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Ubiquitous Healthcare Service in South Korea

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Abstract

The study presented here describes evaluation result designed to deliver the ubiquitous healthcare service in Korea. Based on the well -developed IT infrastructure, Korea has trying to find business opportunities in healthcare sectors and has initiated several pilot healthcare services for last few years. The characteristics of those services are providing personal healthcare services at home to the help of portable monitoring devices and communication network.

Introduction

Delivery of healthcare service by means of ubiquitous computing has arousing a great interest in Korea in order to reduce healthcare cost pressure and promote health maintenance of aging population. The ubiquitous healthcare (in short u-Health) enables anytime and anywhere healthcare service access. In pursuit of those goals, the efforts have tried in terms of u-Health pilot study to bridge the boundaries IT and medical industries despite the business attitudes and cultures of these two industries were different. IT industry has achieved success through rapid technological advance while medical industries have more value on ensuring rapport between care recipients and providers with face-to-face interaction.

To understand these emerging integrations better and which services groups of customers with needs really want, Korea conducted several u-Health pilot studies.

The u-Health service

The u-Health ecosystem includes a broad spectrum of capabilities; monitoring devices (vital sign, weight, glucose, ECG, physical activity, etc), communications (Zigbee, Bluetooth, Ethernet, Cellular network, etc), data aggregations (PDA, cell phone, PC, etc), and services (disease management service, diet or fitness service, personal health record service, etc).

The service delivery has done by acquisition of specific health-related data (glucose, ECG, blood pressure) with the use of portable monitoring devices, forwarding data to the hospital through wire or wireless communication using PDA, cell phone or Internet, and providing feedbacks such as data presentation via Internet and consulting with medical staffs by phone and Internet.

The participated organizations for these pilot services include three government departments (Ministry of Health and Welfare, Ministry of Information and Communication, Ministry of Commerce, Industry and Energy), hospitals (Seoul, Busan, Hanyang, Gachon, Severance University Hospital, etc) and local health centers, telecommunication operators (KT, SKT) and several equipment and solution providers.

Result

From the early 2000, there have initiated several kinds of u-Health studies but in this result only aggregates major 3 pilot studies which are relatively large in scale from 2005 and aim at disease managements for elderly. Average service period is 3 months and total subjects are 284 for glucose, ECG, blood pressure, and body mass monitoring. The evaluation result, care recipients expressed that they satisfied with quick and regular checkup of their health status, felt secure at all times, and said good to see their health records anytime but they went through a little difficulties to handle devices and doubted the confidentiality of data with the use of portable monitoring devices (service satisfaction point is around 70-80%, device satisfaction point is around 50-60%).

Conclusion

Government-driven u-Health pilot service seems like to succeed to gain interests of public as well as over several industries. But there are many reasons that make u-Health service difficult. Among them the following three need urgent addressing: (1) legal and standard issues (2) developing of profitable business models for both IT and medical industries, and (3) ensuring of accuracy and reliability of monitoring data. As a result of these pilot studies, the service providers found that the some of their services were of little value to customers and now they are preparing next pilot studies to meet customers' requirements.

Reference

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