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PERSONAS AND STORYBOARDS

A STUDY OF THE COCA COLA VENDING MACHINE



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Overview

The vending machine at Design Center (30 North Main St, Providence, RI) is primarily located used by RISD students in the Graphic Design and Photography departments. Occasionally, family members or tour groups will go use it. In this study, I investigated different types of users who interact with the machine and created 2 personas that represent the different types of users.

Data and Key Observations

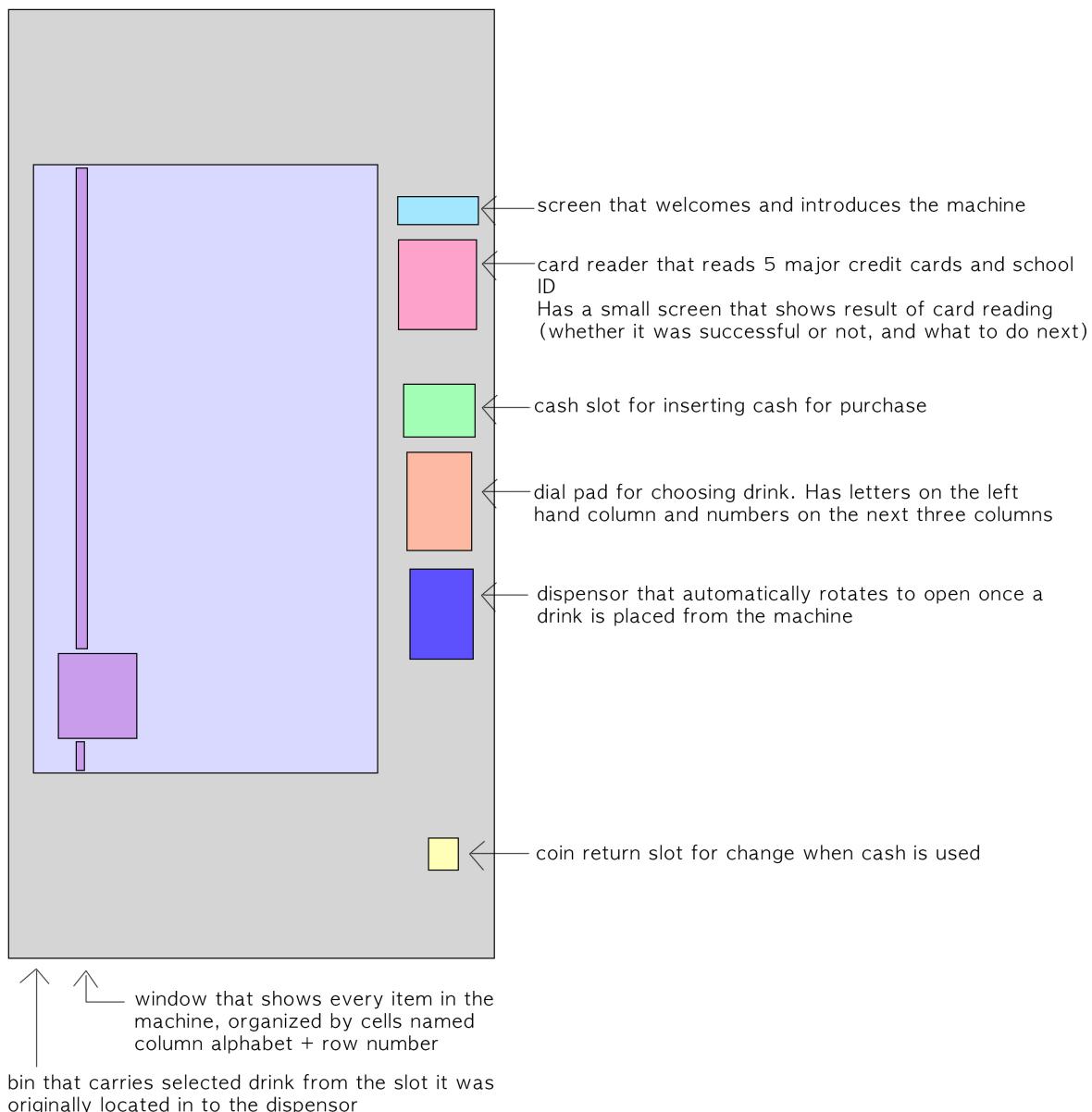


Figure 1. Vending Machine (simplified sketch)

The machine can take either cash or card, and has buttons representing the rows and columns for the drinks. Once money is inserted the machine lights up. There is a ‘change’ slot below the cash insert slot, and the drink comes out through an auto-opening slot above the ‘change’ slot. Once the user receives their drink the machine returns change (if required) and lights out.

Key observations

Parents on a college visit (males and females, age 40-60) took longer in their interaction with the interface. They also seemed to double check many of the functions of the interface and scanned the machine several times, including to see whether the machine was functional or not. Many of these users had difficulty finding the retrieval slot.

Students (males and females, age 18-24) who had previously used the machine before were very quick in their interactions. They were ready to do the next step before the machine gave them prompts for their next course of action, and seemed to not care whether they were prompted or not.

No one had trouble typing in the drink they want (letter and then number). No one asked others how to use the machine, as there was rarely a line formed behind them.

Questions and Answers

1. Do you know what drink you want to grab?

Half of the participants said yes, half said no. Half of those who said yes said it with uncertainty.

2. How many times a week do you use this machine?

2 people answered ‘never’, 1 person answered 1-2 times and 1 person answered 3-4 times.

3. Why did you come to this machine?

The reasons given were hunger, passing by, need for a project, other stores were closed.

4. What do you think will happen when you swipe your card / insert money?

All users gave different answers. One was not sure but was willing to try it out, while 2 users said that the screen would show how much money was loaded. One said the window part of the machine would light up.

5. Where do you think you grab your drink?

Two users said the bottom, and fixed their answer once they saw no dispenser at the bottom. The other two users answered correctly, the bottom right hand side.

6. When the drink gets to the compartment what will you do?

Two users who were new to the machine answered “try to open it myself” while those acquainted with the machine answered “wait for it to open”.

7. After you get the drink, what’s your next course of action?

Most users said leave, while one said check the interface to see if credit card transaction ended.

Personas

Liam



Figure 2. Liam's Empathy Map

Liam is a 21 year old graphic design student in his third year of college who lives in the school dorms. He is taking the maximum number of courses possible and ends up spending most of his time in his studio space, trying to finish up homework. He is slightly more tech savvy than the average 20 year old, with little knowledge on basic programming using HTML and CSS. He uses the vending machine in the building 3-4 times a week.

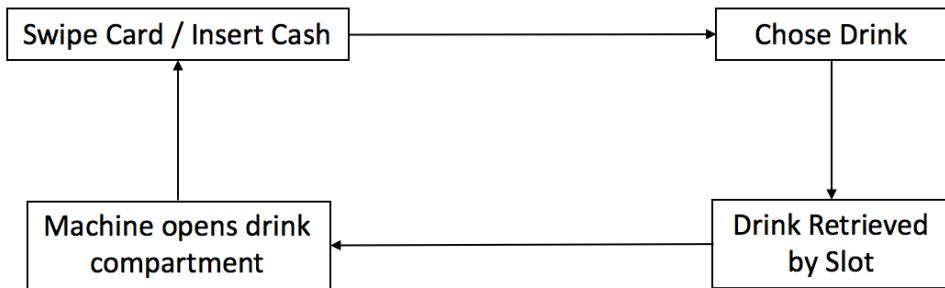


Figure 3. Liam's Conceptual Model of the Vending Machine

Liam has a very simple mental model that is not concerned with prompts for the next course of action as he believes this is only intended to help the user, and is unimportant when it comes to the machine carrying out its job. This comes from Liam's familiarity with the interface combined with his general knowledge about vending machines.

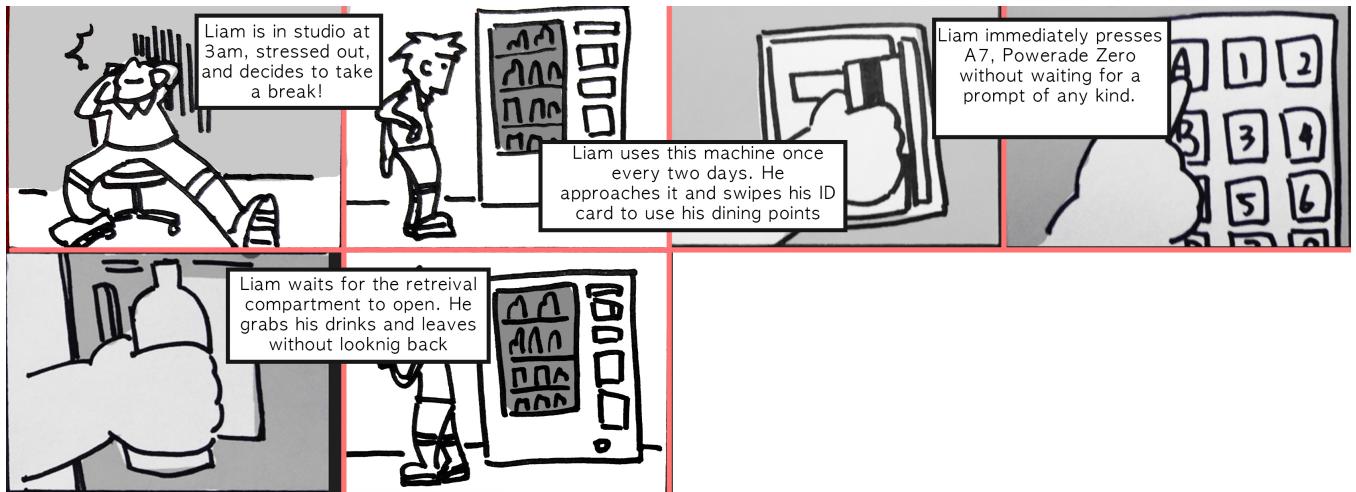


Figure 4. Liam's Storyboard

Liam wants to take a break and get some sugar in his system, but not waste time in acquiring a drink so he can go out of the building. He knows the machine quite well from having used it several occasions before. The total interaction takes 2 minutes.

Why Liam?

Liam is a persona that fits in with the RISD student population, particularly Graphic Design, who are the main users of this machine. He uses the machine often, is familiar with it and serves as a contrast to Linda.

Linda

THINKS

it's cheat day
every day I hope no one's
 looking at me while
 I try this

I wish she would just come
and help me instead of staring

Goodness,
this is so
confusing

Is this card
reader safe?

Attend gym
classes every day
but doesn't put in
much effort
during her stay

Repeat actions if she sees no
visible change immediately
(swipes card twice when it's
been read the first time around)

Always looks
for the same
products.

Wait for a prompt
to know when to
do next action and
how

DOES



Linda
Aberdale

SAYS

Wow, that
looks nice,
don't you
think?

Do you know
how this
works?

No, no I don't
need any help,
but thank you for
asking

Go follow the tour
guide I'll be right
with you.

Overwhelmed by
the number of
buttons she has to
press

tired of all
the college
tours

Somewhat insecure
when asking for help on
technology because she
doesn't like
inconveniencing people,
especially her family.

FEELS

Figure 5. Linda's Empathy Map

Linda is a 45 year old housewife, mother of a prospective student on a campus tour. She has trouble with new or unacquainted machinery. She uses one with one finger when typing on both phones and computers, and any other machinery that has a button. She does not often find herself needing to use vending machines.

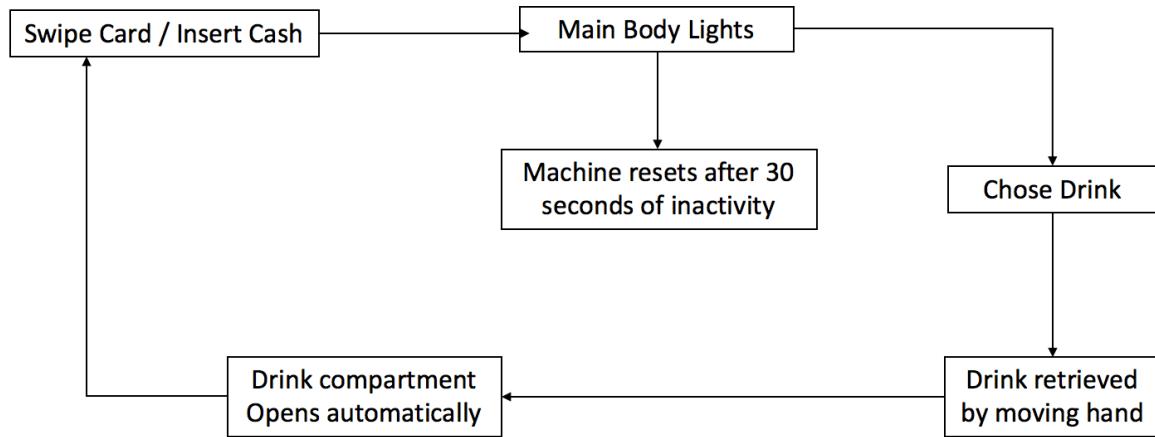


Figure 6. Linda's Conceptual Model of the Vending Machine

Linda has a slightly more complex mental model that accounts for the different cues the machine gives at each stage to prompt the next course of action. This mental model is built as she interacts with the given interface.

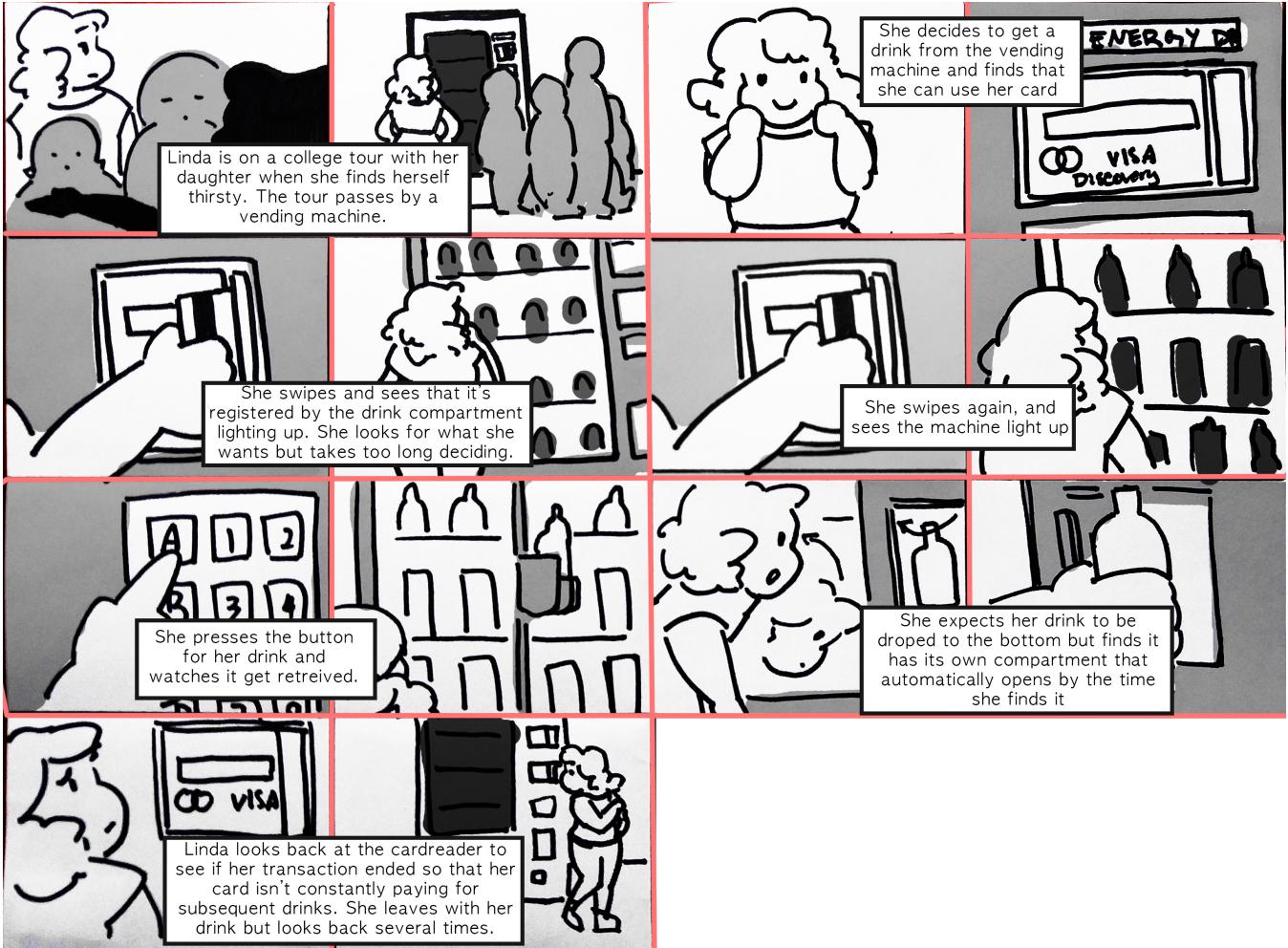


Figure 7. Linda's Storyboard

Linda is learning and forming mental models as she interacts with the interface. She also has a tendency to overcomplicate the process, and tries to accommodate everything she learns, especially for something she has not interacted much with. Her goal here is to get a drink from a machine she has never interacted with before, and make sure her credit card information is not stored for safety concerns.

Why Linda?

Linda is a persona that is derived from observations of parents (40-50 year old males and females) interacting with the vending machine. She was developed as a contrast to the next persona, Liam, to show a person who never interacted with a given interface and has to learn as they go.