

Mobile Information Technologies

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Introduction

During the last two decades there has been a growth in the use of mobile devices. According to latest report from the International Telecommunications Union (2015a) in the world there are about 7,000 million subscribers with a mobile line.

Mobile devices are more than a simple telephone for making calls; they are real computing devices with Internet access and powerful functionalities through the new application software model so called Apps (Briz-Ponce & Juanes Méndez, 2015). Nowadays, there exist more than 3 millions of Apps in the main marketplaces (about 2 millions in Google Play and 1.5 millions in the Apple Store, source <http://www.statista.com/>).

Due to the versatility of the current mobile devices, it is not easy to define or characterize the term. For example, the International Telecommunications Union (2015b) defines a mobile device as “a device with mobile communication capabilities such as a telecom network connection, Wi-Fi and Bluetooth that offer a connection to the internet or other communications networks. Examples of mobile devices include mobile phones, smartphones and tablets”. Firtman (2013) expresses that a mobile device has the following characteristics: it is portable and personal, the owner brings it more part of the time, it is easy to use and fast, and it has some kind of Internet connection.

With the above characteristics, it is possible that all the following categories may be considered as mobile devices: notebooks, e-books, personal digital agendas, smartwatches, smartphones and tablets.

All of these devices are connected to Internet and may be used for leisure (Colomo-Palacios, García-Peñalvo, Stantchev, & Misra, 2016; Su, Chiang, James Lee, & Chang, 2016), personal and social communications (Karapanos, Teixeira, & Gouveia, 2016), commerce (Stafford & Gillenson, 2003), learning

(Alonso de Castro, 2014; Sánchez Prieto, Olmos Migueláñez, & García-Peñalvo, 2013, 2014c; Sharples, Milrad, Arnedillo, & Vavoula, 2009), health (Briz Ponce & García-Peñalvo, 2015; Briz Ponce, Juanes Méndez, & García-Peñalvo, 2014a, 2014b; Briz-Ponce, Juanes-Méndez, García-Peñalvo, & Pereira, 2016; Istepanian, Jovanov, & Zhang, 2004; Sun, Rau, Li, Owen, & Thimbleby, 2016), etc.

This means these devices generate a very significant data flows the are interesting for researching studies from different perspectives such as social (García-Peñalvo, Conde-González, & Matellán-Olivera, 2014; Konok, Gigler, Bereczky, & Miklósi, 2016), engineering (Casany et al., 2012; Conde González, García-Peñalvo, Casany Guerrero, & Alier Forment, 2009; Conde, García-Peñalvo, Alier, & Piguillem, 2013; Humante-Ramos, García-Peñalvo, & Conde-González, 2015; Kayastha, Niyato, Wang, & Hossain, 2011), educational (Briz-Ponce, Juanes-Méndez, & García-Peñalvo, 2016; Conde, García-Peñalvo, Alier, Casany, & Piguillem, 2013; Humanante Ramos, García-Peñalvo, & Conde-González, 2015), economic (Au & Kauffman, 2008; Oliveira, Thomas, Baptista, & Campos, 2016; Wu & Wang, 2005), human-device interaction (Chiu et al., 2016; Eshet & Bouwman, 2015; García-Peñalvo & Conde, 2015), acceptance (Briz, Juanes, & García-Peñalvo, 2016; Ovčjak, Heričko, & Polančič, 2015; Salo, Kajalo, Mäntymäki, Sihvonen, & Leminen, 2013; Sánchez Prieto, Olmos Migueláñez, & García-Peñalvo, 2014a, 2014b, 2016), quality of service (Suki, 2012) and so on.

For this reasons mobile information technology research is a topic that is welcomed in JITR, specially with a multidisciplinary approach that allows transversal studies related to to the mobile use in our society.

Contents of the issue

Current JITR issue comprises five papers.

The first one, "Towards Modelling the Impact of Security Policy on Compliance" (Yaokumah, Brown, & Dawson, 2016) develops a model to integrate the role of technical and administrative security controls, which provides a better understanding of how security policy can influence security compliance and the pathway through which this effect is generated. Data for the study were collected from 223 IT security and management professionals.

The paper Bouarara et al. (2016a) entitled "Artificial haemostasis system for modern information retrieval with 3D result-mining" presents a bio-inspired technique, called artificial haemostasis system (AHS), based on the haemostasis phenomenon that prevents and stops bleeding in case of external haemorrhage.

The paper entitled "New Bio Inspired techniques in the filtering of spam" (Bouarara, Hamou, & Amine, 2016b) represents a recapitulation of applying a set of our new bio-inspired techniques (artificial social roaches (ASR), artificial coagulation system (ACS), artificial heart lungs system (AHLs) and social worker bees (SWBs)) for the spam filtering problem.

Rajarajeswari and Aramudan (2016) provide a new federated cloud mechanism, in which Broker Manager takes the responsibility of providing optimal and ranked service provider for user requirement.

In the last paper Cabezas et al. (2016) presents the main results from eight case studies carried out at different Spanish schools. Using a common protocol, authors compared different cases of schools in which computer-supported collaborative learning experiences were carried out in order to identify what standard actions they had in common. They concluded that collaborative learning strategies favor students, since all of them benefit from constructing knowledge together, sharing responsibilities, taking ideas more in depth, having greater autonomy and control over their own learning, and helping each other in the process.

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