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Mobile Learning and Education

Growth of Mobile Technologies

According to the latest International Telecommunications Union (ITU) data there are still substantial differences in levels of ownership of mobile devices and access to broadband internet between the developing and the developing world. However, it is promising to note that there is a steady growth in the ownership of mobile devices and especially mobile phones across the developing world. This growth in mobile technology adoption has brought much hope for improving the livelihoods of the most disadvantaged. Education is seen as one such domain and mobile learning in particular as an instance of the application of mobile technologies to achieve improved life conditions.

Mobile Technologies in Education

Notwithstanding the rapid growth in ownership of mobile technologies and the promotion of mobile learning as a new model for delivering education, many challenges remain and need to be addressed before we can truly achieve ubiquitous and impactful education via mobile learning. Recent studies suggest that while there is an increase in the adoption of mobile technologies in higher education many problems related to their effectiveness and usage remain [1] such as mobile learning infrastructure, institutional support and design problems related to the pedagogy and content suitable for mobile delivery [2]. These challenges require systematic exploration and this is particularly important in the developing world where the stakes are higher because of resource challenges.

Mobile Learning: Research Agenda for Developing Countries

There is a tendency in the developing world to adopt technologies, practices and models from the developed contexts without due consideration to the local contexts. Our research on mobile learning in Guyana and the Caribbean more widely acknowledged at the outset potential differences and the possible effects these may have on adoption.

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Our ongoing research on mobile learning has thus far been two-fold. We are working towards developing a better overview of the level of adoption of mobile technologies in formal learning at the University level in Guyana [2] and across the Caribbean [3]. Our data so far has shown mobile phones technologies are the most widely adopted for learning, that ownership of other types of mobile devices is linked to income; and that students more than lecturers are likely to explore various features on their devices for learning [2]. While we noted an increasing trend in the use of mobile technologies, it is important to understand the factors that might hinder or promote the acceptance and adoption of these technologies in our context. To this end we have assessed a number of technology acceptance models [2] [3] with the aim of determining how well these models work in our context and to help us identify the factors that may or may not be holding up. We found that the attitude towards the use of the mobile technologies for learning is the most important driver of adoption in the Guyanese context. Further, factors may vary across the developing countries context.

Next Steps

We aim to explore two aspects of mobile learning in the near future; one focus will be methodological and the other focuses on mobile computational learning. Our aim is to establish whether these categories can explain the adoption of mobile learning and mobile learning technologies. Second, our work on mobile learning will take a different turn and will explore how mobile technologies can assist the learning of computing. We will undertake a project to bring computing to students at the primary and secondary schools level using the BBC's Micro:bit technology. This small technology fits the description of the mobile agenda and will allow us to take technology to various schools and groups not constrained by classroom settings. This view of mobile learning will allow us to reach a wider cross section of society using a small resource base.

References

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