

Innovating Social Infrastructure Information with the Digital Earth

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Information communication technologies (ICT) are becoming essential tools for our life and their roles are expected to be more important as a new social infrastructure. In order to construct a new social infrastructure, it is necessary to redesign existing social infrastructure information by using web 2.0, ambient intelligence techniques (such as RFID sensors), digital appliances and so on. So-called 'ubiquitous' technologies or ambient intelligence technologies enable to access information anywhere, anytime and for anybodies. In the next social information platform, it is required to access information 'now, here and only for me'. Therefore, a concept of 'concierge' could be an essential factor for that.

Now in Japan, security and safety, universal design, transportation management, urban renovation, tourism and environment can be said as crucial measurements to innovate social infrastructures.

Ministry of Land Infrastructure and Transportation and other ministries have improved and maintained sensors, statistics and map information. So far, information on roads, rivers, railways, buildings, airports and so on, has been improved for each spatial purpose. In order to construct a new social infrastructure information platform, however, we need to renovate such kind of information for other-purpose usages.

In this study, we propose a concept of new social infrastructure information platform by combining field sensors and map information improved by Ministry of Land Infrastructure and Transportation and local municipalities. In the prototype platform, information on disaster, public transportation, tourism, barrier free and environment are equipped on Google Earth. Cable TV information is also added on the proposed system in order to amalgamate broadcast and ICT.