Chapter 2 Related Works

In this chapter, works a-related to integrated information work of the Integrated Information services, Clinical Decision Support in the Healthcare Information System and to services-oriented architecture are discussed as well as Services-Oriented Architecture will be addressed.

The Trend of Trends in Health Information Systems

In last two decades, many hospitals have applied information systems to aid the medical, nursing, and administrative staff in performing for daily routine operations. Such applications are it is not only for the convenience of the hospital staffs, but also to deliver higher for better medical quality medical care to patients under care of patient cares. However, the aspects of the information systems used in the system related to the hospitals in the past may be different from those at current ones. The goal of health information systems past was and present is both as simple and as-relevant: to contribute to a high-quality and, efficient patient care [6]. This supports Therefore, it is a patient-centered approach towards medical and nursing cares. In addition, the administrative and management tasks need to be supportive of such care support those cares [7].

As mentioned above, alongside because of the transition from traditional paper-based to computer-based record keeping, the electronic health record, the Electronic Health Record (EHR) has become the most popular topic in the field of among medical informatics. By developing a EHR system, healthcare institutions can manage and retrieve a patient's health data efficiently and also easily, reduce paper usages. Health records are the critical assets of patients. Once all medical records are translated or transformed into EHRs, the patients can easily carry their own data. The essence of developing an HIS is in fact to improve the level of safety beyond that of over the health care institutions. Publication of the U.S. Institute of Medicine’s 1999 reported: “To err is Human” [8]. By implementing the safety rule regulations sets (for both medical and nursing staff as well as staffs and patients) into an HIS, computer systems can
provide information to staff with a reduced likelihood of human error can always notify the staffs without inducing errors. Furthermore, when medical errors do inevitably occur, as is inevitable, the HIS has the functionality to record those errors, allowing for researchers to collect those errors, then the researchers can analyze them for further assessment. During its lifetime and stored in the HIS database, the system can help to provide solutions, issue new rules and strategies, as well as suggest further modifications to make the system safer and more reliable.

Final text

Chapter 2 Related Works

In this chapter, works related to integrated information services, Clinical Decision Support in the Healthcare Information System and to services-oriented architecture are discussed.

Trends in Health Information Systems

In last two decades, many hospitals have applied information systems to aid the medical, nursing, and administrative staff in performing daily routine operations. Such applications are not only for the convenience of the hospital staff, but also to deliver higher quality medical care to patients under care. However, aspects of the information systems used in the hospitals in the past may be different from current ones. The goal of health information systems past and present is both simple and relevant: to contribute to high-quality and efficient patient care [6]. This supports a patient-centered approach towards medical and nursing care. In addition, the administrative and management tasks need to be supportive of such care [7].

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Institute of Medicine’s 1999 reported: “To err is Human” [8]. By implementing safety rule regulations (for both medical and nursing staff as well as patients) into an HIS, computer systems can provide information to staff with a reduced likelihood of human error. Furthermore, when medical errors do occur, as is inevitable, the HIS has the functionality to record those errors, allowing for researchers to analyze them for further assessment. During its lifetime, the system can help to provide solutions, issue new rules and strategies, as well as suggest further modifications to make the system safer and more reliable.