

MAIL CARRIER APP

STAGE 2: IDEA AND INTERACTION FRAMEWORK

A background image showing a mail delivery agent walking away from the camera on a snow-covered street. The agent is wearing a dark jacket, pants, and a hat, and is carrying a large mail bag. In the background, there is a brick building with many windows and a red stop sign. The scene is hazy, suggesting a snowy or foggy day.

MAIL DELIVERY AGENTS

CANADA POST DELIVERY AGENTS - PEOPLE WHO DELIVER MAIL AND PARCELS, AS WELL AS PICK UP MAIL FROM BOXES

GOALS, TASKS, CHALLENGES

Goals

- Ensure that mail is delivered to the correct address
- Efficiently organize and deliver mail
- Be efficient
- Be physically fit
- Provide sense of trust and security by ensuring mail is delivered
- Do not get attacked by any person or animal while delivering mail
- Get to know the route - how to get around, the people on the route, etc.

Tasks

- Drive to areas to deliver mail
- Carry a satchel loaded up to 15.9 kilos (35 lbs)
- Handle mail items up to 22.7 kilos (50 lbs)
- Walk and climb stairs for long periods of time
- Preparing routine reports
- Sorts mail and inserts daily advertisements

Challenges

- Bad weather conditions
- Barking dogs / Attacked by dogs
- Lots of letters / packages to carry on the go
- Getting injuries, strains
- Accidentally delivering mail to wrong house
- Extremely long/irregular hours

PROBLEM

The new **postal transformation system** has streamlined Canada Post's processes so that **a single mail carrier** can now deliver mail and packages, as well as pick up mail from mailboxes, reducing operation costs. However, this shift has caused mail carriers to work **long, potentially dangerous hours**, and **develop injuries much more easily** due to the more physically taxing work they need to complete.

We know that we cannot, with a simple GUI design, completely overhaul the postal delivery system. However, given the issues noted above, we do want to create an interface that can help mail delivery agents complete their work in a **safe and efficient manner**.



ORIGINAL IDEAS

A faded background image showing a mail carrier walking away from the camera on a snowy path. The carrier is wearing a dark uniform and carrying a mailbag. In the background, there is a brick building with many windows and a red stop sign.

Personal Mail
Carrier App

Device to Protect
Against Pets

Wearable Device to
Prevent Injuries

FINALIZED IDEA

Personal Mail
Carrier App

Device to Protect
Against Pets

Wearable Device to
Prevent Injuries

Personal Mail Carrier Application

An app which guides mail carriers through a safe and efficient day of delivering mail

PERSONAL MAIL CARRIER APP

Our interactive system is a mobile application for mail delivery agents to allow them to deliver and pick up mail in a **safer and more efficient manner**. The application will take data from mail sorting machines, and develop a **personalized delivery and pickup plan** for carriers to efficiently and safely deliver and pick up mail along their route, with information on how to optimally bundle mail according to proximity and weight, where to park, how many letters to carry at once, and where exactly to deliver to. The plan's focus is to **reduce difficult and dangerous foot travel** while **maximizing delivery efficiency**.

It can also connect to a passive **smart uniform** that the carrier wears which measures load and muscle stress levels, how much mail is being delivered and how much it weighs, how much the carrier has to walk, and how difficult in general the route is to deliver that day. These metrics are compiled in the app, and if the carrier has a particularly physically strenuous day, the app will **adjust the next day's route** to ease the load on this carrier.





GENDER: Male

AGE: 55

LOCATION: Montreal, Quebec

OCCUPATION: Mail Delivery Agent

SKILLS & EXPERIENCE

LIFTING HEAVY ITEMS



PREPARING ROUTINE REPORTS



DRIVING THE COMPANY VEHICLE



CUSTOMER SERVICE



“I want to stay healthy and avoid injury while delivering the mail efficiently.”

Pierre is a Montreal-based Canada Post delivery agent, and has held his position for the past 29 years. He loves the interactive nature of his job and the fact that he gets to serve others. Due to Pierre’s age and injury concerns, he is always concerned about his health on the job. He has suffered from many minor back and shoulder injuries, and nurses a reoccurring knee injury as well. They have caused him to slow down and even stop delivering due to the pain. Because of his love for the job and physical activity, Pierre wants to stay healthy and finish his routes.

END GOALS

The most important goal for Pierre is to **deliver mail to the correct address**. As letter carriers’ routes cover a large area, Pierre also wants to be **efficient in organizing and delivering mail**.

EXPERIENCE GOALS

Pierre wants to **stay healthy on the job** and prevent injuries, strains, and exhaustion. Pierre also enjoys **interacting with customers** and earning the reputation of a **trustworthy and dependable mail carrier**.

LIFE GOALS

Pierre wants to earn and **maintain physical fitness**, part of the reason he originally took his current job.

CHALLENGES

- Bad weather conditions (e.g. icy roads, snow, rain)
- Lots of letters/packages to carry
- Physically demanding job
- Extremely long/irregular hours

FRUSTRATIONS

- Reoccurring knee injury, other injuries sustained on the job
- Weather conditions that make the job more difficult
- Accidentally delivering mail to the wrong house/person

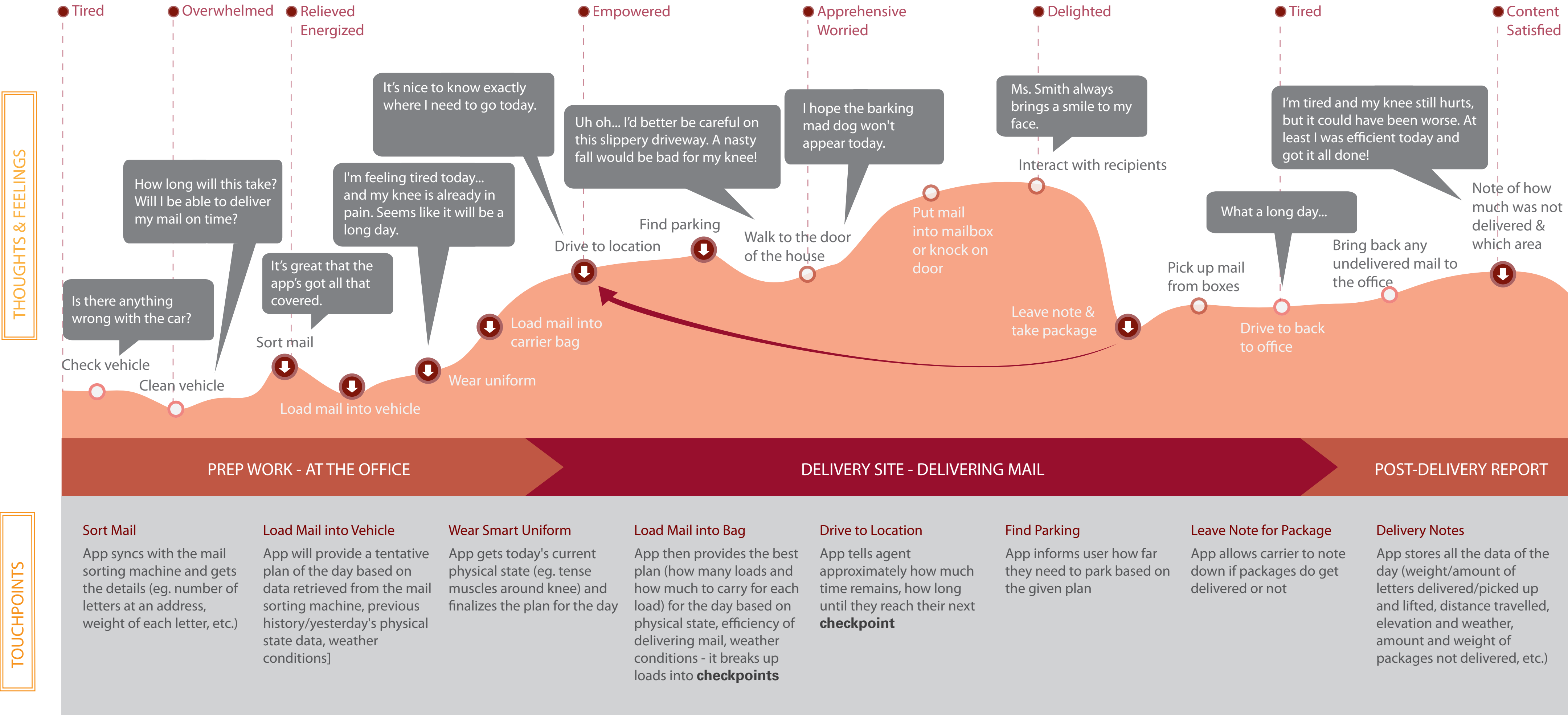
TASKS

- Organize mail and load into truck
- Deliver letters and parcels along established routes, plus special delivery and express mail
- Collect payment for cash-on-delivery service
- Record delivery of registered mail
- Return undeliverable mail to post office
- Collect mail from mailboxes



Pierre's Mail Delivery Experience

Pierre is a delivery agent for the Canada Post. Since he needs to be as efficient as possible delivering mail, and since his work requires the use of his hands, he will probably not be able to use his phone while actually delivering. Thus his interactions with the app typically occur before and after his work day, as well as in the car while driving between locations.



A person wearing a dark hooded jacket and carrying a backpack is walking away from the camera on a snow-covered path. In the background, there is a large building with many windows and a stop sign on the left. The entire image is overlaid with a semi-transparent orange filter.

THANK YOU