Patent Issues in eHealth, Especially of North and South Problems on Telemedicine

Yasumitsu Tomioka, Tokai University, Japan

ABSTRACT
This paper intends to specifically verify what patent issues may be encountered in telemedicine, using 2007, 2008, and 2009 International Property Rights Index (IPRI), which is the first international comparative study that measures the significance of both physical and intellectual property rights and their protection for economic well-being. Patent issues acts as a hindrance factor against spreading and promoting telemedicine, and to solve this hindrance factor, i.e., patent issues, and for the purpose of spreading and promoting telemedicine so that the benefit of medicine may reach everybody, including people living in developing countries, it seems extremely important to recognize the presence of “patent issues” in the field of “telemedicine”.

Keywords: Developed Countries, Developing Countries, Intellectual Property Rights, International Property Rights Index, Patent Issues, Technologies, Telemedicine

PURPOSE
In the conference of ITU-D SG2 (Study Group 2) held at the Headquarters of ITU (International Telecommunication Union), Geneva from September 7 to 9, 2006, the policy of activities for the coming three years was approved. In this approval, especially in Question 14-2/2 for practicing eHealth work programme, “disseminate experiences and best practices with the use of telecommunications in eHealth in developing countries” was determined as “goals and expected output 2” while “Raising the awareness about the role of telecommunications in eHealth” was determined as “goals and expected output 1”. In order to attain “goals and expected output 2”, the Activities 1-3 were approved. Among these activities, “Analyze ongoing similar project by World Health Organization (WHO) and World Summit on the Information Society (WSIS) stocktaking, as well as Strategy and Policy Unit (SPU) of ITU relevant projects. Collect information on the use of intelligent diagnostic system, open source for eHealth, patent issue related to eHealth technical solutions.” was approved as the Activity 3 for the coming three years 2007, 2008, and 2009.

At the Healthcom 2008 held in Biopolis, Singapore on 2008. 7. 7 – 9, we presented a thesis entitled “Patent Issues on Telemedicine in e-Health” (Paper ID Number: 1569096289, pp210-216 of IEEE Catalog Number: DEP08545-DVD/ISBN: 978-1-4244-2281-4). The following is a statement made on

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the basis of said thesis of ours. In this paper, we intend to further develop the discussion and verify ‘as part of said Activity for the year 2009, what patent issues may be encountered in the telemedicine between the North and South Regions’.

Since the paragraphs 3, 4, and 5 contained in this paper, (i.e., 3. What is the Definition of ‘Telemedicine’? 4. International Evaluation of the Patent System, and 5. Index for Intellectual Property Right) are identical with those corresponding paragraphs found in the preceding “Patent Issues on Telemedicine in e-Health”, any repeated explanation for them will be described as a summary and the detailed description thereof will be omitted from this paper.

**What is the Definition of “Telemedicine”?**

According to “Telemedicine Glossary”, 5th Edition (Beolchi, 2003), for example, the term of “telemedicine” is defined as “the use of remote medical expertise at the point of need” and, in the simplest form, it is defined as “medicine at distance”.

That is to say, the telemedicine exists as a field wherein the “medicine” and the “information and communication technologies” are hybridized as shown in Figure 1. Thus, as the foregoing definition states, the information and communication technologies are apparently one of the essential elements of the “telemedicine”.

So far as the “technologies” are concerned, when discussing the telemedicine, we cannot avoid thinking about “patent” that serves to protect the “technologies” as rights.

**International Evaluation of the Patent System**

When discussing the patent issues in connection with ITU-D, SG 2, Question 14, because of the nature of the matter, the argument must be pursued from an international point of view. However, the patent system differs significantly from one country to another. It is therefore necessary to distinguish how each country protects patent and other intellectual property right.

**Index for Intellectual Property Right**

Protection of Various Countries

Now, from an international standpoint, the present aspect of the intellectual property right protection of various countries will be examined based on their indexes. At present there is no reliable standard index, and therefore in this paper we will make reference to the 2007, 2008 and 2009 REPORT found in the “International Property Rights Index” (hereinafter referred to as IPRI) which is the first international comparative study that measures the significance of both physical and intellectual property rights and their protection for economic well-being.

![Figure 1. Trends in total patent filings, 1985-2006 (Source: WIPO Statistics Database, July 2008)](source: WIPO Statistics Database, July 2008)
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