

Triviality of Computation Dilemma

Quotes from Gian-Carlo Rota, **Indiscrete Thoughts**:

"The philosophy of mathematics carries out its work by focusing on the correlation between mathematical things and mathematicians." Robert Sokolowski, p.xiii

That is, between the object-concept of mathematical items (which may or may not exist in a Platonic world independent of our minds) and the process-concept of mathematical minds.

"Of all escapes from reality, mathematics is the most successful ever. It is a fantasy that becomes all the more addictive because it works back to improve the same reality we are trying to evade. All other escapes -- sex, drugs, hobbies, whatever -- are ephemeral by comparison." p.70

"Not only is every mathematical problem solved, but eventually every mathematical problem is proved trivial. The quest for ultimate triviality is characteristic of the mathematical enterprise." p.93

Computer Science deals with a trivial subset of mathematical triviality by excluding the sacred concept of Infinity and the mysterious concept of Void, and even by minimizing *intractable* (i.e. non-polynomial, search-based, mathematically interesting) complexity. Computer Science (at least Artificial Intelligence and Cognitive Science) pretends that the mind is like a computer, so that the issues of complexity of mind and of humanity can be conveniently ignored or forgotten.

Computer Science engages in an extreme of abstraction neurosis, let's say **abstraction psychosis**, by constructing the narrowest of worlds (binary bit-streams which interact only over timed Boolean networks), and then by suggesting that this extreme reduction is somehow whole, and somehow reflects physical reality. In fact, computation addresses only **trivial trivialities**.

Questions

How can humanity become so enamored with a technology that it forgets the reality within which it is embedded?

Why are we so ready and able to limit our experiences to a small screen of phosphors and a tableaux of a few dozen labeled keys?

How can our minds so easily confuse a pixel array with fully visceral experience? Confuse an email exchange with fully interactive human dialog? Confuse digital information processing with bodily experience?

What is the ethical dimension to these questions?