Digital Wallet UX Study - Final Report

What was the rationale for this study?

The UX Team was approached by the Ask Us Desk (AUD) to explore user knowledge and use of digital wallets and digital student card technology. The question emerged after the AUD noticed a trend in users trying to check out books using pictures of their cards taken on their phone. This study was exploratory in nature. We wanted to see if the University of Guelph community was using or thinking about digital wallet technology.

What did we do?

The UX Team conducted in-person surveys with 35 people on campus (see Appendix A for survey questions). Participant responses were recorded by the interviewer via Qualtrics, a survey software. We took a guerilla approach to recruiting participants and approached people at random in the library (floors 1-3), as well as the University Centre (food court and lobby). They were offered a Starbucks voucher as incentive.

We also conducted a brief environmental scan on digital wallet/digital student card use in academic and public libraries throughout North America and Europe to understand the current landscape (see Appendix B).

Who did we talk to?

35 participants were surveyed including 33 undergraduates and 1 graduate student in various years (see below) from a mix of colleges including: the College of Arts (9), College of Biological Sciences (12), College of Business & Economics (2), College of Physical & Engineering Science (3), College of Social & Applied Human Sciences (6), Ontario Agricultural College (2). We also interviewed 1 staff member from the library.

Participants by Year of Study: 1st - 6; 2nd - 4; 3rd - 11; 4th - 5; 5th+ - 7; Graduate Student - 1.

What did we learn?

Most participants used their student/staff card multiple times a day, and carried their cards around with them. The majority of these participants used their card for the bus. Other uses included to buy food/drink, to access the gym, and for building access (including residences).
Most participants did not associate their student card with the library, even those surveyed at the library. Participants also indicated that they used their card for identification during exams.

Digital Wallet and Reward/Loyalty Card Apps

Most participants had loyalty/rewards cards and kept them in their wallet or on their keys. Most participants were unaware of the existence of digital wallet apps, but many did know about and use brand-specific loyalty/rewards apps such as the Scene, Starbucks, and PC Optimum apps. A few participants used digital versions of their loyalty/rewards cards most notably stored in the Apple Wallet app. Even if participants knew about either option, most did not use apps in place of their physical card for the following reasons:

- They preferred a physical card
- They did not use loyalty/reward cards enough to justify using an app
- They were worried about privacy and the personal information stored on these apps
- They didn’t want to spend the time setting up an app

Convenience was the most important factor for those who did use digital wallet or rewards/loyalty apps. The app was easier to access (or find), and they were less likely to forget their card if it was on their phone. Several participants said they did not use digital wallets but considered them more secure than physical cards because you can passcode your phone, which makes it more difficult for others to find/steal your card.

Digital Library Card

Participants were split on whether or not it is a good idea for the library to implement a digital version. Here are some of the reasons:

**Reasons for** a digital library card:
- One less card to remember
- If you forget your card you still have it on your phone
- You are less likely to lose your phone than your card
- Users seem to always have their phones with them, but do not always carry their wallets
  - “Everyone has a phone, and its always with them”
- If you were to “lose” your digital card you wouldn’t have to pay the $20 replacement fee

**Reasons against** a digital library card:
- You will not have access to your card if your phone dies (this was a very common concern), breaks, or the app has technical issues
- There could be technical issues with library scanners causing the card to be unreadable
- Not all students have smartphones
- It would take up space on your phone
- People are already too reliant on their phones
  - “I feel like we are already too attached to our phones”
  - “I do not think everything needs to be on your phone”
- One more thing to worry about if you lose your phone
- Concerns about the necessity to be connected to wifi or data networks
- Not all students are tech savvy
- Not all students want to use technology
  - “I’m a traditionalist”

Environmental Scan (see Appendix B)

Having a digital version of your student card is a relatively new concept. Six universities in the United States have made an agreement with Apple to allow students to add their student card to Apple Wallet. Three of these universities have implemented the program: Duke University, University of Alabama, and University of Oklahoma. Three of them have yet to implement the program: Temple University, Johns Hopkins, and Santa Clara University. Student cards stored in Apple Wallet can completely replace the physical card. They can be used for library services, building access, payment on campus for food, gift shops, vending machine, laundry machines etc., and some off-campus vendors.

Other universities have digital versions of their student card but only for building access, food services, and identification purposes. Besides those using Apple Wallet, in our research we did not find any other universities that allowed students to take out books using a digital version of their student card.

Various public libraries allow the use of digital library cards that can be created through the use of apps like Cardstar and Stocard. Some public libraries, such as Peterborough Public Library and Kitchener Public Library, encourage users to use these apps. The primary issue we see with loyalty/reward card apps is that they do not allow for reliable photo identification, they simply allow users to reproduce a barcode. Since most universities require photo identification to borrow library material this is problematic in the current landscape. However, at the moment academic library users could in theory use these barcode-making apps with any self-checkout machines that can read mobile barcodes. So perhaps they are already bypassing the policies.

**What are our conclusions?**

Having access to a digital student card is not a pressing concern for students. The users we spoke to had not considered the idea of a digital student card, and they do not expect such a service to exist. Those that expressed approval in digital card technology stressed the
convenient nature of having less physical cards, and the peace of mind of having a backup in case they forgot their physical card. Those that disapproved of the idea (who were generally stronger in their convictions than those who approved) worried about technical difficulties, privacy, attachment to technology, and the exclusion of those without compatible phones. In examining other libraries throughout North America and Europe it appears that university libraries rely heavily on physical library cards and the move to a digital card is still a relatively novel idea.

What do we recommend?

- Consider relaxing the library policy requiring students to have a physical student card to borrow library material
  - Would there be a risk associated with allowing students to check out library material using a barcode app, or a picture of their student card on their phone, in combination with valid photo identification such as a driver’s license?
- Consider revising the library website to explicitly state that students require their physical student cards to check out library materials
- The participants we spoke with do not generally associate their student cards with the library. Most participants raised logistical concerns like changing the technology in all of the buses to make cards scannable or having to renovate residence buildings for the same reason. Since their student card is used much more heavily for those services, it seemed logical to students that those departments would spearhead such an initiative. We think it would be beneficial to reach out to other university departments, such as Resident Life or Hospitality Services, to see if digital wallet technology is on their radar. Perhaps they could take the lead with the library as an important partner.
Appendix A - Survey Questions

1. You are: [Undergraduate student, Graduate student, staff member, alumni…]
2. Which year are you in?
3. Which college are you in?
4. Do you live on campus?
5. Do you have a university-issued card?
6. How frequently do you use your UofG card?
7. What do you use your UofG card for?
8. Do you carry your UofG card around with you?
9. Do you have rewards/loyalty cards?
10. Where do you keep your rewards/loyalty cards?
11. Do you know of any apps that electronically store cards for you?
   Yes - Which ones do you know?
12. Do you use any apps to store your cards?
   Yes - Why?
   No - Why not?
13. The library is thinking of eliminating our physical library cards so there'd only be a digital version on your phone. What do you think?
14. Do you have any other comments or questions?
# Appendix B - Environmental Scan

<table>
<thead>
<tr>
<th>Institution</th>
<th>Digital Wallet</th>
<th>Services</th>
<th>Interesting Notes</th>
</tr>
</thead>
</table>
| 1 Duke University   | Apple Wallet - compatible with iPhone and Apple Watch | ● Library services  
● Door access  
● Campus payment (medical facilities, stores, gift shops, food services, vending machines, laundry machines)  
● Off-campus payment at participating vendors | ● DukeCard is set to Express Mode by default meaning you do not need touch id, face id, or a passcode to access ID with iphone. |
| 2 University of Alabama | Apple Wallet - compatible with iPhone and Apple Watch | ● Library services  
● Printing  
● Campus payment (no vending machines)  
● Off-campus payment at participating vendors  
● Door access |                                                                                     |
| 3 University of Oklahoma | Apple Wallet - compatible with iPhone and Apple Watch | ● Anywhere physical card is accepted (libraries, door access, food services, etc.) |                                                                                     |
| 4 Emory University  | Touchnet OneCard VIP                                | ● Library turnstiles  
● Food services  
● Vending machines | ● Can deactivate plastic ID card using app if it is misplaced                                                                |
| 5 Kenyon College    | CBORD Mobile ID                                      | ● Door access (including some library doors)                                                                                   | ● Mobile ID considered added safety and security in case student misplaces plastic ID and cannot access residence building |

**Notes**

- Various public libraries allow the use of digital library cards that can be created through the use of loyalty card and barcode apps like Cardstar and Stocard. Some public libraries, such as Peterborough Public Library, and Kitchener Public Library, encourage users to do this on their website.
• Temple University, Johns Hopkins, and Santa Clara University have reached an agreement with Apple to adopt Apple Wallet for student cards, but they have yet to implement them.
• Utrecht University issues a digital student card on the MyUU mobile app. Physical student card began to be phased out at the university beginning 1 June, 2017. This digital card is not used for library services, users must still acquire a plastic library card.
• 28 Norwegian universities allow students to create a digital student card using the “Student ID” mobile app. All universities that were examined stated that a physical student card was still required for door access and borrowing library material.

References


