Software Patent Eligibility in Japan

Intellectual Property High Court of Japan

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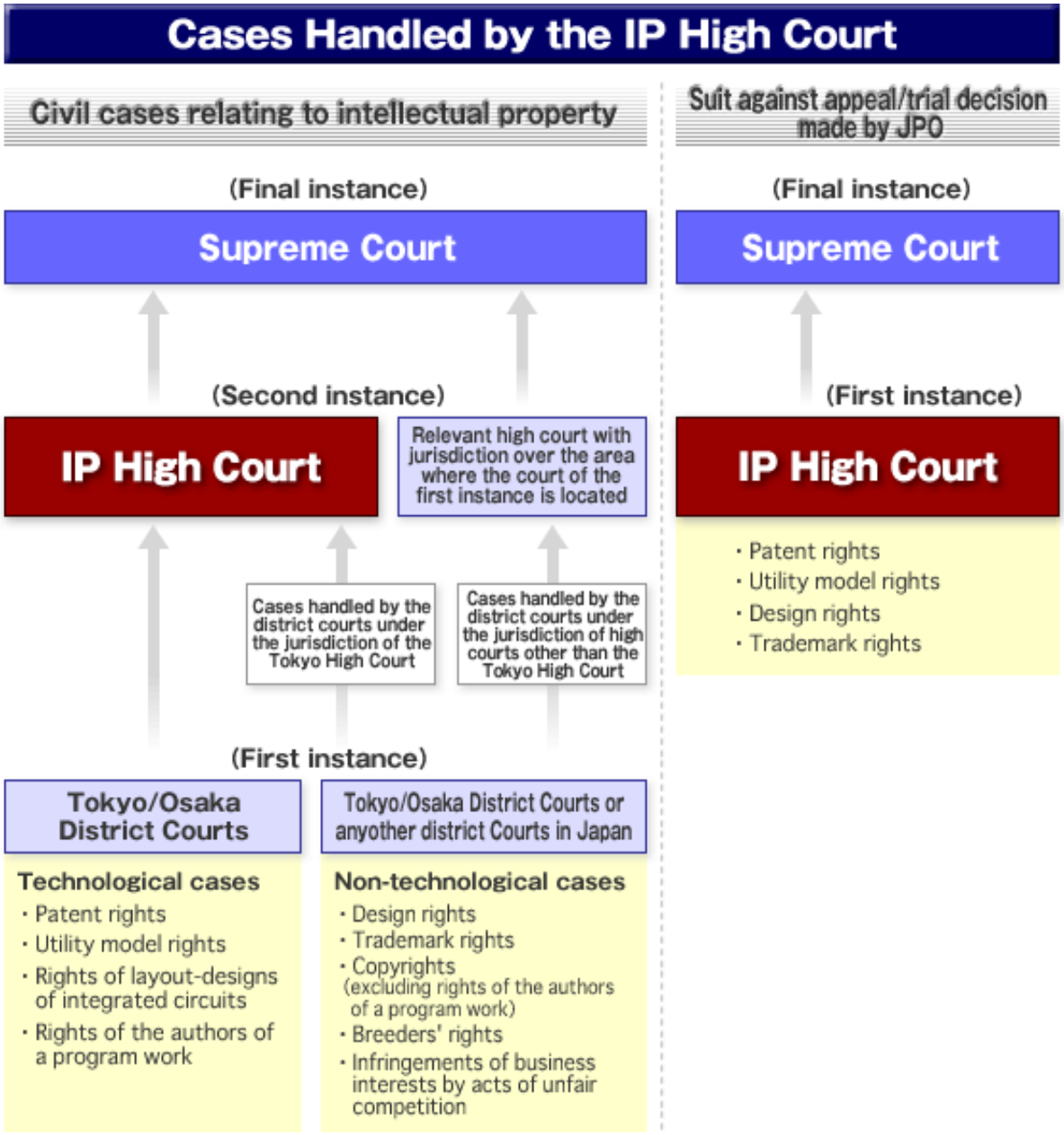
IP High Court



Statutory Definition of Patent Eligible Invention

- Statutory invention in Japanese Patent Act means "the highly advanced creation of technical ideas utilizing a law of nature". (Article 2, Paragraph (1) of Patent Act)

The term "highly" is used to distinguish between "invention" and "device" under the Utility Model Act, and does not mean much in judging whether the invention is statutory or not.

Examination Guidelines

Japan Patent Office has detailed Examination Guidelines.

1 General Guidelines on Non-Statutory Inventions

2 Specialized Guidelines on Software-related Inventions

Statutory inventions

- Any statutory invention should not be one of the following:

1 A law of nature as such

2 Mere discoveries and not creations

3 Those contrary to a law of nature

4 Those in which a law of nature is not utilized

5 Those not regarded as technical ideas

6 Those for which it is clearly impossible to solve the problem to be solved by any means presented in a claim

Patentability of Software-related inventions

- The basic concept to determine whether software-related invention constitutes “a creation of technical ideas utilizing a law of nature” is as follows:

1 Where “information processing by software is concretely realized by using hardware resources,” the said software is deemed to be “a creation of technical ideas utilizing a law of nature.”

Patentability of Software-related inventions

- “Information processing by software is concretely realized by using hardware resources” means that, as a result of reading the software into the computer, the information processing equipment (machine) or operational method thereof particularly suitable for a use purpose is constructed by concrete means in which software and hardware resources are cooperatively working so as to realize arithmetic operation or manipulation of information depending on the said use purpose.

Patentability of Software-related inventions

2 Furthermore, the information processing equipment (machine) and operational method thereof which cooperatively work with the said software satisfying the above condition 1, and the computer-readable storage medium having the said software recorded thereon are also deemed to be “creations of technical ideas utilizing a law of nature.”

Japanese examination of patentability of software-related invention

- In Japan, the patentability of software-related inventions is examined as follows:

1 Whether the invention meets the above-mentioned eligibility requirement or not,

2 Whether the invention meets the description requirement or not,

3 Whether the invention involves an inventive step or not (non-obvious or not)

Japanese examination of patentability of software-related invention

- In most software-related cases at IP High Court of Japan, we focus on whether or not the invention involves an inventive step.
- Attempts are usually made in the field of software technology to combine methods or means used in different fields or apply them to another field in order to achieve an intended effect. Consequently, combining technologies used in different fields and applying them to another field is usually considered to be within the exercise of an ordinary creative activity of a person skilled in the art, so that when there is no technical difficulty (technical blocking factor) for such combination or application, the inventive step is not affirmatively inferred unless there exist special circumstances, such as remarkably advantageous effects.

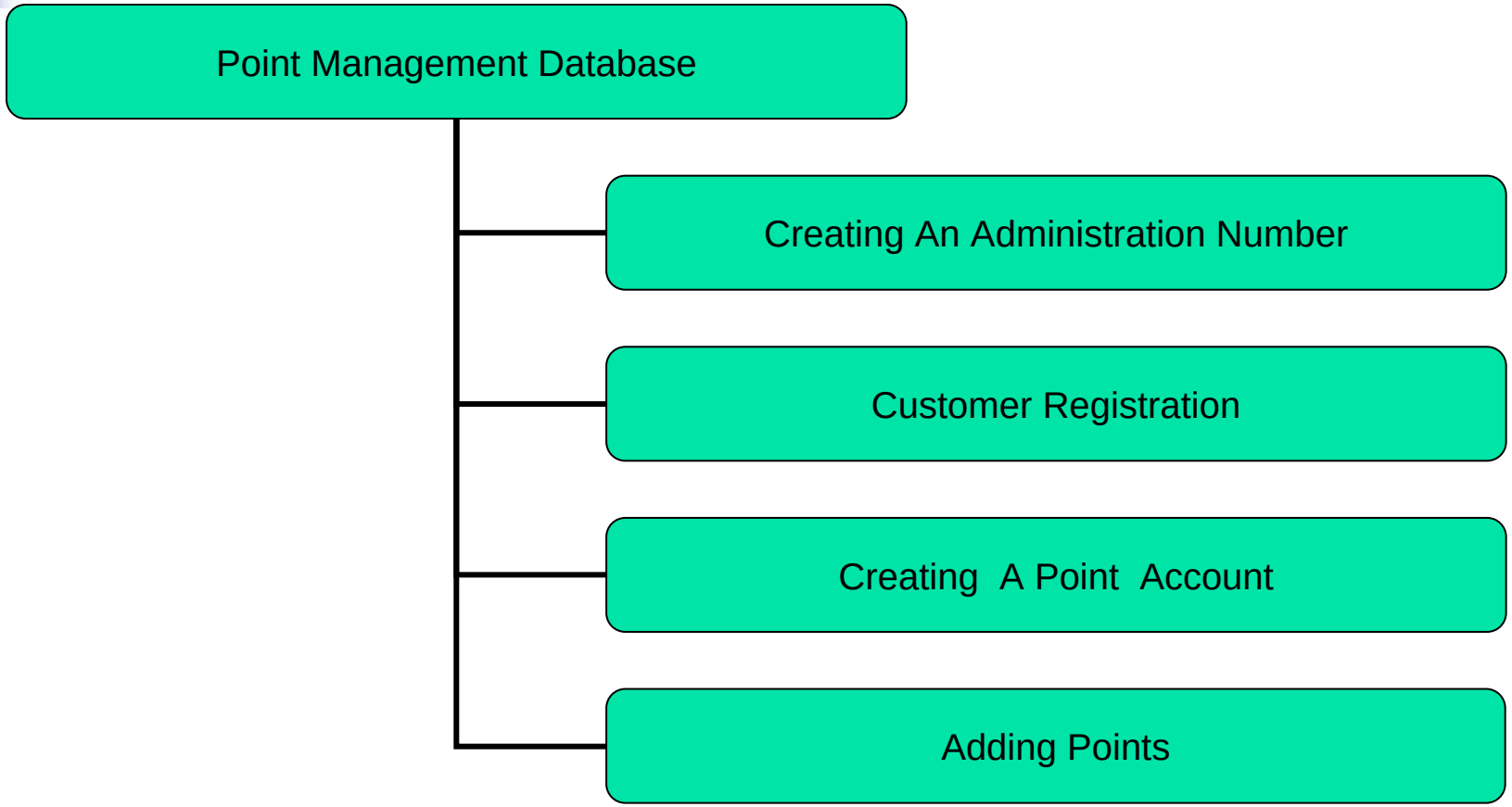
Cases

- Cases in this presentation are not necessarily about software-related inventions.
- Since we don’t have many cases in which patent eligibility of software-related invention are the main issue, I would rather introduce cases concerning patent eligibility, whether or not they involve software-related invention.

Case 1 (IP High Court)

- Decided on September 26, 2006
- Case number 2005 (Gyo-Ke) 10698
- A case in which “patent eligibility of point management apparatus / method ” is at issue
- The court denied patent eligibility relying on JPO Guidelines.

Case 1 Point Management System



Case 1　Point Management System

This invention includes

1 A step of receiving information such as customer ID via network

2 A step of adding designated points to each customer’s accumulated points based on customer ID and administration number

Case 1

- The court said as follows:
- “Even though there are phrases like “network ” and ”point management database” in the claims, this invention is not limited to a method operated by computers. And when this method is operated by human beings, it is just a man-made rule.”
- “Even when we consider that this invention is about the method operated by computers, there is no reference in the claims and specification as to whether or not each step is operated by computers, and there is no reference to the hardware resources. Words like “network” and “database” don’t necessarily show that this method is limited to the one operated by computers.”

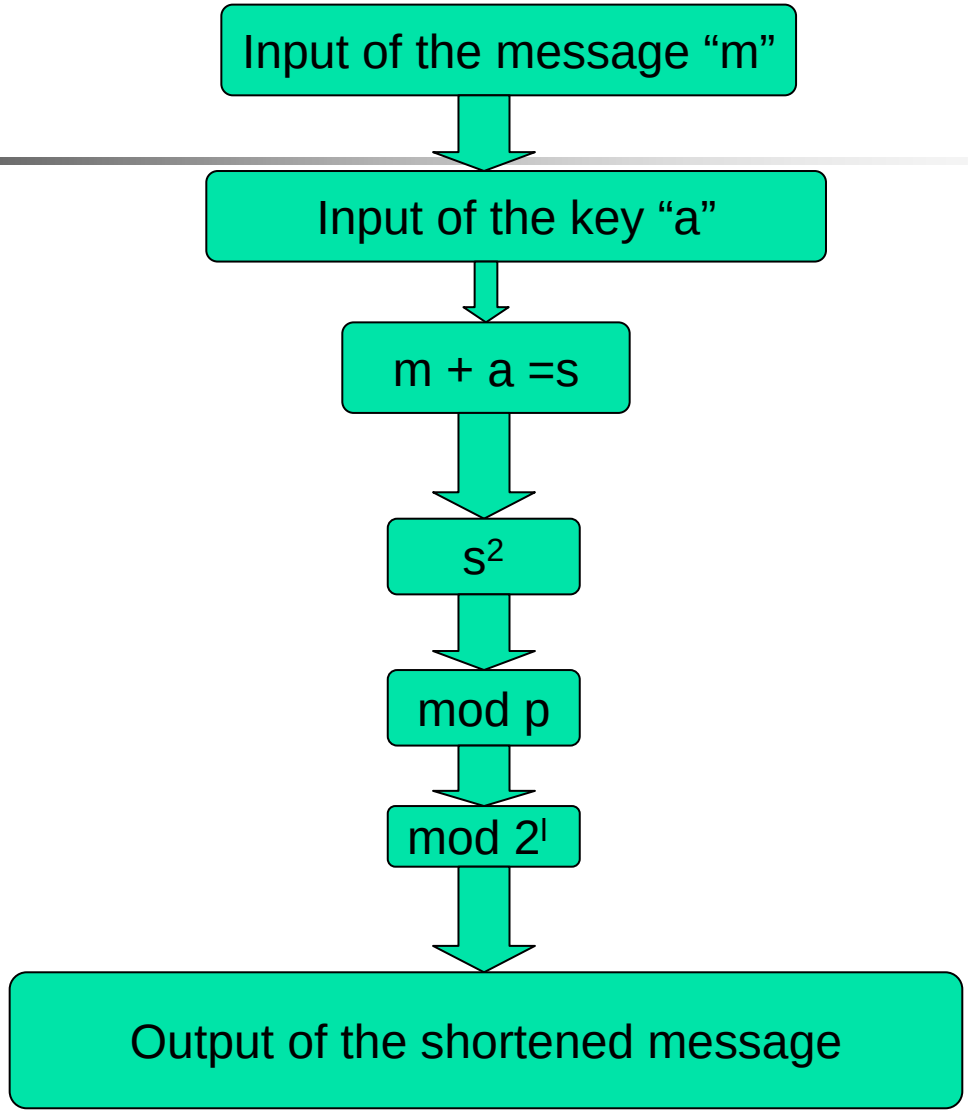
Case 1

- “ Considering the claim 11, we could understand that the method can be operated by computers, but it cannot be said that as a result of reading the software into the computer, the information processing equipment (machine) or operational method thereof particularly suitable for a use purpose is constructed by concrete means in which software and hardware resources are cooperatively working so as to realize arithmetic operation or manipulation of information depending on the said use purpose.

Case 2 (IP High Court)

- Decided on February 29, 2008
- Case number 2007 (Gyo-Ke) 10239
- A case in which “patent eligibility of an apparatus with a method of generating abbreviated expression of bit group” is at issue
- The court denied patent eligibility relying on JPO Guidelines.

Case 2 Hashing process in this invention



Case 2 Hashing

Hashing is a means of reading data.

You can get location of an inputted data in Hashing. However, one on one correspondence is not guaranteed (“collision”). So you have to reduce the possibility of “collision”.

The same holds true in this invention. The purpose of this invention is reducing the possibility that “m1”, which is a shortened value of “n1” happens to equal “m2” , which is a shortened value of ”n2”.

Case 2

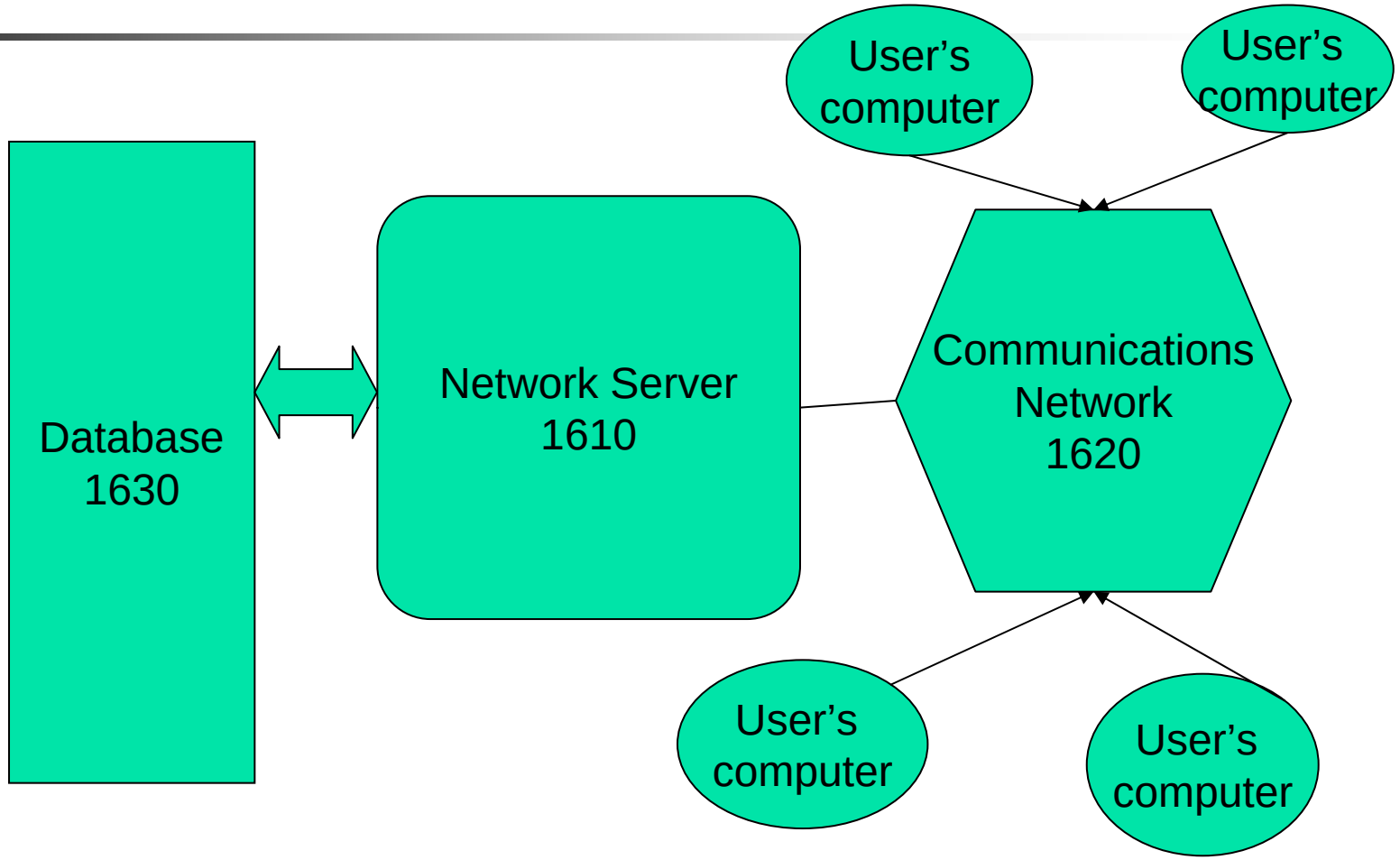
- The court said as follows:
- “This invention is about an apparatus in which a message having “n” bits or the string is changed into an “l” bit message, and Hashing is used in this process. Hashing is a way of expressing a long data as a short one.”
- “It can be said that this invention is equivalent of a mathematical function, Hashing.”
- “The above-mentioned solution is nothing but a mathematical algorithm and does not utilize law of nature. Therefore, unless there is no other invention utilizing technical ideas in the apparatus itself, this invention is not patent eligible.”
- “The apparatus itself does not include any novel composition. Also, there is no reference in the claims as to how to operate the above-mentioned mathematical algorithm in the arithmetic circuit.”

Case 3 (IP High Court)

- Decided on June 24, 2008
- Case number 2007 (Gyo-Ke) 10369
- A case in which “patent eligibility of an interactive network for dental treatment ” is at issue
- The court confirmed patent eligibility without relying on JPO Guidelines.

Case 3

Interactive Dental Restorative Network



Case 3
Interactive Dental Restorative Network

Dental Restorative Network includes

1 Network server having a database

2 Communications network

3 Computers

4 Means of judging required dental repairs

5 Means of formulating an early-stage dental treatment plan

In this invention, “computer user” means both the dentist and people at dental restoration laboratory.

Case 3

- The court said as follows:
- “This invention may not be considered to constitute an “invention” prescribed in Article 2, paragraph (1) of the Patent Act, even if a technical means of some kind is presented in the claims for the invention, when the essence of the invention is directed at mental activities themselves, as a result of an analysis of the entire contents of said claims.”
- “This invention, on the other hand, can be said to constitute an “invention” described above, even if it includes acts attributable to human mental activities or it is relevant to such mental activities, when the essence thereof supports such mental activities or offers a technical means that replaces said activities. In such case, the invention may not be viewed as one that should be excluded from the scope of patent.”
- “A “means for judging required dental repairs” and a “means for formulating an early-stage treatment plan that includes criteria for designing preparations for prosthetic materials used in the aforementioned dental repairs” prescribed in Claim 1 include factors realized through human acts.“

Case 3

- “Mental activities, such as judgment and assessment, are considered necessary for implementing Invention 1.”
- “However, it is difficult to say that the Invention 1 is directed at mental activities themselves, in light of the purpose of the invention and the detailed description stated in the specification.”
- “Rather, Invention 1 may be, on the whole, understood as a provider of a technical means of assisting dental treatment supplied with “a network server with a database”, a “communications network”, a “computer installed in a dental treatment room”, and an “apparatus that enables image display and processing” whose operations are based on the computer.”
- “Invention 1 may be considered to constitute the “creation of technical ideas utilizing the laws of nature”.

Case 4 (IP High Court)

- Decided on August 26, 2008
- Case number 2008 (Gyo-Ke) 10001
- A case in which “patent eligibility of a method of looking up English words in a dictionary only by pronunciation without knowledge of their spelling” is at issue
- The court confirmed patent eligibility without relying on JPO Guidelines.

Case 4

Dictionary with English phoneme index

Words are arranged in order of consonant phoneme.

There are four elements, consonant phoneme, accent, spelling, and Japanese translation.

Case 4

- The court said as follows:
- “Even if the process of creating a technical idea aimed at solving a specific problem contains mental activities, decision making or behavior of human beings or is closely related to the mental activities of human beings etc., this alone should not be grounds for denying the categorization of the relevant invention as an “invention” defined in Article 2, paragraph (1) of the Patent Act.
- “If the claim as a whole and the detailed description of the invention etc. suggest that the creation of a technical idea utilizing the laws of nature could be considered a major means of solving a specific problem, it should be categorized as an “invention” defined in the aforementioned paragraph.”

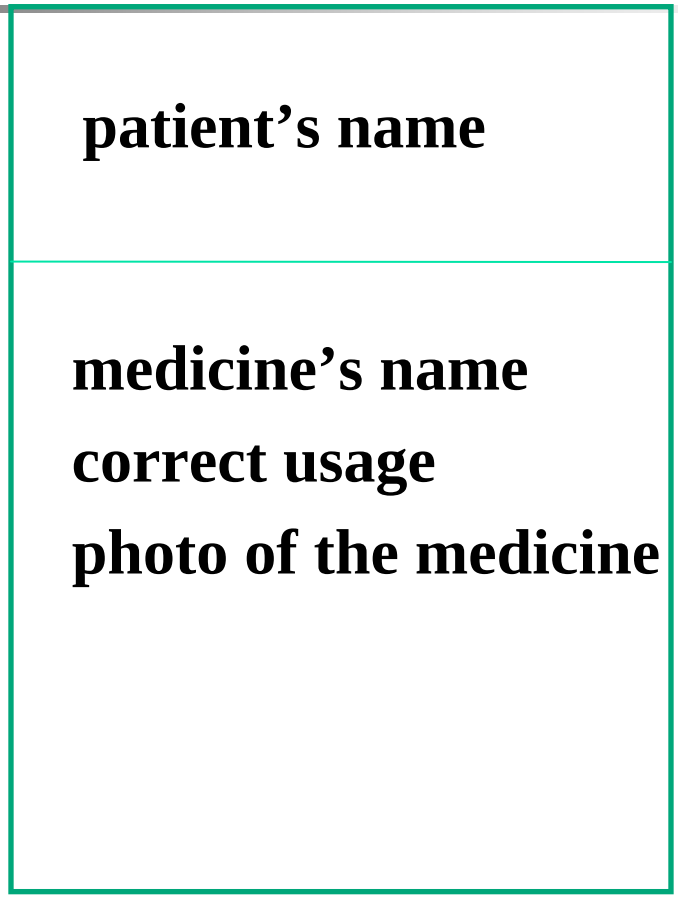
Case 4

- “By focusing on the fact that human beings (including those who use dictionary concerning the invention) excel in sound recognition, especially distinction of consonants, more than in many other abilities that human beings inherently possess, this invention is designed to use this human beings’ inherent ability of distinguishing consonants to offer a method of achieving certain effects in looking up English words in a dictionary repeatedly and continuously even without an accurate knowledge of their spelling. This is considered an example where the creation of a technical idea utilizing laws of nature serves as a major means of solving a specific problem. Therefore, it is concluded that this invention can be categorized as an “invention” defined in Article 2, paragraph (1) of the Patent Act. ”

Case 5 (IP High Court)

- Decided on October 31, 2007
- Case number 2007 (Gyo-Ke) 10056
- A case in which “patent eligibility of a small bag for medicine with a perforated line” is at issue
- In this invention, pharmacists are supposed to fill in the patient’s name above the perforated line and other information such as medicine’s name and correct usage below the perforated line. Patients are supposed to cut along the perforated line, then a new opening is formed. When patients throw away the medicine bag, the private information can be protected.

Case 5: Bag of the medicine



Case 5
Bag of the medicine

In this invention, people at pharmacy are supposed to

1 Prepare the medicine bag with perforated line,

2 Print necessary information on the bag,

3 Put the medicine in the bag,

4 Deliver the bag to patients.

Patients are supposed to cut the bag along the perforated line to form a new opening.

Case 5

- The court confirmed patent eligibility without relying on JPO Guidelines.
- The court said as follows:
- “It is a man-made rule that patients are supposed to form a new opening by cutting along the perforated line.”
- “However, as a whole, this invention has the effect of preventing the misuse of private information when the medicine bag is thrown away.”
- “This invention includes the process of both printing by printing machine and forming new opening by patients.”
- “It can be said that the effect of invention is achieved through the process of printing and other operation carried out by machine.”
- “As a whole, this invention utilizes a law of nature and patent eligible.”

Conclusion

- Examining these cases, it is not yet clear how IP High court of Japan will handle patent eligibility of software-related invention / business method invention in the future.
- Importance of Examination Guidelines
- Predictability vs. Flexibility
- The court decision of case 4 has brought about lively discussion on patent eligibility in Japan.