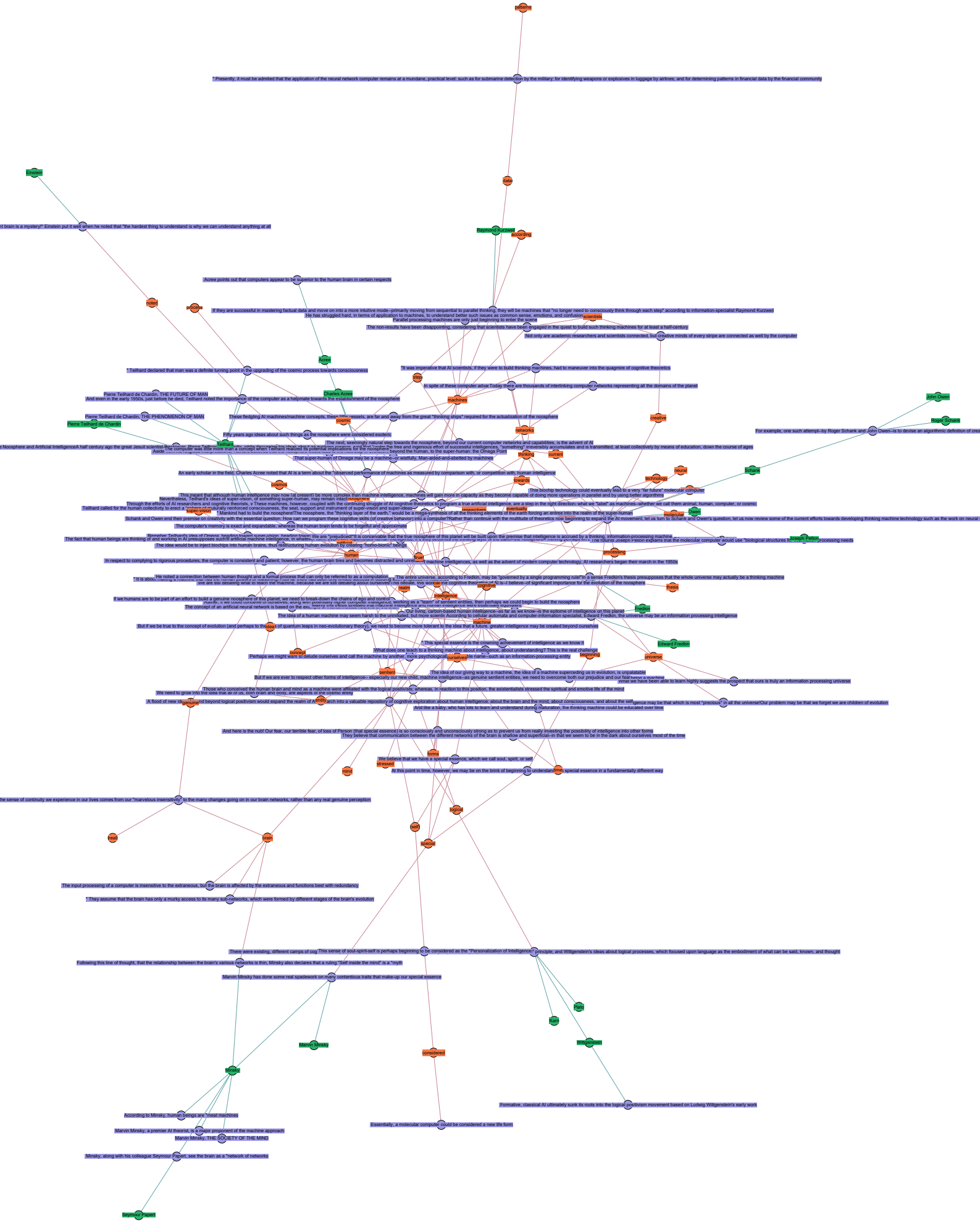
patterns
"Presently, it must be admitted that the application of the neural network computer remains at a mundane, practical level: such as for submarine detection by the military; for identifying weapons or explosives in luggage by airlines; and for determining patterns in financial data by the financial community
data
Einstein
t brain is a mystery!" Einstein put it well when he noted that "the hardest thing to understand is why we can understand anything at all
Raymond Kurzweil
according
Acree points out that computers appear to be superior to the human brain in certain respects
noted
problems
If they are successful in mastering factual data and move on into a more intuitive mode--primarily moving from sequential to parallel thinking, they will be machines that "no longer need to consciously think through each step" according to information-specialist Raymond Kurzwei
He has struggled hard, in terms of application to machines, to understand better such issues as common sense, emotions, and confusion
scientists
Parallel processing machines are only just beginning to enter the scene
The non-results have been disappointing, considering that scientists have been engaged in the quest to build such thinking machines for at least a half-century
Not only are academic researchers and scientists connected, but creative minds of every stripe are connected as well by the computer
Acree
"Teilhard declared that man was a definite turning point in the upgrading of the cosmic process towards consciousness
It was imperative that AI scientists, if they were to build thinking machines, had to maneuver into the quagmire of cognitive theoretics
step
In spite of these computer adva Today there are thousands of interlinking computer networks representing all the domains of the planet
Pierre Teilhard de Chardin, THE FUTURE OF MAN
Charles Acree
And even in the early 1950s, just before he died, Teilhard noted the importance of the computer as a helpmate towards the establishment of the noosphere
machines
john Owen
Pierre Teilhard de Chardin, THE PHENOMENON OF MAN
These fledgling AI machines/machine concepts, these mere vessels, are far and away from the great "thinking ships" required for the actualization of the noosphere
poetic
creative
roger Schank
Pierre Teilhard de Chardin
networks
For example, one such attempt--by Roger Schank and John Owen--is to devise an algorithmic definition of crea
Fifty years ago ideas about such things as the noosphere were considered esoteric
The next, seemingly natural step towards the noosphere, beyond our current computer networks and capabilities, is the advent of AI
Teilhard
e Noosphere and Artificial IntelligenceA half century ago the great Jesuit scientist-the computer was little more than a concept when Teilhard detailed its potential implications for the noosphere-the free and ingenious effort of successful intelligences, "something" irreversibly accumulates and is transmitted, at least collectively by means of education, down the course of ages
Aside
beyond the human, to the super-human: the Omega Point
That super-human of Omega may be a machine--or wistfully, Man-aided-and-abetted by machines
thinking
current
An early scholar in the field, Charles Acree noted that AI is a term about the "observed performance of machines as measured by comparison with, or competition with, human intelligence
neural
Budget
technologi
towards
cognitive
This biochip technology could eventually lead to a very "far future" molecular computer
This meant that although human intelligence may now (at present) be more complex than machine intelligence, machines will gain more in capacity as they become capable of doing more operations in parallel and by using better algorithms
Nevertheless, Teilhard's ideas of super-vision, of something super-human, may remain intact
noosphere
Through the efforts of AI researchers and cognitive theorists, ♦ These machines, however, coupled with the continuing struggle of AI cognitive theoretics to program a true artificial intelligence, are a step in the right direction: what we "label" as machines--whether we call them animal, human, computer, or cosmic
researchers
eventually
Teilhard called for the human collectivity to erect a "culturally reinforced consciousness, the seat, support and instrument of super-vision and super-ideas
super-vision
"Mankind had to build the noosphereThe noosphere, the "thinking layer of the earth," would be a mega-synthesis of all the thinking elements of the earth forcing an entirea into the realm of the super-human
Schank
provides
Schank and Owen end their premise on creativity with the essential question: How can we program these cognitive skills (of creative behavior) into a computer?Rather than continue with the multitude of theoretics now beginning to expand the AI movement, let us turn to Schank and Owen's question, let us now review some of the current efforts towards developing thinking machine technology such as the work on neural
The computer's memory is exact and expandable, whereas the human brain tends to be forgetful and approximate
Remember Teilhard's idea of Omega, heading toward super-vision, heading toward
We are "prejudiced!" It is conceivable that the true noosphere of this planet will be built upon the premise that intelligence is accrued by a thinking, information-processing machine
The fact that human beings are thinking of and working in AI presupposes such!If artificial machine intelligence, in whatever form, is to be realized, it will be the result of the efforts of human beings. The futurist Joseph Fenton explains that the molecular computer would use "biological structures for information processing needs
joseph Fenton
The idea would be to inject biochips into human brains, thus restructuring human evolution by creating "homo-bionic" beings
human
processing
In respect to complying to rigorous procedures, the computer is consistent and patient, however, the human brain tires and becomes distracted and unreliable
machine intelligences, as well as the advent of modern computer technology, AI researchers began their march in the 1950s
He noted a connection between human thought and a formal process that can only be referred to as a computation
The entire universe, according to Fredkin, may be "governed by a single programming rule!" In a sense Fredkin's thesis presupposes that the whole universe may actually be a thinking machine
We are still debating what to teach the machine, because we are still debating about ourselves! His debate, this worry-the cognitive theoretics of AI is--I believe--of significant importance for the evolution of the noosphere
cognitive
realm
theos
If we humans are to be part of an effort to build a genuine noosphere of this planet, we need to break-down the chains of ego and control
intelligence
Perhaps, if we could concerve of ourselves, along with potentially higher computer intelligence, Working as a "team" of sentient entities, then perhaps we could begin to build the noosphere
The concept of an artificial neural network is based on the ex
Our living, carbon-based human intelligence--as far as we know--is the epitome of intelligence on this planet
Fredkin
The idea of a human machine may seem harsh to the uninitiated, but more scientis According to cellular automata and computer-information specialist, Edward Fredkin, the universe may be an information processing intelligence
But if we be true to the concept of evolution (and perhaps to the fact of quantum leaps in neo-evolutionary theory), we need to become more tolerant to the idea that a future, greater intelligence may be created beyond ourselves
machine
This special essence is the crowning achievement of intelligence as we know it
Edward Fredkin
What does one teach to a thinking machine about intelligence, about understanding? This is the real challenge
Perhaps we might want to delude ourselves and call the machine by another, more psychological
ourselves
beginning
universe
sentient
The idea of our giving way to a machine, the idea of a machine superceding us in evolution, is unpalatable
But if we are ever to respect other forms of intelligence-- especially our new child, machine intelligence--as genuine sentient entities, we need to overcome both our prejudice and our fear
what we have been able to learn highly suggests the prospect that ours is truly an information processing universe
Those who conceived the human brain and mind as a machine were affiliated with the logical positivists, whereas, in reaction to this position, the existentialists stressed the spiritual and emotive life of the mind
We need to grow into the idea that all of us, both brain and body, are aspects of the cosmic entity
A flood of new ideas and beyond logical positivism would expand the realm of AI
genuine
And like a baby, who has lots to learn and understand during maturation, the thinking machine could be educated over time
And here is the nub! Our fear, our terrible fear, of loss of Person (that special essence) is so consciously and unconsciously strong as to prevent us from really investing the possibility of intelligence into other forms
They believe that communication between the different networks of the brain is shallow and superficial--in that we seem to be in the dark about ourselves most of the time
forms
We believe that we have a special essence, which we call soul, spirit, or self
stressed
mind
At this point in time, however, we may be on the brink of beginning to understand this special essence in a fundamentally different way
he sense of continuity we experience in our lives comes from our "marvelous insensitivity" to the many changes going on in our brain networks, rather than any real genuine perception
logical
real
brain
spirit
The input processing of a computer is insensitive to the extraneous, but the brain is affected by the extraneous and functions best with redundancy
"They assume that the brain has only a murky access to its many sub-networks, which were formed by different stages of the brain's evolution
There were existing, different camps of cog This sense of soul-spirit-self is perhaps beginning to be considered as the "Personalization of Intelligence"
principle; and Wittgenstein's ideas about logical processes, which focused upon language as the embodiment of what can be said, known, and thought
Following this line of thought, that the relationship between the brain's various networks is thin, Minsky also declares that a ruling "Self inside the mind" is a "myth
Marvin Minsky has done some real spadework on many contentious traits that make-up our special essence
Plato
Kant
Marvin Minsky
considered
Ludwig Wittgenstein
Minsky
Formative, classical AI ultimately sunk its roots into the logical positivism movement based on Ludwig Wittgenstein's early work
According to Minsky, human beings are "meat machines
Essentially, a molecular computer could be considered a new life form
Marvin Minsky, a premier AI theorist, is a major proponent of the machine approach
Marvin Minsky, THE SOCIETY OF THE MIND
Minsky, along with his colleague Seymour Papert, see the brain as a "network of networks
Seymour Papert