

EARTHLAB NETWORK SNAPSHOT

Jiahe Huang
Xuan Nie
Pengyan Sun

Team Introduction



Jiahe Huang



Xuan Nie



Pengyan Sun

Our team is passionate about using data visualization to tell the story, unveil insights and promote DEIA.

Sponsor Introduction



Mónica Limón Conte
Community Partnerships Lead
EarthLab
University of Washington

EarthLab is a visionary institute at the University of Washington taking equitable action on climate change.



Picture from EarthLab website:
<https://earthlab.uw.edu/about/vision-mission-strategic-plan/>

Project Context

EarthLab wants to capture where and how they and their member organizations have been engaged in transdisciplinary research, community engagement and capacity building, in the service of its strategic priority to activate, leverage and sustain a web of cross-boundary networks, relationships and resources.

Our team participated in its development of a network snapshot utilizing a variety of geographic, program and other data. The gathered data will serve as the foundation to analyze its current community engagement efforts within UW and in the external community for an equitable, data- and evidence-driven approach to engaging diverse communities in environmental and climate research where impact is defined by and for community.

This pilot project is being designed with replicability in mind, with the intent of being offered as a scheduled resource.

Project Objective

Goal

- To provide a non-western, community-informed, egalitarian data visualization of EarhLab's network snapshot.

Guiding principles

- Honor tribal and indigenous sovereignty
- Data sovereignty & accessibility is a priority
- Data is more than information, but represents real people, experiences, and places

Key Insights

- EarthLab excels in community engagement by prioritizing non-Western perspectives, honoring tribal and indigenous sovereignty.
- EarthLab has not only facilitated transdisciplinary research but also fostered meaningful connections and sustainable relationships across boundaries.
- Evidenced by numbers
 - 5 countries engaged
 - 12 tribes engaged
 - 14 community partners engaged
 - 48 UW departments engaged
 - 28 organizations supported
 - 18 research project facilitated
 - 28 EarthLab events
 - ...

Approach

1. **Data visualization platform: Tableau**
2. **Data collecting and data cleaning**
3. **User-friendly interactive interface design**
 1. Two main dashboards
 2. Text chart
 3. Maps
 4. Various filters
 5. Pop-out detailed information
 6. Vivid color palette
 7. ...

Approach

The keys to solving our challenges :

1. Adequate communication

- Meeting online and offline regularly
- Reflection on prototypes and data format

2. Self-learning of new visualization skills.

- List of data sheets
- Insert icons
- ...

3. Product iterative optimization

- 100+ individual charts
- 6 rounds of prototypes with 20+ dashboards

Approach

- Communication

Communication with data

Data Category	Primary Data Point Description	Data Referenced (Total #s)	Complimentary Data Point
JW Engagement	# of students engaged	Monica Limon Conte: Source = Innovation Grant, Student Programs, Member Orgs (UW + Non UW)	
JW Engagement	# of UW academics engaged		List names of faculty members
JW Engagement	# of EarthLab Events		28
JW Engagement	# of UW schools/colleges/departments/units engaged		
Community Engagement	# of geographic locations engaged		
Community Engagement	# of community partners engaged		List community partner names
Community Engagement	# of tribes engaged		List tribe names
Community Engagement	% Rural/%Urban/%Tribe/100	% Rural/ %Urban/ % Tribal	
		%/100 - Non profit	
		%/100 - CBO	
		%/100 - Tribe	
Community Engagement	% Partner category (Non-profit,CBO,Tribe, Business , Government)	%/100 - Business	
		%/100 - Government	
Research	# of Research projects facilitated		
Research	# of colleges/schools/departments/units engaged		

Feb 14/ 2024 - prototypes 1
Example data: innovation grant

<https://public.tableau.com/app/prc>

https://public.tableau.com/views/PUS&publish=yes&:display_count=nf

<https://public.tableau.com/app/prc>

Mar 15/2024- prototypes 2

<https://public.tableau.com/app/prc>

<https://public.tableau.com/app/prc>
<https://public.tableau.com/app/prc>
publish=yes

<https://public.tableau.com/app/prc>
publish=yes

March 22/2024 - prototypes 3

https://public.tableau.com/views/!US&publish=yes&:sid=&:display_co

<https://public.tableau.com/app/prc>
publish=yes

<https://public.tableau.com/app/prc>
publish=yes

<https://public.tableau.com/app/prc>

Apr 12/2024 - pt 4

<https://public.tableau.com/app/prc>

https://public.tableau.com/views/LUS&publish=yes&:sid=&:display_co

<https://public.tableau.com/app/prc>
<https://public.tableau.com/app/prc>

Apr 24-2024 – pt5

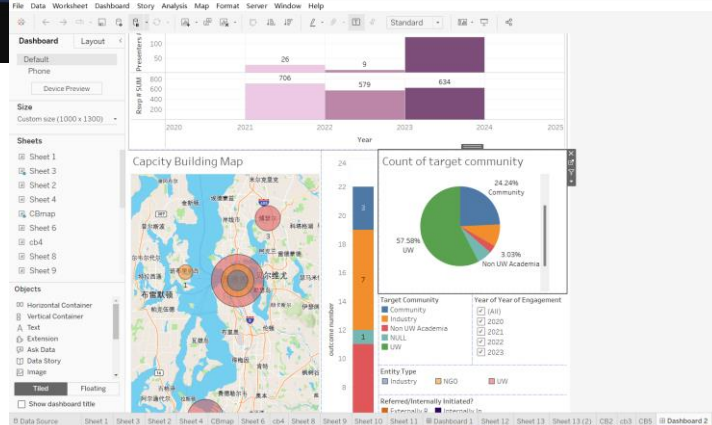
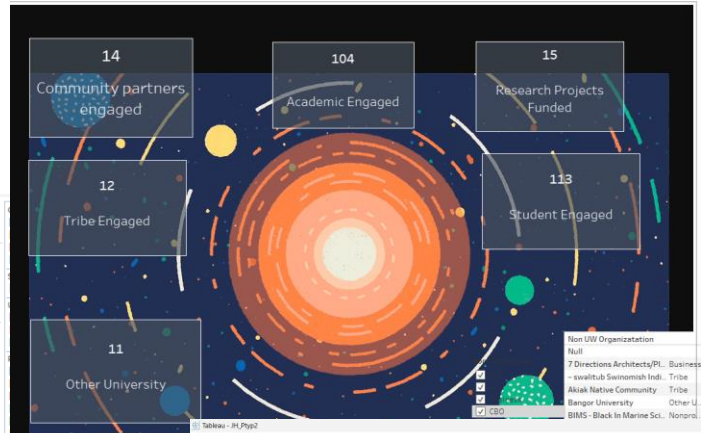
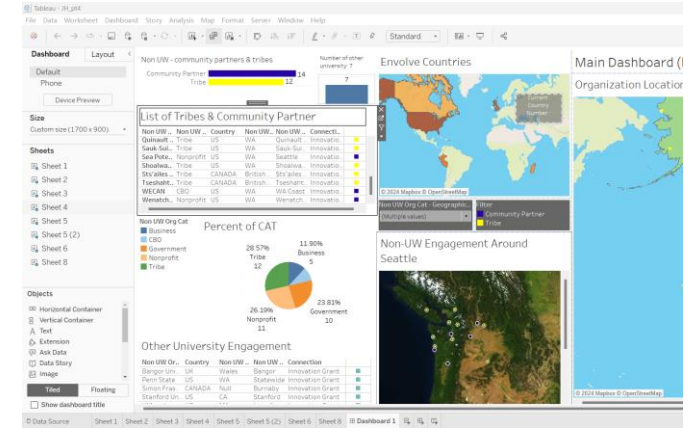
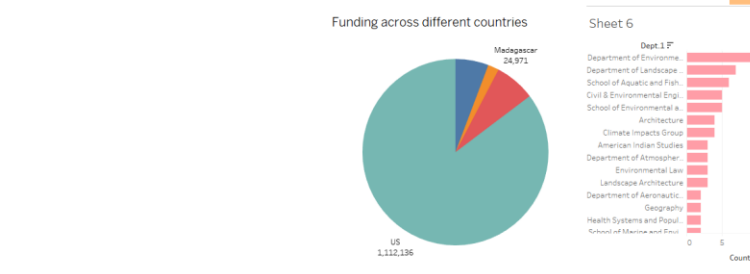
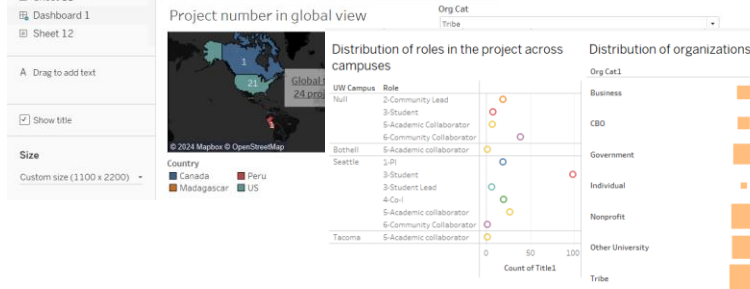
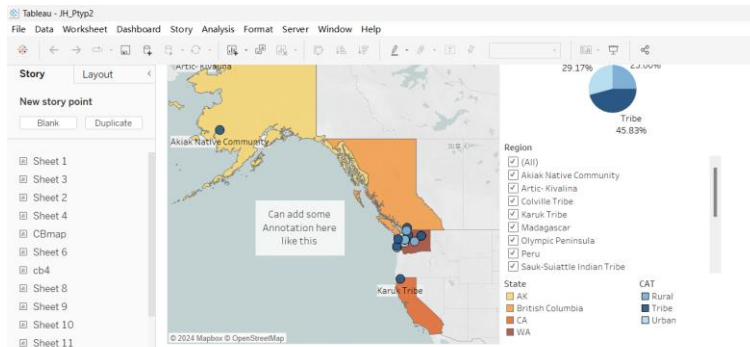
[WU EarthLab | Tableau Public](https://public.tableau.com/app/prc)

May 11/2024 - pt6

<https://public.tableau.com/app/prc>

Approach

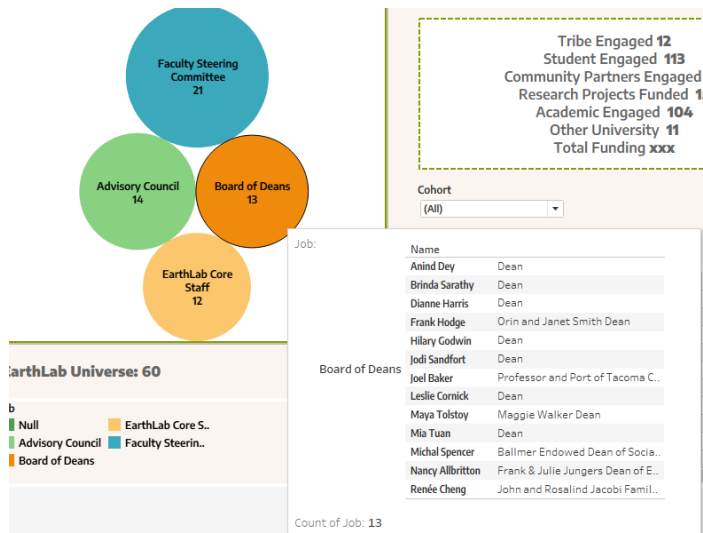
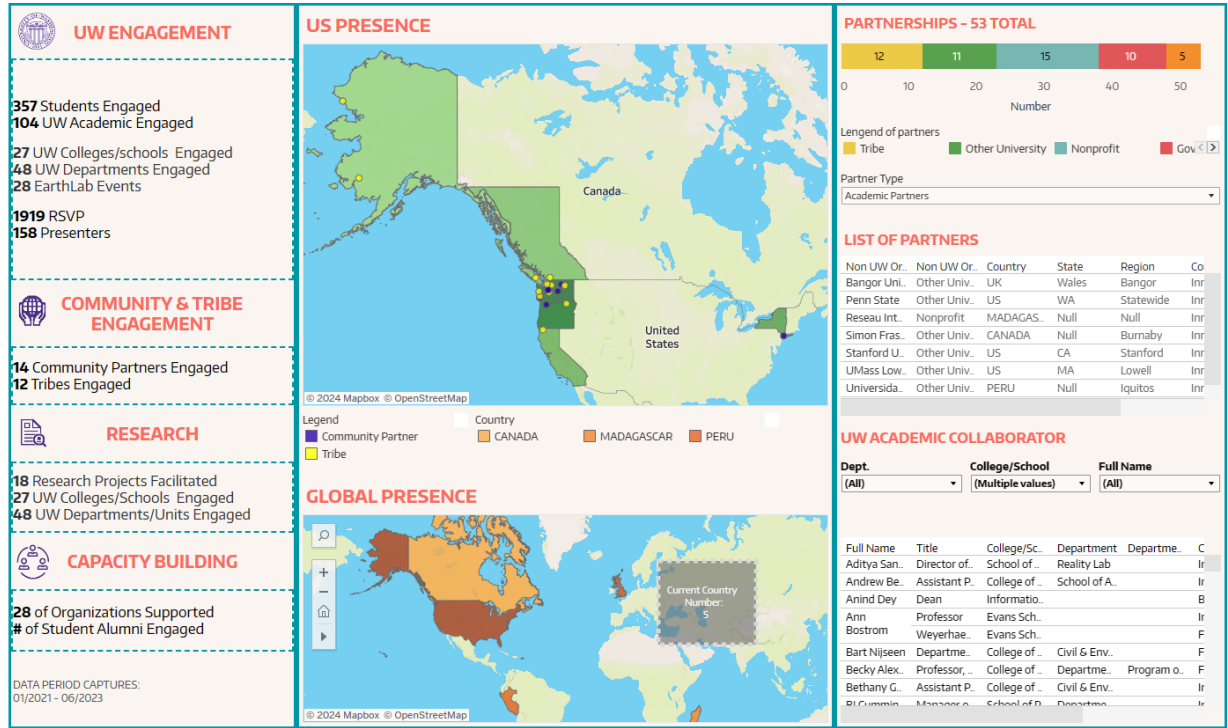
- Examples of prototypes that have been optimized away



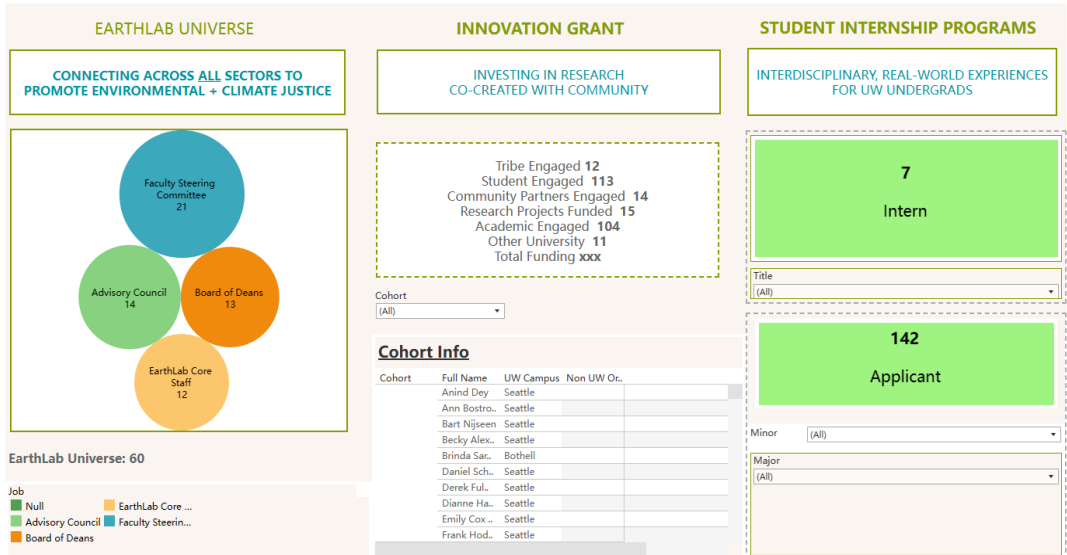
Approach

- Final Product

<https://public.tableau.com/app/profile/monica.limon.cointe/viz/UWEarthLab/Story1?publish=yes>



EARTHLAB ORGANIZATIONAL SNAPSHOT



Evaluation

- This project experience has been incredibly enjoyable and rewarding. We have learned valuable lessons in project management, communication, acquiring new skills, and designing with a focus on understanding user needs.
- Effective communication has been pivotal to the success of the project. We learned to communicate effectively with team members and stakeholders, listen to their feedback, and promptly address any issues, keeping the project on the right track.
- We took the opportunity to learn new technologies and tools. Through self-directed learning and exploration, we improved our skill set and applied it to the project, making it more innovative and efficient.
- We gained deep insights into user needs and expectations, incorporating these insights into design. Through iterative prototyping and user feedback, we continuously optimized and improved the product, ensuring it met user expectations and addressed their needs.
- This project experience has provided us with tangible outcomes and valuable learning opportunities. We consider these experiences as valuable assets that will continue to benefit us in future projects, as we strive to further enhance our abilities and expertise.

Next Step

Straightforward user manual



Help updating the information as needed in the future



EarthLab can continuously updated their contribution
onsocial justice, environmental justice, tribal sovereignty, etc.