Introduction

The usage of Mobile Payment Services (MPS) has recently increased around the world. Surprisingly, in the last few years, North America has not been able to reach the success that other countries have had with the adoption of MPS. With the recent addition of large online players (e.g. Google and Amazon), as well as more traditional payment entities (e.g. MasterCard and PayPal), and some well-developed startups (e.g. LevelUp and Square), expectations for a societal shift towards ubiquitous commerce is both high and deemed of "critical importance". Our research looks to fill this gap by focusing on understanding how users are participating in MPS in North America on smartphones with the goal of understanding how to design MPS to increase user satisfaction.

Study Methods & Goals

We conducted a study with 11 veteran and 10 new MPS users focused on how they used several payment styles currently available in North America. Existing users were interviewed about their past experiences and new users were interviewed after two weeks of using the technology, where they kept an e-diary. Our study reports on three key areas:

1. User practices and motivations
2. Successes and challenges of usage
3. How MPS users mitigate trust

MPS UX CHALLENGES

LACK OF BENEFITS
The value of routines was still high for participants who did not enjoy the MPS experience. However, their views on how MPS fit into their routines and to what benefit varied; a main reason that participants did not like the MPS experience was that it did not fit into their routines, thus providing little benefit.

FRAGMENTATION OF MPS
A few participants mentioned that they did not like to leave money or personal information untouched and not regularly used. That is, they really disliked the idea of creating multiple accounts for each vendor they might use. Instead, they wanted a single global account.

MENTAL MODEL DEVELOPMENT
Some participants, both within the non-adopting and new users groups, described how they just could not understand how paying with their phone worked or how to start the process. They simply lacked the mental model to understand MPS.

PRE-PURCHASE ANXIETY
A common trend throughout all user groups was ‘pre-purchase anxiety.’ That is, before they made the purchase, users often tried to get their phones ready and were nervous the phone would not be ready to be scanned. For example, they harbored anxiety that the phone would turn to screensaver mode, or the barcode would not be ready to be scanned.

MPS UX SUCCESSES

DESIGNING FOR ROUTINES & HABITS
Participants who used MPS as a part of habitual purchasing activities felt it worked well, and they liked it because they could easily fit it into their “routine”. Participants explained these purchases, sometimes as explicit knowledge, while other times it appeared to comprise of only a tacit understanding of their habitual routines.

EASE-OF-USE & USEFULNESS
When asked for the benefits of using MPS, all veteran users and new users mentioned ease-of-use, with no bias toward the type of MPS. When asked to elaborate, responses mostly included two key elements: The process was (1) easier and (2) faster than other payment methods.

GAMIFICATION & ENTERTAINMENT
The majority of users mentioned that they enjoyed the gamification of the MPS they used. In fact, they would often describe the experience of purchasing as "more entertaining" and "funner" because of the gamification.

SOCIAL PERCEPTION
New users and veteran users generally described the MPS experience as a positive social experience. Moreover, non-adopters did not describe the process as socially negative, despite their lack of usage.