

The Reader as Player

A Samuel Pottinger
Stat 198: IDSV
Mar 31, 2025

Acting through tools

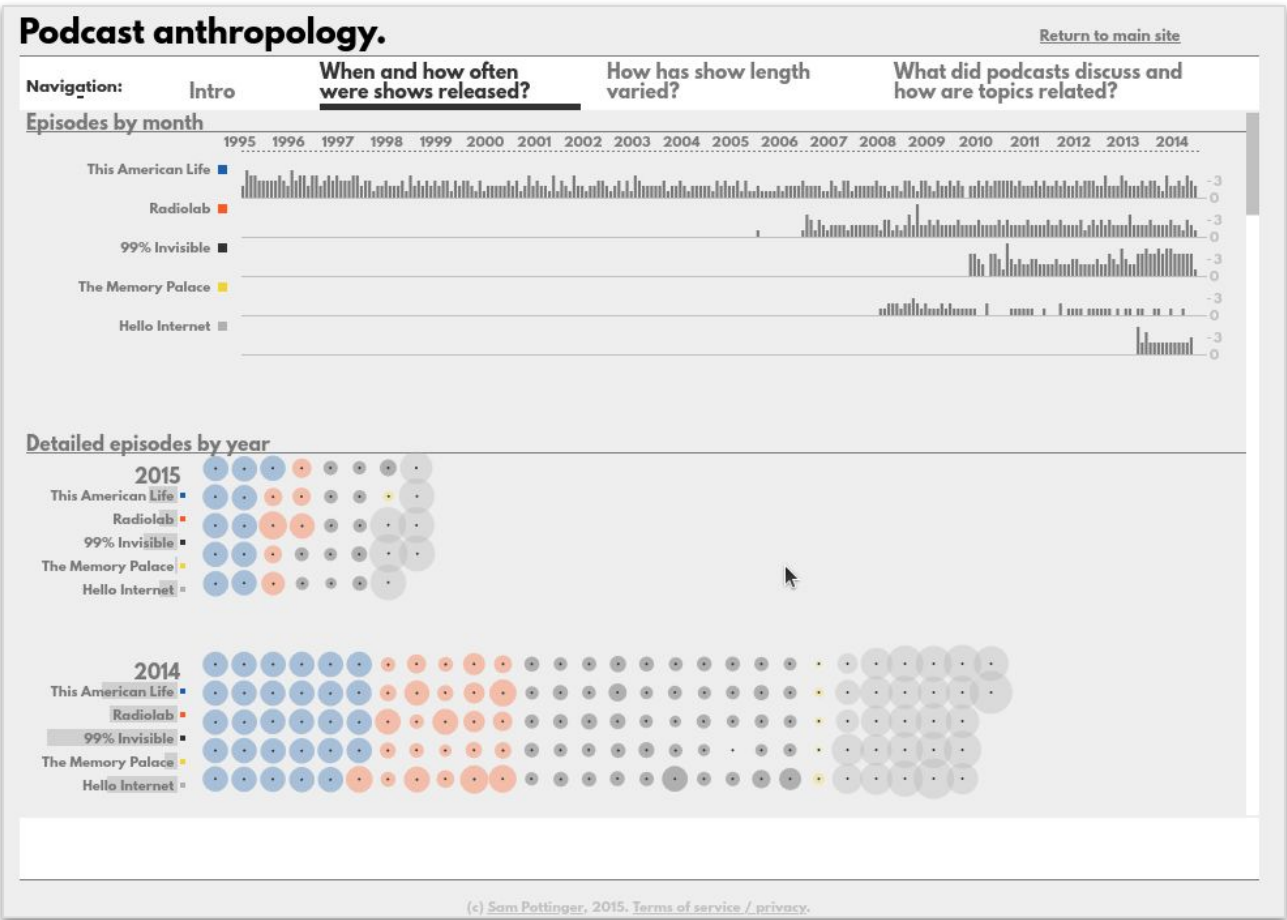


> Patterns: common interaction patterns in data visualization.

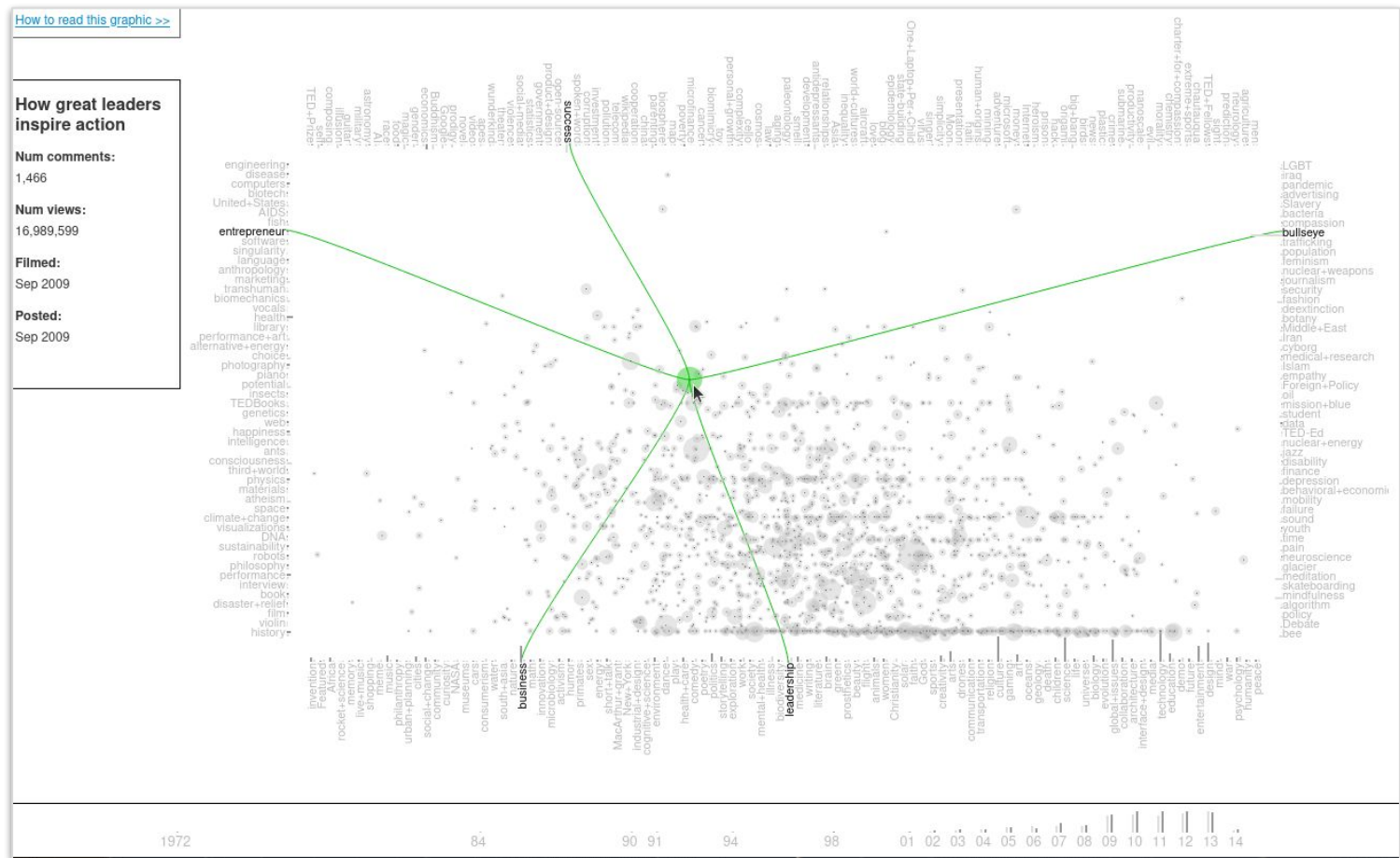
Group activity: imagine interactions in the census viz.

Formalizing affordances: a generalized language for interaction.

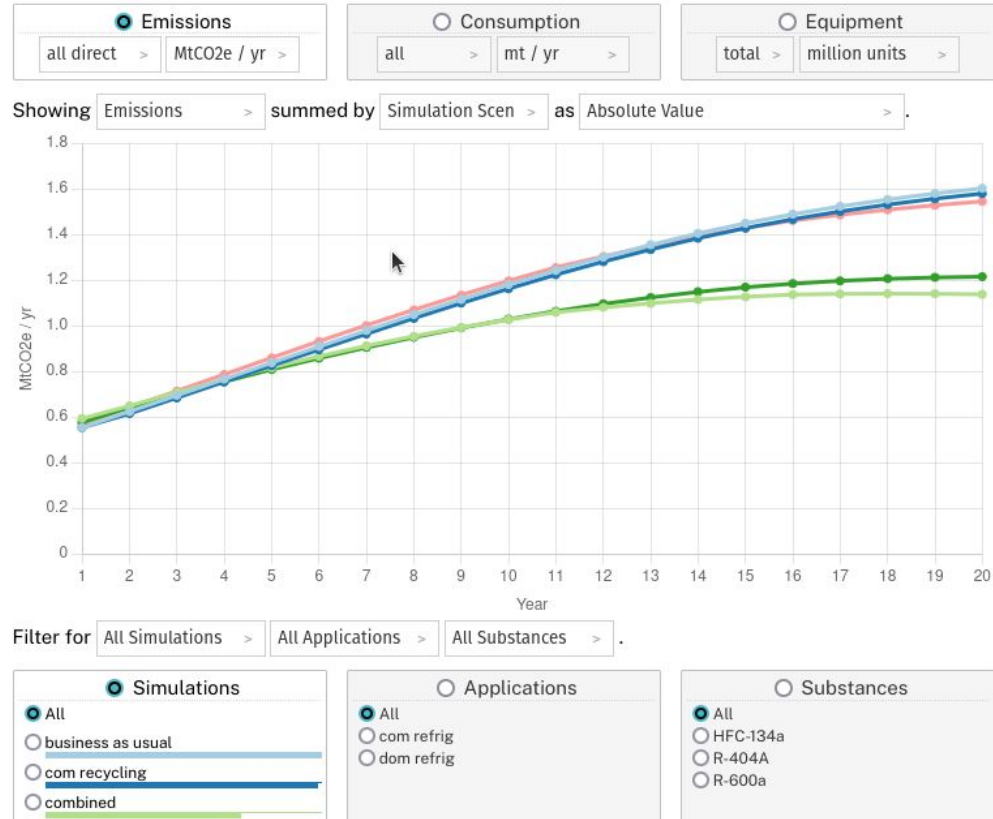
Details Disclosure



Coordinated Scrubbing



Results



Coordinated Filtering

Global Plastics AI Policy Tool

Countries are exploring ways to reduce the impact of plastic. This tool explores different policy interventions both regionally and globally.

Overview Details Simulation Settings Downloads Guide About Contents

Details Showing End of Life > In Global > at 2050 > as Annual Million Metric Tons > .

☐ Show change from baseline due to interventions.

End of Life	2050 Global
Landfill	271 Mt
Incineration	168 Mt
Recycle	127 Mt
Mismanaged	121 Mt
Waste Trade	2 Mt

☒ Show EOL

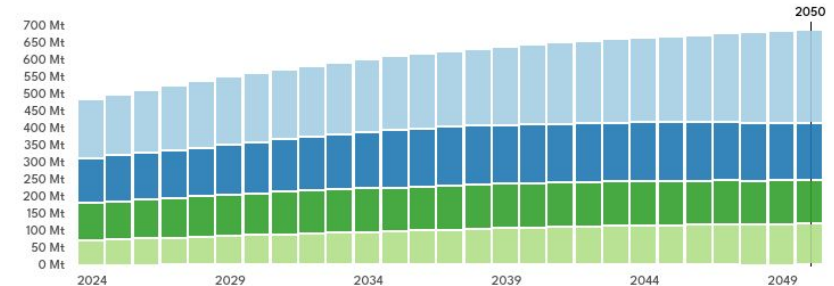
Start of Life	2050 Global
Goods in Trade	33 Mt
Virgin	646 Mt
Second	102 Mt

☐ Show SOL

Consumption	2050 Global
Packaging	219 Mt
Construction	132 Mt
Textile	119 Mt

Global Annual End of Life in Annual Million Metric Tons 🗨

☐ Historical



Landfill

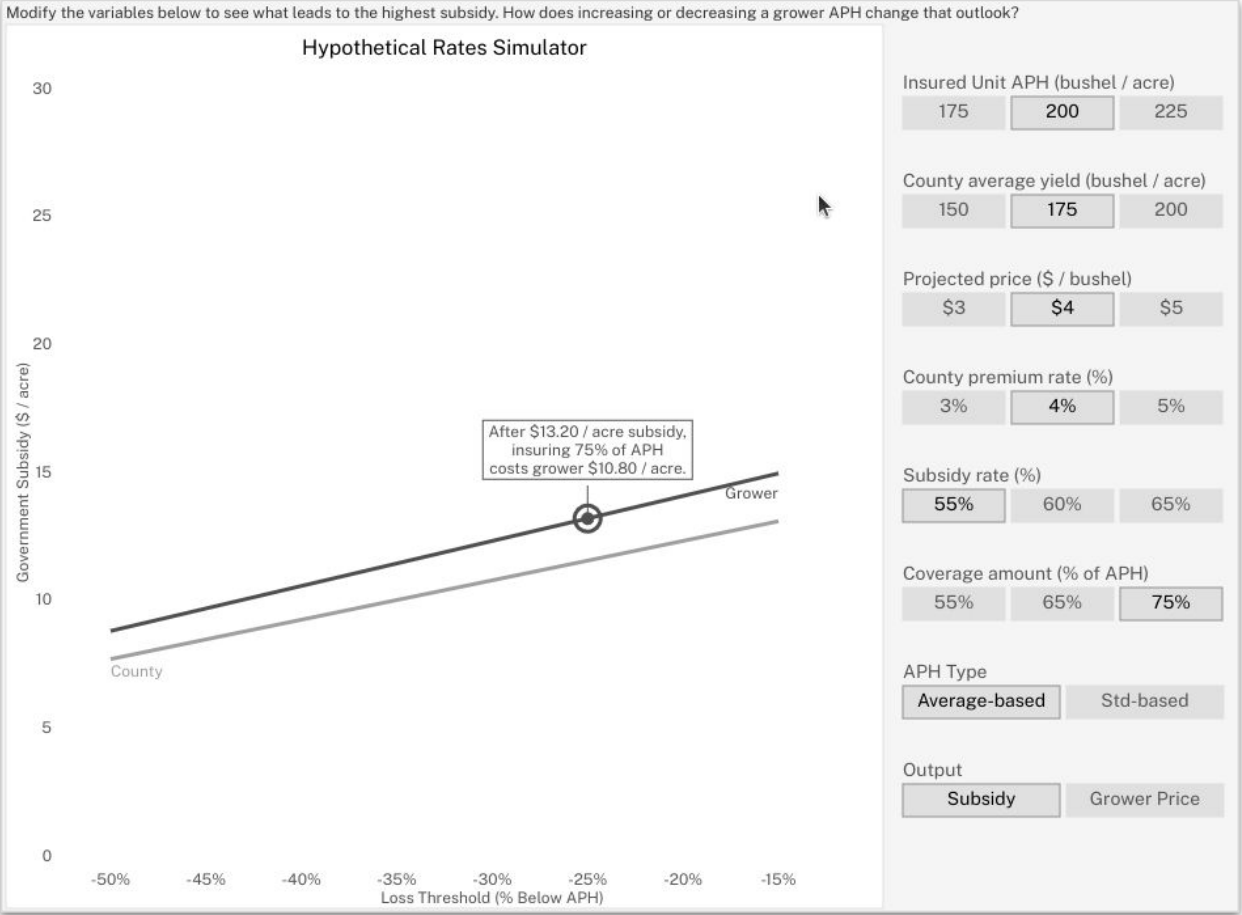


Incineration



End of Life by Region in 2050 as Annual Million Metric Tons 🗨

Configuration Panel

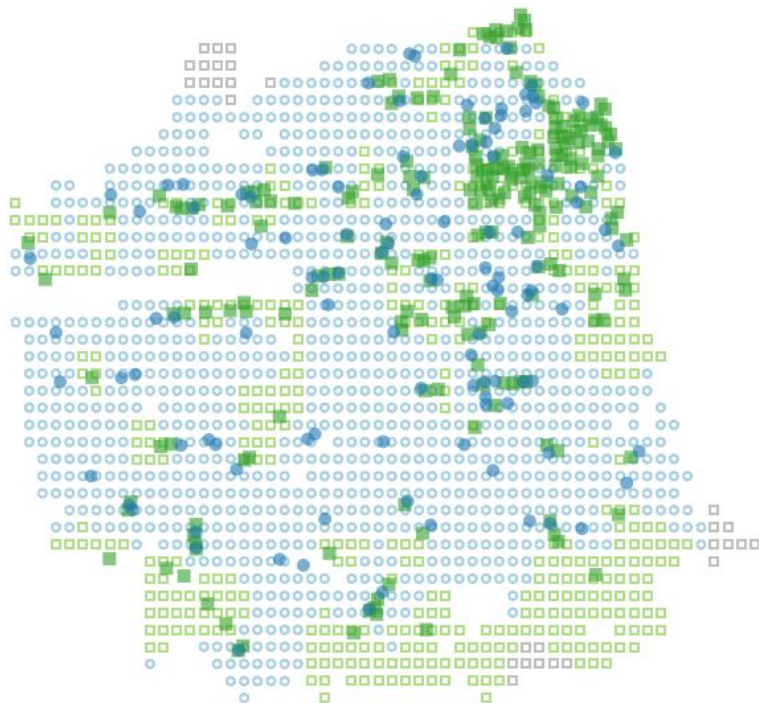


Direct Manipulation



Progress:

Keep going! You have spent 0% of your budget (0% on rezoning and construction subsidy, 0% on transit improvement and subsidy). Goal: 80% choose supermarket. You can also [reset your design and try again](#).



Summary of results:

70% choose supermarket (●)

28% choose fast food (■)

2% more than 1 mile from either (■)



0%

100%

Building subsidy / rezoning:

Left click (or tap) to construct / remove building.

- ☐ Supermarket (●)
- ☒ Fast food (■)
- ☐ Remove supermarket
- ☐ Remove fast food

Transit subsidy / improvement: 0%



Invest in transit to change how much further is someone willing to travel to get to a supermarket relative to the nearest fast food.

Today

Patterns: common interaction patterns in data visualization.

> **Group activity: imagine interactions in the census viz.**

Formalizing affordances: a generalized language for interaction.

Today

Patterns: common interaction patterns in data visualization.

Group activity: imagine interactions in the census viz.

Formalizing affordances: a generalized language for interaction.

Formalizing Affordances



Formalizing Affordances

Action + Target

Finishing Up

Road to the final.

Please fill out the survey in the Zulip.

Citations

- M. Hoekstra, "MacPaint," Geek Technique, 2007. Available: <https://www.geektechnique.org/blog/786/mac-paint.html>
- J. Portnow, "Kinect Disconnect - How NOT to do Motion Control," Extra Credits, 2012. Available: <https://www.youtube.com/watch?v=ijcezUy3ZzY>
- A. Pottinger, "Podcast Anthropology," Gleap, 2015. Available: https://gleap.org/static/special/podcast_viz/index.html
- A. Pottinger, "Ted Viz 2," Gleap, 2013. Available: https://gleap.org/content/ted_visualization_2
- A. Pottinger, "Montreal Policy Simulator," University of California, 2025. Available: <https://mlf-policy-explorer.org/>
- A. Pottinger, R. Geyer, N. Biyani, C. Martinez, N. Nathan, M. Morse, M. de Bruyn, C. Boettiger, E. Baker, K. Koy, and D. McCauley, "Global Plastics AI Policy Tool," University of California, 2024. Available: <https://global-plastics-tool.org/>
- A. Pottinger, R. Geyer, N. Biyani, C. Martinez, N. Nathan, M. Morse, C. Liu, S. Hu, M. de Bruyn, C. Boettiger, E. Baker, and D. McCauley, "Pathways to reduce global plastic waste mismanagement and greenhouse gas emissions by 2050," Science, 2024. doi: [10.1126/science.adr3837](https://doi.org/10.1126/science.adr3837)
- A. Pottinger, "FoodSim: San Francisco." 2023. [Online]. Available: <https://foodsimsf.com/>
- J. Portnow, "Affordances - How Design Teaches Us Without Words," Extra Credits, 2014. Available: <https://www.youtube.com/watch?v=QCSXEKHL6fc>
- A. Pottinger, L. Connor, B. Guzder-Williams, M. Weltman-Fahs, N. Gondek, and T. Bowles, "Climate-driven doubling of U.S. maize loss probability: Interactive simulation with neural network Monte Carlo," JDSSV, 2025. doi: [10.52933/jdssv.v5i3.134](https://doi.org/10.52933/jdssv.v5i3.134)

 **CC BY-NC-SA 4.0**