systems-thinking.md 2025-02-20

Systems Thinking Visualizations

Work in your randomized groups of 3.

Chest Freezer Visualization

Make a systems diagram showing as much as you can about a standard chest freezer. Be sure to connect parts and describe their relationships!

Add two perspectives, the main user, and the product design engineer (i want you to think about things regarding the mass production of the product, as well as other things the design engineer may find important).

Here are some of the main features that the freezer has. Infer what other parts/features the freezer needs to complete functions, or what other parts/features are part of a standard freezer:

- 1. Heat Pump (A single heat pump)
- 2. Thermostat (A single thermostat)
- 3. A light that turns on when the lid is opened
- 4. A fuse to prevent over current

Media system

1. Make a systems diagram that visualizes, from your view, the main-stream media system.

Be sure to have parts that are distinguished, parts that make up larger parts, relationships between the parts.

- 2. Now add a perspective on the system from someone in the "ruling class". From YOUR perspective, show the points of THEIR perspective.
- 3. How can a working class member's perspective on the system be looped into the system itself? Find 2 ways one can loop their perspective into the system that would ultimately benefit the ruling class, and one way that the perspective loop would benefit the working class. Recognize that this visualization is coming from YOUR perspective!

Generative AI systems (LLMs)

- 1. Make a systems diagram that shows your perspective's depth of the Generative Al Large Language Model proliferation in the world.
- 2. Any conflicts of interest? (Point these out using the perspective tool)
- 3. What cognitive feedback loops exist with an AI?
 - Noting that a positive feedback loop does not mean "positive outcomes" but instead is regarding the ever increasing growth of the state of the feedback loop (where as negative feedback is regarding the attempt to hold something stable, not a "negative outcome")
 - Describe these feedback loops (using the perspective tool) as positive/negative, and attempt to validate your claims.