Abstract

U-health, the short form of “ubiquitous health,” refers to a health care system making use of ICT to provide preventive care, consultation, treatment, and follow-up care to patients from anywhere and at any time. U-health is a derivative of e-Health, offering a health care service model that is more consumer-oriented. While e-Health is an electronic information sharing system between patients, the general public, health care institutions and solution providers, u-Health goes one step further to integrate the physical spaces of health care users and providers with electronic spaces, operating cutting-edge medical technologies. The advent of ubiquitous networking promises to bring about dramatic changes at all levels of our life. This term, derived from the Latin word “ubiquitous” - being everywhere at once - refers to the new technological paradigm whereby all parts of a society are interconnected through information networks, propelling progress at a social, cultural as well as economic level. Ubiquitous networking, by interlinking computers, consumer electronics, automobiles, home appliances, medical equipment, transportation systems, animals and plants through an overlapping of electronic spaces and physical spaces, is expected to provide an environment that enhances our lives through improved convenience, efficiency and safety in all areas. u-Health, the most exciting of ubiquitous networking applications, has attributed a strong potential to meaningfully contribute to the improvement of the quality of our lives. In Korea and elsewhere in the world, active efforts are underway to develop software solutions and equipment enabling integration of IT with health care technologies.

This Keynote is concerned with strategies to accelerate the diffusion of u-health services and software development in Korea. We will discuss and the examine the concept and characteristics of u-health, forecast demand for both services and equipment, and identify factors influencing the adoption and diffusion of these services, using the results of a consumer survey, and finally, based on this analysis, propose development strategies for the u-health market. We also present the architecture and process to develop the u-Health care software and services.

Dr. Haeng-Kon Kim is currently a professor in the Department of Computer Engineering and Dean of the office of research and information, Catholic University of Daegu, Korea. He received his M.S and Ph.D in Computer Engineering from Chung Ang University in 1987 and 1991, respectively. He has been a research staff in Bell Lab and NASA center in the U.S.A. He also has been a researcher at SEITI, Central Michigan University, USA. He is a member of IEEE, KISS and KIPS. Dr. Kim is the Editor of the international Journal of Computer and Information published quarterly by Korea Information Science Society. His research interests are Embedded Software and Mobile Component Based Development, Component Architecture, & Frameworks Design. Dr. Kim has received his research grants from KOSEF, MIC Foundation, ETRI and industries.