Study on design and implementation of webbased audience measurement platform for digital signage service

Wook Hyun*, MiYoung Huh*, SungHei Kim*, ShinGak Kang*

* Protocol Engineering Center, ETRI(Electronics and Telecommunications Research Institute), 218 Gajeongro, Yuseong-gu, Daejeon, Republic of Korea

whyun@etri.re.kr, myhuh@etri.re.kr, shkim@etri.re.kr, sgkang@etri.re.kr

(Pt9)Abstract— Digital signage service provides advertisement and information to users using electronic displays with network capabilities. Compared to traditional DID (Digital Information Device) that just provides contents one-way, digital signage service can provide more advanced functionalities such as user interaction and audience measurements. By measuring audience behavior, it is possible to provide appropriate contents to user and increases advertisement effects. In this paper, we present implementations of audience measurement using Kinect camera since Kinect camera can track a human objects, distance calculation and gesture recognitions, and web-based analysis platform for audience measurement information.

(Pt9)Keyword— audience measurement, digital signage, Kinect, AM, Web-based analysis platform, big data



Wook Hyun is a research staff member with ETRI (Electronics and Telecommunications Research Institutes) since 2000. He has received M.S. degree in Information Communication Engineering from Chungnam National University, Korea in 2000. His research interests include VoIP, SIP, NGN, P2P, overlay networking and digital signage.



MiYoung Huh is a research staff member with ETRI (Electronics and Telecommunications Research Institutes) since 1990. She has received M.S. degree in Information Communication Engineering from Chung Nam National University, Korea in 2004. Her research interests include VoIP, SIP, IPTV, and Digital Signage.



Sung Hei Kim is a research staff member with ETRI (Electronics and Telecommunications Research Institutes) since 1991. She has received M.S. degree in Computer Science from Chung Nam National University, Korea in 1995. Her research interests include network management, NGN, service engineering, multicasting, P2P systems, and overlay networking.



ShinGak Kang received the BE and MSE in electronics engineering from Chungnam University, Korea, in 1984 and 1987, respectively and the Ph.D. degree in engineering from Chungnam University, Korea, in 1998. He is working for ETRI since 1984. Since 2008, he is a professor of the school of engineering, University of Science and Technology, Korea. His research interests include VoIP, IPTV, and future network.