

Chapter 17

Application of Mobile Cloud-Based Technologies in News Reporting: Current Trends and Future Perspectives

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ABSTRACT

Cloud Computing is one of the most rapidly evolving technologies available today that offers the possibility of multimedia content exploitation with rich media experience. Cloud computing users have the flexibility to enjoy media content independently of time and space. Multimedia cloud computing encompasses technology, multimedia data, and community contribution, offering augmented multimodal interaction and advanced processing services to the users. Mobile multimedia resources can now be accessed through the cloud practically at anytime and from anywhere, facing contemporary demands for information access and process, thus perfectly matching to the nature of news media. Such features are very favorable in online journalism and specifically in news reporting services. This chapter presents technological and application-oriented trends in cloud-based mobile news reporting both at journalists' (news producers) and users' (news consumers) sides. Future and emerging perspectives, such as ubiquitous and pervasive computing, incorporating context and location-aware services in semantic interaction modes, are also described from the news-reporting point of view.

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INTRODUCTION

The rapid evolution of Information and Communication Technologies (ICTs) has affected almost all aspects of human activities. The digitalization of the work process, along with the introduction of the Internet and its services has had a major influence in the journalism profession (Erdal, 2007; Veglis, 2009). Digital technology has revolutionized newspaper production, whereas computers and computerized editorial systems are utilized while writing texts, processing images, reporting on news events, etc. (Sabelström, 2001; Veglis, Tsourvakas, Pomportsis, & Avraam, 2005). Radio, television and their contemporary ICT counterparts have expanded their influence and also created new opportunities in receiving and consuming, but also in creating and disseminating news (Chung, Kim, Trammell, & Porter, 2007; Geoghegan & Klass, 2007; Simpson, 2008). Audiovisual streaming technologies and user generated content (UGC) approaches have become very popular in breaking news and generally timely news coverage (Dimoulas, Tsourvakas, Kalliris, & Papakis, 2012; Geoghegan & Klass, 2007; Kotsakis, Kalliris, & Dimoulas, 2012; Simpson, 2008). Nowadays, the journalist is expected to have the ability to exploit many tools, services and platforms in order to be informed, but also to produce and deliver news (Spyridou, Matsiola, Veglis, Kalliris, & Dimoulas, 2013). The 24-hour cycle of producing news does not exist anymore. The news is produced 24 hours per day and it is made available at once in many alternative publishing channels (Sabelström, 2001; Veglis, 2012). It is also updated continuously in order to include all the latest developments (Veglis, 2010). This is closely related to the vision of “information access (and process) at any time and place,” which has been inspiring for the Cloud Computing (CC) and the Mobile Cloud Computing (MCC) initiatives in the mid-90s (Khan & Ahirwar, 2011; Satyanarayanan, Bahl, Caceres, & Davies, 2009).

CC and MCC models enable the delivery of data-storage, services, software, and processing capacity from the Internet. It is about offloading data, applications and computing from the client side into the “cloud,” trading-off storage and processing demands with networking bandwidth resources. In this context, cloud approaches offer convenient and on demand access to remote computing resources, minimizing management efforts and expertise in the client side (Kovachev, Cao, & Klamma, 2011). The difference between CC and MCC lays on the fact that in the MCC model the client’s access terminal is a mobile device, supporting also the “information at my fingertip” vision (Satyanarayanan et al., 2009). In this context, MCC attempts to further extend flexibility and mobility, incorporating also increased interaction and functional capabilities, so that, besides storage and download services, more powerful applications can be deployed, anticipating more significant growth (Dey, 2012; Dinh, Lee, Niyato, & Wang, 2011; Kovalick, 2011). The use of CC/MCC has many benefits in terms of management, ease of operation and upgrading for the average user, as well as in security issues, although new threats and security difficulties arise.

Among the various fields and disciplines that CC and MCC services are massively deployed in, infotainment and media-related applications are very common (Dey, 2012; Khan & Ahirwar, 2011; Kovalick, 2011; Raj & Mala, 2012). The present chapter focuses on the current trends and the future perspectives of the MCC-based news reporting services. The rest of the chapter is organized as follows. In the next section, the technological and operational background of MCC is briefly provided, with emphasis on media-related cloud application and services. CC and MCC advantages and disadvantages are also discussed with regard to the news reporting paradigm. In the main thrust of chapter the MCC-based news reporting challenges are described, while related characteristic examples are listed. News acquisi-

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