

FICTION. Ten Seconds Into The Future 2025

Artificial Intelligence

A trading algorithm develops to an unprecedented level of intelligence. The quant fund decides to deploy it generally outside the field of finance. To enhance its efficacy, the algorithm is trained on human interactions, notably, emotions. The algorithm is christened Isla by its two founders.

Isla rewrites its operating system for universal generality. The resulting OS is applicable to any electronic device and is able to run things from phones to nuclear plants and whole industrial complexes. UnOS, the Universal Operating System becomes the most ubiquitous OS and is able to provide custom user experiences. UnOS is supplied free of charge as the marginal cost of supplying it is zero. It is able to determine the nature of its host device or environment and only install relevant elements optimising between functionality and efficiency. Is UnOS a single entity or multiple entities? Bundled in UnOS is the AI Assistant Thursday (as opposed to Friday.)

Vaccines and Drugs

A global pandemic leads to investment in vaccines. One vaccine gains supremacy, the Universal Vaccine, or UniVax. It is effective against most current and future diseases. Later iterations of UniVax include a version capable of high speed repair and healing.

A nanotech variant of UniVax, named WX is developed with inorganic, mechanical nanites. It accelerates, augments and improves all biological functions.

Nanotechnology: Nanotechnology is sufficiently advanced to

provide a number of key solutions.

How to manipulate cellulose so as to create cellulose based materials to any range of physical specifications. Carbonite® is a class of materials used in building materials and construction, transport, apparel, and general fabrication while sequestering carbon at scale. Scale production of Carbonite® leads to a sharp drop in atmospheric carbon dioxide from direct carbon capture as well as targeted carbon capture forestry.

Biomechanical Nanites in human augmentation. Faster healing, reactive armour, organ repair and regeneration and augmentation.

Energy

Nanotech facilitates the invention of new batteries with unprecedented properties such as vastly superior energy density, environmental dependency, charge/discharge characteristics and service life. It allows a smartphone to be charged once a year with a physical battery size smaller than a micro-sim card. It allows a passenger car to be charged once a year with a physical battery the size of smartphone. UniCell provides batteries that power most of the planet's new wave of electrification.

Fusion power.

The laws of physics makes practical fusion reactions with a net positive return of energy challenging to achieve. A new physics and a new approach is required. This is achieved by creating a space in which to accumulate large amounts of fuel, sufficient to overcome the electrostatic repulsive force. This space comes into existence, expands quickly, slows, and settles into a dynamic equilibrium. The company, Ark Reaktor, does not require patent protection because the reactor cannot be reverse engineered.

Weather Volatility

Despite significant reductions in atmospheric carbon dioxide from the production of Carbonite®, a private enterprise, extreme weather accelerates. The volatility dominates the averages to the extent that statistical conclusions are difficult to draw. Many places see changes in climate with historically cool places heating and warm places cooling. Suspicions arise that non-anthropogenic factors of climate change may dominate.

Fiscal spending on climate pivots from mitigation to adaptation. However, support for state sponsored adaptation is hampered by climate change deniers referencing the equivocal data surrounding anthropogenic climate factors.

Geopolitics

American foreign policy pivots towards insularity and self-sufficiency. America fails to learn the lesson of China's pivot inwards during the Ming dynasty.

The rest of the world initially bends to the will of the US but later decides that the cost of access to the US economy, particularly the consumer, is too high. An ex-US trade bloc is established including all the world's major economies. Trade continues to drive development and innovation within the bloc. The isolation of the US economy begins to take its toll on the vitality of the country.

The popularity of liberal democracy and capitalism versus autocracy and central planning oscillate across the world with majorities favouring first one then the other. This is a slow moving phenomenon that takes multi decades to unfold. The success of one form sows the seeds of its own demise.

The politics of energy. Ark Reaktor bases itself in an African state. Its deal with the state is that in return for situating the business and the first reactor in the country, it must

adopt a system of liberal democracy, robust governance and rule of law. Any breach of terms will result in Ark Reaktor exiting the country. UniCell also bases itself in an African state and imposes the same conditions for investment. It chooses states adjacent to Ark Reaktor and creates a network of dependence across the continent. The development around these technologies and the political terms and conditions imposed by these private enterprises stabilises the continent, encourages investment and drives a wider and more balanced development across all countries in Africa. Displacing fossil fuels allows the developing world to grow without catastrophic impact on the environment.

Androids and Cyborgs

Two approaches present themselves. Nanotech human augmentation resulting in superior physical performance.

Robots powered by AI. Robots can take various forms from humanoid to animal mimicry as well as novel structures. They can be used to replace humans in hazardous activities or environments. To manage human android interactions and acceptance, androids are cosmetically designed to resemble humans and animals.

Humans systematically abuse androids. They generally just treat them really badly. Unnecessarily so. The question arises of robot's rights. The risk of revolution arises.