

Extract from *Knowing our Future – the startling case for futurology*.

## CHAPTER 1

### The Lens of Time

We tend to approach the future tentatively, assuming it is unknowable, beyond the reach of our mental powers. Yet below the surface of daily events flows the endless progress of time in which everything in the universe evolves through a predetermined sequence of states towards its final purpose.

Physics, drawing upon Einstein's special relativity, has unveiled much of the mystery of time. It has proved, for example, that time travels in one direction only, towards our future, despite the fact that there's nothing in nature's laws preventing physical processes from happening in reverse order. It has revealed that space and time are united in one four-dimensional world. We can understand time, and, consequently, the future, better than ever before.

The laws of nature have been mapped out in exquisite detail. This enables accurate predictions to be made about its behaviour, including the destiny of the universe itself. Everything that exists has a lifespan characterised by cycles of birth, growth and eventual decline. There is evidence all around of an infinite array of patterns of life, endlessly repeating themselves in a breathtaking cosmic kaleidoscope.

In addition, there is a deep structure to history, a discernible sense of its laws which underpin social development. The fortunes of societies and civilisations fluctuate while they evolve, following principles and patterns evident throughout history. Recurrent, long-wave economic and business cycles have been identified and analysed. Commodities from gold to oil are discovered, produced and then peak, after which sharp declines in production invariably occur, accompanied by rising prices. Even the cycle of exponential growth of computer power, currently doubling every eighteen months, is predicted to end by around 2020, due to limits imposed by nature.

Viewed through the lens of time, life on all levels, from cosmological to social, behaves with regularity and purpose, allowing us to estimate its future course.

In the last few decades, systems thinking has developed models explaining how systems operate and interact across the whole spectrum of nature and society. This has opened up a rich treasure-chest of theoretical insight. Since virtually everything in the universe is made up of systems and sub-systems, from our bodies to the solar system, these advances in understanding how the world works (and how it will continue to work in the future) are far-reaching.

As a result of significant gains in knowledge across many fields of enquiry, humanity now has at its disposal sufficient understanding of time, history, systems, lifecycles and laws of nature to explore the future in a systematic way. Instead of being one of humanity's most neglected assets, the future should become the next frontier of knowledge. A scientific study of the future is possible.

The future can be studied and understood as systematically as the past. Forecasts, however, will perhaps never quite contain the level of detail of historical information. But we do not need to know every detail about the future in order to understand, or predict, it. The future is history-in-the-making: what we need to know about it are conditions and causal factors shaping events and social evolution according to universal laws and principles within the most probable time spans. Using the right tools and skills, we can paint pictures of the world of the future which are accurate and illuminating. We can construct plausible portraits of the coming times. With increasing visibility, we can see the future.

See [http://www.infideas.com/pages/store/products/ec\\_view.asp?PID=1804](http://www.infideas.com/pages/store/products/ec_view.asp?PID=1804) for details of *Knowing our Future – the startling case for futurology*.