

# Technological Innovation: A Case Study of Mobile Internet Information Technology Applications in Community Management

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## ABSTRACT

The Mobile Internet Information Technology (MIIT) has been widely accepted as one of the most promising technologies in the next decades, having various applications and different value positions. However, few published studies explore and examine the effects of MIIT on community management. Based on the Dramaturgical Theory, this article uses a case study method to get an insightful understanding of MIIT. This article found that the MIIT was used by grid organizations to realize technological innovation and change organizational routines and structures, but eventually it was shaped by them, so this new technology was only able to embed itself into the public service model as a secondary or complementary role.

## KEYWORDS

Case Study, Community Management, Criticism, Dramaturgical Theory, Mobile Government, Mobile Internet Information Technology, Service Model, Social Governance

## 1. INTRODUCTION

It is estimated that there are roughly 2 billion smartphone users in the global market. The huge number of mobile users creates a blooming environment for the Mobile Internet Information Technology (MIIT). In broad terms, the MIIT is defined as a branch of information technology which needs connecting to the wireless or mobile Internet. The next decade is likely to witness a considerable rise in the use of MIIT. For instance, MIIT has been widely used in mobile computing, location-based services, mobile banking, mobile commerce, etc. Due to various technical applications and different value positions, the strategic and crucial role of MIIT in the domain of community management and social governance is still ill-defined. Therefore, the aim of this study is to extend the current knowledge of what effects the MIIT has on community management. Besides, this research also finds

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a relatively new case study paradigm based on the Dramaturgical Theory. Technological innovators could also learn lessons about how they should tackle similar technological innovation issues in their management practice.

This paper is organized as follows. Section 2 conducts the literature review. Section 3 discusses both the research question and the research methodology. Section 4 then presents findings from the case study. Section 5 further discusses these findings and the case. Section 6 summarizes the contributions of this study, and future research directions are also addressed in this section.

## **2. LITERATURE REVIEW**

### **2.1. Mobile Internet Information Technology and Community Management**

Technological innovation based on mobile technologies has been rapidly developed during recent years (Xu et al., 2014). Most technologies are applied to promote commerce and business transactions. The supply chains related to commerce and business transactions are forming a business ecosystem (Gorkhali & Xu, 2016; Xu, 2011). Balboni et al. (2015) stated that mobile technology produces various applications: context-driven interactions, location-based marketing, mobile tracking, immediate consumption, borderless workforce, and augmented reality. Thus, MIIT applications can be adopted in different management fields. For example, Liu and Yang (2011) proposed an intelligent model to realize a practical and intelligent community management system by using applications based on the Internet of Things (IoT), as IoT is a promising emerging technology (Bi et al., 2014; Kim, 2017; Li et al., 2015; Liu et al., 2017; Mao et al., 2016; Whitmore et al., 2015). Jalali et al. (2015) presented a smart architecture where both community service providers and residents can access to real-time data collected from sensory systems. After analyzing current problems in the smart community, Zhu et al. (2012) identified the community e-service technology from a comprehensive analysis of the smart community features and information technologies applications. Some scholars also studied the less “Internet-alike” part of mobile Internet, and suggested that local activities are particularly important for the use of new mobile technologies (Ghose et al., 2013) which is very congruent with the local-focused managerial characteristic of community management.

Other researchers proposed various applications of MIIT for community management. For example, Yuan and Peng (2004) examined the information value by combining voice-information sharing and location-based information service. Fitch and Adams (2006) discussed the crucial role of mobile technology in community healthcare provision. Bohari and Zan (2012) focused on the strategy of using wireless technology for rural community development as wireless technology is a promising emerging technology (Finogeev & Finogeev, 2017; Li et al., 2012). Dempster et al. (2012) studied people’s perceptions about IT community management of cancer pain and their perceived weaknesses in the current systems and expected future systems (Fan et al., 2014; Xu et al., 2014; Yang et al., 2016; Yin et al., 2016). Additionally, Tomlinson et al. (2013) investigated how community health workers can improve their care quality by using a mobile information system. Tumusiime et al. (2014) also introduced a mobile information system to community health workers for integrated community case management. Wallace (2015) presented opportunities and challenges brought by mobile communication to the community healthcare.

Given the fact that the community management needs a large amount of residents’ private information such as social insurance, community security, birth control and so on, the MIIT may also have negative effects on community management due to privacy and security issues. For example, Google invented a popular free smart phone game, Ingress, so as to access users’ private location information (Hulsey & Reeves, 2014). Chopra (2014) presented a critical discussion about how Internet negatively affects people or their use of Internet in an appropriate way.

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