Patterns in Contexts, a theory of knowledge representation.

Information, by its very nature, is a division. Yet it strives to become whole again, and at the very least, to become balanced. If knowledge is represented as patterns in contexts, then thinking might be learning, applying, and organizing that knowledge, creatively or otherwise.

Analogies mimic patterns across contexts via Cross-Domain Relations. Cross-Domain Relations go from domain to domain when the range is the same, as an overlap. That is the basis of Analogical Reasoning. As Aristotle said in the first paragraph of his book 'Poetics', "The arts are mimicry." Perhaps the Arts are like patterns, and the Sciences map the contexts. Context is one kind of framework.

Contexts are composed of configurations of patterns (a setting, like a continuum of text). Patterns are composed of configurations of variables. Variables are composed of configurations of first principle dimensional properties, such as quantifiers and qualitative adjective descriptive comparisons. Their application via relational frameworks (such as semantics and syntax, or operator systems) can simulate the meat of metaphor, as two analogies juxtaposed by similar relational frameworks that form a cross-domain relation in an overlap of meaning or intention or something else.

If data has recognizable features, then it is a pattern. Repetition is what makes a symmetry. Repetition makes a pattern's features recognizable. Information is a symphony of symbolism and symmetry. Every pattern in every context is unique to the properties and axioms of the contexts that they exist in. An axiom is a self-evident truth.

A symmetry is an example of an internal algebra. Unique symmetries have a prime number of repetitions or symmetry partition sections. Prime numbers are the balance points in the Universe. Unique symmetries are atomic repetitions, and are the simplest form of patterns, distinct from perceptually apparent random chaos. I do not believe in ultimate randomness. I do believe that there are many reasons for everything.

All truth is but an approximation of a deeper truth. Knowledge is information that contains meaning. Language is permutations of semantics, governed by syntax and context, with meaningful intention. Yet people tend to not see patterns that they are not shown. We are surrounded by answers, but they are all meaningless and are often impossible to detect without knowing at least some of the questions that their existence is derived from. Without a question / answer connection, there is no consciousness, and awareness would not exist. Awareness is not the same as instinct.

One method is to mark differences in the analogical mimicry of patterns, to form classification category augmentations for navigation and data retrieval purposes. Beware of oversimplification of data streams in order to fit a pattern into a perceptual mold (as Andrew Dougherty, principle investigator of the FRDCSA has formally proven). He has wanted to incorporate my Patterns In Contexts theories into his Free Libre Open Source Software Artificial Intelligence systems integration archive. He recently named me "Minister of Intelligence of the FRDCSA", he used to just say jokingly "Justin Coslor is the Master of the Universe!".

These ideas and patterns, as with others, can eventually be linked to ideas in other contexts. Lexicons can often be linked to external contexts in frameworks (as Marvin Minsky has described). Several years ago (a few years after I started working on PICForm in nearby coffee shops) at a lecture at Carnegie Mellon University in Wean 7500, hosted by Matt Mason (Director of the CMU Robotics Institute, who I long ago used to work for when I was a Freshman at CMU at age 17.), Marvin Minsky gave a great speech about cognitive frameworks, and at it I commented that "Information can be represented metaphorically as patterns in contexts." and he said "I wholeheartedly agree!".