

# Trying to Break Out of Silos in Research



Citizen Science, Community, and Theories of Change

Sinan Doğan & Abhishek Viswanathan





GSOC Presents:  
**STEM & Society**  
Lecture Series

"The Accessibility Gap for Tech Users and Developers"

Where: Online! Register through our website.

When: Tuesday, September 29th at 12:00pm

Emily E. Ackerman  
Ph.D. Candidate  
Chemical Engineering



Interested in being a speaker?  
Contact us at [gsoc.stemsoc@gmail.com](mailto:gsoc.stemsoc@gmail.com)

GSOC Presents:  
**STEM & Society**  
Lecture Series

"Tear Gas is a Chemical Weapon: The Toxicology of State Violence"

Where: Online! Register through our website.

When: Wednesday, October 21st at 12:00pm

Kimberly Garrett  
Graduate Student Researcher  
Graduate School of Public Health



Interested in being a speaker?  
Contact us at [gsoc.stemsoc@gmail.com](mailto:gsoc.stemsoc@gmail.com)

GSOC Presents:  
**STEM & Society**  
Lecture Series

"Teaching Societal Impact in the STEM Classroom"

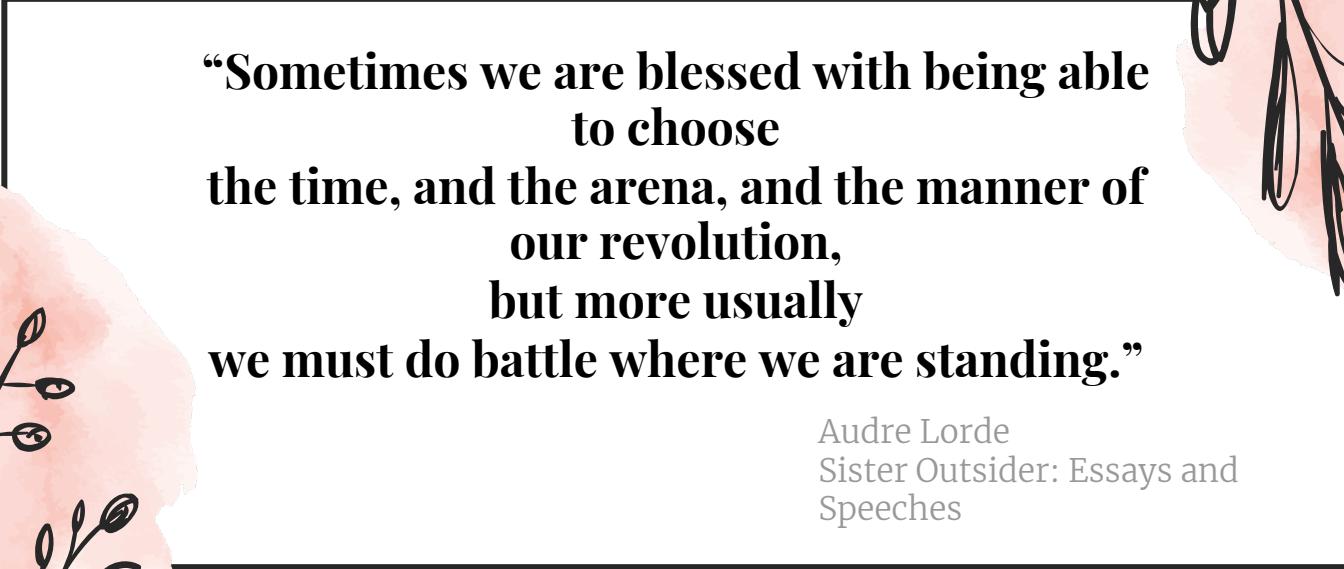
Where: Online! Register through our website.

When: Thursday, November 19th at 12:00pm

Jorge Jimenez  
Ph.D. Candidate  
Department of Bioengineering



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**“Sometimes we are blessed with being able  
to choose  
the time, and the arena, and the manner of  
our revolution,  
but more usually  
we must do battle where we are standing.”**

Audre Lorde  
Sister Outsider: Essays and  
Speeches



## About us

Sinan Dogan  
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School of Computing &  
Information



# 01

## University Context

Its mission, its labor  
practices, its resources



# 02

## Societal Context

Our place, our  
knowledge, our plan



# 03

## Citizen Science & Environmental Justice

Taking aim at knowledge  
hierarchies, building  
community



# 04

## Theories of Change & Power

Enough awareness-  
raising, it's time to act.

# **Some Questions to Ask Yourself**

- What is your relationship to the University?
- What is your relationship to your Department?
- What is your relationship to other Departments?
- What resources do you have access to?
- How do you work within and without the University?





# O1

## University Context

Its mission, its labor  
practices, its resources

# University as an Enterprise

*“A criminal one”*

- Appropriates the knowledge, the method, the labor
- Expropriates the land
- Human as a resource
- Bullshit jobs / bullshitization of jobs



# University of Pittsburgh

Quick facts:

- 33,744 students
- 16 Graduate Schools
- Faculty - 5,613
- Research & Postdoc Associates - 709
- Staff - 8,144
- Chancellor Patrick Gallagher 2019 Salary + Bonus : \$1,055,000
- Average PhD Student Stipend: \$20,000
- Fees paid to union-avoidance law firm Ballard Spahr in 2018/2019 - \$1,071,573





## 3 Universities

- **First Worlding Universities:**  
Machinery Commissioned to actualize imperialist dreams of a settled world
- **Second Worlding Universities:**  
Desire to humanize the world, which is a more genteel way to colonize a world that is so much more than human
- **Third Worlding Universities:**  
Decolonizing University

# Decolonization



Describing all struggles against imperialism as 'decolonizing' creates a **convenient ambiguity between decolonization and social justice work** ... Equivocation, or calling everything by the same name, is a **move towards innocence** that is especially vogue in coalition politics among people of color.

*Eve Tuck and K. Wayne Yang  
Decolonization is not a metaphor*



# 02

## Societal Context

Our place, our knowledge, our  
plan

Our alienation and what to do  
about it





# Breaking out

Find each other  
“Political activation  
of relationality”

## Friendship

Wrestle with your  
different  
knowledge and  
contexts

Our work and  
innocence

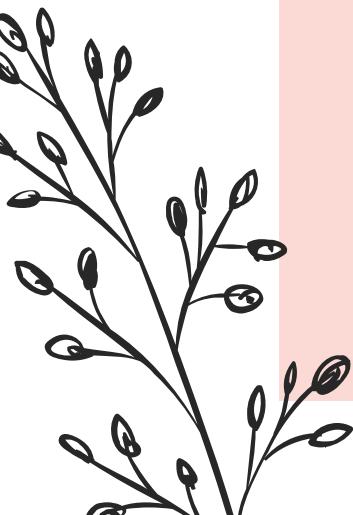
## Collaboration

Collectively fight  
back

Affinities

Organizing the  
labor with  
ourselves and  
each other

## Organizing





03

## Citizen Science & Environmental Justice

Taking aim at knowledge  
hierarchies, building  
community



## Citizen Science

Unwarranted critique of non-scientist data

Uncritical acceptance of 'scientific' data collection

Barriers to Participation

Understanding the world through existing knowledges and symbols

Collective Action Theory

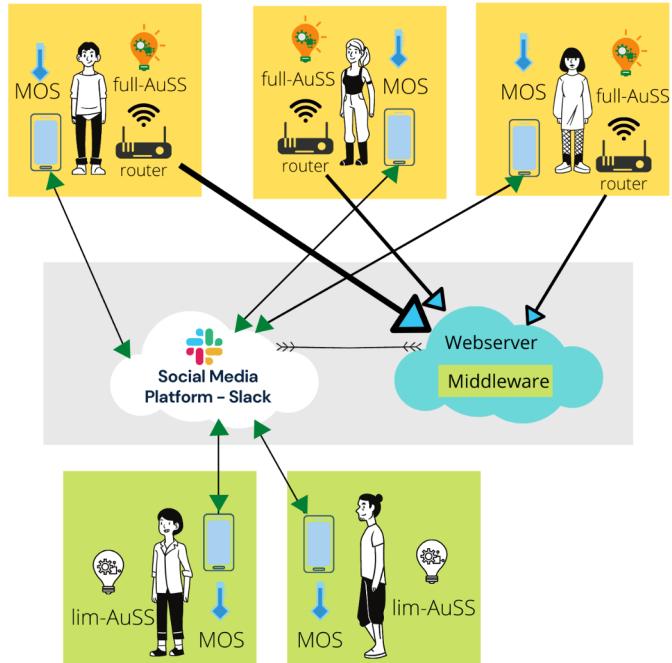


## Environmental Justice

What environmentalism is all about. The environment is everything: where we live, work, play, go to school, as well as the physical and natural world.

Can't separate the physical environment from the cultural environment. We have to talk about making sure that justice is integrated throughout all of the stuff that we do.

# Social Sensing System Architecture



## Air Quality & Citizen Science

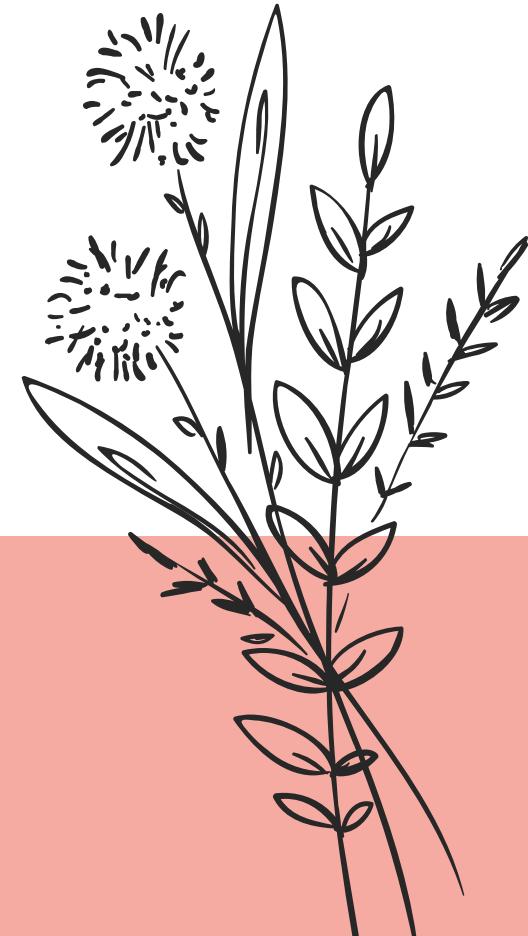
- Disrupting Existing Knowledge Hierarchies
- Enabling Collaboration, Communication, Advocacy
- Increasing Spatial & Temporal understanding of air quality
- SmellPGH, BREATHE Project, etc.



# Environmental Justice and the Environmentalism of the Poor

- “Full-belly environmentalism”
  - Wilderness
  - Eco-efficiency
- “Eco-anxiety”
- Env. of the poor: lives of the poor and lands of the poor are intertwined
- Env. Justice and damage-based research
- The suffering savage
- Care and the living
- An Abolitionist Anthropology

*All this gnawing at the existence of the colonized tends to make of life something resembling an incomplete death. — Frantz Fanon, A Dying Colonialism*





# 04

## Theories of Change & Power

Enough awareness-raising,  
it's time to act.

**ENOUGH!  
YA BASTA!**

“Documenting Damage”

“Raising Awareness”



# Theories of Power

According to Vine Deloria, Jr.

Power is Amorphous  
It is Diffuse

Flowing Around and Into Us  
It is Social



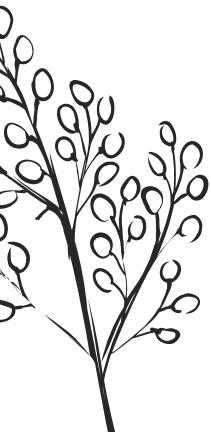
# Theories of Change

According to Eve Tuck & K.  
Wayne Yang

boycotts  
psychotherapy  
peace (Thich Nhat Hanh, 1989)  
revenge (Tuck & Ree, 2013)  
anarchy  
prayer  
doing nothing

Theories of Change that are not Deferments to the Future

- Multiple Points of Entry
- Anticipatory & Proactive
- Interrupt Knowledge Hierarchies



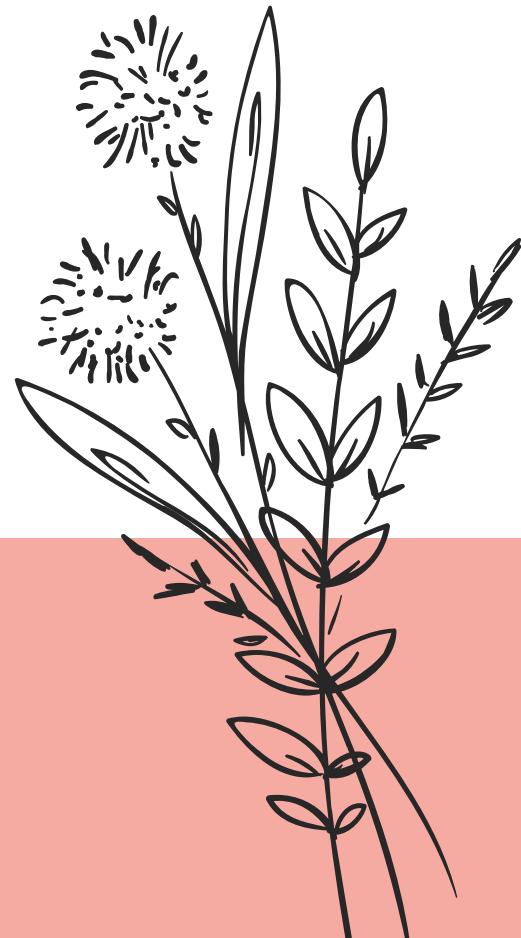
# Making kin CareTaking

“Survivance is not just survival but also resistance, not heroic or tragic, but the tease of tradition, and my sense of survivance outwits dominance and victimry.” -Gerald Vizenor

“Making kin is making people into familiars in order to relate. [...] Kinship might inspire change, new ways of organizing and standing together in the face of state violence against both humans and the land.” -Kim TallBear

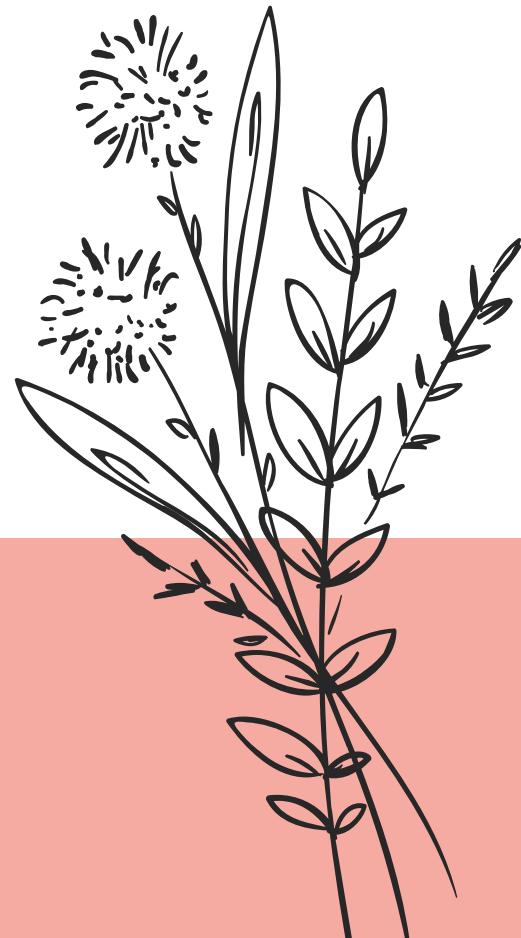


**Thanks!**



# **Questions/Comments/ Thoughts**

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[abhishekvishwanathan@gmail.com](mailto:abhishekvishwanathan@gmail.com)**



# Resources

- STEM and Society talks: [https://www.youtube.com/channel/UCaRVNpT9bJpRt\\_2MUuLiJSg](https://www.youtube.com/channel/UCaRVNpT9bJpRt_2MUuLiJSg)
- Pitt FactBook 2020: <https://pre2.ir.pitt.edu/wp-content/uploads/2020/06/Fact-Book-2020.pdf>
- Decolonization is not a metaphor – Eve Tuck, K Wayne Yang:  
<https://clas.osu.edu/sites/clas.osu.edu/files/Tuck%20and%20Yang%202012%20Decolonization%20is%20not%20a%20metaphor.pdf>
- A third university is possible – la paperson: <https://www.upress.umn.edu/book-division/books/a-third-university-is-possible>
- The Undercommons – Fred Moten, Stefano Harney: <https://www.minorcompositions.info/wp-content/uploads/2013/04/undercommons-web.pdf>
- Citation Practices Challenge: <https://citationpractices.tumblr.com/>
- Bullshit Jobs – David Graeber: <https://www.goodreads.com/book/show/34466958-bullshit-jobs>
- Eve Tuck – Biting the hand that feeds you: <https://youtu.be/lXEEzqIjA3I>