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Legal aspects on electronic medical record (ERM) applied to seafarers according to Vietnamese law system

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Abstract : The ERM is considered as a cooperation between Informatics and Health Care System. Under the circumstances of social distancing due to the Covid-19 pandemic, the EMR has become an adequate measure to prevent the speed of this pandemic in Asia and particularly in Vietnam. Since 2020, it's obligatory for all seafarers including the Vietnamese to fulfill the EMR administrated by the Ministry of Health if the vessel is at a domestic port of Vietnam. As a new mechanism, the erm refers to multi disciplinary such as intellectual property law, business law, investment law and privacy protection law. This article aims to inform and clarify the legal right of software author, investors, operators and seafarers-users the EMR during the whole process of R&D, investment and operations.

Key words : EMR, copyrights, privacy's right, collecting database, seafarers.

1. Introduction

In Vietnam, the term "EMR" is officially admitted in the Circular 46/2018/TT-BYT of the Ministry



of Health concerning the regulations of the EMR. This circular didn't clarify the definition of the EMR. Nevertheless, the legal value of the EMR was regulated, according to the article 2 of this Circular which stipulated that: *"the EMR, which is created, updated, enumerated, saved by electronic manner which adapts to the regulation of this Circular, has the same legal value as the paper medical record regulated in the Article 59 of the examination and treatment law"*. Despite of not giving the definition of the EMR, the Circular 46/2018/TT-BYT indicated the structure of an *"EMR including inpatient medical record, outpatient medical record and other medical record according to the regulation of the Ministry of Health"*.

In general, there are two misunderstood notions, the EMR and the EHR (electronic health record). The usage of EMR or EHR shouldn't be considered as a determination the proportion of health and medicine. According to the ONC (Office of the National Coordinator for Health Information Technology) of the United States of America, EHR refers to a larger definition including moral and physical problems whereas the terms EMR is usually used for the diagnosis and treatment.

This article will analyze the three aspects of an EMR which has been obligatory to all seafarers working in a domestic port of Vietnam since 2020: the intellectual property law, the business law and privacy protections in order to answer the three main questions:

1. How databases of seafarers are collected and protected?
2. Who has the right to the collected databases?
3. How to collect, save and use the databases legally?

2. Business law aspect of the EMR

Firstly, an electronic product aiming to the diagnosis and treatment requires two indispensable parts: hardware and software. In order to create this product, the demand of financial resources and human resource is immense. The well-done two parts instrument could be developed only under the conditions of gigantic IoT groups such as Google, Microsoft, Tesla, Apple. The importance factor remains in the proportions of investment which will determine the proportion of the decision making.

The hardware is rarely developed by a startup due to enormous financial demands, the force of trademark. Therefore, different top firms of Vietnam decided not to purchase the hardware market which leads to the indispensable usage of an EMR. Recently, the



Vietnamese firm, Vingroup, “one of the biggest private conglomerate in Asia with a market capitalization value of around US \$16 billion”, has developed successfully the two models of ventilator Vsmart VFS -410 and Vsmart VFS – 510 since August 2020.

The capital of a project especially in the decision making could be seen as the main problematic which has any place for users in general and seafarers in particular. The proportion of property in a project would lead the result differently from any optimal intention due to intellectual property strategy.

In general, the code source of a program which operates the EMR is protected under the copyright law. It's a merited result for a young startup. However, in case of a new instrument, it's able to be protected stricter under the patent law which prevents any other to reproduce during the protection time. As analyzing above, the patent protection is rarely happened due to essentially financial problems. Therefore, major cases of EMR will be embraced under the copyright law which has a 50 years of protection in maximum after the death of the authors. However, the copyright law can not give the authors a strict protection that permits another party to reuse their creation. Easy to reuse without consent of author, the original authors must find the way to refund the R&D. Thusly, they try to use the personal information financially.

3. Civil law aspects of the EMR

3.1 Obligation to fulfill an EMR in Vietnam

At that moment, it's difficult for not only foreign nationals but also Vietnamese to exit or enter the country. The foreign national seafarers are allowed to enter Vietnam normally as “high-tech workers” under the circumstances of exempted categories, including diplomats, officials, experts, business managers, foreign investors, and other business travelers to enter Vietnam.

All seafarers's arrivals to Viet Nam shall have to undergo COVID-19 tests and pay for the testing costs by themselves, except Vietnamese seafarers who will be paid for the COVID-19 tests in line with the Law on Prevention and Control of Infectious Diseases. The seafarers in all national citizens shall have to pay VND120 (US\$5.2) per day, including VND80,000 for food and VND40,000 for daily necessities at concentrated quarantine facility, instead of



choosing another designated expensive accommodation. It's highlighted that any foreign mission in Vietnam may not intervene in these policies of mandatory quarantine and medical declarations and Covid-19 test in any way. These seafarers will be subject to mandatory COVID-19 testing and quarantine upon arrival with the guidance attached in the Document 4674/BYT-MT dated August 31st, 2020 of the Ministry of Health, which has been "*increased by one week to 21 days from the current 14 days*" since May 2021.

Recently, a pilot program allowing "individuals entering Vietnam via Quang Ninh Province to quarantine in centralized facilities for only 7 days instead of the normal 21 days if these entrants have received full COVID-19 vaccinations", from July 1 to 31. However, nothing is less certain due to the specific outbreak situation of Vietnam.

Under these circumstances, an online Vietnam Medical Declaration form, which is generally required when traveling, for entry into public destinations, or any other situations as deemed necessary by the Vietnamese government. In case of violation, strict administrative and criminal penalties can be imposed, according to the Decree 117/2020/ND-CP of the Government, regarding fines for non-compliance in the medical sector, going into effect on November 15, 2020.

3.2 Open-discussion about an EMR

Although an EMR is developed and researched monopoly by a unique firm, it's probably that the databases of user could be abused and exploited. The most important question remains in whether the operators or software- author have a legal right to use, transfer the information of users in general and seafarers in particular. In fact, due to high technology, it's not difficult to know by the EMR and other electronic devices the extreme personal information (time go sleeping, duration of usage, your professional, how many times go to wc per night...)

According to article 21 of the 2013 Vietnamese constitution relating to the privacy's rights, it's stipulated that:

"Every one is entitled to the inviolability of personal privacy, personal secrecy and familial secrecy; and has the right to protect his or her honor and prestige. Information regarding personal privacy, personal secret and familial secrecy is safely protected by the law.

2. *Every one enjoys the secrecy of correspondence, telephone, and telegrams, and other forms of exchange*



of personal information.

3. No one is allowed to open, control, and confiscate contrast to the statute other's correspondence, telephone, telegrams, and other forms of exchange of personal information."

Article 38. Right to private life, personal secrets and family secrets of the 2015 Civil code stipulated that:

"1. The private life, personal secrets and family secrets of a person are inviolable and protected by law.

2. The collection, preservation, use and publication of information about the private life of an individual must have the consent of that person; the collection, preservation, use and publication of information about the secrets of family must have the consent of all family's members, unless otherwise prescribed by law.

3. The safety of mails, telephones, telegrams, other forms of electronic information of an individual shall be ensured and kept confidential.

The opening, control and keeping of mails, telephones, telegrams, other forms of electronic information of an individual may only be conducted in cases provided by law.

4. Contracting parties of a contract may not disclose information about each other's private life, personal secrets or family secrets that they know during the establishment and performance of the contract, unless otherwise agreed."

Analyzing the image below of the NCOVI application developed by the Vietnam Ministry of Health, it's possible for us to give the conclusions relating to the protection of privacy's right:



YOU TO PREVENT COMMUNICABLE DISEASES

Warning: Declaring false information is a violation of Vietnamese law and may be subject to criminal handling

Gate (*)
--Choose--

Full name (CAPITAL LETTERS) (*)
[Empty text box]

Date of Birth (*)
1990

Gender (*)
Select

Nationality (*)
19003095

Figure 1 Extract of Declaration of medical online in Vietnam

If the seafarers accept willingly, with consideration (excepted any crime, misrepresentation and unwillingness), to fulfill an EMR, it's considered that the databases collection and analysis through the EMR is legal. In the case of NCOVI application applied for seafarers, as it's become an obligation in order to work in Vietnam, the database of seafarers will be administered by the Vietnamese government. What does a foreign national seafarer think when entering Vietnam and seeing enormous advertising related to shipping agencies that can help him to have a legal working permit, related to Covid-19 test center, to a service from A-Z for his whole journey in Vietnam? Does it coincide normally to his situation or maybe his personal information would be analyzed and sole?

Up to now, there's any official complaints of seafarers concerning the violation of privacy's information when declaring electronic medical form. Nevertheless, it's necessary for a further thinking. What would happen if your personal information is saved, willingly by another operator (either public or private)? Firstly, the owner of these databases can collect legally the information of seafarers as they had accepted. Then, the owner can use and analyze the information for an optimal service or sell it for another third party?

The border between *lex machina* and privacy's information is really difficult to determine while *lex maritima* is considered, in this case, as a field impacted by this battle.



4. Conclusion

This article clarified three questions in the introduction part:

EMR is protected under different form of intellectual property right: the code source is protected under the same copyright law as the databases of users, including seafarers.

People who has the decision making direction towards these databases, is exactly the investor of the project according to the company's rules and the proportion of capital.

The government has no explicit measure to resolve the battle between the personal privacy and the property right in general. The most updated case-law between the US FTC and Facebook has confirmed this analysis when Facebook has to pay an enormous fine for its transfer of user databases for Analytical. This sanction is estimated as a "a slap on the wrist".

References

- Brian Fitzgerald, A. F. (2011). Internet and E-commerce Law, Business and Policy. Thomson Reuters ProView.
- Kang, C. (2019, July 12). *FTC Approves Facebook Fine of About \$5 Billion*. Retrieved from The New York times: <https://www.nytimes.com/2019/07/12/technology/facebook-ftc-fine.html>
- Peter Garrett, J. S. (2011, January 4). *EMR vs EHR – What is the Difference?* Retrieved from healthit.gov: <https://www.healthit.gov/buzz-blog/electronic-health-and-medical-records/emr-vs-ehr-difference>
- Security, M. o. (2020, November 10). *Vietnam Immigration News*. Retrieved from National Web Portal on Immigration: <https://xuatnhapcanh.gov.vn/en/tin-tuc/questions-and-answers-0>
- Van, N. (2020, Septembe 18). *Incoming travellers required to pay concentrated quarantine fee*. Retrieved from Online newspaper of the Government: <http://news.chinhphu.vn/Home/Incoming-travellers-required-to-pay-concentrated-quarantine-fee/20209/41587.vgp>