

## Case study - Pedal Poll 2021

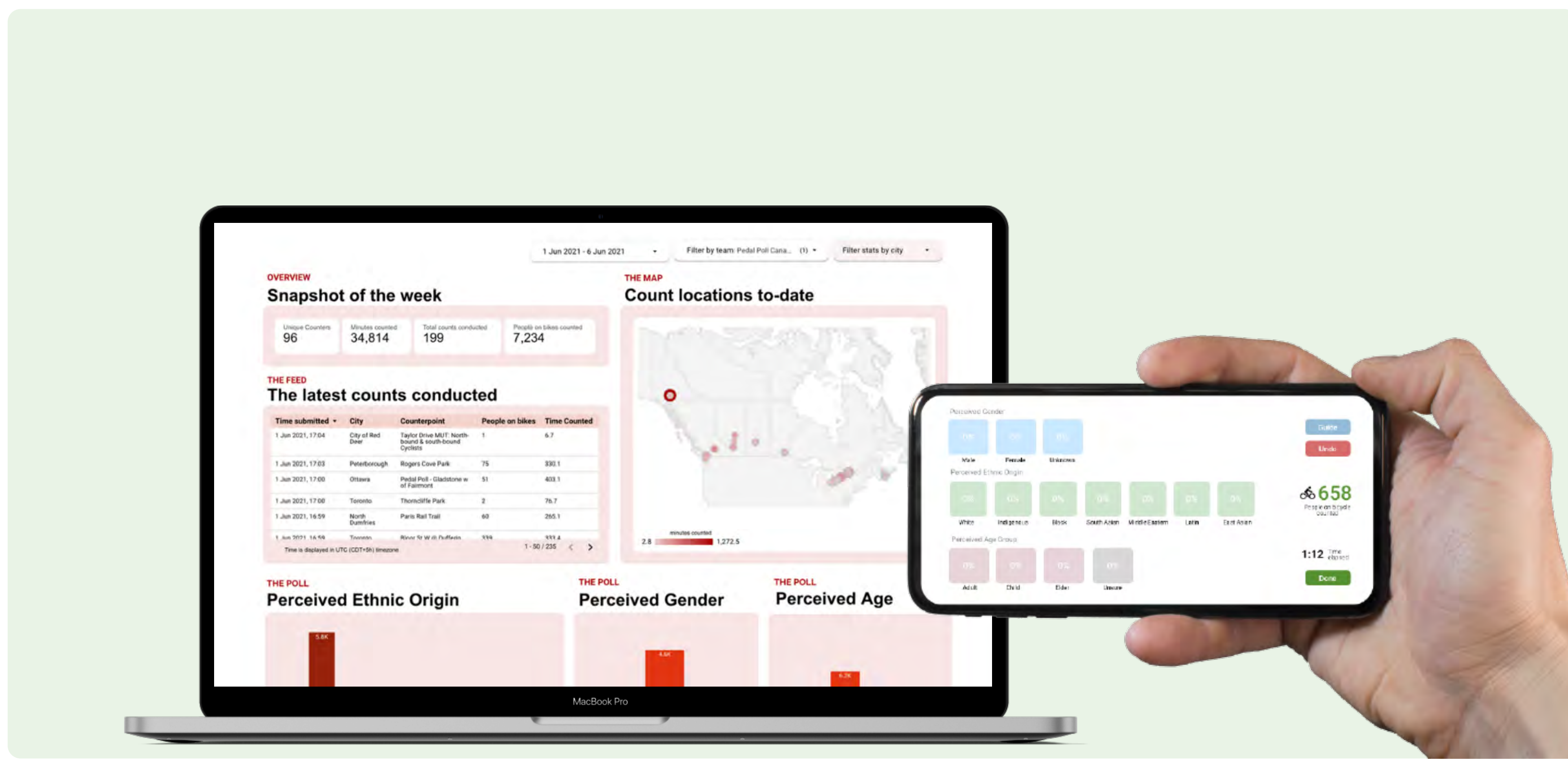
# Equipping community science research team with powerful data collection and organization tools

Website, Mobile Application, Dashboard

Vélo Canada Bikes

6 months

Design research, UI/UX Design, Development, data visualization, tech strategy



## What is Pedal Poll?

### Canada's first ever national bike count aimed to address data gaps

Pedal Poll/Sondo Vélo 2021, is a community campaign aimed to conduct the first-ever national cycling count, collecting gender, age, and race on who is cycling, where, in Canada in order to address inequities in access to cycling and good cycling infrastructure for marginalized communities.



Photo source: velocanadabikes.org

## The problem

### Creating a new feature in an existing app that can be used to collect data for this initiative

To collect the demographics data mentioned in the previous section, the team planned to use the application CounterPoint, an application with the ability to count bicycles, however it doesn't have the features necessary to count demographics of cyclists -- which meant a new count type needed to be designed and developed in 6 months.

### Recruiting, training and engaging the public to collect data for the project

Since this is a national count, with over 14 pilot cities, with multiple sites in each city, the team needed the technology to recruit, manage, and engage volunteers to use the application to collect data. The volunteers also needed to be trained, so they can collect data as accurately as possible.

## My role

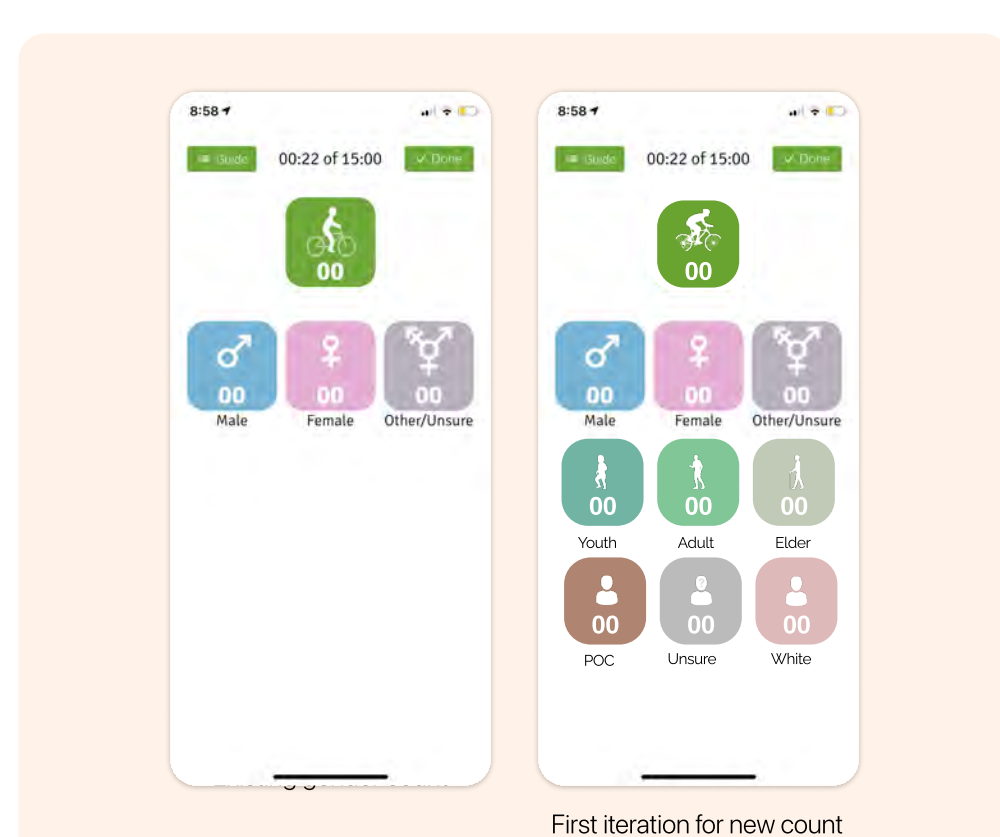
### Engaging with stakeholders, strategizing, creating solutions

Over 6 months, I worked with the stakeholders from the CounterPoint app developers and designers, the communications and outreach officer for the research group, and researchers from Ryerson, Victoria, and Simon Fraser universities to design and create the solutions listed.

- 1 Design a new demographics count for CounterPoint
- 2 Design and develop a website to use for volunteer recruitment and communications
- 3 Set up and manage a back-end volunteer recruitment tracking system
- 4 Design and create a public live data dashboard interface to engage the public

## The solution

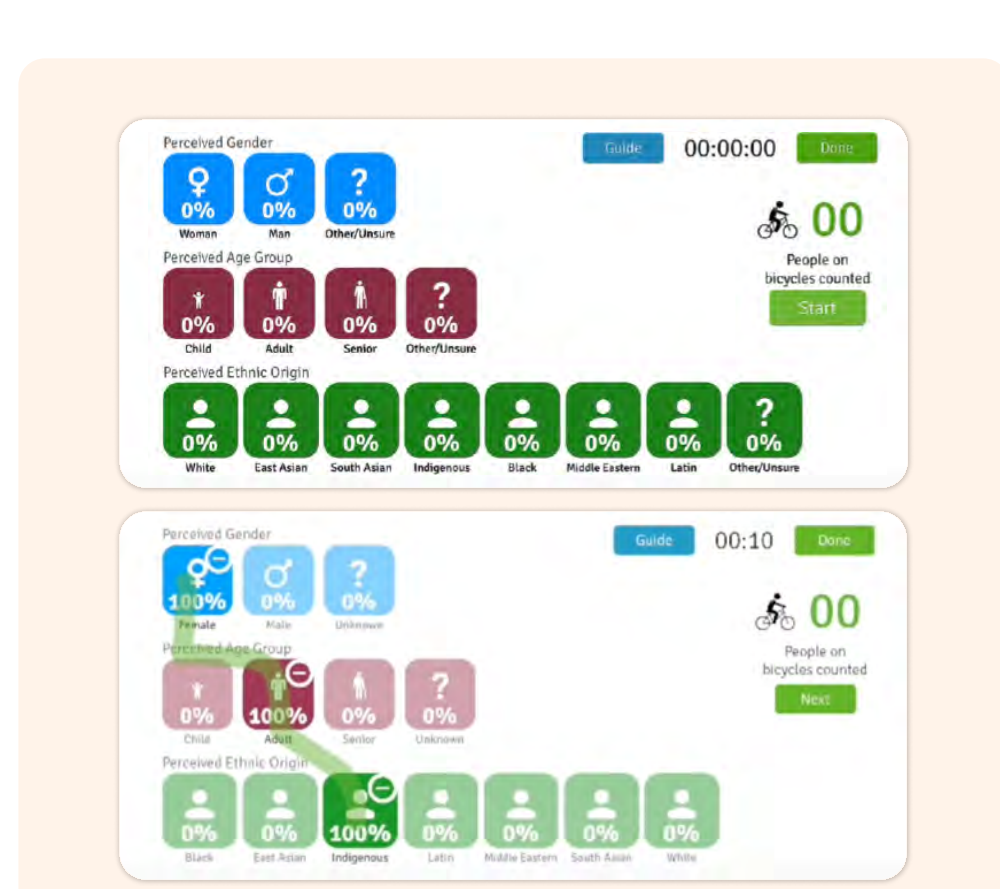
### 1 Designing the new demographics count type on the CounterPoint app



#### Gathering requirements, research, brainstorming

When starting the project, there had been a gender count on the counterpoint app. Essentially, we would want to add two more sections to it: age, and race. Therefore, we quickly sketched the sketch on the right as a first iteration for a suggested design. The issue we noticed with this iteration is that it was not inclusive of different races, as "white" or "other" was **not inclusive** or representative of the global audience/users of this app to which this count would be available for, along with the research team.

As a designer, I believed in **prioritizing inclusivity**, and was set to conduct research to find a correct, global way to represent race, as in different countries, different categories existed. I presented my findings to the research group and the counterpoint team, and we agreed to expand those categories to be more inclusive. In order to do so, the layout had to change entirely. Also, the icon for other/unsure did not have the appropriate symbol.



#### Final design: a more inclusive and efficient experience

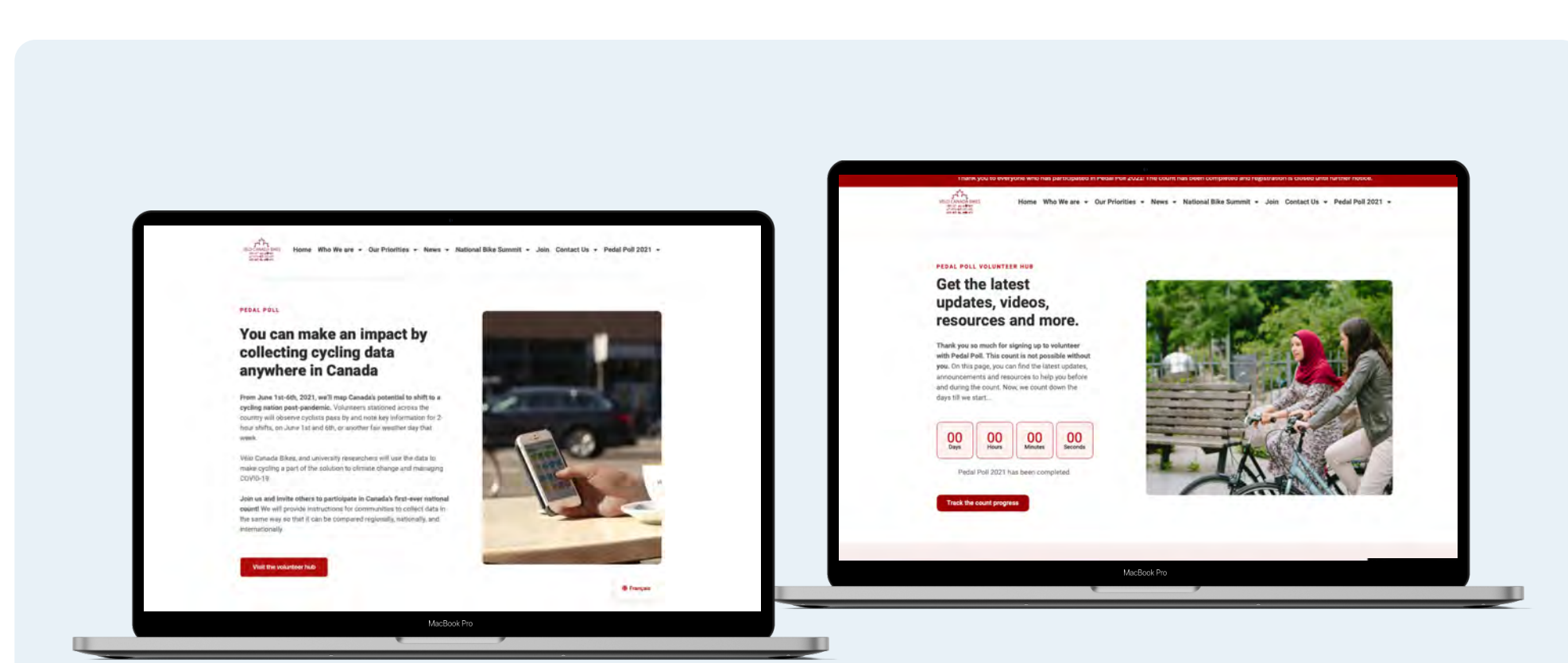
After many iterations, we have come up with the final design for our count screen. The screen allows you to fit all the appropriate category on the screen, and added a new mechanism to the count: swiping to select categories. Since volunteers would be counting cyclists who ride by them quickly, we decided to add a swiping feature for faster selection, along with the existing tapping feature. The count also autosubmits with the ability to undo an entry when the user clicks or swipes over 1 of each category so the count can be conducted more efficiently.

The screen is divided up in three main sections: Perceived Gender, Ethnic Origin and Age Group. The gender count contains 3 categories: Male, Female and Other/Unsure. It's important that the button colour is not greyed out for other/unsure, unlike the existing gender count, to encourage its use for the inclusion of nonbinary people, and people of all genders in the count. These categories are to be chosen as the best informed guess, knowing that the volunteers will receive appropriate training. The guide button will also provide more information about the categories and the rationale.

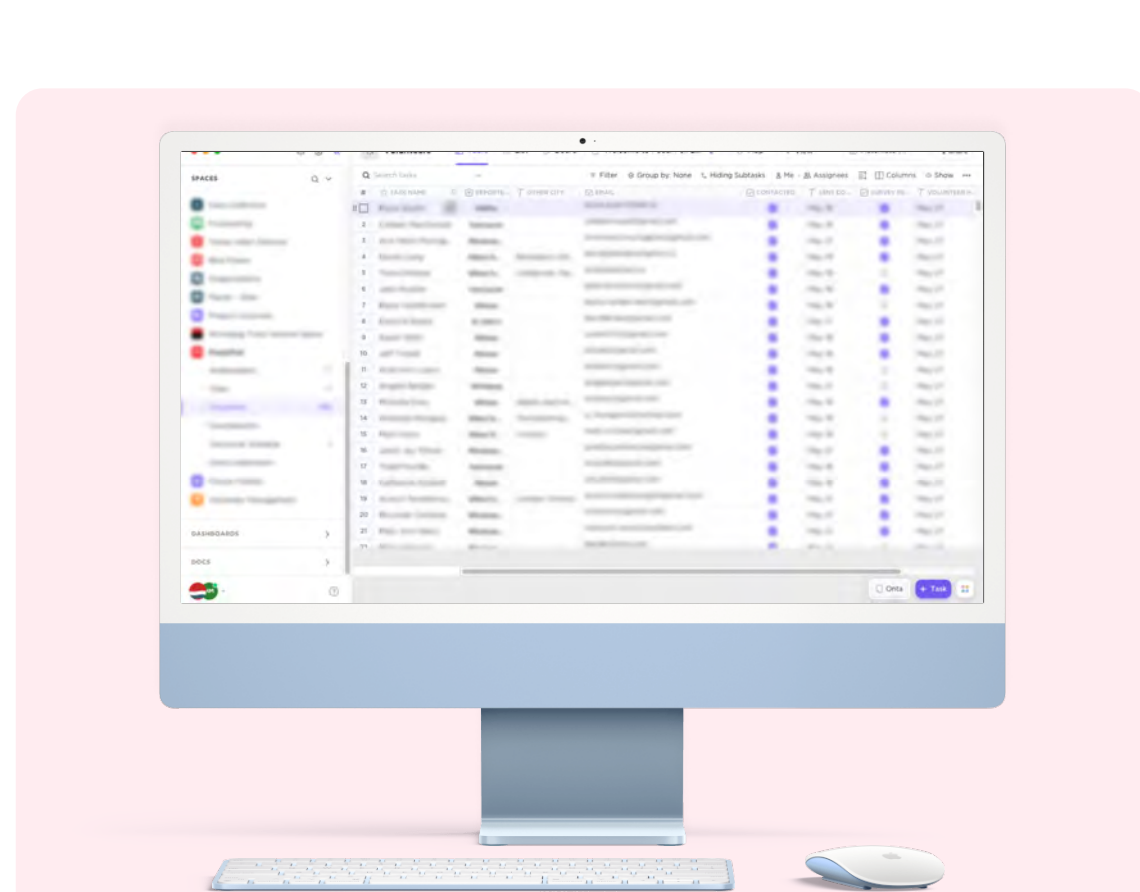
### 2 Designing and building website for volunteer recruitment and communications

#### A landing page for volunteers to sign up, a volunteer hub, and more

In collaboration with the outreach coordinator, we've designed and created a webpage where volunteers can go to get information and training material.



### 3 Building and managing a back-end volunteer recruitment tracking system



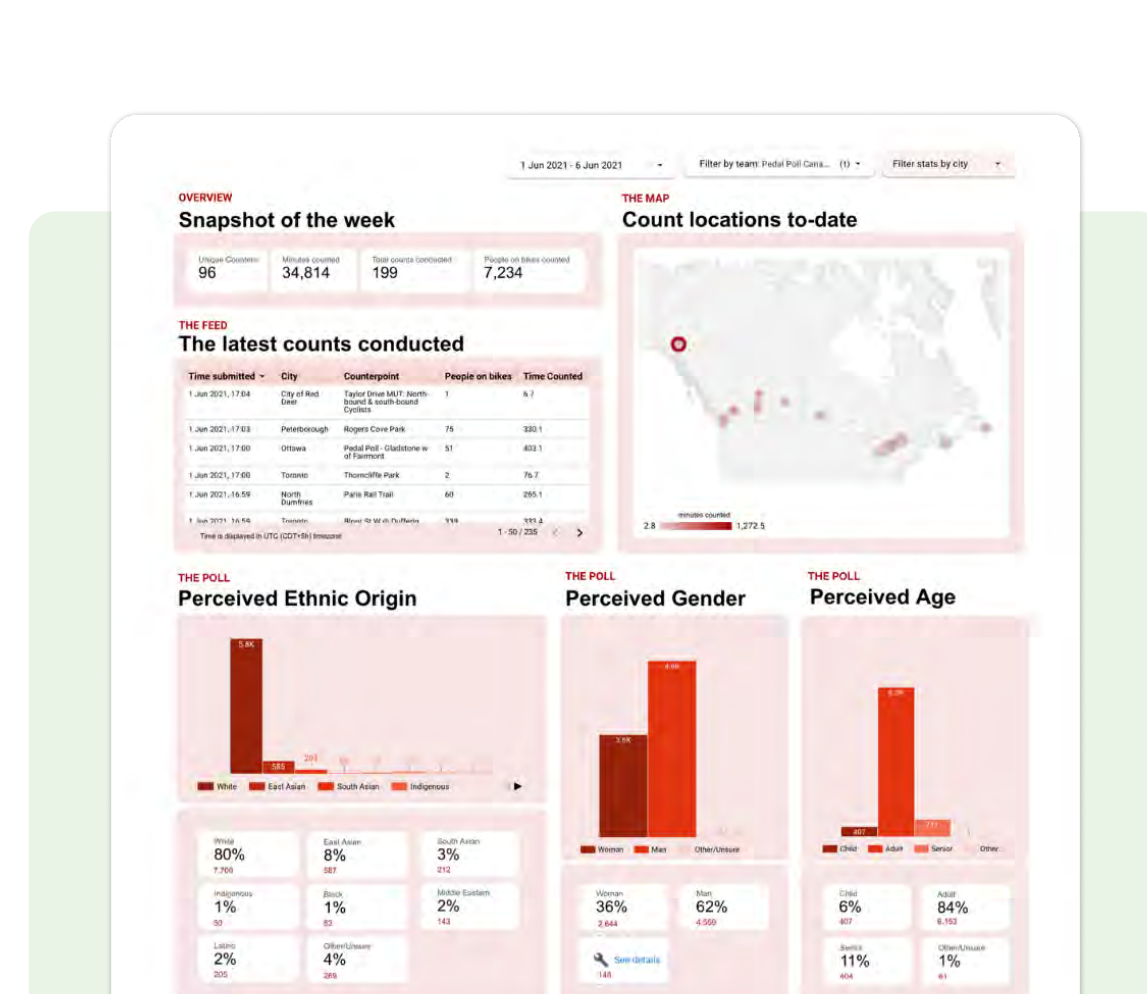
#### Automated internal and external communications

Using a task management software, I created an automated system to forward volunteer sign ups from different cities to their appropriate ambassadors, send them communications with tags added, and send them reminders.

### 4 Creating a public live data dashboard to engage the public

#### An exciting experience for tracking the count progress

Using a data API from the app, and google visual studio, I designed and built a count dashboard, where people all over Canada can track all result outcomes as the count was happening.



1000 volunteers recruited  
259 locations in 68 communities  
79,735 cyclists counted  
In only 7 days

Featured on [Global News Canada](#)

Published [academic paper](#)

Published **open data** set to be used by cycling advocacy groups and academics

## Outcomes

### A smooth data collection process, an engaged public, open data for research and a published study

The project was a big success and was very impactful in measuring cycling patterns across Canada. The team is regrouping in 2022 to launch Pedal Poll/Sondo Vélo 2022 to measure the changes in patterns within this last year.