

# *mopix*: A Location-Based Mobile Photo Sharing System

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## Abstract

In this document we introduce *mopix*, a location-based mobile photo sharing platform that supports interaction within public spaces. Media messages, which include photos and text messages, are distributed by users throughout their physical environment and linked to the geo-coordinates of the locations where they were created. By sharing these digital traces of a user's spatial and social contexts, users can engage in a playful process of surveilling and being surveilled. *mopix* relates location-aware and collaborative technologies in a way that supports the collaborative creation of a space, while simultaneously encouraging interaction between the occupants in the space.

## Introduction

An attractive application area for computer-supported cooperative work and ubiquitous computing systems has been found in public spaces. Approaches such as context-awareness and media sharing have proved beneficial for the design of spatially integrated displays in which the visualized information is a reflection of the individual or community situated in that space. Such systems transform our understanding of social and physical spaces, as well as our interpretations of locality and mobility, while also addressing concerns about safety and security.

This is reflected in the multitude of surveillance systems distributed throughout public spaces such as parks, streets and shopping malls.

## *mopix*

An example of a surveillance device that is quickly becoming ubiquitous is the mobile camera phone. While the mobile phone typically embodies notions of remote communication, recent trends in media sharing, context-awareness and instantaneous information access have enabled it to transgress its function as a private communication tool.

The recent proliferation of digital photography in mobile communication devices has sparked a number of studies surrounding camera phone use and mobile media sharing (Frohlich et al., 2002; Salovaara et al., 2006; Kindberg et al., 2005). These examples, however, focus on the persistency of digital media despite the often transient nature of the contexts in which the media was captured. Because people are constantly on the move, photo opportunities are exactly that – opportunistic. A mobile phone equipped with a camera enables users to capture these transitory moments and share them instantaneously.

We are interested in exploiting this observation by developing a location-aware photo sharing system in which the photos' accessibility will be both temporally and locally constrained. Though still in its design phase, we believe that the system, *mopix*, will provide us with insight into how future technologies can be designed to better support spontaneous localized interactions. We describe a sample scenario for how the system works below.

Users can annotate a public space with camera phone pictures, which are tagged with the geo-coordinates of the locations in which they were taken. The photos are then distributed to the nearest public display in the urban environment, effectively allowing users to leave digital traces behind wherever they travel. By providing accessibility to these photos in a public forum and allowing other users to further annotate them with comments, we hope to support a new genre of communication in which the photos serve as catalysts for interaction, as well as artifacts for socialization around which communication can take place.

## References

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## Biography

I received a B.A. in computer science from the University of California, Berkeley in 2003 and a M.S. in Information and Computer Science from the University of California, Irvine in 2006. I began my Ph.D. study at U.C. Irvine in 2004, where I am currently working with Paul Dourish. My research interests are a bit disconnected but are generally in the realm of human computer interaction and ubiquitous computing. More specifically, I'm interested in designing for mobility and the representation of presence in shared spaces through ambient information visualization.