

This article, which appeared in the magazine *Information Strategy*, is a reworking of my earlier article 'Intelligence: Logical or Biological' that appeared in the *CACM*. See previous.

## **The KNOWLEDGE SCAM**

Through automation, capital has vanquished organized labour; increasingly it is destroying (re-engineering) service and office jobs. It was inevitable that the owners of company equity would try to automate intellectual labour, and so avoid the indignity of having to make excessive payments to mercenary knowledge workers, those talented individuals whose innovative skills ultimately create the profits of their companies. Naturally, capital is looking to computerization in its battle to de-skill intellect, but in doing so it will find itself sucked into the myth of synthesized knowledge, the 'knowledge scam.'

Ironically, within this myth computing has reached the limits of its applicability. Computing, the high point of the machine age, the ultimate automating technology and the destroyer of all jobs requiring physical strength, is fundamentally flawed. Paradoxically applied computing is totally dependent on intellectual labour. Information and knowledge, the sole prerogatives of the knowledge worker, are the keys.

Many of the developers of so-called 'intelligent systems' have not yet grasped this reality. They see themselves at the forefront of the new technology that is spawning 'Cyberspace,' and yet they are drenched in the mind-set and ritual of the defunct machine age. Theirs is an arrogance that persists in spreading the malignant lie, that knowledge and intelligence can be disembodied, discerned through the application of logic and mathematical models, and finally automated. Bunkum! This is just the latest in a long line of nonsense, of 'knowledge engineering,' 'data mining' and 'inference engines,' that has been inflicted on a world made gullible through ritualized technology. Mega-millions of dollars have been wasted in the 'knowledge scam,' the futile quest to categorize common sense knowledge and basic human intelligence in this daft way. Thankfully it will soon be dumped in the garbage bin of technological history.

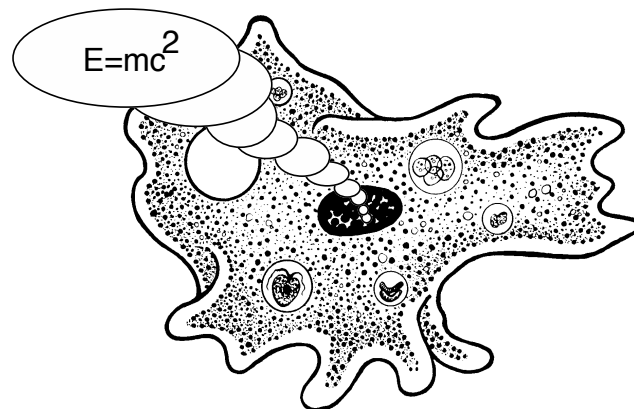
The technophiles and much of their technocracy, riddled as it is with machine age bigotries, will also be swept aside. Technology supremacists are merely the 'navvies' building the superhighway and the 'grease-monkeys' servicing the vehicles that travel along it. They fail to see that intelligence is not a drab and inert collection of 'if-then-else rules' and 'structured queries' traversing synthesized knowledge stored in tree structures. The Tree of Knowledge is not a data structure! Such 'bubbleware,' of circles and arrowed lines pretending to give meaning to the words scribbled alongside, is about to burst.

These technophiles hold the very peculiar beliefs that the mind is a machine, and that rigidly mechanistic and logical thought is virtuous. They are irritated by human failings that squander the true and wonderful enlightenment of logic. Proselytes know that these failings can only be righted by the creation an intelligent machine, a machine untouched by Original Sin. Heaven on Earth is possible, but only by imposing a synthetic intelligence on humanity, an intelligence disembodied and then automated.

These technophiles refuse to accept that humanity has become successful despite this rigid way of thinking, not because of it. Success can be achieved through transcending logic - only

the drab obey logic without question. There are occasions when it is intelligent to be illogical – to act, to react instinctively. “The music is not in the notes” (Charles Ives); it is in the musician. Intelligence is not in the machine. It is in the head of the symbolic analyst. Knowledge is not in the data, it is in our awareness of that data. Intelligence is our ability to recognize the significance in what we know, and to understand, reason and learn to adapt to, and profit from, new situations.

Intelligence and knowledge are not something that can be tuned into. Linked inextricably, they are our inheritance from distant ancestors, even from those amoebae in the primaeval slime. They are the contrived and coarse systematization of sense data and biochemical input that enable us to make our way in a hostile world. They are highly personal. Intelligence dictates on our observations so that we can interpret and make sense of them, and the emergent knowledge feeds back to reinforce and hopefully enhance intelligence. This feedback loop is entangled, not only in the uniqueness of each individual’s experience, but also in an evolutionary spiral, genetically restricted and limited by “*the curriculum of an earlier mankind*”<sup>1</sup>.



Did those amoebae know the truth about things? Of course not! Nor does humanity. There was no magic moment when, on the path of human evolution, our progenitors were given the keys to the kingdom of knowledge. Intelligence has not been perfected into some ‘state of grace.’ It is the result of feedback and the totality of effects, the choices made by, and the constraints imposed on, individual experience and on our ancestors’ in humanity’s quest for survival at every stage of development. Our means of thought was never its original function. Intelligence and knowledge are mere side-effects of survival and the way we deal with our environment. “*Only very naive people are capable of believing that the nature of man could be transformed into a purely logical one.*” “*The world is logical because we made it logical.*” We made it logical in the eons of feedback that is life on earth. It is sobering to consider that we share a common ancestry of interpretation with that single cell! That human evolution has spawned logic, mathematics and technology from this base, does not mean that we can control the “*flux of becoming*” within reality, any more than the amoebae can.

We are trapped in our mode of thinking; forced to build within a framework of cyphers that is knowledge, a cage set down before the dawn of intelligence. “*Just as certain human organs recall the stage of evolution of the fish, so there must also be in our brain grooves and convolutions that correspond to that cast of mind: but these grooves and convolutions are no longer the riverbed along which the stream of our sensibility runs.*” We have merely

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<sup>1</sup> All the italicized quotations in this essay are taken from translations by W. Kaufmann and by R.J. Hollingdale of the works of Friedrich Nietzsche (1844-1900).

developed upon the fishes' eye view of the world, and cultivated a more sophisticated schema. Darwin and his contemporaries were only too aware that his evolution theories held this nihilistic message. They knew that the real argument was far more profound than the sideshow of our descent from the apes. They knew that evolution held a *reductio ad absurdum* rejection of any formal understanding of intelligence. Why has our own age forgotten this? Perhaps it is appropriate that we choose not to know that there is no knowing about knowing? "*How should a tool (our intellect) be able to criticize itself when it has only itself for the critique*"; "*how can we look around our own corner?*"

Logic is a fiction of intellect; it is a systematization of cyphers that prejudices us in the belief that our sensations show us the truth about things, about reality. But delusion can be effective nonetheless. Those amoebae developed reactive interpretations of their environment, enabling them to survive and prosper. Humanity also. At each stage in the feedback of our development a logic was formed that was sufficient for the effective interpretation of sense data. "*Not to know but to schematize - to impose upon chaos as much regularity and form as our practical needs require.*" Our cyphers describe things, and describe them well. They describe and designate in a way that is useful. The human brain created logic because it was useful, not because it was true – despite the theory, and not because of it. But although useful, "*what convinces is not necessarily true, it is merely convincing.*" What convinced us there and then, need not convince us here and now, everywhere and everywhen.

It is not necessary to convince ourselves of the universal validity of logic merely in order to apply it appropriately. "*Logic was intended as facilitation; as a means of expression and not as truth; only later did it acquire the effect of truth.*" "*Our intellect is a consequence of the conditions of existence,*" a culmination of feedback in this species' successful (to date) quest for survival. Human intelligence is tied to life; then it is biological, genealogical rather than logical. Then human intelligence cannot be separated from what is the human total. Logic is a product of intelligence, but the perverted causality of machine age thinking would have us believe that intelligence is a product of logic. 'True' and 'false' are merely artificial concepts born in a successful feedback, themselves sometime-appropriate misinterpretations. Logic contrives to make simple, to make consistent, that which is not.

The methods of this science (or rather this pseudo-science) so prevalent nowadays, and spouted by a 'management culture,' are not going to help us walk the tightrope stretched above the abyss that is the future. Many of our rituals have evolved to be optimal in the Machine Age, but will they help us cope in the Information Age? Our overuse of measurement in 'knowledge management' is just misplaced ritual, as is computerization, as is 'auditing' (mere output measurement), as is command and control systems: all 'rain-dances,' pretences that we understand our world and are in control of it. Methods are magic wands pretending to keep everything ordered and tidy by banishing all the 'evil spirits' to limbo. "If it can't be measured, it doesn't exist" (Lord Acton).

The most important things in life, in business, can't be measured, and what is being measured is often irrelevant – the only reason it is being measured at all is because it can be measured, and only ritual makes that important. We possess merely "*a convincing criterion of reality in order to misunderstand reality in a shrewd and advantageous manner.*" The concept of comparison that pervades all such thinking is fundamentally flawed. "*Error is a condition of observation in general.*" "*The presupposition that there are identical things, that the same thing is identical at different points of time,*" the idea of 'sameness,' the seed of equality and enumeration, and thus of logic, was merely appropriate in our evolution. We are trapped in

that evolution. We must accept ‘sameness,’ and hence ‘number,’ as a practical choice with circumscribed appropriateness, while at the same time denying its validity. This is only a problem to those who insist on the logic of ‘false opposites,’ grounded in sameness. The logic of mathematics is just idiosyncrasy, mere self-indulgent over-sophistication. Mathematics is not universally appropriate. Was it ever? And the ‘knowledge scam,’ the bastard child of logic, the last bastion against the economic mercenary, is error compounded on error.

Just get on with it, and refuse to play by the rules of the logicians. Be confident in your own individual self-decided designations of appropriate and inappropriate. Accepting complexities and ambiguities in the unknown and unknowable is what successful ‘humans’ do all the time. Ambiguity is only a problem when we think about it within the cage of logic; only then does ambiguity make us rigid and we cease to function. But life is on ‘the edge of chaos,’ and so ambiguity is part of life. The people who need certainties, do so because they have no joy in life.

Successful individuals are supremely confident in their scarcity value; there will be no automation of their intellect; no short cut to their skills. They know about people, they know about manipulating people, which is far more important than knowing about technology. Their cynical stance will make them invincible in their conquest of cyberspace. To them, a cyberspace is not an off-planet experience, it is merely the delivery mechanism for cyphers, cyphers that will be used to add value to every business deal. The high-tech medium has only changed the form and scale of that delivery, albeit differently and better. Technophiles claim to see these cyphers floating around in a cyberspace, but there is no world of cyphers out there; the information content of cyphers does not exist in some mystical dimension, some cyberspace. Information is the same as it always has been, something reserved for the planet-bound human brain, to communicate between people within human society.

Still very much down to earth, cyphers are “*Human all to Human,*” abstractions in a ‘cypherspace’ rather than ‘cyberspace.’ This is the same ‘cypherspace’ that humanity has always inhabited, only now the technophiles have inadvertently given the innovative knowledge worker the means to travel around it at warp speed. They see through the ‘knowledge scam.’ The battle for cyberspace is all over bar the shouting.

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