Roundtable Discussion Notes

Tuesday, June 6

Using Information Technology to Reduce Pre-Harvest Waste by Connecting Growers to Alternative Recipients

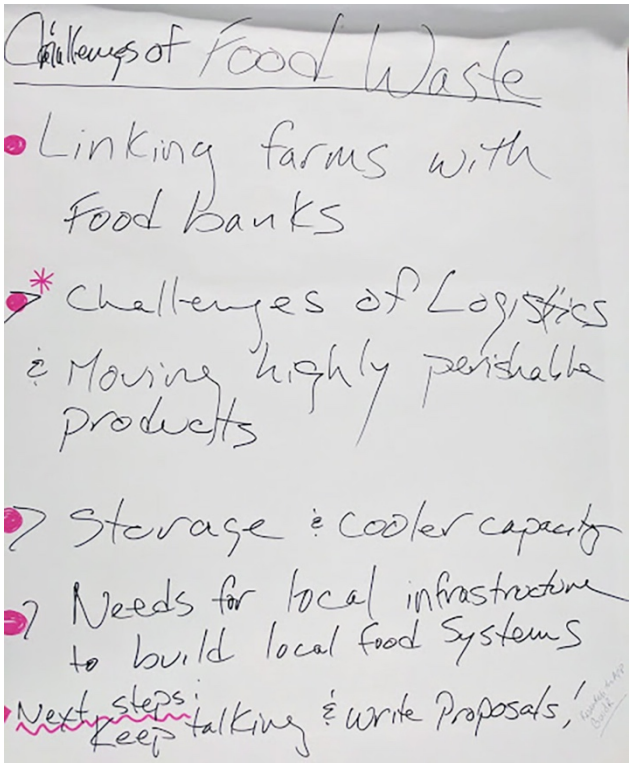
Facilitators

Liz Kramer, University of Georgia, College of Agricultural and Environmental Sciences; Katherine Kennedy, Concrete Jungle; Ben Burgess, Atlanta Community Food Bank

Description

Food loss and waste are often defined and measured post-harvest and along the food supply chain. A number of recent projects are using technology to find new markets for post-retail and post-consumer food waste. However, we know very little about how much food is lost on the farm pre-harvest, since food is not tracked until it enters the food supply chain. We know that there is loss at the farm due to a number of reasons including pests and diseases and weather events such as hail or drought. There are other losses that are potentially recoverable such as over production due to difficulty predicting demand, outgrading of produce because of blemishes, size or shape, or diminishing returns from harvesting. How much of production falls into these categories is not well known, but we do know that they require the same resources as those products that are sold to market. All of these products require land, water, energy, nutrients, and so forth, costing farmers and impacting the environment. Are these losses a result of an information gap between those willing to sell and those willing to buy? And if so, can we use technology to connect these groups to improve the efficiency and sustainability of the food system? The question becomes, can we build new markets for these edible products through data and cyber infrastructure that will connect growers to alternative users of perishable crops and create a more sustainable system?

Discussion Notes



Challenges of Food Waste:

- Linking farms with food banks
- Challenges of logistics
- Moving highly perishable products
- Storage and cooler capacity
- Needs for local infrastructure to build local food systems

Next steps: keep talking and write proposals!

Local Data for Local Justice

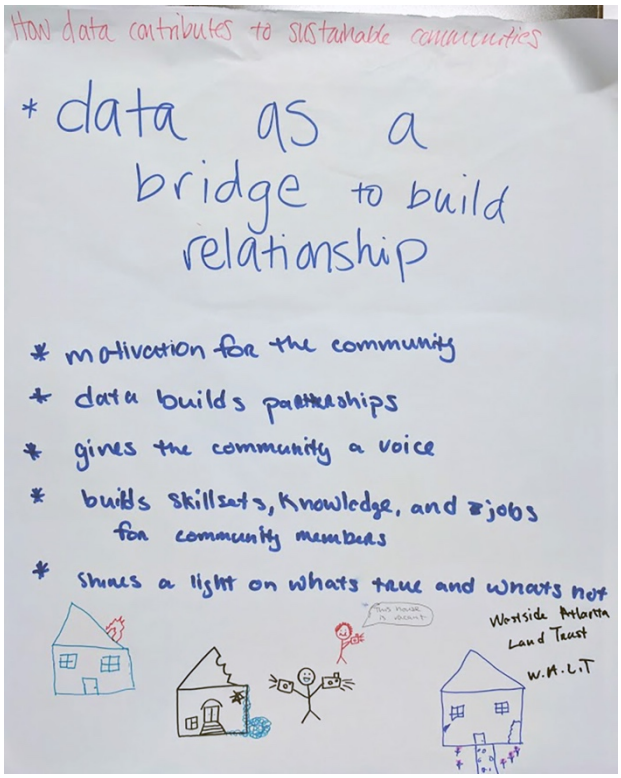
Facilitators

Liz Kramer, University of Georgia, College of Agricultural and Environmental Sciences; Katherine Kennedy, Concrete Jungle; Ben Burgess, Atlanta Community Food Bank

Description

This roundtable will explore the question: How do community based organizations use data as a strategy for social change? Trinderlyn McWilson and her husband are long term English Avenue residents and lead data collectors for the Westside Atlanta Land Trust (WALT), a program of Help Org Inc. The WALT program seeks to serve and preserve in-place residents. They identified the Community Land Trust model as the best strategy to achieve permanently affordable housing for westside residents. Trinderlyn and her team of researchers collect data on the Westside's built environment and supplement this data with county tax data to both build up a CLT property portfolio and articulate a data-driven argument for a city-wide CLT policy.

Discussion Notes



How data contributes to sustainable communities:

- Data as a bridge to build relationships
- Motivation for the community
- Gives the community a voice
- Builds skill sets, knowledge, and jobs for community members
- Shines a light on what is true and what is not

Measuring Equity in the Living Building at Georgia Tech

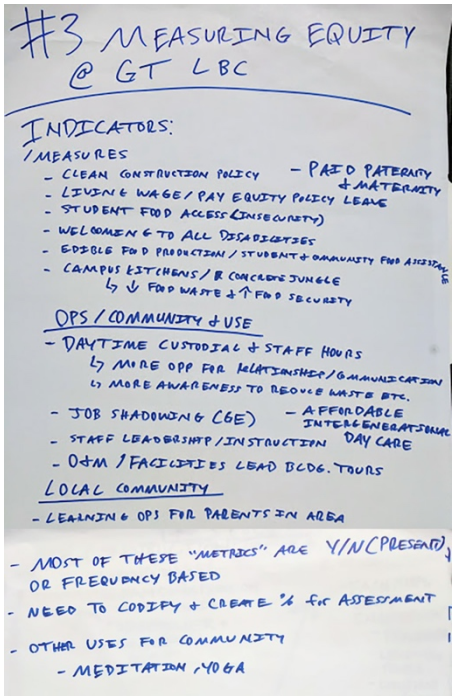
Facilitators

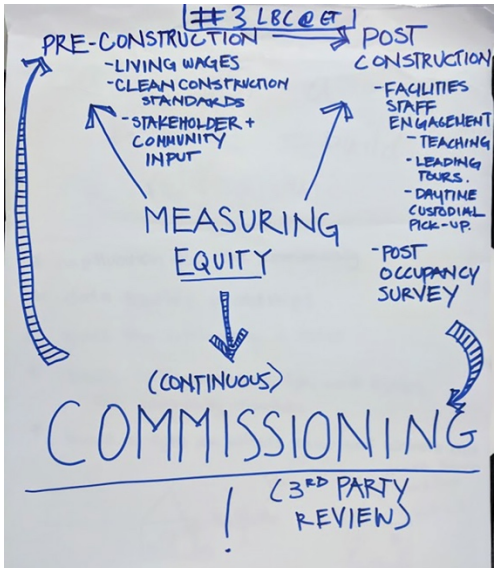
Chris Burke, Community Relations, Georgia Tech; Alissa Kingsley, Lord Aeck Sargent; Alex Trachtenberg, Southface

Description

How is equity measured in the built environment? Our roundtable will explore how to create a comprehensive tool for quantifying equity. Using the Living Building at Georgia Tech as a case study, this tool could become an exemplary model for the International Living Future Institute (which runs the Living Building Challenge), state and local governments, and general practitioners to measure and assess equity in sustainable building design, construction and operation, and general business practices. Using the International Living Future Institute's Equity Petal and work done to date by the GT Equity Petal Work Group to frame the discussion, we will explore how to assess if the building is successful at being inclusive and equitable.

Discussion Notes





Indicators/Measures:

- Clean construction policy
- Living wage/pay equity policy leave
- Paid paternity and maternity leave
- Student food access (insecurity)
- Welcoming to all disabilities
- Edible food production/student and community food assistance
- Campus kitchens/concrete jungle
- Food waste decrease and food security increase

Operations/Community and Usage:

- Daytime custodial and staff hours
- More opportunities for relationships and communication
- Affordable intergenerational daycare
- Job shadowing
- Staff leadership/instruction
- O+M/Facilities lead building tours

Local Community:

- Learning & ops for parents in area
- Most of these metrics are yes/no (present) or frequency based
- Need to codify & create % for assessment
- Other uses for community
- Meditation/yoga

Neighborhood Nexus: Smart Data + Data Visualizations = Better Decisions

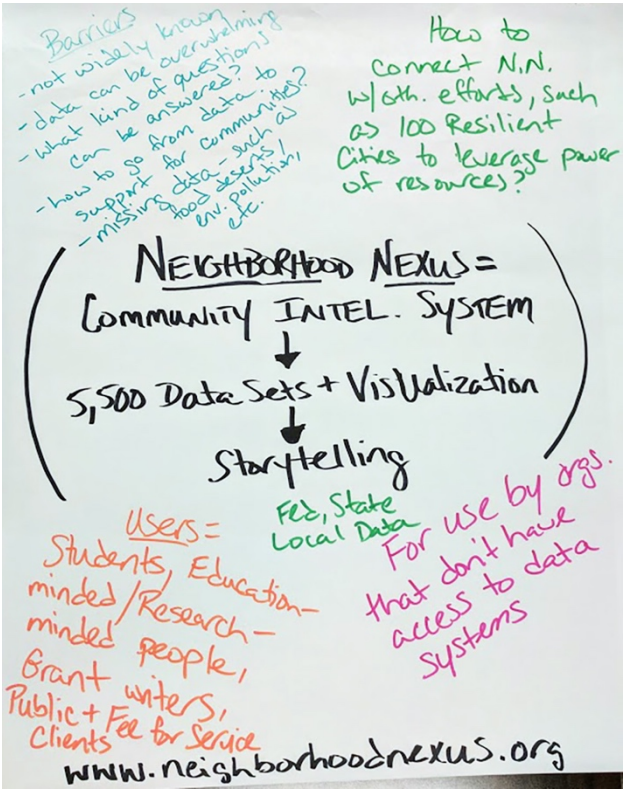
Facilitators

Mike Carnathan, Atlanta Regional Commission; Crystal Jackson, Atlanta Regional Commission

Description

Neighborhood Nexus is a community intelligence system providing over five thousand data variables, from the Census and many other sources, at different levels of geography. Bundled state-of-the-art visualization tools help users to understand and analyze these data. The goal of Nexus is to support a network of community leaders and residents, government and businesses, advocates and service providers with the information, tools and expertise to make data-driven decisions, help meet challenges, leverage assets, and create new opportunities for policy intervention in community problems. This roundtable will explore: How has Nexus been used to examine past and current socioeconomic and demographic patterns; assess correlations between the equity, health and climate of communities; identify and develop benchmarking metrics; and in so doing make better community decisions? How can this tool continue to build “Smart, Connected Communities?”

Discussion Notes



Barriers:

- Not widely known
- Data can be overwhelming
- What kind of questions can be answered?
- How to go from data to support for communities?
- Missing data-such as food deserts/environmental pollution, etc.

How do we connect N.N. with other efforts, such as 100 resilient cities to leverage power of resources?

- Users: For use by organizations that do not have access to data systems
- Students
- Education-minded/Research-minded people
- Grant writers
- Public and fee for service clients

www.neighborhoodnexus.org

Smart and Resilient ATL

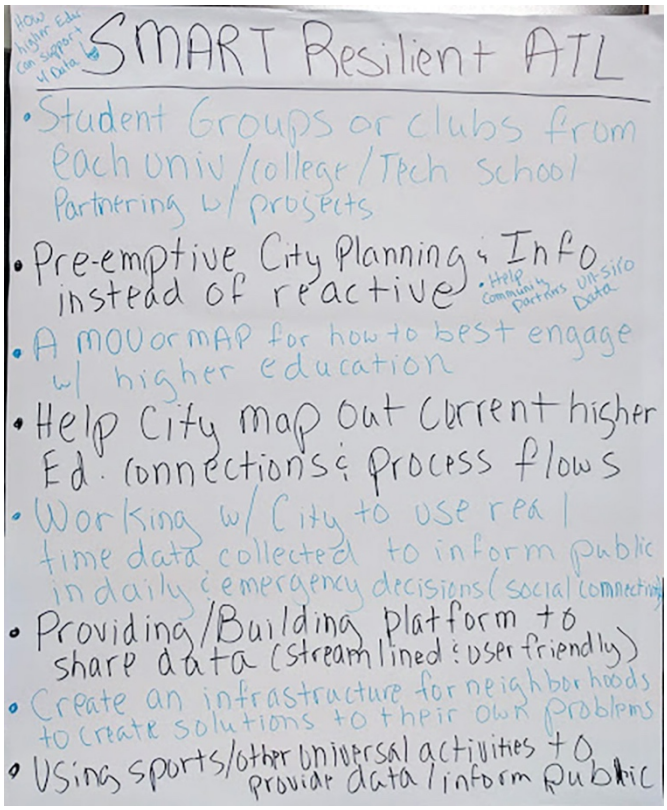
Facilitators

Cicely Garrett, City of Atlanta Mayor's Office of Resilience; Janae Futrell, City of Atlanta SmartATL "Smart City" Program; Jennifer Hirsch, Serve-Learn-Sustain, Georgia Tech

Description

Pioneered by the Rockefeller Foundation, the 100 Resilient Cities (100RC) program focuses on building a strategy to combat the physical, social, and economic challenges cities face. In May 2016, Atlanta became the 100th Resilient City. During this roundtable, the City of Atlanta will provide updates on the city's use of data to inform its Resilience Strategy development as well as amplify SmartATL, an initiative which pre-dated 100RC designation but will be an invaluable contribution to the City's Resilience Strategy. We will explore the question, what are some ways in which Atlanta's 40+ institutions of higher learning could provide and synthesize data to make Atlanta resilient?

Discussion Notes



How higher education can support with data:

- Student groups or clubs from each university/college/Tech school partnering with projects
- Pre-emptive city planning and information instead of reactive
- Help community partners un-silo data
- A mov or map for how to bet engage with higher education
- Help city map out current higher education connections and process flows
- Working with city to use real time data collected to inform public in daily and emergency decisions/ social connectivity
- Providing/building platform to share data (streamlined and user friendly)
- Create an infrastructure for neighborhoods to create solutions to their own problems
- Using sports/other universal activities to provide data/inform public

Georgia's Coastal and Marine Planner (GCAMP)

Facilitators

Mary Hallisey Hunt, Strategic Energy Institute, Georgia Tech; Teresa Eldredge, TJ Schell, LLC

Description

This roundtable will explore options (and opportunities) for using an ArcGIS StoryMap platform to navigate complex regulatory processes. The interactive web based example presented is GCAMP's hypothetical wind farm case study. It is built on a foundation of data layers allowing stakeholders a balanced benchmark of Georgia's offshore and coastal environment for the purpose of understanding what's involved in permitting an offshore energy related development. This roundtable will explore the question: As new state and local projects move forward, how can Arc GIS StoryMap platforms help communities, planners, developers, and other stakeholders make better, more sustainable decisions?

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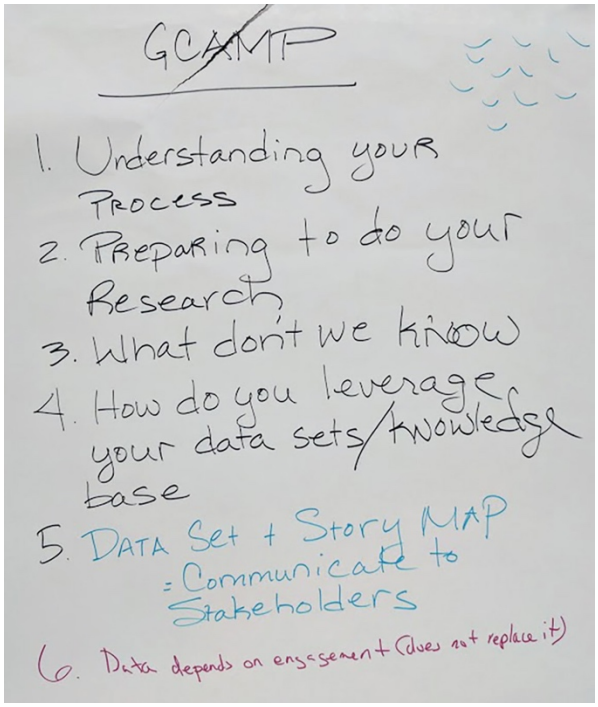


1. Understanding your process
2. Preparing to do your research
3. What don't we know
4. How do you leverage your data sets/knowledge base
5. Data set + story map = communicate to stakeholders
6. Data depends on engagement (does not replace it)

Role of Air Quality Data in Community Health & Revitalization – SW Atlanta Case Study

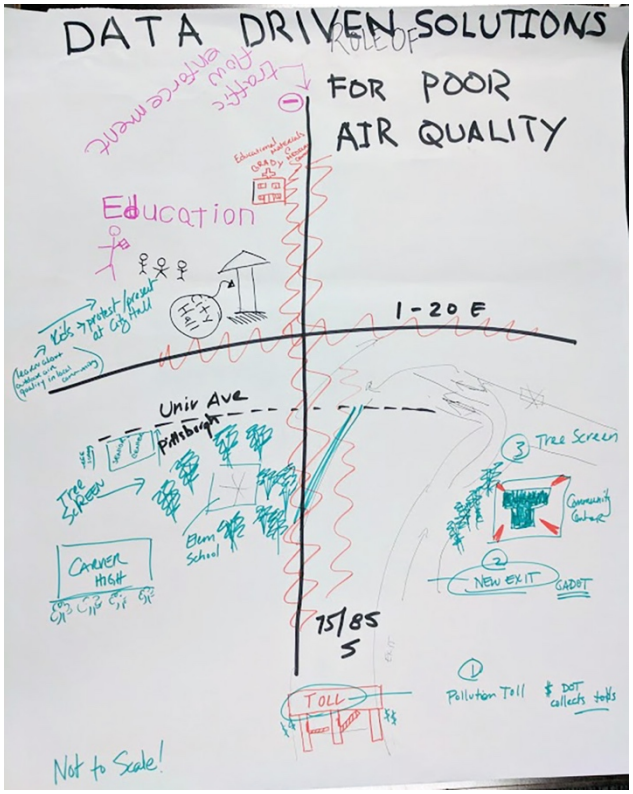
Facilitators

Christian Braneon, Serve-Learn-Sustain, Georgia Tech; Camilla Warren, USEPA

Description

Past research studies and related data for Atlanta generally show a relationship between community health and air quality. This roundtable will explore those data and possible implications for action. The EPA EJSCREEN will be introduced as a powerful new GIS-based tool that integrates socio-economic and environmental quality data at the census block level.

Discussion Notes



Case Study: Poor air quality surrounding Carver High School caused by pollution from stagnant cars at local interstate exits.

Assessing Solutions/Possible Actions:

- Mobilize local students to assess air quality
  - Citizen science projects woven into schools
    - K-12 and especially Carver High School
  - Engage science teachers
- Community Air Quality Alerts
  - Raised flags/phone apps to give real time update of air quality
  - Provide educational materials that people can understand
- Redesign the entry and exit ramps
- Green infrastructure
  - Green walls to help block air pollution
  - Planting trees around exit and high school
- Redesign stop lights to prevent back ups
- Tolls as a way to generate revenue for the infrastructure changes
- Working towards e-mailing, phone calls, and letter campaigns to elected officials and/or city council members

Better Building, Better Health: Insights from the Atlanta Better Building Challenge Program

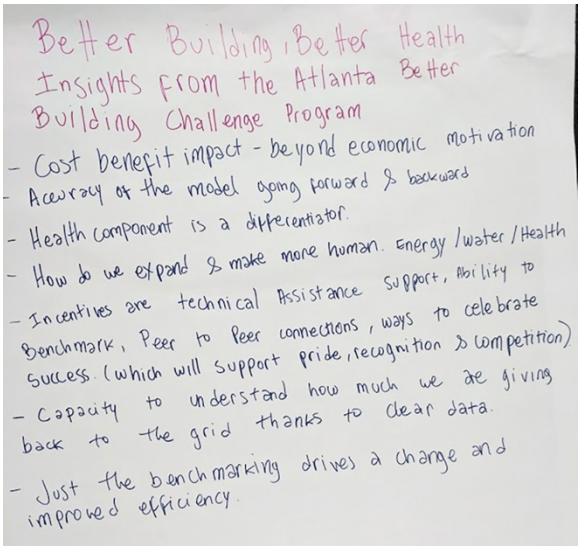
Facilitators

Matt Cox, CEO, The Greenlink Group; Bonnie Casamassima, Program Manager, Atlanta Better Building Challenge, Southface

Description

In 2011, the City of Atlanta launched the Atlanta Better Buildings Challenge as part of the U.S.Department of Energy's Better Buildings Challenge; a free, voluntary commercial energy efficiency challenge. Focusing on the reduction of energy and water use in mid- and large-size commercial buildings, the Atlanta Better Building Challenge has been a national leader with high participation and saving levels. While the program's impact on energy and water conservation is well documented, its effect on public health has not been previously determined. The Southface Energy Institute, the administrator of the Atlanta Better Building Challenge, together with The Greenlink Group, performed an analysis aiming to better understand the public health benefit provided by the program using Greenlink's high-resolution artificial-intelligence driven power sector model, ATHENIA. The results highlight an important but commonly overlooked fact: better building energy performance leads to a healthier community. This roundtable will tease out social impact stories from the energy data, asking the question: what social impact stories would be of interest to communities and policymakers?

Discussion Notes



- Cost benefit impact – beyond economic motivation
- Accuracy of the model going forward and backward
- Health component is a differentiator
- How do we expand and make more human energy/water/health
- Incentives are technical assistance support, ability to benchmark, peer to peer connections, ways to celebrate success (which will support pride, recognition & competition)
- Capacity to understand how much we are giving back to the grid thanks to clear data
- Just the benchmarking drives a change and improved efficiency

Campus as a Smart City

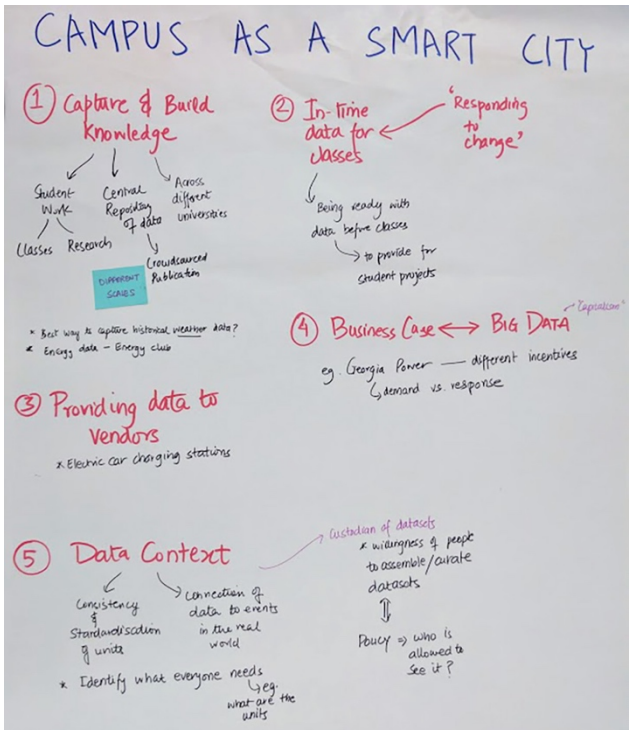
Facilitators

Russ Clark, Matt Sanders, Jennifer Mullins & Akansha Gupta, Georgia Tech Research Operations Center, Institute for People and Technology (IPaT)

Description

This roundtable will explore the ongoing and future efforts to use the campus as a testbed for smart cities research and innovation. We will start with an overview of our experience through the GTJourney initiative to open campus data for student use in academics, research, and innovation. This includes work with GT facilities, Parking and Transportation, and other partners who operate services on the campus. We plan to focus the discussion on lessons learned addressing and balancing operational capacity and goals with the interests and capacity of researchers. We are particularly interested in learning more about how others would facilitate balancing timelines, points of view, and goals, which often lack alignment.

Discussion Notes



1) Capture and Build Knowledge
- Student Work
  - Classes
  - Research
- Central Repository of Data
  - Crowdsourced publication
- Across Different Universities
- Best way to capture historical weather data?
- Energy data – Energy club

2) In-time Data for Classes – 'Responding to Change'
- Being ready with data before classes
  - To provide for student projects

3) Providing Data to Vendors
- Electric car charging stations?

4) Business Case – Big Data ("Capitalism")
- e.g. Georgia Power – different incentives
  - demand vs. response

5) Data Content ("Custodian of data sets")
- Consistency & standardization of units
- Connection of data to events in the real world
- Identify what everyone needs
  - e.g. what are the units
  - Willingness of people to assemble/curate data sets
  - Policy
    - who is allowed to see it?

Working Session Discussion Notes

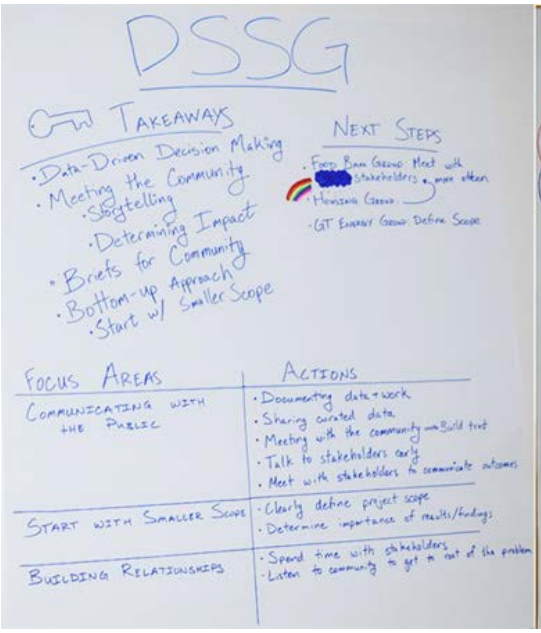
Wednesday, June 7

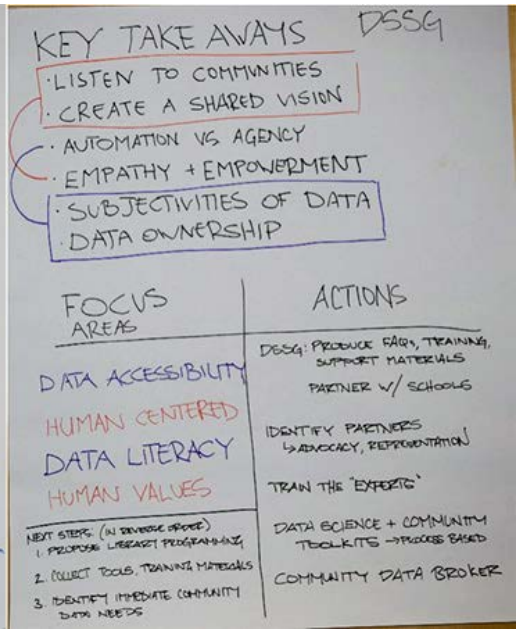
SLS-supported Data Science for Sustainable Communities Action Group

Key Takeaways	*Actions*	*Next Steps*
• Knowing what we need data for • The challenge of making data useful for cross purposes (is this in conflict with bullet above?) • How can communities know and own the data?	• Data literacy training program • Create data CBAs or MOUs – who needs to be involved? • Use communication experts to make data accessible (storytellers) • Data collection empowers community • VIP with community members	• Fall Sensemaker Workshop (SLS) • Data addendum to community engagement playbook, discussion (iPAT) • Participatory Action Research Workshop development (SLS)

Data Science for Social Good Summer Program

Key Takeaways	*Focus Areas*	*Actions*	*Next Steps*
• Data-driven decision making • Meeting the community • Storytelling • Determining impact • Briefs for community • Bottom-up approach • Start with smaller scope	• Communicating with the public	• Documenting data and work • Sharing curated data • Meeting with the community => build trust • Talk to stakeholders early • Meet with stakeholders to communicate outcomes	• Food Bank Group/Housing Group: Meet with stakeholders more often • GT Energy Group: Define Scope
	• Start with smaller scope	• Clearly define project scope • Determine importance of results/findings	
	• Building relationships	• Spend time with stakeholders • Listen to community to get to root of the problem	
• Empathy and Empowerment • Listen to communities • Create a shared vision • Automation vs Agency • Subjectivities of data • Data ownership	• Data Accessibility • Human Centered • Data Literacy • Human Values	• DSSG: Produce FAQS, Training, Support Materials • Partner with schools • Identify partners • Advocacy, representation • Train the 'experts' • Data science + community • Toolkits -> process based • Community data broker	• Propose library programming • Collect tools, training materials • Identify immediate community data needs





UN University Regional Centre of Expertise on Education for Sustainable Development (RCE) – Regional Data Hub

Key Takeaways	*Focus Areas*	*Actions*
• Provide a service – usable data set – user-defined needs around social cohesion/income limited audience • RCE – tie SDGs + metrics to compare metro ATL to other cities • NOAA • Archival system – GT • Partners – data collectors, researchers, translators • Need process to engage people around priority areas and intersections • Engage open data expertise • Concerns/Considerations • Security/privacy issues • Access/ownership/interpretation of data • Inclusivity • Framing problem data is trying to solve up front – engagement • Largest aggregators of data are not here – proprietary considerations • How are we translating the data to policy – haw are we connecting data • Must ensure that data translating does not polarize – must be smart, strategic • RCE is not the library but the librarian	• Set priorities within our top 6 SDGs – determine how our data might be used to drive programming	• Asset map – data, partners, infrastructure • ARC, CoA
	• Building data sets (do not let data drive process) • Connect data and measurement to serve local concerns	• Each member identify one data set related to their work • Identify key questions our collective data answers?
	• Baseline – regional report card • Define our process • Clustering exercise – which SDGs do you work on together	• Crystal can share ARC research on regional report card • Share SDG detail on Top 6 SDGs