



Minutes – Friday, October 27, 2023
Video Conference
9 am to 11 am

Attending: Brian Eden, Dawn Montanye, Alice Green, Louise Bruce, Chris Skawski, Dan Lamb, Gerrie Wiley, Guillermo Metz, Hailley Delisle, Hilary Swartwood, Holly Hutchinson, Ingrid Zabel, Irene Weiser, Jack Wright, Janelle Bourgeois, Leigh Miller, Nick Goldsmith, Ray Burger, Sara Culotta, Scott Doyle, Terry Carroll, Tom Hirasuna, Peter Bardaglio

Recycling and Household Engagement – Louise Bruce

Louise Bruce is the Managing Director of the Center for Sustainable Behavior & Impact at The Recycling Partnership. To improve recycling, and ultimately mobilize household participation in the circular economy, The Recycling Partnership established the Center for Sustainable Behavior and Impact, which aims to drive measurable improvement in household recycling rates. Louise, an Ithaca resident, shared insights from their research and potential opportunities for local collaboration.

- All stakeholders contribute to success of recycling – Recycling Partnership seeks to mobilize people, data, and solutions across value chain to reduce waste and our impact on the environment while also unlocking economic benefits
- Works with material recovery facilities, local recycling programs, companies and manufacturers of packaging, and policymakers
- Louise’s work focuses on how to get households to participate in recycling programs
- Why focus on household behaviors? 40 million U.S. households still do not have access to recycling programs
- Despite consistently high levels of public support for recycling, half of all residential recyclables are lost to landfills each year due to behavior gaps
- Adds up to 15 million tons of recyclables, equivalent to 63 million metric tons of CO₂
- Every 10 homes generate 7,680 lbs of recyclables per year – 3 out of these 10 homes don’t participate in recycling – they throw out 2,150 lbs of recyclables each year
- Those that do participate still put 38% of their materials in trash, about 2,130 lbs
- Different materials are captured in widely varying rates – 81% of cardboard vs. 30% of polypropylene, e.g.
- What accounts for nonparticipation and partial participation?
 - People support recycling, but they’re confused -- half say plastic bags and styrofoam go in household recycling, e.g.
 - Recycling matters, but confidence in decline – less than half believe their recyclables get made into new things
 - Communication from purchase to disposal is critical – 75% don’t recall communication about their recycling program – not designing communications that are capturing people’s attention

- EPR for Packaging laws have passed in ME, OR, CO, and CA – EPR laws being considered in 17 other states, including NY
- Recycling Partnership working to help ensure these laws get passed and get implemented effectively
- PET thermoforms (clamshells) in CA: average access rate is 72%, collection rate 23%, recycling rate 12% -- CA law is looking to achieve 65% in nine years
- Recycling Partnership launched Center for Sustainable Behavior & Impact to drive measurable improvement in residential recycling behavior and increase household participation in circular economy
- Four pillars of RP's approach:
 - Restore confidence
 - Advance equitable solutions
 - Increase capture & participation
 - Decrease contamination
- ~10,000 surveyed & 100+ interviews in 7 jurisdictions
- Audience Segmentation
 - 5 types of single-family recyclers
- Equity Gap Analysis
 - + demographics on our National Database, uncovering persistent inequalities in recycling services
- Confidence Index
 - Baseline of confidence in US recycling
- U.S. BIPOC
 - Baseline -awareness, behavior, barriers, motivators
- Ethnography
 - Journey of recyclables through homes
- Packaging / Labeling
 - Role of package and label in decisions, confusion followed by user experience of QR code
- Took this information and designed 23 interventions that were deployed in 52,127 households in 7 jurisdictions
- Audience segmentation identified 5 Groups, each with a few key traits (Single Family, Curbside)
- 49% Dedicated
 - 25% Eco Activators
 - 24% Committed Followers
- Most communications designed to reach this part of population
- Leaving behind half of population: 51% Frustrated, Confused, & Less Dedicated
 - 18% Discouraged Self-Doubters
 - 16% Detached Abiders
 - 16% Conflicted & Overwhelmed
- Erosion of confidence among younger people potential problem
- Worked to figure out how to reach the 51% part of population – team of designers developed variety of messages, then took these to people who fit motivational segments they wanted to focus on
- Came out of these focus group conversations with three messages
 - Empathetic: "We get it. It can be confusing."

- Logical: Recycling makes sense."
 - Emotional: "We have to do better!"
- Took these three messages and carried out micro-pilots in Chicago and citywide pilot in Reynoldsburg, OH
- Lot of recycling messaging right now adopts logical approach
- Pilot Design: 3 pilots testing motivational messaging delivered by cart tag and mail
- Findings: Cart tags + mailers using emotional and empathetic messages increased recycling route tons substantially.
 - Empathetic Message Group: 38% increase in average route tons (51% increase on one route)
 - Emotional Message Group: 16% increase in average route tons (38% increase on one route)
 - Logical message had no discernable impact on rate of recycling
- Looking to retest these findings with pilot in Folsom, CA
- Estimate that it will take \$17 billion investment to get recycling system where it needs to be nationally
- People are hearing that recycling is not working, so they shouldn't participate
- Believe strongly that producers need to take on responsibility and not put whole burden on people – reason why EPR laws are crucial
- Still struggling to get recycling up to par across country – people who recycle really want it to work
- Sara Culotta: A lot of people dedicated to recycling are skeptical that these materials, especially plastics, are getting turned into something useful
- Brian Eden (chat): We need to get away from plastics and go to refill over recycle model – huge battle with petrochemical industry because they need to find other ways to use oil and natural gas
- Louise: Absolutely need more waste prevention and more reuse and refill
- 9,000 different recycling programs in country, each with its own set of rules and each with its own way of messaging
- RP has built first national database of all 9,000 programs and their accepted materials list – using this database to develop new tools that provide interactive packaging information
- Rolling out pilot of test QR codes
 - 78% think QR code would make recycling less confusing
 - 74% would scan QR code to find out if a package can be recycled
 - 73% said QR code would help them trust it will be recycled into something else
 - 73% would feel better about brand's commitment to recycling with QR code
- Providing recycling managers access to database to verify information – can then be updated in real time
- Residents can then scan package QR code for updated information – packaging producer doesn't control what message is
- Currently 315 localities using hub and updating their information

Q&A

- Peter: Could you say more about the ethnography that you conduct?
- Louise: We started out with our assumptions about what we thought was happening with recycling in homes, then sent teams of ethnographers into households in San Diego and Columbus to find out what was actually happening

- Found quite a variety in systems
 - Some households have very centralized system
 - Others have distributed bins throughout home to collect materials
- Discovered that people have integrated recycling into their lives in way quite different from trash
- Outreach and education turned out to have much bigger impact than providing in-home bin, except for people who had not yet participated in recycling
- Ethnography is helping us target our interventions more effectively
- Brian Eden: Recycling plastic rate around 6% – even if we double this, still a lot of plastics around going to landfills and incinerators – also so wide variation in kinds of plastics makes it difficult to turn them into useful products
- Need to get away from plastics – endocrine disruption major problem and we’re breathing microplastics and ingesting them in our food and water
- Plastic industry talking about doubling or tripling their output – going in wrong direction when we focus on expanding recycling of plastics
- Louise: So many challenges – we need to be thinking about what kind of packaging we’re designing in first place and how we’re designing for next life
- There is so much out there that we need to pull it in and capture it
- Peter: Push for extended producer responsibility will help move us in right direction – how would expansion of NY bottle bill and increasing deposit from five cents to ten cents help or hinder your work?
- Louise: We definitely see higher rates of capture in states that have bottle bills
- We would like to test our findings about empathetic messaging in at least four more markets – would like to do this in Tompkins County or elsewhere in NY and would love to find partners to work with
- Also looking for partners to provide us with feedback on resources and tools we’ve developed

Ithaca College Energy and Climate Plans – Scott Doyle

Scott Doyle, Director of Energy Management and Sustainability at Ithaca College, discussed the IC plans for energy, reduction of GHG emissions, and climate resiliency.

- Still shaping our plans – in new role for about 15 months – an undergrad at IC as a student
- Former associate planner for Tompkins County for 15 years
- Financial sustainability major concern last few years at college – Covid has had significant impact on enrollment
- Presidents Climate Commitment signed at IC in 2007 around same time Cornell did
- Commitment to climate neutrality
 - Within 2 months, create structures to guide development of plan to achieve climate neutrality
 - Within 1 year complete comprehensive inventory of all GHG emissions
- IC Board of Trustees approved Climate Action Plan in 2009 with goal of climate neutrality by 2050 – energy roadmap developed in 2019
- IC achieved gold level in STARS last year – higher ed assessment tool to measure sustainability of institution
- EPA recognized IC for their commitment to green power for last five years and Princeton Review recognized IC as top ten green college

- Mounted Sustainability Week last year for first time in several years
- Working to reduce carbon emissions
- Scope 1 - Stationary Sources
 - Natural gas for heat and hot water
 - Gasoline and diesel for our university fleet
 - Refrigerant used for air conditioners and chillers
 - Fertilizer used for lawns and gardens
- Establishment of Energy Code Supplement in Town of Ithaca has guided IC's thinking and planning – made college look at alternative options in its projects
- Main administration building is geothermal – could IC put district thermal system in place like the one at Princeton?
- Taking close look at County's green fleet – IC fleet is about 160 vehicles – similar in size to County's fleet
- Put together roadmap for fleet electrification last year – thinking through how to expand charging stations on campus
- Scope 2 emissions: electricity from NYSEG and current supplier Direct Energy
- Scott sits on City Sustainability and Climate Justice Commission as resident – helpful in keeping up with latest IGND developments
- Thinking about how to get more local supply of renewable energy – build on 2 MW solar farm in Geneva
- Scope 2 emissions now eliminated as result of buying only green energy, primarily from out of state
- Also looking at how to reduce demand – exploring energy performance contracting opportunities – also examining technologies for reducing usage such as smart plugs
- Scope 3 emissions:
 - Faculty, staff, and student commuting
 - Business, academic, and athletic travel
 - Landfill waste
 - Paper usage
- TCAT free for students – led to significant uptick in student usage
- Also carrying out pilot to explore how Ithaca Bikeshare might work on campus – seems to be catching on without lot of publicity
- In September alone more than 1100 trips started at IC and just over 900 trips ended there – about 330 trips started on South Hill and 340 trips finished there
- Clearly lots of interest in program – will probably build up infrastructure on campus working with Ithaca Bikeshare
- First year of Jumpstart, getting first year students familiar with community off campus – Scott led group on green tour around area – great intro to community for them
- Scott wants to strengthen partnership with community as IC moves forward with its effort to drive down emissions and make campus more sustainable

Q&A

- Peter: What is thinking on campus about stormwater management? Clearly an issue with college on top of South Hill and rise in extreme precipitation events
- Scott: IC thinking through how it can strengthen and improve its retention system – issue comes up a lot in campus discussions
- Peter urged Scott to look at issue more deeply: permeable parking lots and swales – AASHE can be good resource for ideas and what other campuses are doing

- Storm management will play increasingly big role in community relations as climate change takes place
- Nick Goldsmith: To what extent could carbon sequestration be part of effort to achieve climate neutrality?
- Scott: Campus has substantial holdings in its natural lands – looking at potential for offsetting carbon emissions through sequestration
- But third party verification required before college can make any claims in this area – also need to explore what kind of practices could maximize potential
- Sara Culotta: What are possibilities for expanding resources and staff focused on sustainability?
- Scott: Thinks there's appetite for doing more along these lines and doing it well – clearly will take more than one person – discussions about how to build capacity creatively in office – encouraged by what he's heard so far
- Dawn Montanye: Pointed out CCETC's Tiny Home Powerhouse as resource on first-year student green tours – great educational tool for learning about energy efficiency and related issues
- Also brought up Way2Go program at CCETC as way to expose students to alternative transportation options available to them – already partnering with Cornell and would be happy to do so with IC
- Also noted that Three Story Farm at EcoVillage good example of water management on land – offered to connect Scott with those folks
- Nick (chat): What are chances energy manager position will be filled again?
- Scott: Not in near future due to financial constraints but thinking about how to come up with creative solutions
- Peter observed that putting sustainability at center rather than confining it to margins can help promote not just environmental sustainability but also financial sustainability