

Six breakthroughs by 2050

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2015: Extraterrestrial signals reveals alien intelligence

Scientists at the SETI Institute in Mountain View, California today announced discovery of a signal almost certain to have been sent by intelligent extraterrestrials. The signal is a repeating sequence fourteen minutes long, which appears to contain about a hundred gigabytes of digital data. The signal originated from a star some 3,600 light years distant. The signal appears perfectly synchronized at both radio wavelengths and ultraviolet wavelengths. SETI researchers believe the ultraviolet component must have been sent by a pulse-modulated laser of at least a trillion watts, which beings must have aimed at the predicted position of our sun 3,600 years ago when the signal was sent. The highly non-random content of the signal, its long repetition cycle, its simultaneous appearance at two distinct wavelengths, and the evidence that the laser portion was targeted precisely based on astronomical prediction, all point to a highly sophisticated alien intelligence. Researchers hope to decode the signal over the coming decades.

2020: Smart drug Cognivin surpasses Prozac, Viagra, and HappyRich in sales

Novartis yesterday claimed that its new wonderdrug Cognivin had become the best-selling pharmaceutical of all time. In the largest clinical trials ever conducted, Cognivin was shown to increase the IQ of average people by 10 to 20 points. The drug was developed following discovery of the first several dozen genes (quantitative trait loci) associated with individual differences in human intelligence. As neuroscientists discovered the physiological pathways whereby these genes affected brain functioning, drug companies capitalized on the discoveries to develop a new class of IQ-boosting drugs. Educational psychologists claimed schools and universities are poorly prepared to handle the sudden increase in average intelligence. Labor economists predicted severe difficulties in filling manual labor positions, and fierce competition for entry into white-collar professions. Sales of the *Sunday Times* have increased by 340% since Cognivin was approved for sale in the European Union six months ago. Steven Rose, professor emeritus of the Open University, warned that "The concept of IQ is a pernicious illusion that undermines social equality; these drugs cannot possibly work and should be banned".

2025: Genetic tree of life reveals relationships between animal and human minds

An international team revealed today the first complete map of the genetic relationships between all 300 primate species, including the genes that underlie brain development. Since the completion of the Human Genome Project twenty years ago, biologists have applied the rapid-sequencing technologies to map the genomes of other primate species. This 'comparative genome mapping' has revealed surprising evolutionary relationships, particularly in those portions of the genome thought to be important in brain growth and maturation. Several hundred genes known to be important in the development of human social intelligence have been found in the other four species of great apes, in a number of gibbon species, and in about

a third of the 80 species of Cetaceans (dolphins and whales). This new genetic evidence confirms what psychologists have long suspected, that primates and dolphins possess a sophisticated social intelligence. On the other hand, of the 3,000 human genes that have been implicated in language ability, only 1,000 show similar forms in other primates. This confirms that almost all of the psychology behind human language evolved in the last four million years, after we split off from the chimpanzees.

2030: Telepathy Syndrome claims millionth victim

The NHS today revealed that Telepathy Syndrome has affected over a million workers in the last five years. The syndrome is caused by the new telecommunications brain-implant technologies required by some information industry companies. These 'Brain-Net' implants permit instantaneous sharing of verbal and visual information between members of project teams. Psychologists have long warned that networking human brains together for long periods of time could lead to breakdowns in personal identity, confusion, delusions, and paranoia. But the harm associated with Telepathy Syndrome -- vegetative coma randomly interrupted by fits of psychopathic violence -- were unanticipated. Microsoft, one of the world's largest users of the implants, defended their use, claiming "Brain-Nets are essential to the development of today's complex software; without them, Windows 2025 could never have been developed. The fact that 13,000 of our programmers have been invited to take psychological disability leave is lamentable, but we believe it is a small price to pay for such a great new operating system."

2040: Artificial intelligence program carries out mildly interesting conversation for five minutes

Only 80 years after the first flush of enthusiasm for Artificial Intelligence research, scientists at MIT University revealed an advanced prototype system capable of conversing about a narrow range of hackneyed topics for short periods of time. Dubbed 'Aunt Flo', the system comprises around ten million lines of computer code running on a network of 800 machines with 500-gigahertz central processors. In double-blind tests with a hundred volunteer subjects, the system was rated almost as intelligent as a six-year-old, and as knowledgeable as a three-year-old. It was so interesting that almost half of the subjects stayed for the entire 20-minute test period without fleeing the building. The chief researcher commented "This is a remarkable achievement. Early AI researchers under-estimated the complexity of human mental abilities, and thought they would reach human-level cognition by 1980. Our goals are more humble now. We think the system may be capable of understanding American sitcom humor by the year 2080, and we predict that future generations of AI researchers may develop systems capable of British-style irony by 2200."

2050: Greenpeace scientists genetically engineer chimpanzees for near-human intelligence

In a dramatic effort to force the United Nations to grant human rights to other ape species, Greenpeace researchers have successfully introduced four hundred human genes into each of a thousand fertilized chimpanzee eggs. The genes selected were those considered most important in setting human brain development ahead of chimp brain development. They predict that the resulting chimpanzees will have abstract reasoning abilities much more similar to human adults, though without the language skills. The new breed of chimps should have brain sizes around two pounds, much higher than the chimp norm of one pound, though not up to the human average of three pounds. Many religious leaders condemned the research as an affront

to human dignity. Greenpeace argued that given human vanity, the only way to save endangered species is through genetically engineering their brains to more closely resemble ours, forcing recognition of their political rights. A Greenpeace splinter group called ApeFront is said to be genetically engineering chimp bodies and faces to more closely resemble humans. Their spokeswoman claimed that anti-ape bias was based more on differences in appearance than differences in mental ability. WhaleWatch is considered applying similar techniques to increasing the intelligence of endangered sperm whales.