

CIVIC
INNOVATION
CORPS



8/10/2021 Internship Presentation
Janet Chu

Internship Overview

Role: Design Researcher

Supervisors: Amenity Applewhite + Patrick McDonnell

Date: Jun 7 – Aug 13, 2021

Duration: 10 weeks

Projects:

- Research and collaborate with users and stakeholders to define requirements and prioritize features for public-facing Mobility Project Viewer
- Support PMs with Moped features enhancement

Mobility Project Viewer

The Problem

How might we provide a visualization that enables everyone to capture Austin's mobility projects at ease?

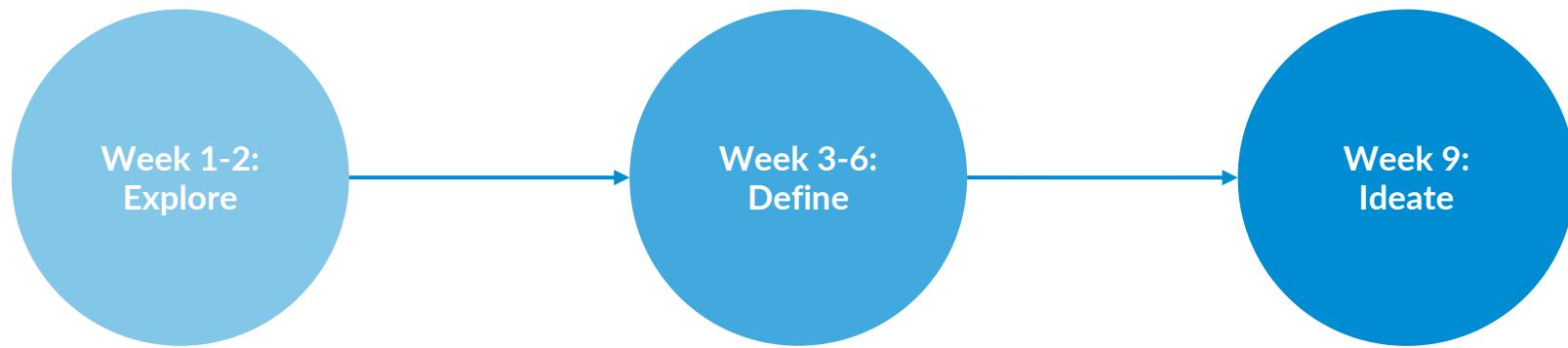
Questions to answer

- Who will use this mobility viewer and why?
 - What information do they need?
 - Why do they need this info?
- What are the overlapping use cases?
- What will be the key requirements and features?
- What are some good case practices out there?

Suggested Guidelines

- Buy-ins and behavioral change from internal stakeholders to support the viewer's efficacy
- User-centered research and design to meet public's needs through consistent outreach
- Involve PIOs at different stages of the prototyping and iteration process
- Mobile-first and plain language design to increase accessibility

Research Process



Goal:

- Understand context
- Draft research questions

Methods:

- Desk research
 - Current artifacts
 - Other cities + countries
 - Visualization benchmarking

Goal:

- Identify users + use cases
- Identify needs + pain points

Methods:

- Work session w/ PIOs
- 1:1 Interviews w/ PIOs
- Affinity mapping

Goal:

- Generate ideas
- Prioritize features + next steps

Methods:

- Ideation workshop w/ PIOs
- Impact/Feasibility Matrix

Stage One



Goal:

- Understand context
- Draft research questions

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 - Current artifacts
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Desk Research: Case Studies

Other US Cities

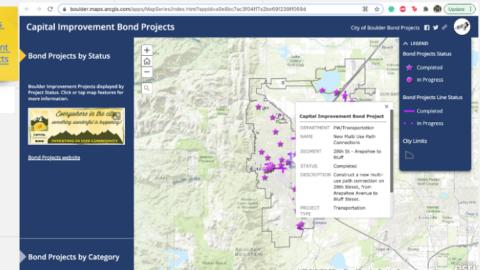


A variety of mobility interactive map examples

Welcome to the Mobility Map Hub: May 3, 2019 - Shared-Use Mobility Center

Growth of Shared Mobility Services from 2009-2018. Whether they are locating vehicles, visualizing demographics or other data, maps uniquely show us how information correlates and where we might need to go next. When your destination is a multimodal ...

All of Seattle's transport dept interactive map



Interactive Maps
Maps of Seattle Department of Transportation services

Project and Construction Map
Maps of Seattle Department of Transportation services

Capital Improvement Bond Projects

Bond Projects by Status

Bond Projects by Category

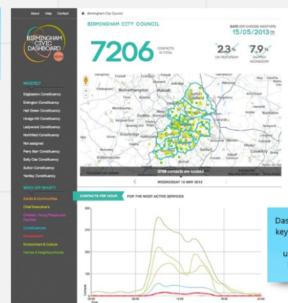
Oakland's major projects map



Oakland's major projects map

Other Countries

Birmingham's Civic Dashboard 2010

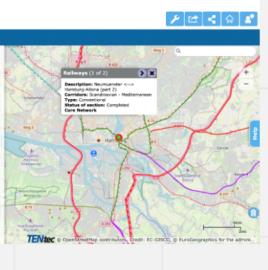


BIRMINGHAM CITY COUNCIL
15/05/2013
7206
23%
79%
Birmingham
With the help of the public sector in a local community it's possible for people to live better and more people are going to their local area.

Make Local Showcase - Birmingham Civic Dashboard

Dashboard with key metrics and easy-to-understand language

EU Mobility & Transport TENTeC Interactive Map Viewer



MOBILITY AND TRANSPORT
TENTeC Interactive Map Viewer

Railways (1 of 2)

High-Road Networks
Airports
Ports
Distant Waterways
Roads
Railways

Public Facilities
Inter-City Projects
CEP Actions per Node

Alternative Fuels
Safe & secure parking for trucks and vans
Border Crossing Points (BCPs)
C-ITS Stations

Built Private Confidence

Desk Research: Visualization Benchmarking

Related Industries

The dashboard features a central map with a purple circle highlighting a specific area. On the left, there's a sidebar with a month/year bar and a legend. On the right, there are several cards for different locations, each with a small map and some text.

Good multiple UI dashboard

Month/Year Swipe

*Month/Year bar

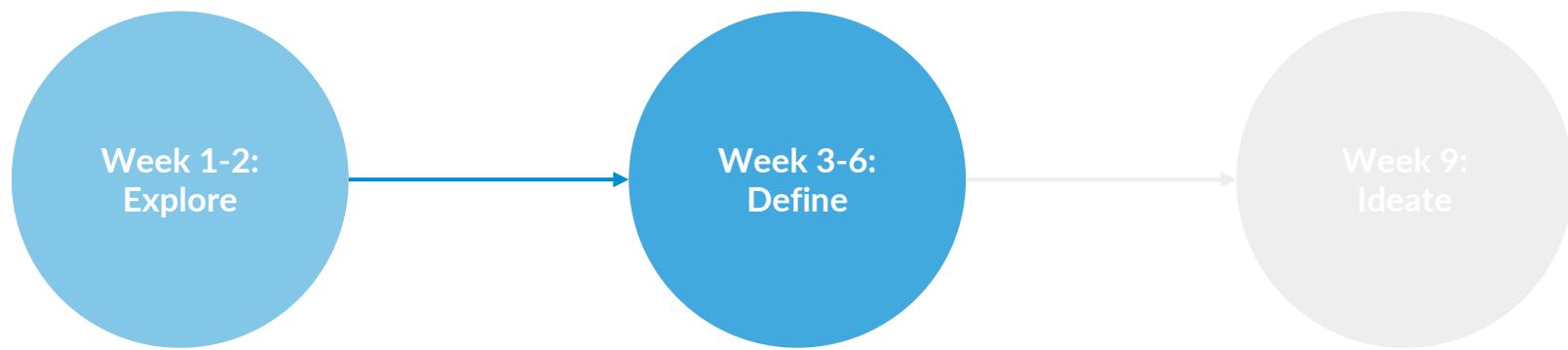
graphs and charts

Easy-to-understand Icons + Filter

internal progress update

*account history

Stage Two



Goal:

- Understand context
- Draft research questions

Methods:

- Desk research
 - Current artifacts
 - Other cities + countries
 - Visualization benchmarking

Goal:

- Identify users + use cases
- Identify needs + pain points

Methods:

- Work session w/ PIOs
- 1:1 Interviews w/ PIOs
- Affinity mapping

Goal:

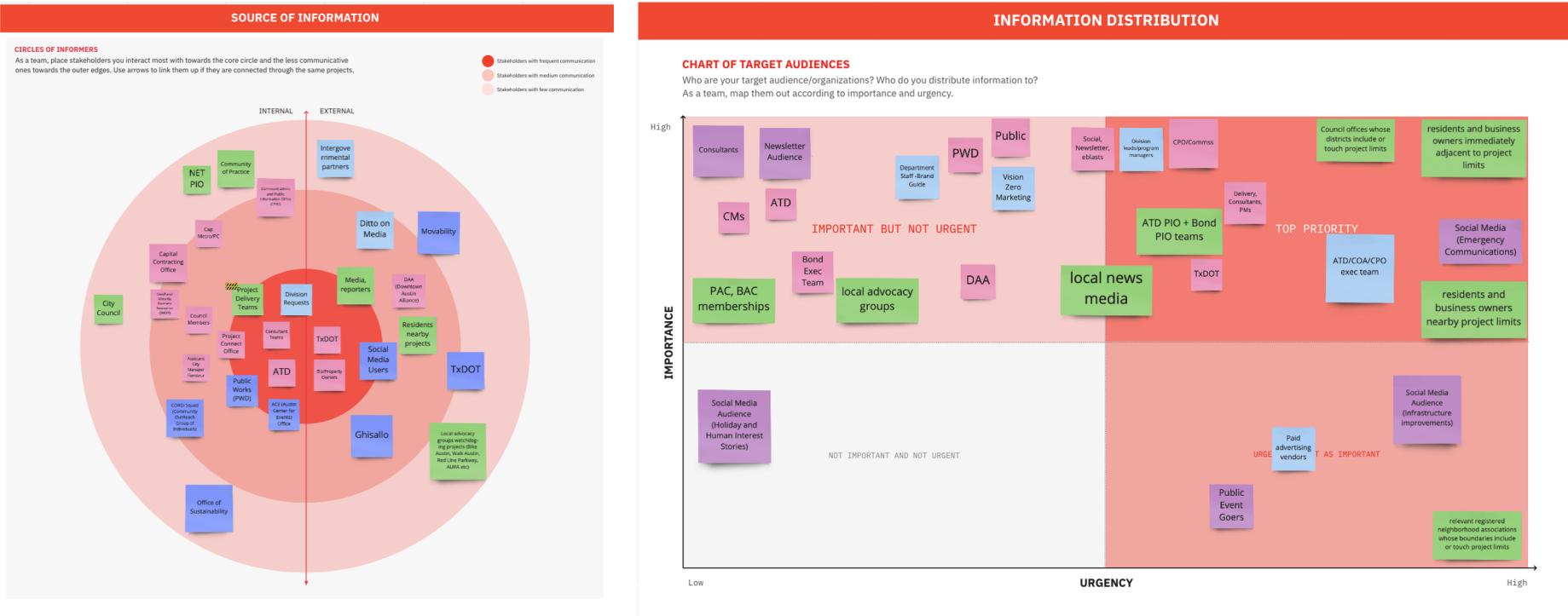
- Generate ideas
- Prioritize features + next steps

Methods:

- Ideation workshop w/ PIOs
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Work Session with PIOs

- Find out PIO's key stakeholders, target audiences, and their workflows



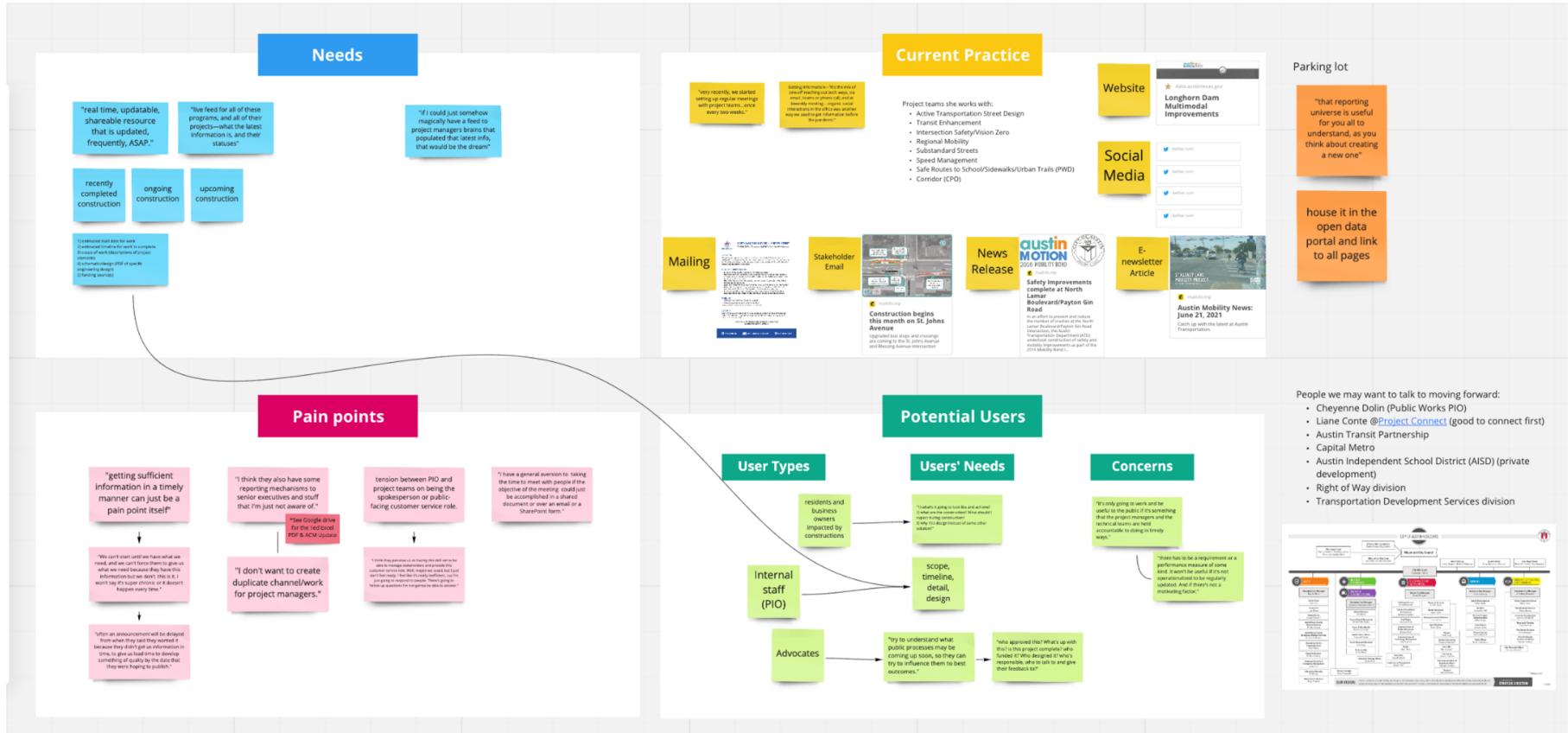
1:1 Interviews with PIOs

- Understand in-depth PIO's workflows
- Find out their goals, needs and pain points
- Identify public's needs through PIO's perspectives

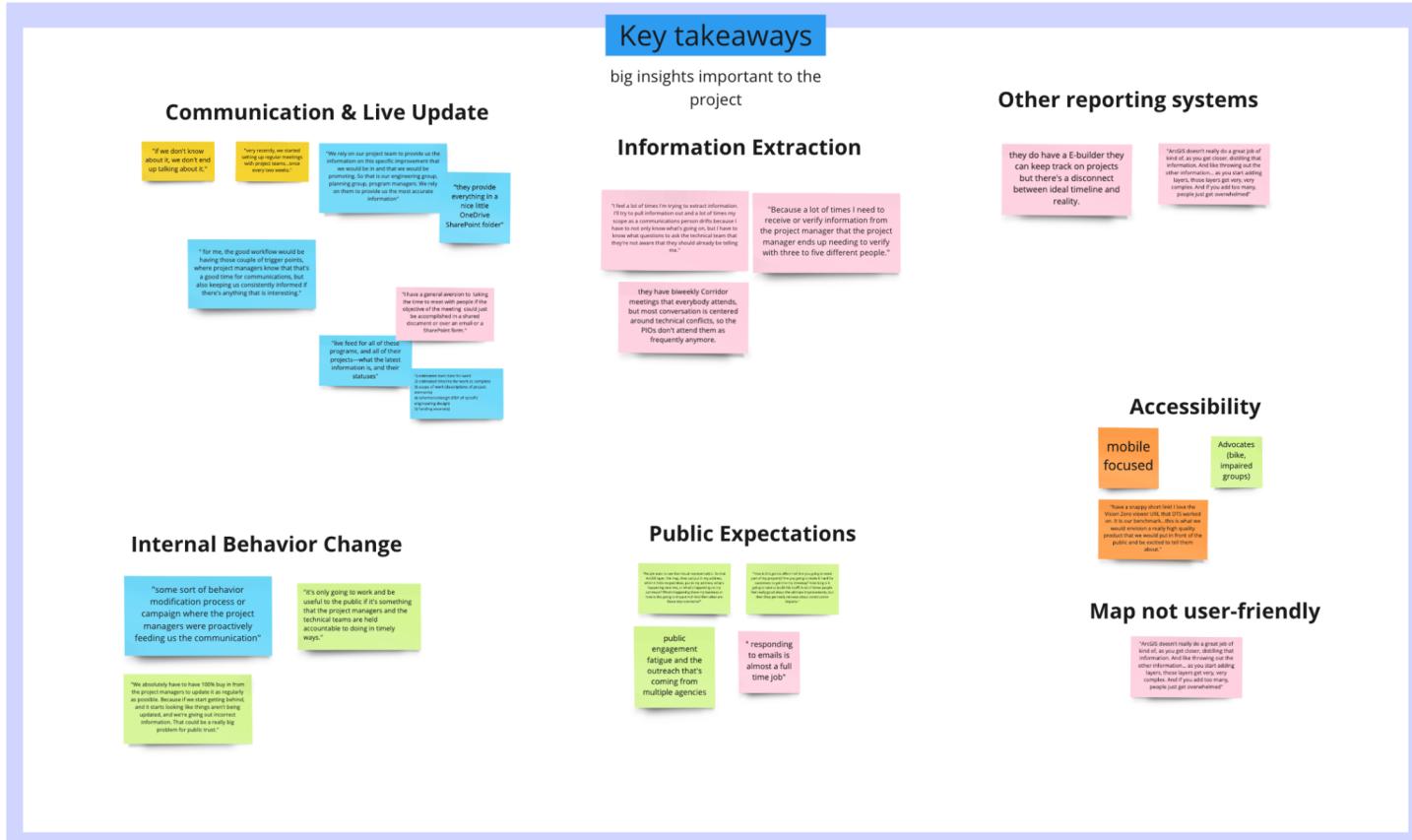
Key Quotes:

- “We're constantly trying to extract information, instead of being the receiver.”
- “If we don't know about it, we don't end up talking about it... We don't do anything because we don't know about it, or we're told about it but with not enough time to plan or prepare...”

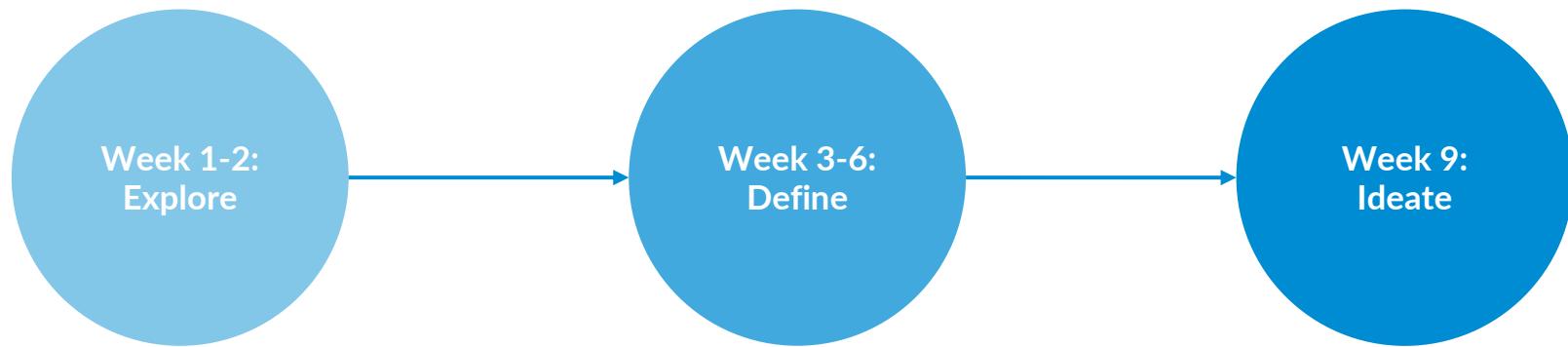
PIO Interviews Debrief



PIO Interviews Synthesis: Affinity Mapping



Stage Three



Goal:

- Understand context
- Draft research questions

Methods:

- Desk research
 - Current artifacts
 - Other cities + countries
 - Visualization benchmarking

Goal:

- Identify users + use cases
- Identify needs + pain points

Methods:

- Work session w/ PIOs
- 1:1 Interviews w/ PIOs
- Affinity mapping

Goal:

- Generate ideas
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Methods:

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PIO Ideation Workshop

INSIGHT A

Information Extraction and Communication

PIOs need to take extra steps in order to publish information. Their reliance on having to track down information creates bottlenecks which leads to inefficient or low productivity.

- The PIOS often need to extract information from project teams instead of simply receiving them. Their scope as a communications person drifts.
- The PIOS currently have regular meetings with project teams to get project updates and information. However, due to efficiency, they prefer information sharing through emails or SharePoint files.



INSIGHT B

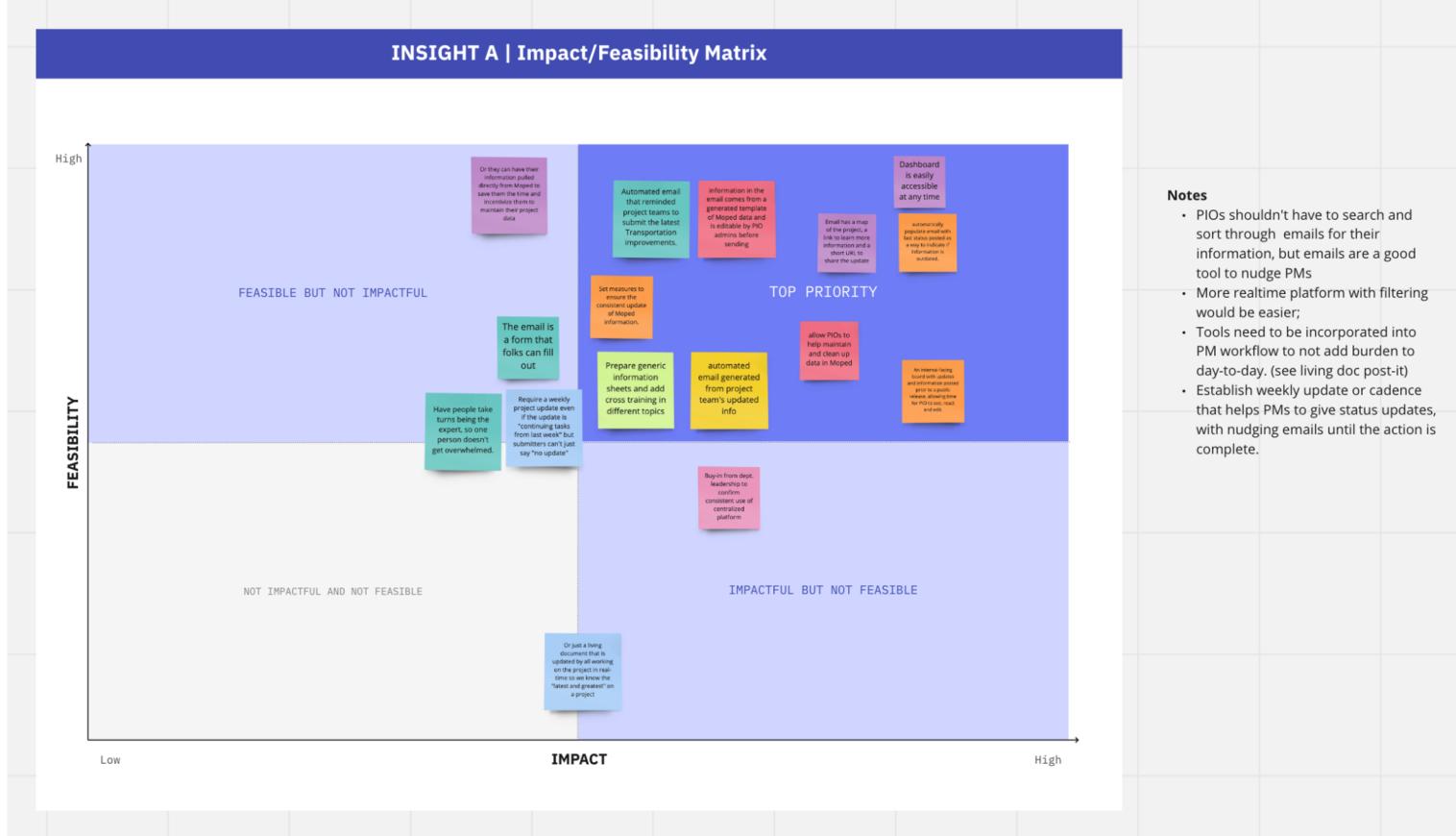
Other Reporting Systems

There are a lot of sources of information that teams use to estimate project timelines. Navigating those sources of truth can create a disconnect between ideal timelines and reality.

- E-builder can be used to keep track of projects but there's a disconnect between ideal timeline and reality.
- ArcGIS can get overwhelming when different layers are inserted.

Lorna	Jacob	Lauren	Kelly	Mateo	Amenity	Janet	Patrick	Lorna	Jacob	Lauren	Kelly	Mateo	Amenity	Janet	Patrick
I would try to send a weekly email with information about what's going on	Having a single point of contact or reference point to go to for information is valuable	It's important to have one central location for all the information about the project so it's easier to access	Having bi-weekly meetings with project teams	centralized area for notes to log progress on projects	Look at Moped and be able to quickly access desired data	PIOs let out all needed info and project teams have a shared drive.	Automated email that reminds project teams to update their Transportion improvements.	You don't need a project manager to keep track of the entire project	Software makes it easier to track progress and see what's going on	Any division can use only one project management system for streamline training, software licensing, and reporting.	document both where the ideal timeline is and where actuals are instead of assuming they are the same	Weekly system prompt to update project phase	Create a timeline feature that visualizes where all the work is for the department.		
The email is a form that folks can fill out	Assign contact experts to each topic	What she said ^^^	Could also be better if summaries if messages are not efficient?	Bay on digit, confirm messaging of centralized platform	allow PIOS to help maintain and clean up data in Moped	It's organized and there are naming conventions that make it easy to organize	automated email generates reports and team's updated info	The PI could have a way to view what's going on what week to week.	Look for a central for information application everywhere	the "Timeline" rather than "Timeline" is much more descriptive and accurate for people	I don't think we can make a standard project management software and expect teams to use it	Always keep track of what's going on weekly.	uniform standards and definitions around project phases.	The timeline can be used by project members and they can check them.	
There will be weekly automated reminder sent out to every team to go over what's going on	Experts create a new team that meets 20 mins a week to go over what's going on	Prepare generic information sheets and add cross-referencing to different topics	Or just a single point of contact for the project in the "lead" and present us	We could use this platform...	Empower and trust project teams to take an active role in Moped development	the organization is trying to make sure that they take an active role in Moped development	Email has a link to the project, a link to learn more information, and a short URL to share the update	a system and timeline that tracks what's behind and what's the ideal timeline	It also helps prepare in advance for unexpected changes that may arise	budget penalties for teams who don't standardize	Always treat "Timeline" as a key metric being documents and tracking strategies for team performance	FREE SPACE	Determine which team member(s) are responsible for the first pass at project phase updates.		
Or they can have their own dashboard and then have to remember to manually move data from one place to another	Monthly all hands meeting to share Transportation updates	Assign an expert to each topic as the main contact	It's difficult that some, like the one I'm working on, have been well developed and have a lot of momentum, but others are still in the early stages of development. Management that they are in a transition phase.	Set measures to ensure the communication of Moped information.	Review existing user interface to shared information and make sure that the same platform for user management.	set up a weekly meeting for an overview/audit of planning.	Not all teams are the same, so it's important to have a clear understanding of what's expected from each team.	the responsibility lies with the individual who is in charge of the project, not the team lead or manager.	Think about projects that have multiple teams, how to manage them effectively, and easily visible things along the way.	You need to have something in place for the same project but not necessarily the same team of the item management, rather than remaking the whole architecture.	Go To Jail	If a project dev is late, the team member(s) responsible for the first pass at project phase updates will be penalized.	Don't forget to often the timeline feature must be updated.		
Information in the email comes from a group of people that are not communicating and are not experts themselves	There are many other things that happen in the project, so one person doesn't get recommended.	Have people take turns in the project, so one person doesn't get recommended.	Leaders take turns tracking in case of emergencies, responsibilities, management, etc.	Leaders take turns tracking in case of emergencies, responsibilities, management, etc.	Leaders take turns tracking in case of emergencies, responsibilities, management, etc.	Assign contacts for each topic so that the specific updates and	It's necessary to create different roles, not just one person in charge of everything, or else it can be overwhelming to be on the front line.	the responsibility lies with the individual who is in charge of the project, not the team lead or manager.	Show how much the "Timeline" penalties are added up to in a dynamic graph.	standardized rules to follow, if not teams get penalized.	Personal tracking platform for staff to make sure they're on track.	Make sure important knowledge is preserved with staff turnover.	Make the timeline visually appealing so it's understood for the average user.		
After PIOS wordsmith the update, managers can review	single-point of backup or alternate in case of emergencies, responsibilities, management, etc.	Dashboard is easily accessible at any time	experts can come together 1-2 weekly to share and rotate	Leaders take turns tracking in case of emergencies, responsibilities, management, etc.	Assign contacts for each topic so that the specific updates and	It's necessary to create different roles, not just one person in charge of everything, or else it can be overwhelming to be on the front line.	the responsibility lies with the individual who is in charge of the project, not the team lead or manager.	show long-term project progress, share progress with stakeholders, and show how and when to use a tool for tracking application.	standardized rules to follow, if not teams get penalized.	Personal tracking platform for staff to make sure they're on track.	Make sure important knowledge is preserved with staff turnover.	Make the timeline visually appealing so it's understood for the average user.			

PIO Ideation Synthesis



Other Projects

Moped QA + Usability Testing

Moped v0.7 Usability Test_Protecting Projects.mp4

The screenshot shows a web browser window displaying the Moped project management system. The title bar reads "Moped v0.7 Usability Test_Protecting Projects.mp4". The main content area is titled "Cherrywood Neighborhood Bikeways". The interface includes tabs for SUMMARY, MAP, FILES, TEAM, TIMELINE, COMMENTS, and ACTIVITY LOG. The SUMMARY tab is active. Key information displayed includes:

- Current phase:** Construction
- Current status:** Potential
- Description:** Bikeways 2016 Bond project to add shared lane markings, speed management, and wayfinding to Wiltshire Boulevard, Cherrywood Road, and Schieffer Avenue between IH-35, Airport Boulevard, and 38th Half Street. Includes work to connect under IH-35 to the Hancock shopping center and Hancock neighborhood.
- Start date:** 8/18/2019
- Fiscal year:** 2021
- Capital funding:** Enabled (blue switch)
- eCAPRIS subproject ID:** 11280.012

On the right side of the screen, there is a map of the project area, showing the proposed bikeway route highlighted in blue. The map includes labels for streets like N Interstate 35, E 22nd St, E 23rd St, E 24th St, Manor Rd, Cherrywood Rd, and Laramie Ave. A copyright notice at the bottom of the map states "© Mapbox © OpenStreetMap Improve this map". Below the map, it says "6 locations in this project".

At the bottom of the video player, there is a progress bar showing "0:22 / 2:48", a volume icon, and a set of control icons for video playback, including "CC", "HD", and "4:3".

Writing: Published a Medium article

janetchuh.medium.com/eight-weeks-into-civic-tech-as-a-design-researcher-11c531534356

Janet Chu 6 Followers Lists New About

Write

Eight Weeks into Civic Tech as a Design Researcher

How I changed my perspective on government work this summer

 Janet Chu 5 days ago · 6 min read ★

  ...

I had very little understanding of how the US government operates. Politics scares me away. And I certainly didn't have any good experience dealing with the US administration...

My social security card got lost in the mail after I applied for it. I tried to find out why by calling the social security office and waited in line for an hour, only to be told that I got to head to the office and reapply all over again. The process was painfully time-consuming and complicated. I had a similar experience when I was renewing my driver's license, and let's not start the conversation about tax filing or dealing with visas as an

Reflections

Highlights

- **Lots of flexibility and trust in team members**
 - Reshape how I felt about working in the public sector
- **Safe space to provide critical feedback**
 - Team leads role model the power of honesty/speaking up
- **Good documentation**
 - Set a good practice for my future work

Challenges

- **Navigating acronyms + Unfamiliar with Austin in general**
→ Time + research help!
- **Not belonging to a smaller team**
→ Huge variety of tasks to work on that increased my interactions with other team members
→ Fun and welcoming dev sync
- **Only designer/researcher on the team**
→ So glad to have Patrick!

Key Takeaways

- **Taking the time to fully understand the context**
 - A problem not fully understood is unsolvable; A problem that is fully understood is half-solved
- **Meeting people where they are**
 - Not all problems need to be solved by a technological solution
 - By understanding the people, process, and culture, we are able to ask the right questions and solve the core problem
- **Be unafraid to speak up!**
 - There's nothing to be ashamed of when you ask for more support and help

Thank you for having me!
Questions?