination of whether …" (Ibid).
  - "To a large extent our conclusion is ***based on*** reasoning derived from opinions" (p. 595).
  - "Neither the dearth of precedent, nor this decision, should therefore be ***interpreted*** as ***reflecting*** a judgment that …" (Ibid).
- In *In re Comiskey*:
  - "It is ***well-established*** that 'whether the asserted claims …" (p. 975).
  - "[T]here may be cases in which the legal question as to patentable subject matter may ***turn on*** subsidiary factual issues" (Ibid).
  - "[T]he legal issue concerning patentability is not 'a determination of policy …" (Ibid).
- In *SiRF Tech., Inc.*:
  - "Whether a claim is ***drawn*** to patent-eligible subject matter is an issue of law that we review *de novo*" (p. 1331).
  - "We ***agree*** with the Commission that the claims in question satisfy this test" (p. 1332).
  - "We also ***think*** that the presence of the GPS receiver in the claims places a meaningful limit on the scope of the claims" (p. 1332-1333).
  - "In conclusion, we ***hold*** that the claims at issue are properly directed to patentable subject matter as they explicitly require the use …" (p. 1333).
- In *Research Corp. Techs.*:
  - "This court also ***reviews*** questions about patent-eligible subject matter under 35 U.S.C. § 101 ***without deference*** (p. 867).
  - "As a process, the subject matter ***qualifies*** under both the categorical language of section 101" (p. 868).

- "This court ***proceeds*** to ***examine*** the Supreme Court's three exceptions" (Ibid).

- In *Cybersource Corp.*:
  - "The categories of patent-eligible subject matter are ***set forth*** in § 101" (p. 1369).
  - "We are not ***persuaded*** by the appellant's argument that the claimed method is tied to a particular machine" (p. 1370).
  - "Following the Supreme Court, we have similarly held that mental processes are not patent-eligible subject matter" (p. 1371).

4.4 How to Describe the Supreme Court's Opinions

The Federal Circuit relies on the Supreme Court's precedents to determine whether a claimed invention is patent-eligible. So, it is worthy observing how the Federal Circuit refers to the Supreme Court's decisions.

In *In re Comiskey*, the sentence examples are as follows:

- "***According to*** the Supreme Court, this constitutional limitation on patentability 'was written against …" (p. 976).
- "[T]he Supreme Court ***has made clear that*** the 1952 language change had no substantive effect" (p. 977).
- "Supreme Court ***decisions*** after the 1952 Patent Act have ***rejected*** …" (Ibid).
- "[T]he Supreme Court ***explained*** that …" (Ibid).
- "The Supreme Court ***has held*** that …" (p. 978).
- "In *Diehr*, the Supreme Court ***confirmed*** that …" (Ibid).
- "The Supreme Court ***has stated*** that …" (p. 979).

In *Research Corp. Techs.*, the sentence examples are as follows:

- "In its *Bilski* decision, the Supreme Court ***invoked*** again some of its earlier cases" (p. 867).
- "[T]he Supreme Court ***has*** 'more than once ***cautioned*** that …" (Ibid).
- "The Supreme Court ***has articulated*** only three exceptions" (Ibid).
- "The Supreme Court ***reasoned*** that laws of nature and natural phenomena fall outside …" (p. 867-868).
- "[T]he Supreme Court ***advised that*** section 101 eligibility should not become …" (p.

868).

- "[T]he Supreme Court ***invited*** this court to develop …" (Ibid).

In *Cybersource Corp.*, the sentence examples are as follows:

- "The Supreme Court ***affirmed*** our *Bilski* decision, but in doing so it ***rejected*** use …" (p. 1369).
- "In holding that …, the Supreme Court ***has made clear*** that …" (p. 1371).
- "In finding …, the Supreme Court ***appeared to*** endorse the view that …" (Ibid).
- "The Supreme Court ***reaffirmed*** and ***extended*** its *Benson* holding" (Ibid).
- "[T]he Supreme Court ***found*** in *Benson* that …" (p. 1375).
- "The Court ***reached*** that conclusion …" (p. 1376).

5. Findings and Further Research

This paper has some findings. First, the issue of "patent-eligibility" is often related to a process invention and rarely related to a product invention. A process claim is featured with a claim of several steps. Second, a way to explain why a claim is not patent-eligible follows some pattern. This paper lists some sentence examples that could serve as teaching examples for a course of Patent English. Further research needs to be done. For example, the use of verb tense is worthy being studied because the preference of "verb tense" is part of Patent English.

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