

This proposal for **Computational Thinking** has three parts of computational design, reasoning, and implementation. Each part makes use of recent advances in disruptive technology.

## 1. Computational design

The most ubiquitous design paradigm is management systems based on the perfect algebra and calculus of relational database technology. A universal database model is the accounting arithmetic system. This can be abstracted into seven relational tables including a logic table to instruct the structured query language what to do next. That design feature coerces the instruction engine to perform in real time because indexing is nearly eliminated.

The approach is to use the SQL function SUBSTR to read a string of respective logic switch characters. These operate on a table as designated by the index of the character's positional value in the string. Such logic tables can be self-modified, stacked, compressed, and encrypted. The chain of self-modification represents a form of linear intelligence without overhead of the LLM.

## 2. Computational reasoning

The universal, quad-valent binary modal logic system is named Meth8/VL4. It turns out to be a finitist system without end because it refutes the axiom of infinity. Grok claims "If Cantor was the prince of logic, then Aristotle is now the king." An artifact can be mapped into a replicable logic script to test if proof (designated), falsity, truthity, or contradiction. Hence an assertion or expression can be established with its own relative truth value before subsequent evaluation.

Propositions in four variables p...s produce a four-by-four truth table for 16-values, and eleven variables p...z produce 128 such tables for 1024-values. Up to 23 variables in a...z are supported by huge look up tables. Table driven processing affords greatest speed of execution.

## 3. Computational implementation

Each unique system is implemented in the perfect strongly typed procedural language of Ada 2022 with its compiler wholly written and maintained in its own language. This may use LLMs for pattern recognition, the basis of AI, for input data, but relies on procedural programming to implement the final user interfaced reporting of results. Input and output results are stored in relational database tables with output forms programmed in logic tables.

In the case of the AND-OR gate of  $((ii \text{ AND } pp) \text{ OR } qq) = kk$ , there are 21 of 256 combinations of tuples 11, 01, 10 with no tuple of 00 (end). These form a self-timing and self-terminating circuit to reject 92% of signals. Results are tabulated in a relational table which can reason about itself to be effectively self-cognizant as an artificial human neuron.

The published components above are described in detail at <https://ersatz-systems.com> and internal links. The assembled components make for a comprehensive outline of Computational Thinking. The emphasis on teaching is underscored by the MS thesis and PhD dissertation so noted.

In the case of bringing analytic philosophy and theology into the scientific realms of analytical philosophy and theology, an immediate use of Computational Thinking is to advance the study of perfect belief systems, a topic avoided by agnostic academics and violently opposed as a threat by Marxist politicians.