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**Interactive and Smart Multimedia Services**

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Today with the fast developments in electronics industry and the amazing growing of the potential customers, media are increasingly ubiquitous: more and more people live in a world of Internet pop-ups and streaming television, mobile phone texting and video clips, etc. These ubiquitous media become more and more closer to our life experience, enabling brand environments for interactive and smart multimedia services, which makes it possible to access various multimedia contents everywhere at any time. Thus, the design of interactive multimedia and services combines aspects of ubiquitous networking, ambient intelligence, embedded multimedia systems, and smart environments, which has drawn substantial attention from the research community.

In the first paper “Shelter: Smartphone Bridged Socialized Body Networks for Epidemic Control” by X. Bai, H. Wang and H. Fang uses body area networks, social networks and smartphone to tackle epidemic control challenges. The major innovation in this approach is to develop a smartphone bridged social body networks to identify the critical networks that represent epidemic patterns. The proposed approach fills the gap between social information collection and body including external environment information collection, providing a promising solution for real time epidemic control.

Jiangchuan Liu et al., in “Frequency-Aware Adaptive Indexing for P2P VoD Service with Frequent Seeks”, address the key challenge, chunk indexing, for VoD application with frequent interactivities. The authors propose a novel indexing scheme which realizes the quick and low-cost chunk discovering. The major idea is to adapt itself to the user request pattern adaptively. The knowledge extracted from the overlay facilitates the prefetching mechanism efficiently. The preliminary simulation results fully demonstrate its superiority in supporting VoD service, especially for non-uniform user access pattern.

The paper, titled “LCHQ: Low Complexity with High Quality Video Codec for the Mobile

Multimedia Communications” by X. Liu and J. Ma, addresses the current situations and bottleneck of the high-quality video coding standard for the mobile multimedia communications. The authors focus on the dominant video coding standards and analyze their serious complexity problem which will take trouble to the mobile devices, such as energy life, processing time and so on. They also discuss the development directions and improvement challenges of the future LCHQ video coding standard for the mobile communication systems. This article provides relevant summary and useful outlook for the future related research.

In the last paper “3D Motion-Sensing Interactive HMI for Applications in Multimedia Services” by Yueh-Min Huang et al., mainly addresses on interactive multimedia services which interacts singly according to respective actions from the user still belong to an one-way interactive system. However users do not feel the realism with this type of interactive service. This paper introduces gloves implemented with infrared signal LED and triple-axis accelerometer for hand motion recognition. The system receives the response when an item is attained for service. The physical reaction is presented with small motors and springs to increase the tension display within the glove. This system already been successfully implemented in normal operating systems and provided an innovative idea for interactive multimedia service.

Research in interactive and smart multimedia services has seen both challenges and opportunities with emerging new applications and systems. It is intended to be a novel efficient and effective component for the Internet of Things, and will greatly impact everyone’s life in every facet, including entertainment, socialization, business, healthcare and education. We would like to thank all the authors for their contributions and hope these articles can provide some research interests in this area.

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