Chapter 3.18
Improving the User Experience of a Mobile Photo Gallery by Supporting Social Interaction

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ABSTRACT

Today, image gallery applications on mobile devices tend to be stand-alone and offline. For people who want to share photos with others, many add-on tools have been developed to connect the gallery applications to Internet services to enable photo-sharing. The authors argue that photo-centric social interaction is best supported when the gallery application is fully integrated with an Internet service. In this case, no additional tools are needed and the user's image content is fully synchronized with the service. They designed and implemented a service-integrated mobile gallery application with a corresponding Internet service. Moreover, they conducted a field study with 10 participants to compare our application with a state-of-the-art gallery application combined with an add-on photo-sharing tool. Their application was preferred by most participants and it was especially appreciated because of the user experience. Above all, the results show that social activity increased amongst the participants while using our application.

INTRODUCTION

People are starting to use their mobile devices as their primary cameras because the quality of mobile cameras is improving (Nokia, 2008). As most mobile devices are also capable of connecting to the Internet, they can be used to publish photos to photo sharing Internet services and also browse and comment the photos hosted by those services. However, photo sharing on mobile devices still tends to be a laborious task and on that account users might not be able to share their mobile photos at all.

Nowadays, users are able to share their photos on their mobile devices by using applications that are essentially upload tools for certain Internet

services (Kodak EasyShare Gallery, 2008; Meaning, 2008; Pictavision, 2008; Radar, 2008; Share Online, 2008; ShoZu, 2008; Yahoo! Go, 2008). The upload tool applications are usually add-ons to existing gallery applications offering functionalities for separately uploading and downloading images and their data. However, the image gallery application and the user's image collection are not fully integrated and synchronized with the service. Also, the upload tool applications require account creation and configuration of settings before they can be used. In the mobile context, users who might be on the move and have only a limited and possibly fragmented time to spend on a task is unable to use a mobile application that is hard and slow to use and configure. Furthermore, the upload tools might be developed by a different party than the developers of the gallery application or the corresponding Internet service. This might result in a mismatch between the available functions and features on the mobile gallery application and the Internet service. Thus, the upload tool applications cannot guarantee a deep integration of the gallery application and the service.

Mobile image gallery applications continue to be stand-alone and offline, even though many mobile devices today are connected to the Internet with a flat-fee, always-on network connection. The gallery applications have not yet utilized the opportunity of integrating directly with a corresponding Internet service and having user's images in sync with the service. If the gallery application was deeply integrated to the service, it would enable users to share images in real-time on the go in an easy and fun way. Users would not need to configure or separately synchronize their image collection when they want to communicate using images. Hence, we argue that as the overall user experience improves via the deep integration of a mobile gallery application and a corresponding Internet service, it also facilitates the social interaction among the users of the Internet service.

In this article, we introduce a mobile gallery application that aims at offering great user experience by being fully integrated to a corresponding Internet service. The application provides an easy and fun way for users to share and interact with photos in real-time. We tested the application in a field study of 1+1 weeks (a test period of 1 week for each application) by comparing it to a state-of-the-art mobile image gallery application combined with an Internet service upload tool. The goal was to investigate whether the social interaction is best encouraged when users are using a mobile service-integrated gallery application compared to state-of-the-art applications and tools existing on the market today.

RELATED RESEARCH

Mobile image sharing has been an important topic in the research literature. Many imaging application have been developed around the topic of mobile image management and sharing process, but we are not aware of any research on seamlessly integrating personal image management and photo sharing between a mobile device and a corresponding Internet service and how that would affect the user experience and social interaction. Instead, the previous research on mobile imaging applications can be divided into two groups: studies on the usage and management of personal images and studies on sharing images. The studies on personal images have revealed many ways to help users to organize and locate their photos (Ames & Naaman, 2007; Bentley et. al., 2006; Frohlich et. al., 2002; Gurrin et. al., 2005; Jacucci et. al., 2006; Naaman et. al., 2004; Wilhelm et. al., 2004). They have also shown how to enable image browsing (Harada et. al., 2004; Khella & Bederson, 2004; Pauty et. al., 2005; Wang et. al., 2003) or displaying (Liu et. al., 2003) in an effective way on a mobile device in terms of user's personal image collection. The research on mobile image sharing has been focusing on how to improve the

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