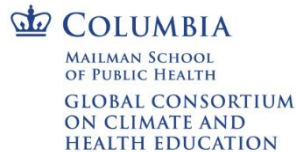


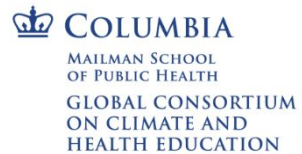
RESPUESTA EN CLIMA Y AMBIENTE PARA LA SALUD EN LAS AMÉRICAS

Doing Transdisciplinarity Research
September 27, 2022

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Zoom Poll



Review from Session 1

Definition

Transdisciplinary:
Research approach that emphasizes integration across disciplinary fields, the inclusion of non-academic stakeholders, and the production of context-driven, solutions-oriented knowledge

Needed When

1. Uncertainty about societal problems
2. Complex Community based problems

Produces Favourable outcomes by:

- Taking into account real-life and scientific causes of societal problems when designing solutions
- Fostering collaboration between academic and non-academic stakeholders to create new knowledge and practices
- Strengthening relationships and fostering trust between communities and policy makers

Learning Objectives

- **Define the concept of knowledge co-production** in transdisciplinary research, in particular related to co-production of knowledge with policy-makers and local communities
- **Relate transdisciplinary approaches with increasing equity, diversity, and inclusion (EDI)** of previously marginalized groups in science, in particular women, people of color, indigenous communities, and youth/children
- **Explain the concept of integration** in transdisciplinary research related to diverse methodological approaches and data interoperability in the context of diverse data sets including quantitative data, qualitative data, and data/stories drawn from daily life, anecdotes, and experiences of participants.

Session 2 Focal Areas

- Knowledge co-production and integration in transdisciplinary research
- Policy-relevant action research and science-policy translation for the CEH Nexus
- Challenges and opportunities of integrating across methodological diversity and epistemological difference in transdisciplinary research collaborations
- Tools for improving data interoperability for mixed-methods datasets



Defining Knowledge Co-Production

A way of producing knowledge that is based in collaboration between different people to achieve common goals (Norstrom et al., 2020)

- Research co-production is about doing research with those who use it (Graham et al., 2019)
- Best practice approach in collaborative, transdisciplinary, action-oriented research
- Integration of different knowledge systems and methodologies

Collaborative stage of
problem framing and
trust building

Knowledge
generation phase

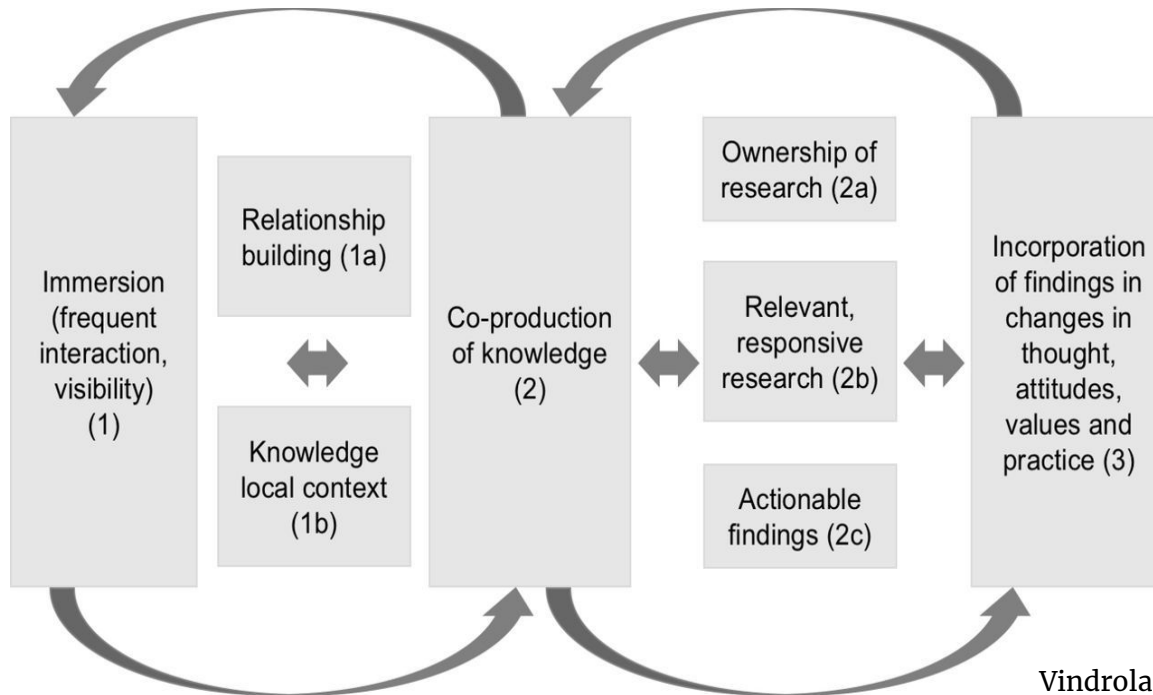
Exploration of
practical impacts of
the knowledge
produced



Co-Production of Knowledge

“Co-production processes produce more than just knowledge; they develop capacity, build networks, foster social capital, and implement actions that contribute to sustainability”

(Norstrom et al., 2020).



Vindrola-Padros et al. (2019)

	Co-Production Challenges	Co-Production Enablers
Politics	Political interference and unpredictable political situations necessitating a hold/delay for project work	Use established political structures without being partisan, building on local political agendas
Finance and resourcing	Insufficient and rigid project budgets, and undue bureaucracy	Clear and itemised budget to facilitate co-production Flexible budgets which can deal with unpredictable costs associated with co-production/participatory action research
Access and inclusion	Inability to engage or access communities and pushing ideas onto communities without understanding their problems and needs	Be open minded, flexible, and inclusive in using co-developed solutions Take time to build trust and facilitate mutual learning Learn lessons from existing or previous projects Understand community perspectives and their real problems
Relationship building	Transactional interactions with the community Unfamiliarity with, and disrespect for, local culture and norms Funding and reward mechanisms that don't focus on development of a sustainable relationship Community memories of poor research experiences	Allow time for developing relationships with the community and communication mechanisms Work with communities that have been involved in building relationships Where appropriate, harness cultural elements that will better enable engagement with communities
Dis-engagement	Uncompromising, resistant, or distrustful communities High or unrealistic standards or expectations which might have been influenced by unfulfilled promises from preceding research teams	Develop understanding of the causes of resistance and mistrust Don't ignore community expectations no matter how seemingly unreasonable and deviating from one's project

Source: Tembo et al., 2021

Jamaican Women in Coffee (JAWiC)

OUR MISSION

JAWiC (Jamaican Women in Coffee) is a registered Jamaican **charitable organization** and seeks to connect women in coffee, to recognize women's contributions to the industry and to empower a **sustainable, equitable future**.

By developing and nurturing a supportive community, we will use our collective strength to catalyze positive change in the coffee industry.

JAWiC PROVIDES FOR MEMBERS:

- ☛ A vehicle for channeling resources to affiliated coffee communities.
- ☛ A meeting point for women to network, share their experience & deliberate over issues of mutual interest.
- ☛ A platform for women to develop their leadership and entrepreneurial skills.
- ☛ A channel to market women's coffees.



JAWiC in Action

Baseline Pilot Survey Conducted with 67 women in 2019 in different regions across the Jamaica Blue Mountain, this situational analysis captured the challenges facing women coffee farmers and highlighted areas for intervention.



Information from Pilot Survey was the basis on which JAWiC created proposal for project
– “Strengthening the capacity of women coffee farmers in Jamaica through training”

Jamaican Women in Coffee (JAWiC) secures CAD\$21,972 grant.



Jamaican Women in Coffee (JAWiC) — the national chapter of the International Women's Coffee Alliance (IWCA) has successfully secured its first grant of **CAD\$21,972 from the 2021/2022 Canada Fund Local Initiative (CFLI) program**. As a non-profit organization, JAWiC aims to improve women's participation in the coffee value chain, improve the production and quality of their coffee for local and international markets, and facilitate women with the power of a collective voice, while uplifting them as leaders within their communities and the industry. The project “Strengthening the capacity of women coffee farmers in Jamaica through

Co-Production in Action



Relationship building and knowledge of local content/needs and challenges through community visits and survey



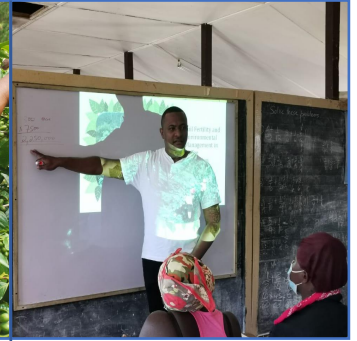
Solutions relevant to needs were developed as a result of initial collaboration and findings



Continued engagement with regulatory body, agri input providers, JAWIC, and trainers to provide solutions (training, inputs etc.)

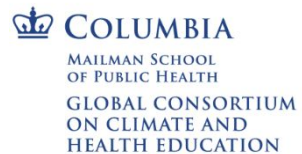


Solutions and sustainable practices were implemented on farms which encouraged farmers to share solutions and produce overall change in attitude



Helped to build farmers confidence & trust in JAWiC and sense of ownership due to collaboration in design of training

Votación en Zoom



Alliance-Building at the Science-Policy Frontier

Involving a broad range of individual and collective perspectives in global health research outside of academic research is gaining increasing recognition as a mechanism for achieving a greater impact (Tembo et al., 2021)

Alliance-Building

- Reduce tensions, look for consensus opportunities (TD as a way of life)
- Strengthen partnerships: engage senior leadership, multi-lateral collaboration agreements, national and regional committees, shared spaces of dialogue (Stewart-Ibarra et al., 2019)
- “Cooperation alliances” increase capacity, build system resilience, and strengthen governance processes (Borbor-Córdova et al. 2021)
- “Unexpected alliances” - (Galaz et al., 2017)



Equity, Diversity & Inclusion

- Community participation in research is essential to promoting health equity in diverse communities (Hohl et al., 2022)
- Expand who participates in and contributes to research (Pischke et al. 2019)
- Nurture a more equitable balance of community/academic ways of knowing
- Institutional commitments to diversity (Ahmed, 2021)



Decolonial Approach

Definition:



Post-



de-

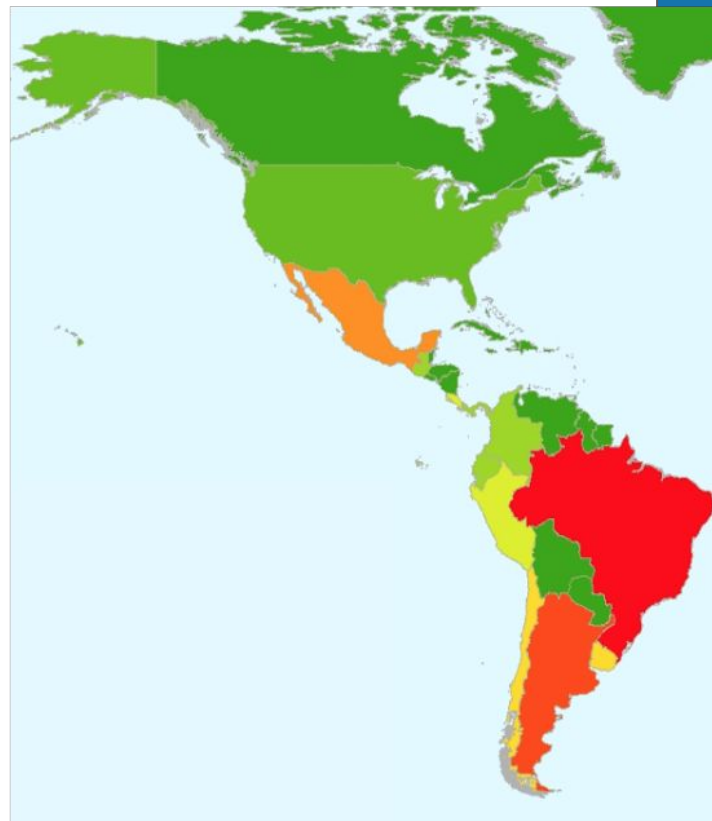
- Epistemologies of the South (Escobar 2020; Ferreira, 2017)
- Cognitive or Epistemic Justice (de Souza Santos, 2015)
- Fabrics of Life (Diaz, 2022)

Our Equity, Diversity & Inclusion (EDI) Pillar

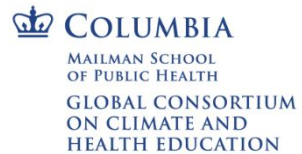
Definition:

The process used to systematically examine how differences in identity features, such as sex, gender, race, ethnicity, religion, age and mental or physical disability, affect the outcomes of research and the impacts of research.

- EDI is an engagement or commitment that must be periodically refreshed in light of new experiences and interactions with others...
- Networks and previous research (prioritizing equity-seeking groups)



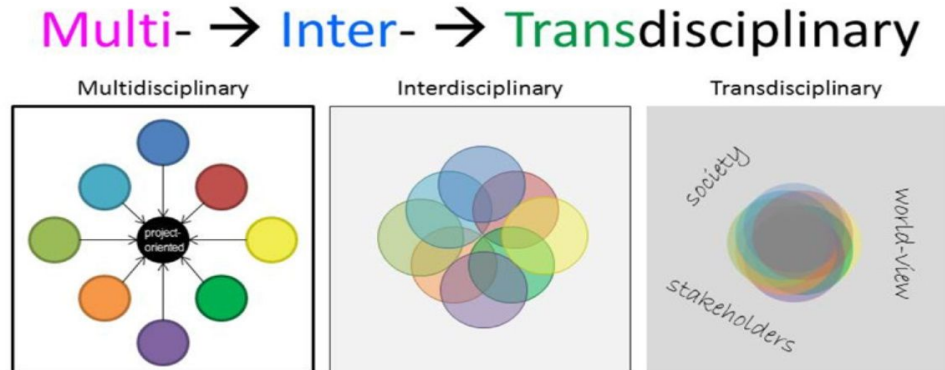
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Key Components of TD Integration

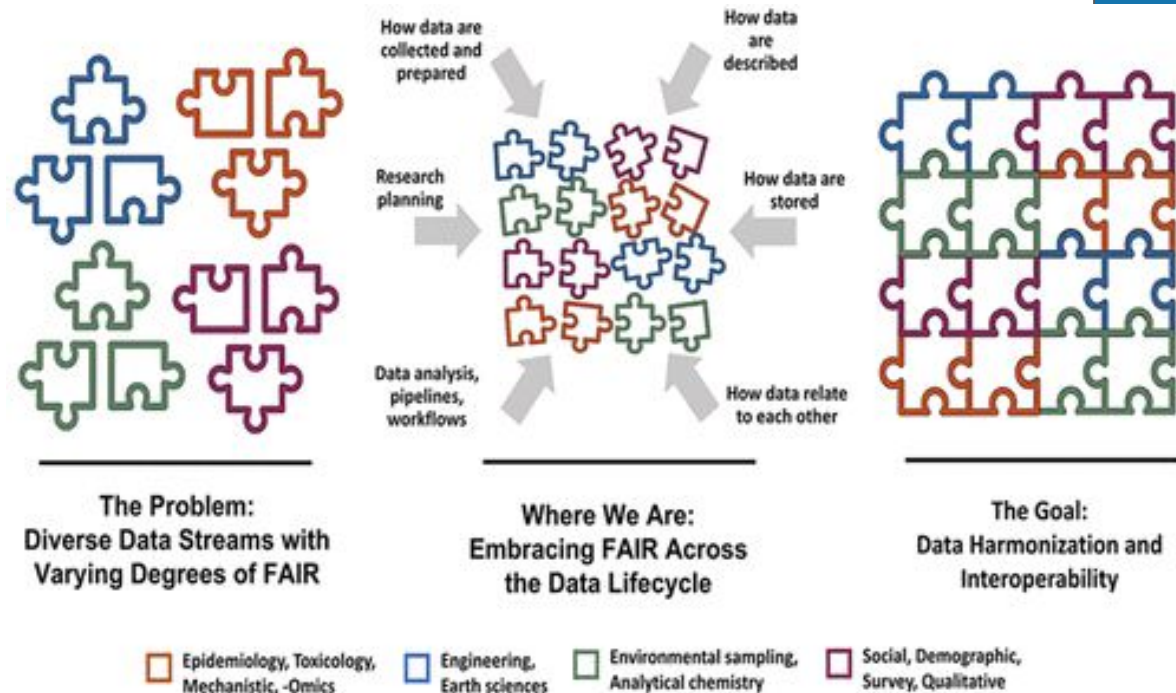
Disciplines must do more than work in parallel, they must interact, communicate, and recombine to produce novel theories, methodologies and syntheses

- Create common ground (Repko and Szostak 2012)
- Design research questions collaboratively (Belcher et al. 2015)
- Learn together and construct a common language within the team (Marzano et al. 2006)
- Explore differences and commonalities in knowledge systems (Klein 2008)
- Manage and nurture internal communication (Marzano et al. 2006)
- Develop shared methodologies and common interpretations (Callard & Fitzgerald 2015)

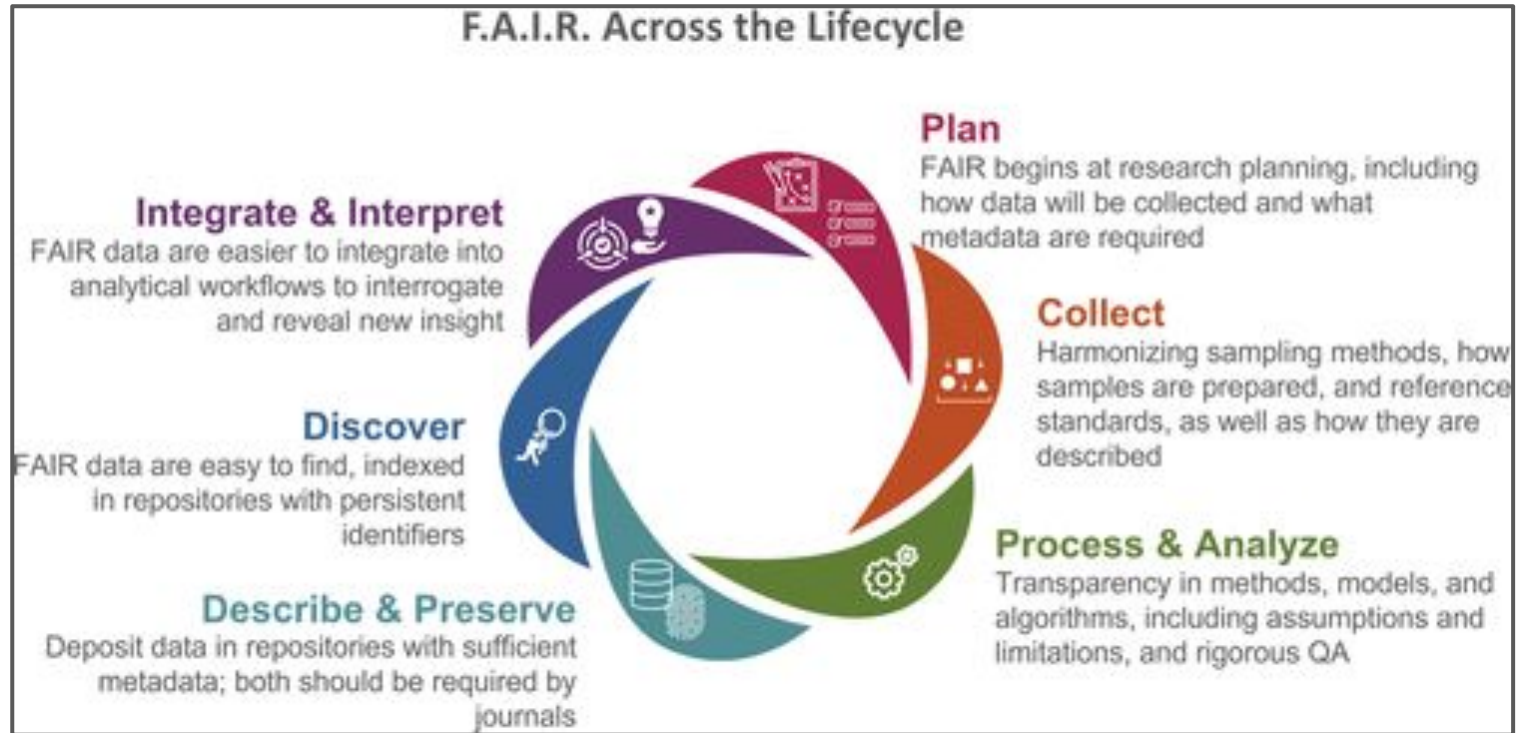


Diverse Data Streams in TD Research Data

- Data interoperability is a challenge of transdisciplinary science – diverse methods and data sources produce data that can be difficult to manage and integrate
- FAIR (Findable, Accessible, Interoperable, and Reusable) is a tool to improve data interoperability for mixed-methods datasets
- Key to harmonize data workflows, ensure consistent and robust practices in data stewardship, and embrace the FAIR principles (Heacock et al. 2022)



Implementing F.A.I.R. Data Standards



Integration Strategy: Boundary Objects

Central to collaborative transdisciplinary work is the critical aspect of common “relevant knowledge”, enough to be able to work together

Boundary Objects

- Identify common ground or shared meaning (Star and Griesemer, 1989).
- Emerge through joint work processes
- Enhance the possibility and success of cooperative work

Boundary Crossing

- People working in a specialized setting move to unfamiliar activities configured around boundary objects (Suchman, 1994)
- Boundary crossing involves “negotiating and combining ingredients from different contexts” (Engeström et al. 1995).

Grounded Example of Boundary Objects

Study Case Focus: integrating local and traditional knowledge systems for improved biodiversity conservation at the local-scale in the Americas

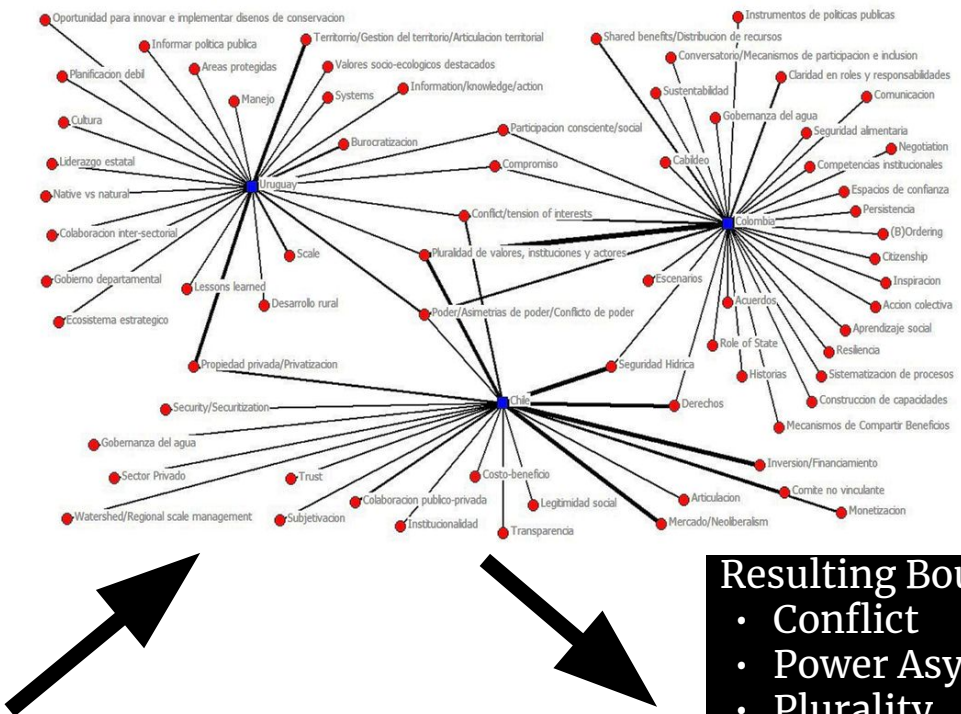
Protocol:

Country-Case Presentations



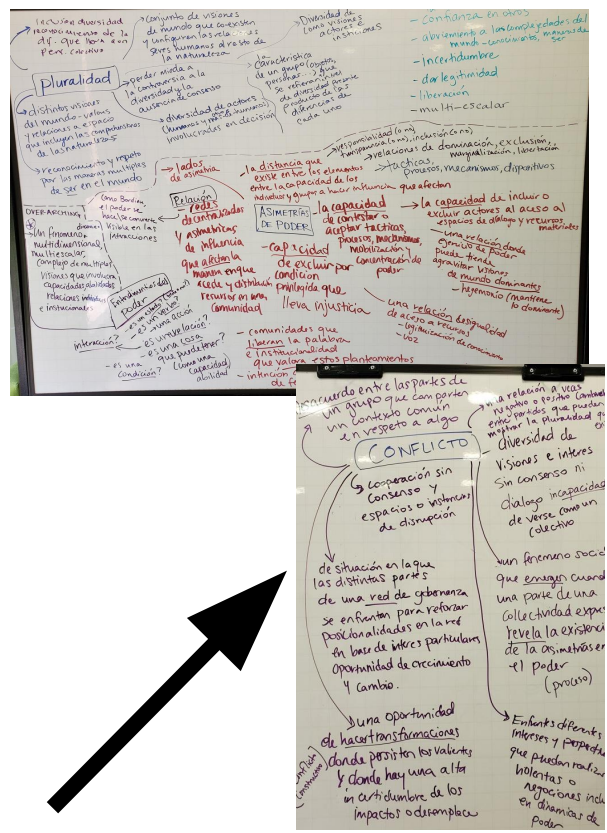
Identify 3-5 keywords per case

Social Network Analysis of keywords

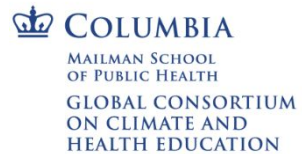


Resulting Boundary Objects:

- Conflict
- Power Asymmetries
- Plurality



Zoom Poll



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