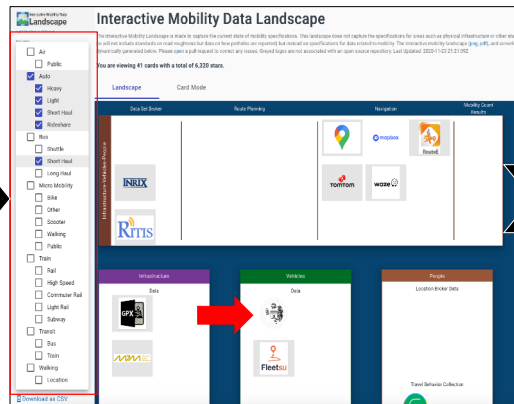
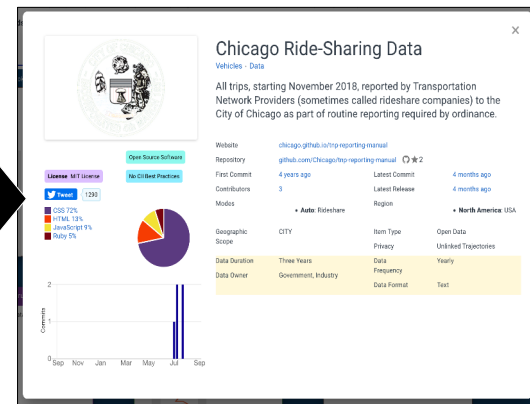


When first visiting the webpage, it will appear with all logos and data. You can search through the logos or use the filter system on the left.



After selecting in the filter system, only relevant fields will appear in the search. They remain in their original categories, and to get more information on them it takes one click on the logo.



This entry screen appears with all the information on the entry within the database. Here is access to the GitHub repository, website, open-source information, and more!

Introduction

As the world continues to be increasingly driven by data, the ways these data are sorted and collected is critical for researchers and specification creators. In the world of mobility data, there are few if any de jure standards connecting data, and there is little knowledge on the gaps that exist in the data. In this project we have created an interactive landscape where mobility data and data specifications can be categorized and organized in an easy-to-use living document.

Objectives

- Through this project, we hope to:
- Organize and display the most relevant data sources and specifications in the mobility field
 - Illustrate gaps that exist within mobility data, in both raw data and what that data contains
 - Create a hub for mobility researchers to collaborate and publish their work
 - Create a desire to introduce more specifications into the field of mobility data

Acknowledgements

I would like to thank Dr. Shankari for mentoring this project, the Open Mobility Advisory Board for guiding the creation of the website and SULI and NREL for funding the project.

Materials and Methods

Surveying and Collecting Mobility Data

Four categories were created to organize all data

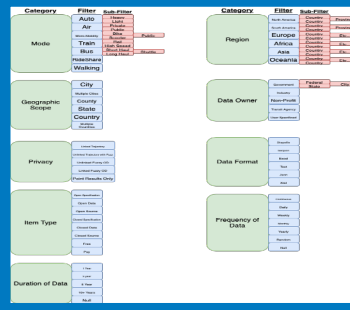
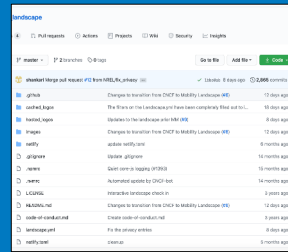
- Infrastructure - Aspects of mobility data that include non-moving objects
- Vehicles - Data that showed how vehicles move
- People - Data that related to how people specifically move around
- Infrastructure-Vehicles-People - Data that exists on in the intersection of at least two of the above fields

Creating the Landscape

The Cloud Native Computing Landscape (CNCF) was our inspiration and starting point. Stored on Github, anyone can pull these fields and update them with sources. This is what makes the landscape 'living'.

Filter System

The filtration system is what allows for a researcher to toggle and search within the different aspects of each specific entry. The final filtration system involves nine major filters, each with major and minor filters within.



Conclusions and Further Work

Results

As this is a novel project, we expected there to be an exploration phase when creating the landscape. The most prominent issues with the landscape, and places for further work are as follows:

- With only 75 entries, there are undoubtedly more data and data specifications within the field.
- Current entries are biased towards America and Europe
- Gaps within mobility data
- Refining categories and filter system
- Creating a consistent user base

Survey

- In what capacity could you see yourself using this tool?



Other major suggestions from the survey include:

- A search bar in addition to the filter system
- Hovering option when looking on a browser
- Simplification of categories
- Improving display options for when filters are active

The program is complementary to existing "data lake" projects such as NREL's Livewire:

- Community maintained "living document" is openly modifiable
- Doesn't host any data, only links to sources, tools and models

Conclusions

The successful creation of this project has now made a living landscape for mobility data moving forward. It can be updated by anyone in the field and has the potential to serve the field as a hub for research and publication. Focusing on the marketing and expansion of the landscape's user base will be the most critical step towards its long-term success in the field.