

# MOBILE LEARNING IN MALAYSIA

Rozita Abdul Jalil, Zaidatun Tasir

## INTRODUCTION

Nowadays, mobile and wireless technologies are the fastest growing areas of technology. It offers an opportunity for learners to transcend the knowledge through accessing alternative source of information. Pocket size minicomputer; can be carried around easily; increases the pace and scale of attempts to innovate learning and teaching process. Through innovative technologies, one can develop learning applications, which will lead to a new learning model that offers people the opportunity to learn at anytime and anyway. A new era of mobility in learning can be achieved nowadays by using a mobile device, such as cell phones, tablet computers and smartphones.

Research on mobile learning has expanded significantly and these developments encourage educators and researchers to develop educational applications for mobile devices to support any teaching and learning, (Kukulska-Hulme & Traxler, 2007). However, a few aspect to consider before developing any mobile learning is to know the market demand, local environment support, user readiness, education setting, security, appropriate learning strategies, and many more. Therefore, this work aims to provide a current analysis on market trend of mobile operating system and the mobile technologies acceptance and readiness among students and

educators. Therefore, a research on mobile learning in Malaysia context should be explored.

This paper has had five sections organized as follows. Section 1, Introduction, in section 2, mobile learning definition. Section 3, explore on the mobile operating system market (worldwide and Malaysia). Section 4 is an overview of mobile learning in Malaysia with a further look on government policy and selected research of technology acceptance and readiness and Section 5 is a conclusion.

## **MOBILE LEARNING**

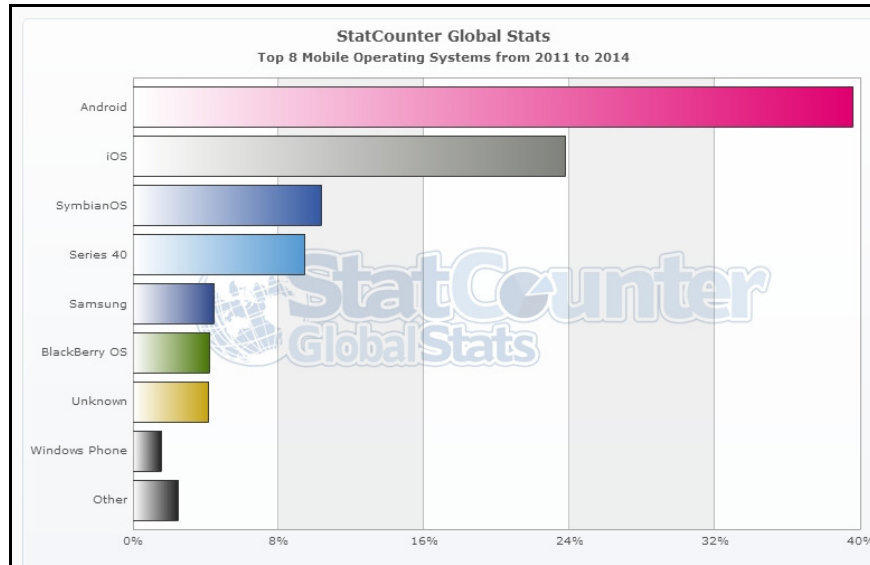
Mobile Learning has become more important in 21<sup>st</sup> century (Hwang & Tsai, 2011; Wu et al., 2012). Previous researcher has been conducting studies on the use of mobile technologies in education, where these technology-supported learning approaches recognized as Mobile Learning by researchers (Hwang & Tsai, 2011). Different researcher and organization give the different definition of mobile learning. A commonly accepted definition of mobile learning (M-learning) is using mobile technologies to facilitate and promote learning anywhere and at any time' (Hwang & Tsai, 2011).

M-learning is a powerful approach to enhance learning experiences and engage learners by different learning situation. These few definitions share the same idea on how it applied in learning activities either classroom setting or any field. It becomes the current trend in future learning.

## **MOBILE OPERATING SYSTEM MARKET**

There are boost number of mobile devices, which create intense competition among operating system developers. Companies such Apple, Microsoft keep promoting in order to remain sustain and capture the majority of market share. The

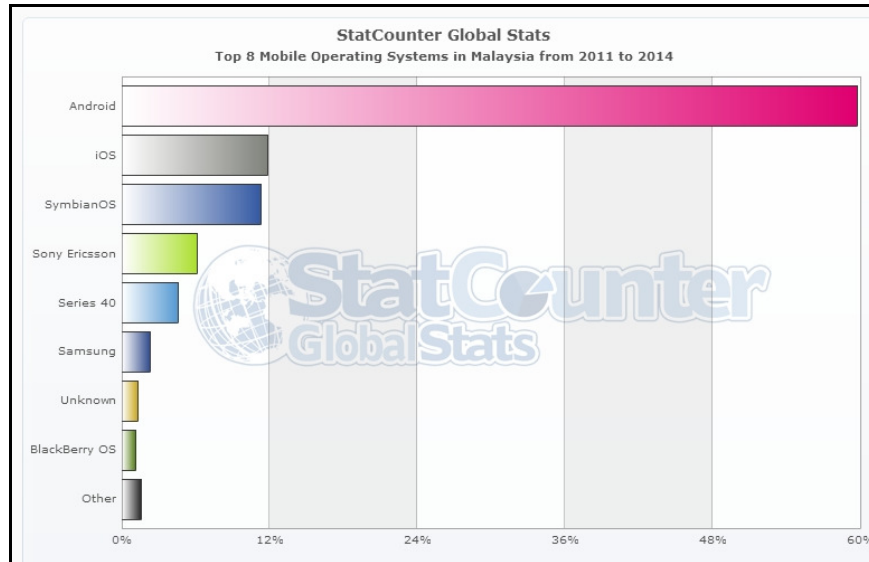
developer needs to determine the target Operating System (OS) platform for mobile learning. The market share visual presentation can provide the overview of the current trend of mobile operating system (m-OS). Figure 1 displays of top eight m-OSs' worldwide market share from year 2011 to 2014. The results show that Android and iOS clearly lead the table. Android conquer more than 40% of market share follow by iOS with 24%, and remaining SymbianOS, Samsung, Blackberry OS, Windows Phone and others. The graphic line display trend of the market is constantly changing and evolving throughout the year.



**Figure 1** Mobile Operating System Worldwide from 2011 to 2014  
(source :StatCounter Global Stats)

Figure 2 presents the top operating system in Malaysia from year 2011 to 2014. The statistics show that Android leads the way, monopolized more than 60% of market share in Malaysia followed by its rivals iOS, Symbian OS, Sony Ericson, Series 40, Blackberry and others. Nevertheless, the evolving of technologies with new

features give chance for the m-OSs' in low rated position to climb the top. Based from the previous figures, the most promising mobile OSs in Malaysia are Android follow by iOS. Both two m-OSs' to consider for any development of mobile learning in Malaysia.



**Figure 2** Mobile Operating System in Malaysia from 2011 to 2014  
(source :StatCounter Global Stats)

## MOBILE LEARNING IN MALAYSIA

### OVERVIEW OF GOVERNMENT EFFORT

Ministry of Education (Malaysia) translates the future direction of government effort and aspirations to become competitive nation by documented National Higher Education Strategic Plan (PSPTN) 2007-2020. Ministry of Education (MOE) has developed 21 Critical Agenda Projects (CAPs) to monitor

progress PSPTN stages. Each of these CAPs has three main items (strategic objective, indicator, target) to be achieved through various planned activities. Mobile learning has been spot as one of CAPs and key Result Area (KRA) of MoE. In the context of developing country like Malaysia, using portable technologies as learning enhance technologies often remain unrealized.

Malaysia Education Blueprint 2013-2025 is a new document by MOE on context of raising international education standards. This Blueprint written 11 strategic and operational shift of a vision of the government's aspiration of better preparing education system with consider student both needs and deserves. "Leverage ICT to scale up quality across Malaysia" in Shift 7, positively encourage the mobile learning technologies to grow. Therefore, a brief discussion of some selected research studies on technologies acceptance and readiness Mobile Learning in Malaysia is relevant here.

## **TECHNOLOGIES ACCEPTANCE AND READINESS**

Article searching was conducted from computerized bibliographic databases Scopus and ISI Web of Knowledge. There are six studies met the selection criteria, acceptance and readiness Mobile Learning in Malaysia context. The results of the analysis are simplified and presented. More syntheses and organized item-based information (including research focus, participant information, methodology, research outcomes) are provided in Figure 3.

No	Study	Research focus	Participant	Methodology	Outcome	Details
1	Ismail, I. et al. (2013)	Teachers' acceptance and readiness of mobile technologies	38 teachers, teach Information and Technology (IT) subject from different primary schools in Penang, Malaysia	questionnaire survey	positive acceptance	-Teachers' readiness for the use of mobile phone in T&L was found to be at a considerably low level -Gender is a possible factor influencing the respondents' readiness.
2	Krish, P., et al. (2013)	The readiness of students in mobile learning	91 student undergraduate and post graduate students two local universities, University of Technology MARA and Universiti Kebangsaan Malaysia	online questionnaire survey	positive	- The students are highly familiar with computing skills positively welcome the integration of mobile learning in education.
3	Hamat, A., Embi, M.A., Hassan, H. A (2012)	The readiness of UKM lecturer in mobile learning	374 lecturer in Universiti Kebangsaan Malaysia	online questionnaire survey	positive	-The majority (85.7%) respondent believe that mobile learning would be useful for their students
4	Rahmat, R. et al. (2011)	The students' readiness and perceptions towards the use of mobile technologies in learning.	235 student aged 16 years old (Form4) of six daily schools in Seremban, Negeri Sembilan.	questionnaire survey	positive	-The participants displayed readiness and positive perceptions toward using mobile technologies for learning
5	Peng, C.L., et al. (2010)	The readiness of OUM students in mobile learning	OUM student	questionnaire survey	positive	-The majority of respondents would be ready for mobile learning within six months of the study.
6	Poon, W. C. , Koo, A. C. (2010)	The readiness of students in universities mobile learning	Student in six universities in Malaysia	questionnaire survey	positive	-Most respondent prefer online learning and willing to try out m-learning.

**Figure 3** Analysis of selected studies on technologies acceptance and readiness Mobile Learning in Malaysia

Two studies investigate on educator acceptance and readiness of mobile technologies (Ismail, I. et al., 2013; Hamat, A., Embi, M.A., Hassan, H. A. 2012), while four others research focusing on student readiness of Mobile Learning (Krish, P., et al., 2013; Rahmat, R. et al., 2011; Peng, C. L., et al., 2010; Poon, W. C. & Koo, A. C., 2010 ). All of the studies were conducted using questionnaire survey and surprisingly gave the positive outcomes.

The findings support some insights to teachers and students so that they can employ suitable approaches and integrate mobile technologies in teaching and learning. In addition, the findings also support the implementation of mobile learning in Malaysia.

## CONCLUSION

Based on the availability of mobile technology globally, educators have had the opportunity to allow individuals from around the world to access educational resources to enable education for all. Facilitated by many initiatives, making educational resources available as open educational resources. Thus, it provides access to learning more affordable for anyone who wants to learn. The highest demand on mobile technology in the worldwide market with the support by government gives opportunities for more and more mobile learning development. Readiness of learners and educators to facilitate the transformation of education using mobile technology is aligned with the needs of learners in the 21st century through the concept of New Academia.

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