

Science Fiction and the Future

Tom Lombardo

“Accelerating into the Future”

In this column I will be exploring the significance of science fiction in thinking about the future – how science fiction expands, enriches, and energizes “future consciousness.”¹ In this first entry I will present some opening thoughts on the nature and value of science fiction and look at one recent science fiction novel, *Accelerando*, by Charles Stross.

At the outset, let me provide a definition of science fiction. Although not all science fiction deals with the future, its primary focus has been on the myriad possibilities of the future. In this regard, science fiction can be defined as a literary and narrative approach to the future, involving plots, story lines and action sequences, specific settings, dramatic resolutions, and varied and unique characters, human and otherwise. It is imaginative, concrete, and often highly detailed scenario-building about the future set in the form of stories.

Science fiction is clearly the most visible and influential contemporary form of futurist thinking in the modern world. Why is science fiction so popular? One main reason for the popularity of science fiction is that it resonates with all the fundamental dimensions of the human mind and human experience. It speaks to the total person about the future – to both the heart and the mind. Because science fiction presents the possibilities of the future in the form of stories, it engages the reader emotionally and creates a vicarious personal experience of the future. Also, if the science and technological extrapolation in the story is well informed and thoughtful the reader is engaged intellectually as well.

Throughout human history, the most influential form of futurist thinking has been myth. Myths are stories, filled with emotion, drama, and moral lessons. Frequently, myths are epochal tales, connecting memorable and archetypal characters with cosmic themes. Myths provide a medium through which individuals can connect with the big questions and issues of existence. But the myths of old are based on archaic thinking and outmoded conceptions of reality. They are oblivious to modern science and philosophy and the issues and challenges of modern life. Perhaps new myths based on contemporary knowledge and thinking are needed.²

I would propose that science fiction provides such new stories and new myths. Science fiction offers tales of the future possessing all the essential qualities of myth but informed by science and contemporary thought. Science fiction connects the cosmic and the personal, frequently communicates some moral message about life, and presents the future as a drama that unfolds as a consequence of the actions of its characters, events in the world (or the universe), and new technological or scientific developments. Science fiction is the mythology of the future.

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The novel *Accelerando* by Charles Stross is an excellent example of many of the above noted strengths and qualities of science fiction. In *Accelerando*, Stross creates an epochal and cosmic, yet personalized, tale around the theme of the “technological singularity.” According to various futurists and technology writers, at some point in the relatively near future, it is predicted that technological intelligence will surpass human intelligence – this event is the technological singularity. The inspirational starting point for this idea is “The Coming Technological Singularity” written in 1993 by Vernor Vinge, who happens to be a science fiction writer as well as a computer scientist.³ The meaning and implications of the technological singularity have been extensively examined since Vinge’s seminal paper, notably by the inventor and futurist, Ray Kurzweil. Kurzweil argues that in the next few decades computer intelligence will surge beyond human intelligence and quickly leave us in the dust. The post-singularity world of computer intelligence will be incomprehensible to humans unless our minds are technologically augmented, which Kurzweil believes will happen as well.⁴

What is so impressive and mind-boggling about *Accelerando* is that Stross attempts to describe in narrative form what will happen to humanity and to our world as we approach and then pass through the technological singularity – that is, Stross attempts to imagine the incomprehensible. Following the exploits and adventures of three generations of the Macx family and set in the context of massive and accelerative social and technological changes in the coming century, Stross chronicles in *Accelerando* an amazing and rich variety of possible advances in computer intelligence, virtual reality, communication networking, nanotechnology, robotics, space travel, and bio-tech integration; the novel overflows with technological inventions and a whole new language to describe this reality.

Yet further, Stross speculates on how these fast and furious and interconnected technological transformations will impact human life and human identity. Members of the Macx family evolve psychologically and physically throughout the story. As one example, once computer hardware reaches the complexity and memory storage capacities of the human brain, humans, including the Macx family, can download their conscious minds into computers. and, in essence, branch off into multiple streams of consciousness. One conscious mind and identity continues to live in a biological body while a second version (or even more versions) of the same person lives within computer hardware and whatever virtual reality the person wishes to create in that technological system. Conscious minds within computers can also materialize in different nano-technological incarnations. Throughout *Accelerando*, in innumerable ways, the nature of human identity and human experience is altered as new technological developments emerge. The human conscious mind becomes a complex integrated plurality of voices, images, and streams of data surrounded and engulfed by the input of multiple software agents. Though many of these technological possibilities have been discussed in futurist writings, notably in Kurzweil, in *Accelerando*, the reader is presented with a concrete and

personalized vision of how such innovations would impact individual humans and their lives. Parenthood, childhood, and marriage are dramatically altered in the context of multiple versions and timelines of individual selves.

While humanity is changing, the network of computer intelligences across the globe is quickly growing in power and mental capacities, increasingly manifesting an independence and mind of its own, and becoming more enigmatic and mysterious in its purposes. Steadily this super-human artificial intelligence gains control of the earth and extends its technological tentacles outward into the solar system where it begins to transform the inner planets and their physical material into a nano-technologically supported massive solar brain. In the wake of this expanding wave of artificial intelligence, humans, no longer able to comprehend or control what they have created, migrate outward through the solar system and beyond, attempting to escape from the reach and influence of what they label their "Vile Offspring." Yet, humans take with them many of the creations of this advancing technology.

Within *Accelerando* Stross systematically and imaginatively extrapolates outward in time from present technological trends through a series of progressive changes and developments. Each chapter describes events within successive decades. Predictions build upon predictions and a future technological and social history unfolds, step by step, that is highly realistic and convincing. Although set in the form of a story about the Macx family, *Accelerando* reads like a general future history of the technological and social-psychological evolution of humanity. In addition, the ambience of a strange and frenzied future reality is created; the language describing this is electrical and accelerated; inventive, visionary, and rich in hi-tech jargon, it propels the narrative at a breathtaking velocity. Of particular note, Stross examines in detail and imaginative depth how advancing technology will alter the human self, the nature of consciousness, and human relationships; love, friendships, and the meaning of human life are all transformed. By the beginning of the twenty-second century, all that once was has been transcended. As Gardner Dozois, the science fiction writer and editor states, "The *Accelerando* stories represent one of the most dazzling feats of sustained imagination in science fiction history, and radically up the Imagination Ante for every other writer who wants to sit down at the Future History table and credibly deal themselves into the game."⁵

¹ Lombardo, Thomas "Thinking Ahead: The Value of Future Consciousness", *The Futurist*, January-February, 2006.

² Krippner, Stanley, Mortifee, Ann, and Feinstein, David "New Myths for the New Millennium" *The Futurist*, March, 1998.

³ Vinge, Vernor, 1993 – "The Coming Technological Singularity: How to Survive in a Post-Human Era" - <http://www-rohan.sdsu.edu/faculty/vinge/misc/singularity.html>.

⁴ Kurzweil, Ray *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. New York: Penguin Books, 1999; Kurzweil, Ray *The Singularity is Near: When Humans Transcend Biology*. New York: Viking Press, 2005.

⁵ Stross, Charles *Accelerando*. New York: Ace Books, 2005; Dozois, Gardner (Ed.) *The Best of the Best: Twenty Years of the Year's Best Science Fiction*. St. Martin's Griffin: New York, 2005, Page 577.