



WINDS FROM JAPAN

The Licensing Executives Society Japan

UNPRECEDENTED IP HIGH COURT'S JUDGMENTS ON INVENTIVE STEP

By Junichi YAMAZAKI*



Since January this year, the Intellectual Property High Court (IP High Court) has rendered a series of judgments in favor of patent applicants and patentees setting aside Japanese Patent Office's negative decisions on inventive step particularly regarding ease of combination of prior art ("Circuit connective material" Case, 2008 (Gyo Ke) No. 10096 (Jan. 28, 2009); "Air cellular cushioning sheet" Case, 2008 (Gyo Ke) No. 10153 (Mar. 25, 09); "Xylitol preparations" Case, (2008 (Gyo Ke) No. 10261, Mar. 25, 09))

These judgments can be characterized as unprecedented since the IP High Court has laid out in these judgments general criteria for determination of inventive step in similar language as follows:

"Satisfaction of the requirements set forth in Article 29, paragraph 2 of the Patent Act, that is, whether or not a person skilled in the art could have easily invented the invention for which a patent is applied for, should be judged on the criterion whether or not it was easy to arrive at the features of the invention for which a patent is applied (the elements distinguished from the prior art) by starting from the prior art. Because the features of the invention for which a patent is applied (the elements distinguished from the prior art) are for solution of the problem which was aimed at in the subject invention, it is essential for the purpose of objective assessment of the easiness-to-conceive to accurately understand the features of the subject invention, that is, to accurately understand the problem aimed at in the subject invention. In the course of assessing the easiness-to-conceive the subject invention, any *ex post facto* analysis and illogical

thinking must be excluded, and, in order to do so it, it is necessary to give heed not to have elements of "means for the solution" or "result of the solution" unconsciously get into the process of understanding "the problem" aimed at in the subject invention. Furthermore, it should be said as a matter of course that, in order to judge that the subject invention was easy to conceive, it is not sufficient that an inference is merely possible that an attempt could have been made to arrive at the features of the subject invention, but there must be suggestion, etc. from which an attempt would have been made to arrive at the features of the subject invention." ("Circuit connective material" Case)

Patent practitioners with European patent experience will immediately recognize a clear resonance with the "problem and solution approach" and the "would-could approach" of the latest EPO's Guidelines for Substantive Examination, Chapter IV Patentability, 11. Inventive step. For example, the EPO Guidelines state:

11.7 Problem-and-solution approach

In practice, in order to assess inventive step in an objective and predictable manner, the examiner should normally apply the so-called **"problem-and-solution approach."**

In the problem-and-solution approach, there are three main stages:

- (i) determining the "closest prior art",
- (ii) establishing the "objective technical problem" to be solved, and
- (iii) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person."

11.7.3 Could-would approach

.... the point is not whether the skilled person could have arrived at the invention by adapting or modifying the closest prior art, but whether he would have done so because the prior art incited him to do so in the hope of solving the objective technical problem or in expectation of some improvement or advantage....."

"11.9.2 "Ex post facto" analysis; surprising technical advantage

It should be remembered that an invention which at first sight appears obvious might in fact involve an inventive step. Once a new idea has been formulated it can often be shown theoretically how it might be arrived at, starting from something known, by a series of apparently easy steps. The examiner should be wary of ex post facto analysis of this kind...."

Formerly, the IP High Court's judgments which reviewed Patent Office decisions on patentability have tended to be narrowly case-specific, handing down Court's conclusion on whether the Patent Office erred or not only without much elaborating the major premises in legal syllogisms to reach the conclusion other than the Patent Act statutes. Because of such Court's attitude, there has been little for litigants to rely on as precedents to construct their arguments for or against patentability. Although the Patent Office has publicized the Examination Guidelines, they are merely

statements of Patent Office practice and have no legally binding effect.

Thus, these recent judgments by the IP High Court are remarkable and could have profound impacts on Japanese patent practice in the sense that they have laid down, probably for the first time, court's guidelines on inventive step which can be cited in proceedings within the Patent Office as well as in courts of law, and that they indicate the IP Court's latest tendency of a more favorable stance to patent applicants and patentees than before.

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## Robots and Intellectual Property at the IRT Research Initiative, University of Tokyo

By Hiro IIDA\*



### I. Introduction

The IRT Research Initiative, a branch of The University of Tokyo, is researching robots in the combined fields of information technology ("IT") and robot technology ("RT"), under industry-university cooperation.

The purpose of the research is to develop robots that will be of use in a so-called "ageing society." In this article we discuss (1) the background of the research and some of our prototype robots, and explain (2) what we keep in mind in the IP management ("IRT" means IT and RT.)

### II. The Background of the Research

#### 1. Ageing Society and IRT

The population of Japan is changing rapidly, and over the next 50 years there is likely to be a sharp decrease in the population. Moreover, specialists forecast that people over 65 years old will comprise 41% of the total population in 2055, whereas this group comprises 20% at present. As a result, a burden imposed on the so-called productive generation will become great; and a so-called ageing society will come into existence. In this regard, it is noted that Japan is experiencing the most rapid increase in the world towards an ageing society. Social, political, economic problems and the like are an inevitable result of this trend; and, if present standards of living are to be maintained, some means of solving the problems posed by an ageing society must be found. Indeed, a variety of means is available for solving the problems, but it is apparent that use of robots must surely play an important role addressing

such problems. For example, robots will be able to assist with household work and to help maintain an independent lifestyle for the elderly. We will now take a look at how the present Initiative will combine IT and RT. In the field of IT, high speed data processing has been realized as a result of advancements in both hardware and software, and a merging with communication technology. E-net and personal computers, smartphones, and GPS navigation systems and so forth are typical examples of advancement of hard and software and convergence within the fields of communication technology. At RT, intimacy or closeness between humans and robots has been increased, as is readily understandable with reference a number of examples of application of robots, humanoids, from Seg-way to various nursing robots existing today. The IRT Research Initiative intends to take advantages of IT and RT to merge for the robots in the ageing society.

#### 2. Our Prototype Robots

One of our prototype robots is a household work assistance robot. It looks for a broom in a room and when it finds one, it starts sweeping. It moves a chair so that it can sweep the floor underneath. It is also capable of recognizing a tray, a table, a chair, a washing machine, and other objects in the room. It can also recognize a shirt and a towel. As you know, it is difficult for robots to recognize such items due to their limited ability for prerecognition of such shapes. However, our robot is capable of taking hold of a shirt, placing it in a washing machine, and pressing to the bottom of the machine to commence washing of the shirt.

## Household Assistance Robot



Robots will help people in the aging society.

Another of our robots is a kitchen assistance robot that is capable of picking up from a kitchen sink a dish, a glass, and a plate, and carrying them to a dishwasher nearby and placing them in respective appropriate locations in the machine. To enable our robot to carry out such a task, we have equipped the palm of the robot with special sensors that are capable of recognizing a correct place for a robot to grip differing objects, such as a plate and the like.

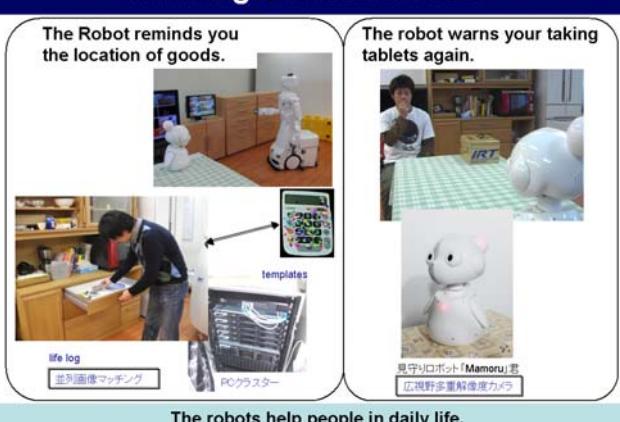
## Kitchen Work Assistance Robot



The World's Most Sensitive MEMS Robot Skin

Nursing service robots may be of use to persons who have memory problems. For example, a person asks a robot where they have placed an item and the robot responds to the person. Another nursing robot reminds a person who is about to take medication that the person is about to consume in excess of the prescribed dose of the medication.

## Nursing Service Robots



We are also developing personal mobility robots (PMR) for both indoor and outdoor use. An outdoor PMR uses two wheels for mobility so as to be able to move around in confined spaces. A controller for the robot is made to be compact, and a person is thereby capable of braking, steering, and controlling a speed of the robot using only one hand. Furthermore, the PMR can avoid obstacles ahead. It can also map an area that surrounds it and use that map while it moves. Hence, if you give the PMR a command to go to a specific place, the PMR proceeds to that place by navigating its way there while avoiding obstacles. On our campus we have a PMR that is capable of returning to its own garage without active human assistance.

An indoor PMR has sensors provided under a seat so as to enable recognition of placement of weight of a human on the seat, and uses such information as a command moving in a specific direction.

## Personal Mobility Robots (Units)



Personal Mobility units will support independent lifestyles of seniors.

## III. Industry-University Cooperation

Our program has long-term goals. The first stage of our program lasting for three years ended this March. We thereby concluded a sponsored research agreement with the Ministry of Education (MEXT), and joint research agreements with companies. MEXT's grant is a so called matching fund and the university must raise matching amount of money from private companies under its MEXT guideline. The grant comes from special coordination funds for promoting science and technology, and the purpose of MEXT is to innovate in contributing to solutions to large-scale problems, including the onset of an ageing society, global warming, the energy crisis, and others. A great deal of expectation rests on the activities of MEXT. We have also established academic ties with foreign organizations for promoting exchange of information and interaction between qualified people. In actuality, our activities have attracted global attention. For the last four months since December, cabinet ministers from four different countries have visited our campus.

## IV. IP Management and Marketing

There are several things that we keep in mind in the IP management at the Initiative.

First, we have a Japanese version Bay-Dole clause. Universities may succeed the IP created under government support, but there are still a few restrictions.

The second is the features of the robot patents. They are similar to that of machines, electronics and IT, but are not similar to pharmaceutical or bio patents. In other words, home run patents are very rare in this field; and we are obliged to take care in applying for any patent since the university shall bear the costs.

Thirdly, a university is not a business company. Therefore, it is not possible for us to impose strict rules of management such as assigning our researchers the invention disclosures, and the like, since such a practice is not acceptable to them. While we can encourage our researchers to submit their inventions we cannot force them to do so.

When it comes to marketing of patents, in the first place the market is essentially limited to our partner companies, since it is mainly such companies who would have a motivation to practice the inventions. Consequently, at this stage it is not possible to set forth a long-term IP strategy, and only some very general points in regard to IP can be made at this stage. We are aware that industry wishes to have full ownership of IP rights, including a right for free use in an instance of joint ownership. On the other hand, we are equally aware that the university wishes to have flexibility in solving real problems and obtaining funds required for solving such problems.

Hence, in the case of university owned patents, we grant partner companies a first refusal right to negotiate and, in the case of joint ownership, we are considering transfer of our share of a right to companies.

Lastly, I would like to touch upon the issue of whether people would actually wish to accept robots for

their use. The answer no doubt varies from country to country. However, to assess likely demand in Japan we requested a specialist company to conduct a market survey. 1000 Japanese adults were included in the survey, and were asked whether they would consider purchase and use of home assistance robots and personal mobility robots within a variety of prices.

The result of the survey showed that in Japan, at least, there is a huge potential demand of 28 trillion yen for such products. This figure represents a total demand from which an annual demand of approximately one twentieth of that amount is derivable.

## V. Conclusion

An ageing society will inevitably emerge; and our IRT Research Initiative is researching robots under a long-term program, under the assumption that such robots will be actively useful in our emerging society. In view of the potential market for products that include inventions made by our members, we have established the beginnings of a system for IP management. In the fields of IT and RT, over the last three years remarkable progress has been made. We are confident that our cooperation with industry will result in the production of practical and highly useful robots.

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IP News from Japan

By Shoichi OKUYAMA*

Major Changes Quietly Introduced

The Unfair Competition Prevention Act (UCPA) was amended by the passage of a bill by the Diet on April 21, 2009. By its publication, the amendment has become law. On the same day, the Foreign Exchange and Foreign Trade Act was also amended. These statutory amendments are related to each other and have a similar object; namely, improved protection of trade secrets in Japan.

The UCPA currently defines one manner of illegal acts in Article 2 as "(vii) acts of using or disclosing a trade secret that has been disclosed by the business operator holding such trade secret for the purpose of unfair business competition or otherwise acquiring an illicit gain, or causing injury the holder." By the amendment, "unfair business competition or otherwise" is removed from this paragraph. Unfair business competition implies the existence of a specific competitor. It is generally difficult to identify such a

competitor, which may be a foreign company, even if industrial espionage activities are discovered. For example, if stolen information is given to a foreign government, the previous provision is not applicable. The removal of "unfair business competition" closes this loophole. Violations are punishable by a fine of up to 10 million yen (about US\$100,000) or imprisonment of up to 10 years, or both. The other basic manner of trade secret violation under the previous UCPA is "acts of acquiring a trade secret by theft, fraud, duress or other wrongful means, or the act of using or disclosing a trade secret so acquired," and this will remain unchanged.

The amended Foreign Exchange and Foreign Trade Act has new provisions that empower the head of the Ministry of Economy, Trade and Industry to designate some countries and make it a requirement to obtain ministry permission to export or electronically transmit technical information to the designated countries or, if necessary, to other countries.

So far, Japan has had very limited legal recourse against industrial espionage. The new provisions introduced by these statutory amendments are a very

significant step forward, though they will not completely address current and real problems. These changes to the law have not been widely publicized by the media in Japan. The changes are expected to take effect during 2010.

Law Schools Shrink

Law schools in Japan will cut annual enrollment in 2010 and 2011 to a total of about 4,700 in 2011 from the current level of 5,765, or by 18%. Currently 74 American-type graduate-level law schools exist in Japan. Of the 74 schools, 68 will cut enrollment over the next two years. These cuts are due to the decreasing popularity of law schools caused by the lowering of pass rates for the new bar examination specifically provided for law school graduates. Last year, of those who took the bar exam after graduating from law schools, only 33% passed.

When law schools were created in 2002 as a part of overall judicial reform, it was proposed that the system be redesigned to allow 70-80% of law school graduates to pass the national bar examination. As it turned out, the pass rate was 48.4% in 2006 and 40.2% in 2007, much lower than planned, partly due to strong opposition to increasing the number of qualified attorneys at law. Last year, 2,065 law school graduates passed the bar exam.

The Japan Federation of Bar Associations, the central association for local bar associations, is opposed to any increase in the number of those who pass the national bar exam beyond the current level. In addition, it is generally considered that 74 law schools are probably too many. Many universities have been losing students as the population of college-age students declines sharply in Japan, and many law schools have been set up to compensate.

New Approach toward Inventive Step Emerging?

The third division of the Intellectual Property High Court, headed by Judge Toshiaki Iimura, recently issued three interesting decisions dealing with the question of determination of inventive step. The three decisions were rendered on January 28, March 25, and April 27, 2009, respectively. The first decision relates to a conductive resin for use in electric circuits (case No. 2008 (gyo-ke) 10096); the second relates to a medical solution for nasal irrigation (case No. 2008 (gyo-ke) 10261); and the third relates to a mechanical valve used in home water purification devices (case No. 2008 (gyo-ke) 10121).

In the first decision mentioned above, the danger of using *ex post facto* analysis and relying on illogical thought process is stressed, requiring the JPO to discuss objective and logical reasoning behind the conclusion in more detail. In addition, it is pointed out that the prior art must include some motivation that would have led a skilled person to conduct trials that would eventually result in the subject invention.

In the second decision, it is stated: "to find that the subject invention was easily conceivable, it is not

sufficient to establish merely an inference that when reviewing the prior art, trials that would lead to achieving characterizing features of the subject invention could have been performed; it is necessary to show the existence of some motivation to conduct such trials to determine the characterizing features of the subject invention."

In the third decision, stressing the importance of detailed discussions in decisions the JPO Appeal Department issues, it is noted that: "since it is entirely possible that judgments based on *ex post facto* analysis or those that are not based on evidence or logic may unintentionally be introduced into the logic process, leading to the conclusion that it was easy to conceive the constitution of the subject invention, such types of judgments must be avoided." New arguments that replaced those in the Appeal Decision and were presented during the proceedings before the IP High Court are rejected. Further, incompleteness of analysis in the JPO decision is noted, and it is stated that the Plaintiff (Applicant) should be given an opportunity to present arguments in response to the new arguments before the JPO Appeal Department.

The level of the inventive step requirement was raised in 2000 when the JPO revised its examination guidelines on inventive step in response to a number of Tokyo High Court decisions that overturned JPO decisions that favored patentees. For example, discussions on the danger of *ex post facto* analysis that had existed previously were entirely removed in the revised guidelines. A statistically clear asymmetry exists among the JPO, EPO, and USPTO regarding patentability standards (see, for example, the item bridging pages 4 and 5 in No. 32 of Winds from Japan). If these IP High Court decisions become standard rather than anomalous, it will significantly change patentability standards in Japan.

Judge Iimura has been looked up to as a leader of the IP community in recent years. His division rendered a number of leading decisions on the issue of how amendments to granted claims should be considered by the Japan Patent Office. Previously, even if some of several amendments to granted patent claims filed in a single petition were allowable, if only one amendment were found to be not allowable, the JPO used to reject the entire petition and all the amendments. Judge Iimura rendered several decisions questioning this practice, and eventually the Supreme Court of Japan took up this issue and changed the law by a July 2008 decision in line with Judge Iimura's suggestions. In addition, Judge Iimura recently rendered decisions in which 3D trademarks were found registrable for their acquired distinctiveness, lowering the impossibly high threshold for the registration of 3D trademarks that once existed.

Rights Organization Hit by the FTC and Fights Back

JASRAC (Japanese Society for Rights of Authors, Composers and Publishers), a giant performance rights organization, was ordered by the Fair Trade Commission (FTC) to take measures necessary to

eliminate monopolistic acts. JASRAC has umbrella agreements with all broadcasting companies. In fact, it has similar agreements with a large number of *karaoke* box operators, rental CD shops, and YouTube-type services. Under the umbrella agreements, JASRAC collects fixed royalties from companies for different types of uses.

The FTC found this practice monopolistic because broadcasting companies that do not wish to increase spending or bother to take any steps toward extra payments tend not to play musical pieces, however popular they are, if other performance rights organizations have such music under their care. This order covers JASRAC's agreements with broad casting companies only. The FTC suggested making the fees JASRAC collects somehow proportionate to the actual usage of music.

Currently six active performance rights organizations exist in Japan. However, JASRAC is by far the largest with gross licensing revenue that was equivalent to about 1.2 billion US dollars in 2007, with the second largest rights organization having generated only 8 million US dollars in the same year. An organization

that preceded JASRAC was established by the Japanese government in 1939 to fight Dr. Wilhelm Plage, who opened an office in Tokyo as an agent of European rights organizations and tried to collect high royalties for foreign and domestic musicians. Eventually Dr. Plage's activities were outlawed, and he left Japan, leaving JASRAC as the single performance rights organization. The market for copyright management became open to other entities only as recently as in 2001.

An angry JASRAC strongly protested in public against the FTC order and filed a petition for appeal proceedings. The FTC decided to accept the petition on May 25, 2009, and the first hearing is scheduled to take place on July 27, 2009. The FTC is also making media appearances to explain its position.

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## Editors' Note

We trust that the articles included in this issue of Winds from Japan will prove useful in providing up-to-date information on the subject matters contained. We are including articles titled "Unprecedented IP High Court's Judgements on Inventive Step" and "Robots and Intellectual Property at the IRT Research Initiative, The University of Tokyo," which are drafted based on presentations made during the Joint Meeting of AIPLA and LES Japan on April 20, 2009. We are also including articles providing up-dates on IP activities in Japan.

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