

A Case Study of Remote Location Viewing, and Its Significance in Mobile Learning

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Abstract : As location aware mobile technologies become ever more omnipresent, the prospect of exploiting their context awareness to enforce learning approaches thrives. Utilizing the growing acceptance of ubiquitous computing, and the steady progress both in accuracy and battery usage of pervasive devices, we present a case study of remote location viewing, how the application can be utilized to support mobile learning in situ using an existing scenario. Through the case study we introduce a new innovative application: Mobipeek based around a request/response protocol for the viewing of a remote location and explore how this can apply both as part of a teacher lead activity and informal learning situations. The system developed allows a user to select a point on a map, and send a request. Users can attach messages alongside time and distance constraints. Users within the bounds of the request can respond with an image, and accompanying message, providing context to the response. This application can be used alongside a structured learning activity such as the use of mobile phone cameras outdoors as part of an interactive lesson. An example of a learning activity would be to collect photos in the wild about plants, vegetation, and foliage as part of a geography or environmental science lesson. Another example could be to take photos of architectural buildings and monuments as part of an architecture course. These images can be uploaded then displayed back in the classroom for students to share their experiences and compare their findings with their peers. This can help to foster students' active participation while helping students to understand lessons in a more interesting and effective way. Mobipeek could augment the student learning experience by providing further interaction with other peers in a remote location. The activity can be part of a wider study between schools in different areas of the country enabling the sharing and interaction between more participants. Remote location viewing can be used to access images in a specific location. The choice of location will depend on the activity and lesson. For example architectural buildings of a specific period can be shared between two or more cities. The augmentation of the learning experience can be manifested in the different contextual and cultural influences as well as the sharing of images from different locations. In addition to the implementation of Mobipeek, we strive to analyse this application, and a subset of other possible and further solutions targeted towards making learning more engaging. Consideration is given to the benefits of such a system, privacy concerns, and feasibility of widespread usage. We also propose elements of "gamification", in an attempt to further the engagement derived from such a tool and encourage usage. We conclude by identifying limitations, both from a technical, and a mobile learning perspective.

Keywords : context aware, location aware, mobile learning, remote viewing

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