IT839 Strategy and Industry-Strong IT Education in Korea

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For the last 30 years, Korea developed broadband internet and wireless services to build the world best information infrastructure. There are more than 34 million broadband Internet users, which covers 70% of total population, and 37 million wireless subscriptions. Internet becomes not only undetachable part of Koreans' daily life but also major tools for business in almost all industries. In the course of such development, IT has emerged as a key driving force of Korean economy.

However, competition becomes fierce due to short life cycle of information technology and winner-takes-all characteristics of its industry. To cope with the challenges and make a leap toward a global leader in the IT field, Korean government takes a research initiative called IT839 strategy to bring new eight IT services on new three network infrastructures by nine growth engines of new technology. New IT services are Wireless Broadband service, Home Network service, Digital Multimedia broadcasting, Telemetics service, RFID based service, W-CDMA service, Terrestrial Digital TV service, and Internet Telephony, while broadband convergence network, ubiquitous sensor network, and IPv6 constitute the new infrastructures.

Supply of creative scientists and engineers would be a key factor for the success of such ambitious initiatives and sustaining development of a country. Unfortunately, Korean schools of engineering have been experiencing reduction of enrollment for the last several years, not only in the conventional fields of engineering but also in high-tech areas. Moreover, the competitiveness of university education system is ranked low as in the IMD report. The most serious defect of the Korean education system is the lack of industrial relevancy in its curriculum and research topics, which is more serious in engineering fields. Topics taught in the college are introductory level or principles ignoring professional practice and knowledge of tools, which are mostly required in the field. Training is focused on analysis, ignoring design and synthetic aspect of problem solving. As a consequence, initial job trainings in industry often take several months and even years. It is often complained that engineering graduates lack communication and social skills. Generation of knowledge in academia is not sufficient, but more serious is the lack of technology transfer to industries.

To boost up the competitiveness, the entire education system is under reform in Korea, such as control structure, faculty evaluation schemes, etc. The ministry of Information and Communication supports the reformation of IT education system toward industry-strong IT education and goal-oriented research. For an instance, curricula developed jointly with industry experts and professors deployed with funding supports.

Such endeavors to upgrade engineering and IT education system would bring force fruits in a near future.