Institute of Futurology

knowing our future

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Where Our Future Is

Where is the future?

Like the road you can see ahead of you as you drive on a journey, I suggest the future is embedded in emerging, continuous space-time. Although you're not there yet, you can see the road in front of you. In the rear-view mirror stretches the landscape of the past, the world you have been through and still remember.

The analogy of an open road describes the essence of our trip through three-dimensional time (past, present and future). It indicates correctly that the trajectory into the future is part pre-determined (i.e. the pattern of the road) and part chosen by us (i.e. the direction and route we plan to take).

When I read Einstein's own words describing special relativity in his 1916 book *Relativity* my eyes were opened to time as a dimension of our physical daily existence. Since then I tend to experience time as an intimate part of my life. One sentence in particular in *Relativity* stood out for me as profound:

"…there is no more common-place statement than that the world in which we live is a four-dimensional space-time continuum." (Einstein, A. 1916. *Relativity*. St Petersburg, Florida, USA: Red & Black Publishers. 65)

To me, these are immortal words ringing out a vital truth. They also provide a theoretical key which can unlock an understanding of where the future is.

The theory of special relativity turned cosmic time into a physical process, rather than an absolute, eternal phenomenon. Without time, there wouldn't be any life or evolution. Time is the medium of change which enables us to measure our journey through Einstein's space-time continuum. Time is what makes our universe – and our personal lives - deeply dynamic.

I wish every social science faculty building would inscribe these nineteen words written by Einstein over its main entrance. In general, social philosophy seems to have entirely undervalued time and the behaviour of phenomena in, and through, time. Remembering at all times that we live in a 4-D world would correct this dire tendency.

The intimacy of time in our experience, inseparable from space which we see all around us, points to a way to find the future. We're seeking the future's actual whereabouts. Is there, in fact, a place where we can reach out and touch the future?

Suppose for a moment you are outdoors somewhere holding a ball in your hands. Toss the ball high into the air. As you get ready to catch it on its gravity-determined fall back to earth, you realise that you are reaching up into the future just as the ball is about to land safely in your cupped hands, assuming you perform the catching action correctly, that is.

In this scene, the future is there all around you the moment you start this throwing action. From that point, the ball is destined to complete its lawful trajectory. Based on previous experience of catching, you are able to anticipate how the ball will fall. When you catch the ball you catch the future you see coming when the ball begins its descent. The future is on its way to us as soon as we act. It's coming at us in the emerging continuity of time. Even when we go to sleep, it is inevitable that we will wake up in the future phase of the action we have taken of going to sleep (unless we happen to die, of course). We're in time. That is, we exist in continuous time. The future is part of the time bubble in which we live, change and age. At no point in our lives are we ever *not* in motion through space-time.

Furthermore, all the actions we initiate follow their trajectory until the action has ended. Trajectories are like pathways of time linking past, present and future in continuous time. Trajectories like this will be shaped by the physical laws they obey, such as laws of motion and thermodynamics. They are lifelines to the future. We see and touch the future through trajectories taking their course in continuous time. There is no point at which the ball thrown upwards is not on its trajectory: it rises and falls in one continuous process. It is falling through space and time as it comes towards your cupped hands, readied as they are to catch it. There is no pause button for reality. There is no playback button. Reality just keeps going along its evolutionary, largely predetermined trajectory.

So there are two main types of trajectory into the future: physical (such as the shape of the ball's path as it rises and drops) and evolutionary (the longer-term direction taken by people, organisations, societies or other systems or entities). Focusing on the latter type for a moment, consider your own worldline as an example. Your worldline is made up of every position you have ever been in at each given moment of your life. Some aspects of your worldline you chose and others were chosen for you.

As a child, your life was largely determined for you by decisions made by your parents and other significant adults in your life. By the time you reached adulthood, your character had been shaped by genetics and experiences and your position in the world was overwhelmingly the result of outside influences. Later, you were able to have a more decisive influence on the course your life took. Sometimes you found yourself on a wrong, or harmful, trajectory and found it necessary to correct or change your course. Then you moved onto a different evolutionary path, taking a different path into your future. Our life trajectories are on a micro, or individual, scale, although they interconnect with those of other individuals in our world.

On a macro scale, societies, economies and civilisations all have evolutionary trajectories. Thinkers like Kondratieff, Schumpeter, Sorokin, Spengler, Spencer and, more recently, Robert Samet, as well as historians like Ian Morris and Big Historians such as Fred Spier and Cynthia Brown, have demonstrated how social, economic and historical trends work over huge spans of time.

Evolutionary developments happen through cosmic time, which is continuous and has always been physically linked to space in space-time. Cosmic time is continuous just as space is continuous. Given the nature of space-time and the tendency of all things in it to follow patterns of development, it is far from surprising that we can detect an endless array of trajectories, both physical and evolutionary, as we observe life in operation. All tend to show largely consistent behaviour over time because they are heavily influenced by laws and principles of development, as well as constrained by inherent limits.

Where, then, is the future? Is it ever real enough to touch?

When you next throw a ball into the air, ask yourself if you can foresee and anticipate its trajectory well enough to position yourself to catch it on its way down? The trajectory of the ball follows its course in continuous time, having a past, present and future as it goes. The answer is a resounding “yes”, it *is* possible to predict and work with the ball’s trajectory as it obeys physical laws.

In that case, if there is, indeed, continuous time in this sense, with entities in space-time following their worldlines and their trajectories with an air of inevitability, surely we can touch the future when it is coming to us as continuously as the past is disappearing into the rear view mirror?

It’s like catching a ball falling through the air.