

Hi, I'm
Liz Barry



TreeKIT



helps city dwellers measure, map,
and manage street trees,
now as New York City's TreesCount! 2015.



Public Lab



is a community & a non-profit,
democratizing science to address
environmental issues that affect people.

How to
start a
project?

“ I wonder...”

Share the
curiosity

Other
People...

In your project,

Sometimes other people are a **crowd**.

At other times, other people are **stakeholders**.

Or perhaps **members, backers, participants, collaborators, co-creators, local experts, subjects, focus groups, friends, fans, followers, or [. . .]**

Designing Participation

Question 1:

**Knowledge
in the service
of what?**

Practice	What for?
Science	Discovery + Peer-reviewed Publication
Policy + Governance	Enforcement and Compliance
Management + Stewardship	Evaluation and Adaptation

Silva, Philip. Forthcoming publication, Cornell University, 2015

Question 2:

What
degree of
participation?

Public action in each PPSR model	Members of the public...
Contract	... ask scientists to conduct a scientific investigation and report on results
Contribute	... are asked by scientists to collect and contribute data and/or samples
Collaborate	... assist scientists in developing a study and collecting and analyzing data for shared research goals
Co-create	... develop a study and work with input from scientists to address a question of interest or an issue of concern
Colleagues	... independently conduct research that advances knowledge in a scientific discipline

Shirk, J. L., H. L. Ballard, C. C. Wilderman, T. Phillips, A. Wiggins, R. Jordan, E. McCallie, M. Minarchek, B. V. Lewenstein, M. E. Krasny, and R. Bonney. 2012. Public participation in scientific research: a framework for deliberate design. *Ecology and Society* 17(2): 29. <http://dx.doi.org/10.5751/ES-04705-170229>

Practice	What for?	Participatory version
Science	Discovery + Peer-reviewed Publication	Citizen Science + PPSR
Policy and Governance	Enforcement + Compliance	Street Science / Civic Science / Community Science
Management + Stewardship	Evaluation + Adaptation	Action Science + Adaptive Management

Silva, Philip. forthcoming publication, Cornell University, 2015

Question 3:

How to structure
inquiry with
individuals and
groups?

**“C” science is
about people.**

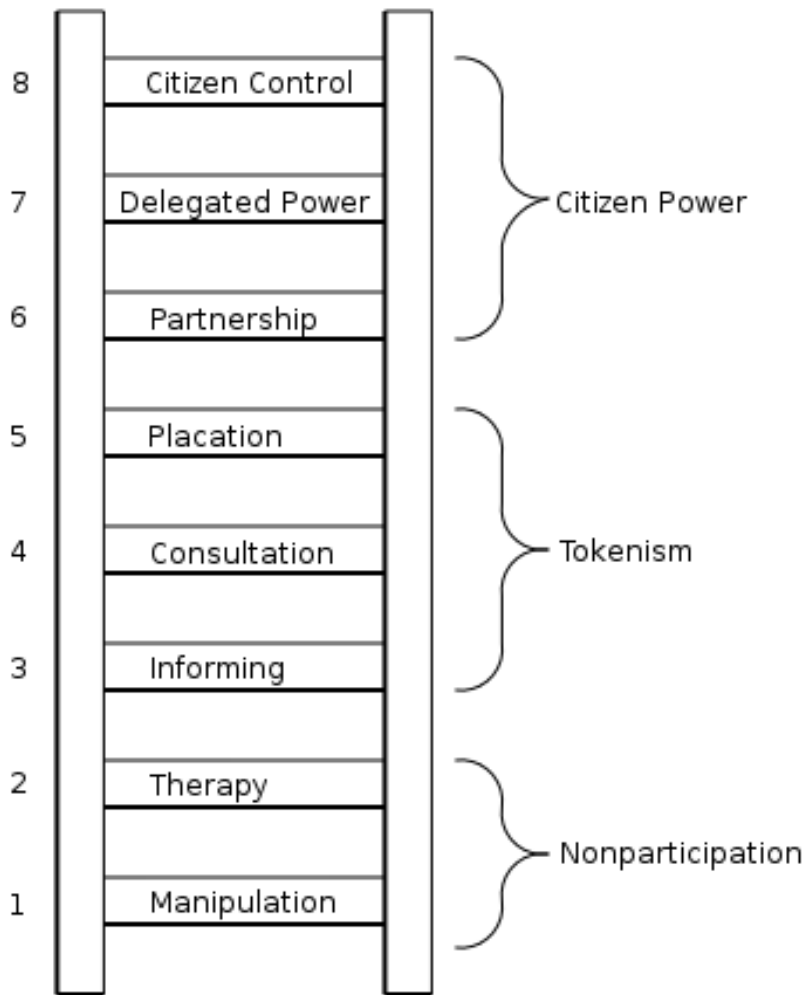
“**Education** either functions as an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity or it becomes the practice of freedom, the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world.”

- Paulo Freire, *Pedagogy of the Oppressed*, 1968

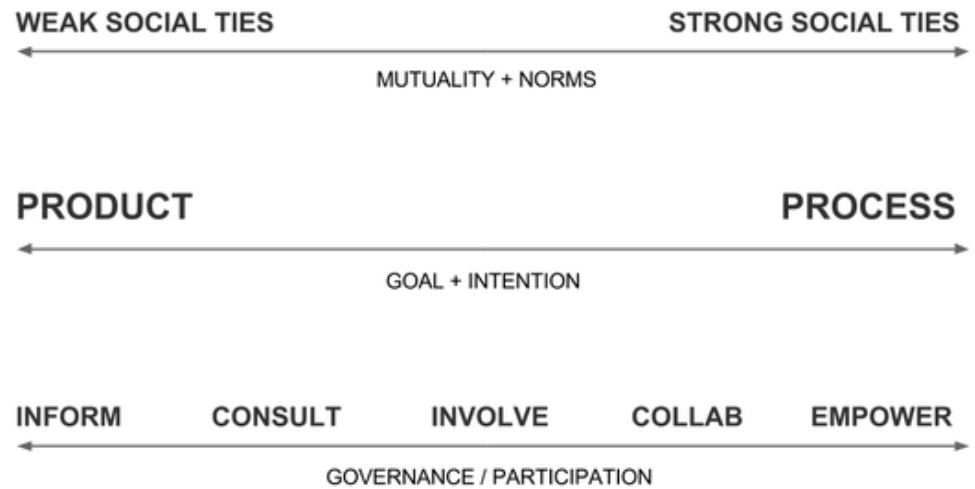
All Mixed Up? Instrumental and Emancipatory Learning Toward a More Sustainable World: Considerations for EE Policymakers

Applied Environmental Education & Communication, Volume 7, Issue 3, 2008. Arjen E. J. Walsa, Floor Geerling-Eijffa, Francisca Hubeekb, Sandra van der Kroona & Janneke Vadera. pages 55-65

Motivation & Agency



Shelley Arnstein,
Ladder of Citizen Participation, 1969



Caroline Woolard, Louise Ma,
Adapted Arnstein Ladder, 2013

“I would love to
change the
world, but they
won't give me
the source code”

Open source

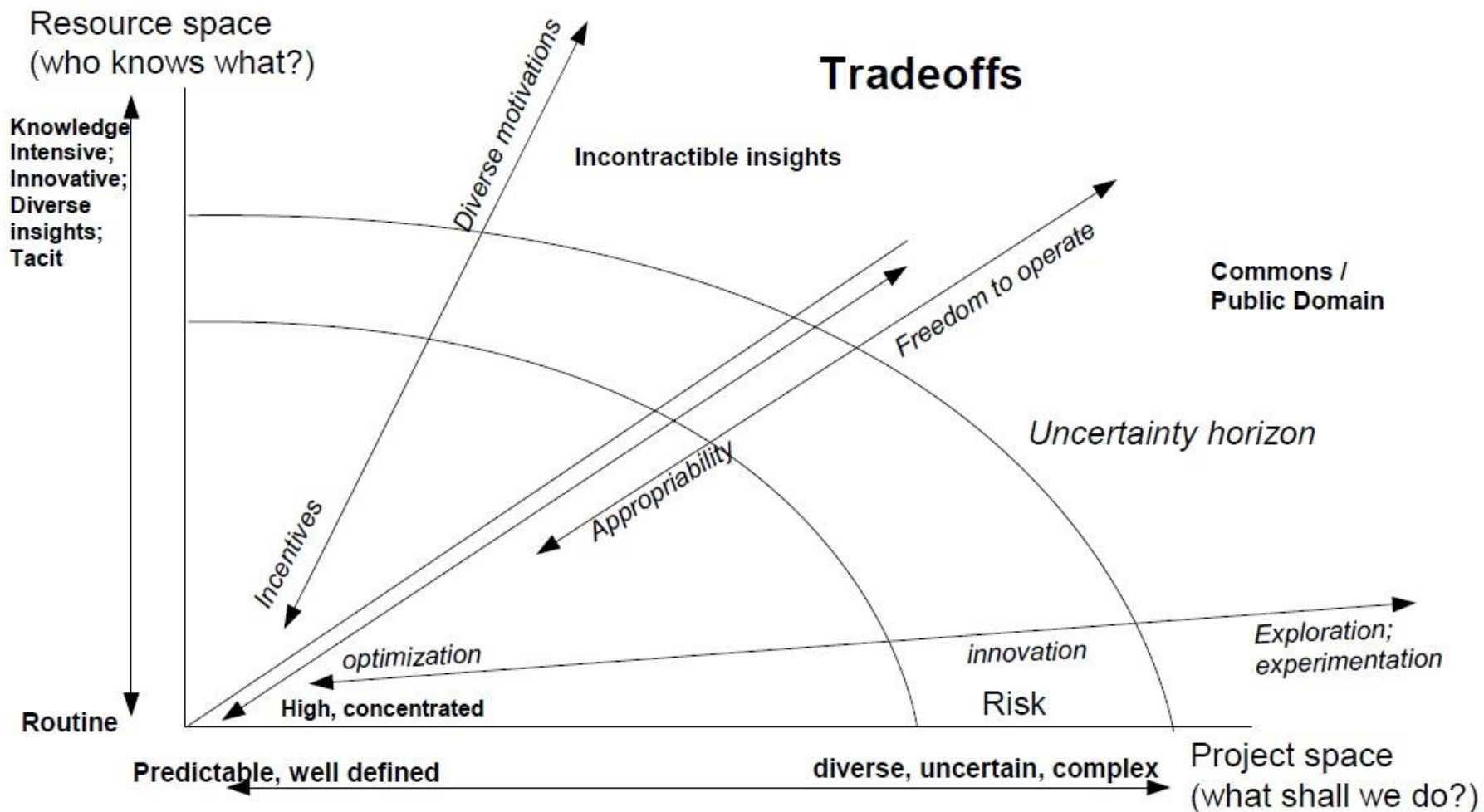
Hardware,

Software,

Docs,

Data,

Community structure



Yochai Benkler, 2011

The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest

Outcomes

&

data quality,
lifespan of engagement,
the generation of political will,
and real world impact



PROJECT OF THE WEEK

Landfill Hunter

Identify and outline landfills throughout the United States

[START CONTRIBUTING NOW!](#)

Find

a crowdcrafted project
that fascinates you, and help researchers
analyse their data.

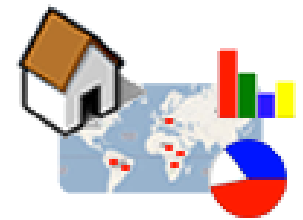
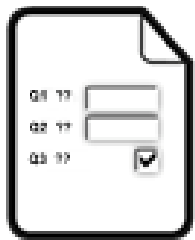
[START CONTRIBUTING](#)

Make

a crowdcrafted project
and get other volunteers to help you
analyse your data.

[CREATE A PROJECT](#)

EpiCollect



OPEN DATA KIT

ODK Collect > Cassava Surveillance Form

3:50 PM

PICTURE

Main Picture

Please take a snap shot of the cassava leaf

Take Picture

ODK Collect > Cassava Surveillance Form

3:57 PM

SEVERITY

CMD Severity

Cassava Mosaic Disease severity

One

Two

Three

Four

Five

ODK Collect > Cassava Surveillance Form

3:58 PM

GEO Location

gps

Geographical Position System

Record Location



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environmental issues that affect people.

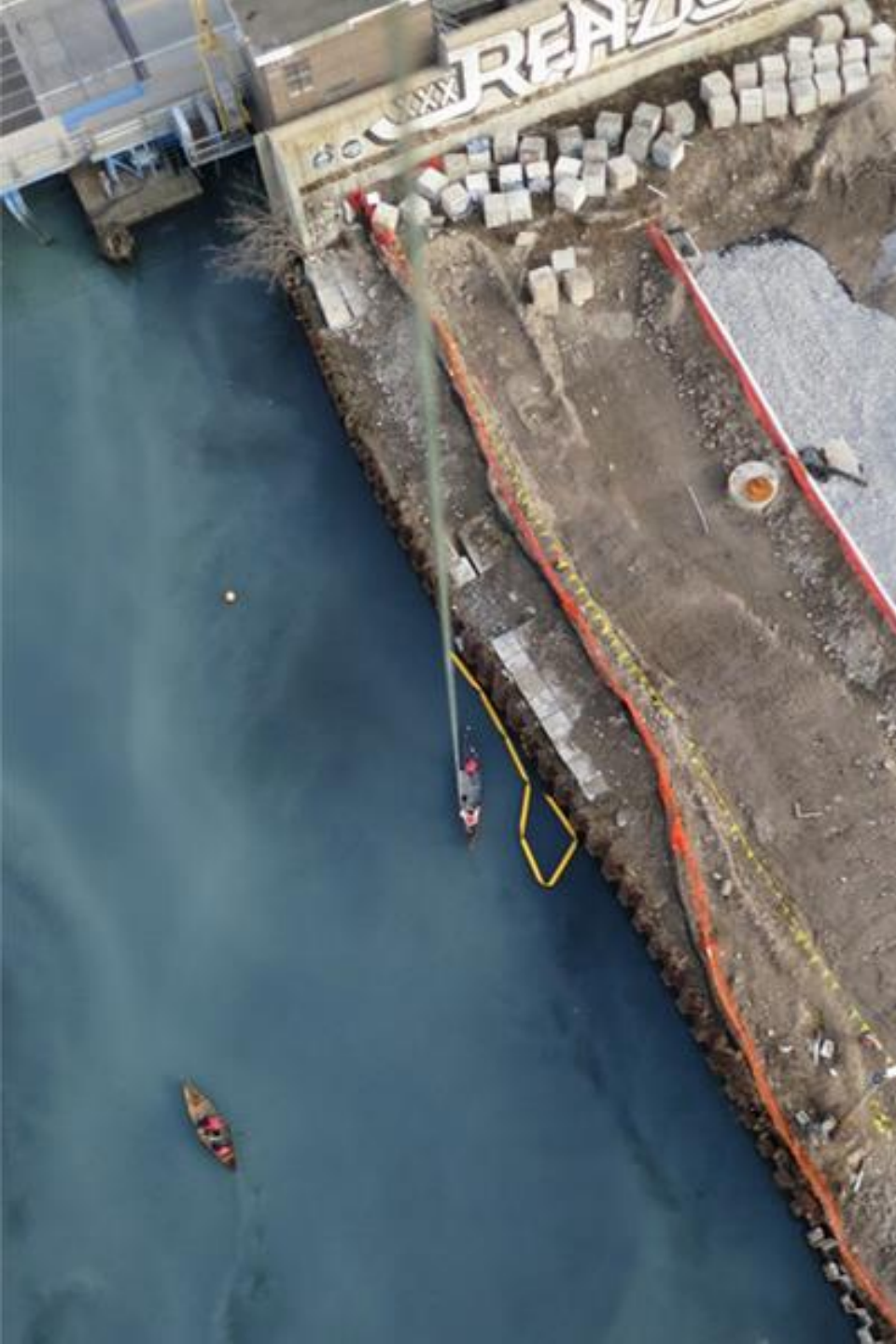


We work in an **open community** that anyone can join.

This makes us stronger community organizers, technologists, scientists and activists.

In Public Lab,
we believe that
generating knowledge
is a powerful thing.

We aim to open research from the exclusive
hands of scientific experts.



By doing so,
communities facing
environmental justice
issues are able to
own the science
and advocate
for the changes
they want to see.

Promoting a hands-on, **do-it-yourself** ethos,

we support each other's exploration, which leads to technical development, and real applications in our communities.

The science,
technology and data
in Public Lab are
community-created
and open source.

We utilize our open data to
advocate for
better environmental management,
regulation, and enforcement.



We are a
worldwide community with local
focus.

We work online, through an interactive
wiki where people can pose questions,
post their research and reach out to others.



Research questions are focused on addressing local issues,

and are driven by on-the-ground community work.

Learn more at

PublicLab.org

liz@publiclab.org

[@publiclab](#)

[@lizbarry](#)