

Mobile Empowerment: Usability testing of the MOSAIC 2B Player Platform

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This paper discusses the usability testing of the MOSAIC Player Platform (MPP). The MPP is a component of the Cinema-in-a-backpack equipment for a project called MOSAIC 2B. The aim of the MOSAIC 2B project is to investigate alternative distribution channels and business opportunities for multi-media content to rural communities. In MOSAIC 2B micro-entrepreneurs (ME) are equipped with the Cinema-in-a-backpack and the MPP is the mobile platform that implements the functionality to support the MOSAIC 2B business case.

The MOSAIC 2B business case specifies the use of the Cinema-in-a-backpack equipment to enable entrepreneurs to host multi-media screening events in their local, rural communities. To obtain the multi-media content, a mobile application developed for MOSAIC 2B that runs on the MPP allows entrepreneurs to order multi-media content and pay for it using MOSAIC Bucks (mB), the currency of the MOSAIC 2B project. After ordering the content, the MOSAIC 2B system processes the order and sends the media to a collection depot via the MOSAIC 2B DTN network. The entrepreneur can then download the content to his MPP as soon as the content arrived at his assigned local depot. In addition, the application supports the entrepreneur to plan an event that includes the screening of the downloaded multi-media content. The Cinema-in-a-backpack includes a projector and speakers as well as a battery pack big enough to support the event without electricity. On the MPP the entrepreneur can also enter information that supports basic bookkeeping functionality to assist him with event planning. Furthermore, as part of MOSAIC 2B, entrepreneurs are requested to supply event data and can view consolidated data collected in the project on the MPP in a visual analytics component. This visual analytics component displays consolidated project data supplied by other entrepreneurs as well as statistics such as a popularity index of specific movies to help the entrepreneurs in their event planning.

The MPP was developed using an iterative and incremental development methodology. Because culturally diverse entrepreneurs will use the equipment, we included a usability testing phase in the test plan after the second iteration. The feedback from the usability tests was incorporated into the next design cycle of the MPP. The usability tests were conducted using possible entrepreneurs and the testing included both eye tracking and focused user group participation.

In this paper we report on the findings of the usability tests on the MPP. The test results include recommendations for further development of the mobile application on the MPP in the Cinema-in-a-backpack.

This paper contributes to our knowledge of the functional design of mobile applications for multi-media that are used in rural communities in South Africa. The results could be used to support mobile developers in South Africa doing mobile development for culturally diverse user groups.