



Representation Gallery

a place to view every point of view

Today

- *Representation design* isn't yet a recognized field of study. (Encompassing the design of languages, notations, visualizations, models, metaphors, transforms, and all other "particular ways of viewing and working with a concept".)
- There are a few established subfields, such as visualization design or programming language design, with resources such as Tufte's books. But most representations (for example, notations for systems biology circuits) are designed ad hoc, uninformed by any sort of design theory or understanding of what makes for effective notation.
- Some fields, such as semiotics, study a theory of representations, but don't seem useful for designing new ones.

Vision

- To invent powerful dynamic representations, and especially to invent a medium and tools where domain workers can design their own domain-specific representations, a deep understanding of representations will be helpful. An initial step is a **corpus**, from which powerful ideas can be recognized and abstracted. Only by seeing many representations of something can one come to see the concept of representation itself.
- The representation gallery is a spatial environment that brings together representations **of all kinds, across all fields**. Today, for example, notations for "events in time" are scattered across music, digital logic, chemistry, comics, and other fields. By bringing them all into view at once, the viewer sees common patterns, cross-pollinates ideas, and begins synthesizing the beginnings of a design theory.
- The gallery emphasizes **generalization** (going up from specific examples to an abstracted pattern), **instantiation** (going down from an abstraction to specific examples), and **analogy** (diverse examples of the same pattern).

