

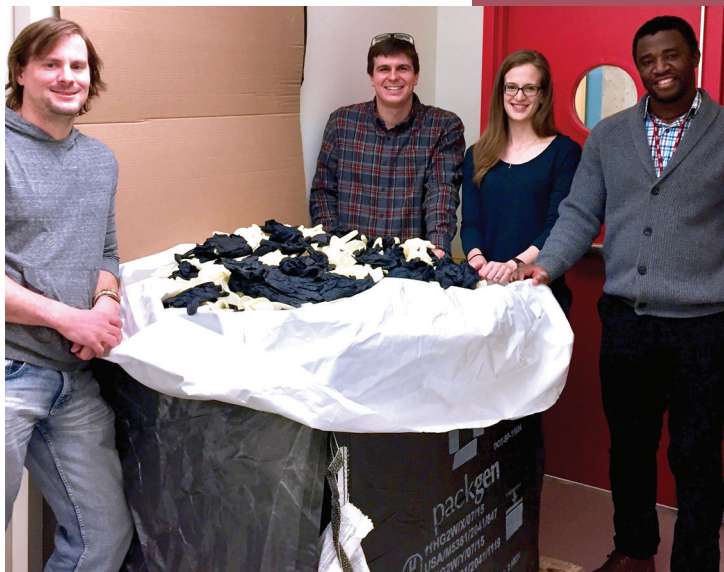


RESEARCH PROBLEM

How to engage ordinary citizens in science and technology-driven change?

SOLUTION

Develop and deploy a phone app designed to track cyclists' paths using GPS and then create a visual manifestation of the data.



RESEARCH PROBLEM

Hundreds of pounds of lab gloves are used every week in labs at MIT.

SOLUTION

Conduct a life cycle analysis on clean glove recycling to better understand the impacts on the regulated medical waste stream

OUTCOMES



TOPIC TAGS



The Learning Adventure Card Guide made possible in part by the MIT Council for the Arts



RESEARCH PROBLEM

What is the impact of MIT's campus material consumption and how can MIT optimize material flows from purchase through disposal?

SOLUTION

Develop a method for tracking all material flows and identifying the magnitude of environmental and economic impacts.

CAPITAL LETTERS STRINGS

represent the individuals/groups that originated research

ALUM Alumni

ADMIN Administrators

CLPR Class Project

COMP Competition

EXPA External Partners

FACL Faculty

IAPC Independent Activities Period

OPER Operations

SORE Student Originated Research

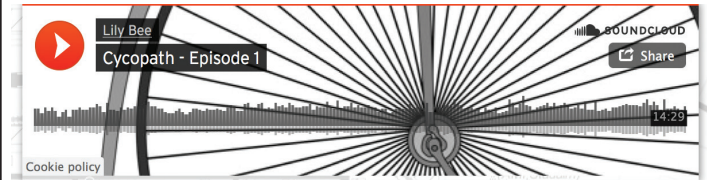
STCL Student Club

STFF Staff

REEN Research Entity



PROJECT TIMELINE
ONGOING - GREEN
ENDING - RED
LENGTH OF TIME



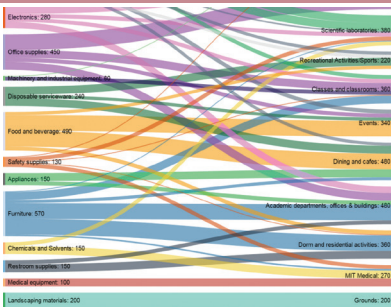
In an effort to capture the sensory experience of cycling, Bui recorded her cycling routes in Christchurch, Canterbury, New Zealand, to create a narrative of the experience.

Player: Lily Bui, MIT graduate student

The Story

Motivated by work conducted by a non profit organizations (Sensing City, I See Change) master's student Bui created a bike-mapping project that resulted in creating a phone application that allowed cyclists could input their routes that would ultimately inform urban planners about where bike lanes were most needed. The process facilitated better communication between different advocacy groups.

Contact Lily Bui at lbui@mit.edu.



Sankey Diagram illustrating material flows at MIT.

Player: Rachel Perlman (MIT Phd student)

Supporting Cast: John Fernandez (ESI), Julie Newman, Brian Goldberg (MITOS)

The Story

Rachel's PhD dissertation in MIT's School of Engineering is exploring how materials flow into, through and out of the MIT campus. Through a partnership with the MIT Environmental Solutions Initiative and the MIT Office of Sustainability, Rachel's research activities are informing how campus systems operate, perform and function. The analyses will provide MIT with the data and key findings needed for optimizing material flows via changes in purchasing and disposal behavior, policies, vendor management and material selection.

Contact Rachael Perlman @ rperlman@mit.edu



Players: Lisa Anderson, Postdoctoral Scholar
Supporting Cast: Environmental Health and Safety Office, the Green Labs Initiative, the Recycling and Materials Management Office



The Story

Lisa Anderson, Postdoctoral Scholar and a team in the Chemical Engineering Department have been exploring the process of procurement, distribution and recycling of gloves used by different labs at MIT. The challenge lies in understanding the costs for shipping gloves for recycling and the environmental impacts of gloves diverted from regular waste. Dr. Anderson has been investigating the process for collecting and shipping gloves and how to maximize recycling efforts with third party vendors.

Contact Lisa Anderson @ laanders@mit.edu

