

“Time Machines” Train People to Experience Relativistic Time

Forecasts:

- **By 2039, Einstein’s theory of relativity has redefined human experience and social interaction.**
- **Layering of time on conscious and unconscious levels expands human intelligence and capability.**
- **Technology leverages the neuroplasticity of the human brain to help people engage in more tasks using various types of time.**

These are not the “time machines” you read about as a kid. People have no desire to “travel through time” to meet their ancestors or to time the stock market since time in the traditional sense no longer exists. In 2039, most people recognize that time is a social construct that has shaped our reality, but is not fixed – for the Chinese it runs top to bottom, in Europe it runs left to right. But we’re getting ahead of ourselves. Let’s start with a brief history of how people have thought about time.

Concepts of time have always followed from a society’s scientific and technological understanding. The recognition that a woman’s menstrual period matched the lunar cycle, for example, led to a cyclical view of time and all its manifestations – agricultural settlements, astrology, pagan rituals, etc. As literate peoples began writing their own histories, they began to see time as linear – a straight line from “Creation” to the “End of Time” along which mankind moves steadily in one direction. Linear time produced an era of political dynasties, apocalyptic religions, and morality plays to instruct people how to earn their reward when the world ends. Newton’s laws of physics suggested that the universe was a mechanism like a watch – this view is found in Deism (where God is believed to have created the world but does not interfere in its workings), the complex separation of powers found in the U.S. Constitution, and Adam Smith’s fundamental laws of economics.

Starting around 1900, scientists discovered that Newton’s laws do not hold in all situations, particularly when things get very small (atomic particles) or travel very fast (near the speed of light). Furthermore, Albert Einstein showed that time is not an objective measure but in fact depends on the particular frame of reference in which it is measured. For example, time slows down as velocity increases – that is, a man traveling around the world in an airplane will age less during the flight than the friend who dropped him off and picked him up at the airport. While these findings remained within the realm of science for more than a century, by 2039 they have permeated society and fundamentally reshaped its institutions.

When asked to explain relativity, Einstein said, “Sit with a pretty girl for an hour, and it seems like a minute. THAT’S relativity.” If he had lived in the early 21st century, he may have added, “Send an e-mail to which you need an urgent reply, and one minute seems like a week.” E-mail represents the first collaborative use of what is called “asynchronous time,” where people participate in the same activity in different times. The opposite is the more familiar “synchronous time,” in which people engage in an activity – a telephone call, for example – in the same way and at the same pace.

Technological developments in the decades leading to 2039 have created more and more types of time. “Networked time” is time that has been expanded into new dimensions by leveraging the global

communications network. “Parsed time” is time that has been bundled up and sent digitally across the network for use elsewhere. “Nanochronistic time” exists only for new technologies operating at a very small scale in infinitesimal units of time.

Concurrently with technology-mediated time, a growing spiritual movement focused on “living in the moment” has challenged the use of time altogether. Enlightened people experience “infinite time,” acting in a way that reflects their instantaneous spiritual consciousness rather than past memories or future aspirations. For these people, time is simply a construct to be used where it serves a practical purpose, as in keeping time during a sporting event.

Developments in neurotechnology have facilitated a new type of “multi-tasking,” in which people can simultaneously experience multiple frames of reference – each in its own time – on conscious and unconscious levels. For example, a person could experience “infinite time” on a conscious level while unconsciously both collaborating asynchronously on a group project and listening synchronously to a lecture on a topic of interest. This multi-layered operability has vastly expanded human mental and emotional capacity.

This is difficult stuff. People are not born with the ability to work within this conception of time from Day One, and many in the older generations are too steeped in traditional concepts of time to function properly in this relativistic world without assistance. Thus, humans have developed “time machines” that work within the natural neuroplasticity of the human brain to accelerate psychological and neurological development toward the state of mind that can embrace a relativistic worldview. Leadership is now seen primarily as a means to prepare people so that they too can contribute in relativistic time to the collective will of mankind.

Further Reading:

- Einstein, Albert and Infeld, Leopold, *The Evolution of Physics: from Early Concepts to Relativity and Quanta*.
- Shlain, Leonard, *Sex, Time and Power*.
- Shlain, Leonard, *The Alphabet Versus the Goddess*.
- Castells, Manuel, *The Rise of the Network Society*.
- Rock, David and Schwartz, Jeffrey, “The Neuroscience of Leadership,” *strategy+business*, Summer 2006.
- National Science Foundation, *Converging Technologies for Improving Human Performance: Nanotechnology, Biotechnology, Information Technology and Cognitive Science* (www.wtec.org/ConvergingTechnologies/1/NBIC_report.pdf).
- Bainbridge, William S. and Roco, Mihail C. (eds.), *Managing Nano-Bio-Info-Cogno Innovations: Converging Technologies in Society* (www.wtec.org/ConvergingTechnologies/3/NBIC3_report.pdf).
- Wilber, Ken, *No Boundary: Eastern and Western Approaches to Personal Growth*.