

By Allen Tough

Potential futures: Implications for adult educators

Much is written about various potential futures for our civilization. Some people hesitate to face this vast array of literature because it feels overwhelming at times and it can evoke feelings of horror, terror, despair, and anger as well as hope, joy, exhilaration, and commitment. Yet face it we must if we are to remain knowledgeable and competent as adult educators.

From the panorama of possibilities for humanity's future, I have selected six key prospects, ranging from the unthinkable horrible to the delightfully positive. Five major implications for all educators of adults are then spelled out.

Six Prospects

Let us begin by facing the worst possible future of all. Within one hour, enough nuclear weapons could be launched to destroy human civilization. No one doubts that the weapons are already in place in various parts of the world and could be launched very quickly. Reading *The Fate of the Earth* (Schell, 1982) or *The Button* (Ford, 1985) is a deeply disturbing experience. A series of crises and natural steps could easily escalate into full-scale nuclear warfare without either side actually wanting it to occur. Because of the smoke and dust ascending into the at-

mosphere, the immediate devastation would be followed by several months of darkness and below-freezing temperature ("nuclear winter") throughout the northern and possibly southern hemispheres (Ehrlich, Sagan, Kennedy, & Roberts, 1984). Within a year almost everyone on earth would be dead or very sick, and very little food would be available. The probability of the complete extinction of the human species in this situation is unknown, of course; it may be anywhere between 1% and 50%. For reasons that may seem sensible in the short run, humanity has moved into a situation that is extraordinarily risky in the long run.

A second gloomy prospect for the future can be summarized in five words: environment, resources, food, energy, and population. Human civilization is using up certain natural resources much faster than they are being replaced (Brown, 1981; Partridge, 1981). The environment is being degraded through the loss of wetlands and forests, the increase of air pollution, the depletion of the ozone layer, and so on. At the same time, the human population continues to grow at a rate that can only be described as astounding (and foolish) when viewed from a long-term perspective. If present trends continue, the future will be disastrous. Avoiding such major deterioration of human life is one of today's three fundamental priorities (Tough, 1986a).

We shift now to some prospects for the future that are much more positive.

Space utilization and space settlements are a third prospect for humanity's future. Some manufacturing processes occur better or cheaper in the vacuum and very low gravity provided by space. Telescopes can receive clearer images if located somewhere beyond the earth's atmosphere. The energy of the sun may be collected by huge grids and turned into microwave energy. Asteroids or moons may be mined someday. These potential uses of space may well lead to space settlements of a dozen or even a hundred people (Calder, 1978).

Thinking about space leads us to a fourth major prospect for the future: contact with extraterrestrial intelligence. Intelligent and technological species have probably developed in other parts of our galaxy (Angelo, 1985; McDonough, 1987). These extraterrestrials have probably advanced at least 10,000 or even 100,000 years beyond our current level of development. They probably have the capacity and the motivation to observe and even help our fledgling human civilization (Tough, 1986c). Preparing for successful interaction with them should be high on our civilization's current agenda.

Developing a better understanding of our universe and our place in it is a fifth prospect for our future. What natural processes or divine Creator led to the beginning of this universe? Has a diversity of intelligent life sprung up everywhere? Why, ultimately, does life and everything else in the universe exist? From what aspects of reality can we gain meaning and purpose (Tough, 1986b)? What major long-term futures are possible for humanity? Will all consciousness and knowledge in this universe ultimately end billions of years from now, or is some other future possible? Emerging answers to these questions could be a key part of our future.

A highly positive future is the sixth prospect. The "futures" literature contains some highly optimistic and happy visions of the future, ranging from technological marvels to a future that emphasizes human interconnectedness and spirituality (Ferguson, 1980), individual choice and diversity (Toffler, 1980), or simplicity (Elgin, 1981). Highly positive futures used to be more

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common in the literature than they are now. Futurists have recently become much more aware of the apparent intractability of many social problems, such as crime, terrorism, the arms race, local warfare and revolution, the economy, poverty, population growth, and schooling.

We see, then, that a wide variety of human futures are possible, ranging from awful to wonderful. We cannot predict with great confidence which of our envisioned futures will actually occur nor in which combination or sequence. We do know, however, that the future is not preordained, predetermined, nor carved in granite. The actual future will result from human choices and actions over the days, weeks, and months. This fact gives rise to hope for humanity and to several implications for educators of adults.

Implications for Adult Educators

Five implications stand out as particularly important for teachers, program planners, administrators, and others who work in the field of adult education. First, it is important for adult educators to regain their sense of *social mission*. We must accept and treasure the fact that we can make a difference to the future of our community and even our civilization as well as to the lives of individual men and women. Most futurists agree that any successful path to a positive human future will require enormous changes in the attitudes, understanding, priorities, and behavior of adults and youth. Surely we adult educators will play a key role in fostering and facilitating these changes, insights, and skills in individuals. Our vision of our vocation can include our collective impact on society. Politicians, business leaders, writers, and others will affect the future, of course; but so will we.

Second, the implications for our *curriculum* and *programs* are stunning. As a field, we ought to provide a wide array of methods and opportunities for people to learn about each of the six prospects for the future. In addition to a variety of group programs and courses, individual self-planned learning projects could be fostered and facilitated. In every community, people should be able to study and discuss the likelihood and effects of nuclear warfare, the effects of

human consumption and population growth on the local environment, the likelihood of space settlements and extraterrestrial contact sometime in the future, and so on. In addition, people need opportunities to learn about other social issues and about the importance of looking at possible and preferred futures. Our curriculum and programs should also help people clarify their sources of meaning and purpose and their own most appropriate ways to contribute to a better future for their families and society. They need to sort out their own answers to the question, "What part can I play in achieving a positive future for humanity?" Each adult educator and each institution should think creatively about how to provide additional learning opportunities in these areas. Nothing could be more important.

Third, as adult educators, we can *help the helpers*. That is, we can help other people with their roles in raising public awareness and knowledge about potential futures. For instance, we could probably contribute by training leaders for workshops on the global dangers of the arms race. Leaders for these workshops need plenty of information and insights, but they also need to be capable of helping people with their despair and their need for empowerment (Macy, 1983). Sensitively prepared leaders could offer workshops and support groups in a wide variety of settings, such as churches, synagogues, hospitals, schools, colleges, community centers, staff development programs, and libraries. A great many people want to understand the nuclear situation and deal with their resulting feelings but lack a supportive group in which to do so. We could also support key educational projects, such as *Beyond War*.

Fourth, we can conduct or encourage *research* that will aid practice significantly. What are the gaps between the major potential events, changes, and priorities of the next 20-30 years (as anticipated by futurists) and our current curriculum in various adult education institutions? What additional implications for intentional adult learning and change arise from likely 30-year scenarios? What are people already learning and teaching about each of the six potential futures, what methods and media are most useful,

and what hinders or prevents this sort of learning and teaching? Over the next 10 years, what sorts of support, encouragement, help, materials, groups, and other opportunities do people need most in order to understand various world problems, potential solutions, and possible futures?

Finally, for a few moments, let's view *adult educators as learners*. Teachers, program planners, administrators, and others in the adult education enterprise can themselves benefit enormously from learning about the future. Most of them will benefit from dipping into three streams of futures literature periodically.

One stream is the general and miscellaneous futures literature. This can provide ideas for new programs, even new institutional directions. It can also foster a sense of social mission, a commitment to avoiding the worst futures and striving for a positive human future. Substantial introductions to the futures field and its issues are provided by Botkin, Elmandjra, and Malitza (1979), Freeman and Jahoda (1978), Hawken, Ogilvy, and Schwartz (1982), Hughes (1985), and Stableford and Langford (1985). *Future Survey* summarizes the bulk of English-language futures literature every month. Other periodicals, such as *The Futurist*, *Futures*, and *Technological Forecasting and Social Change*, can also help one keep up with general futures thinking.

A second stream is the futures literature of relevance to one's particular program areas. Again *Future Survey* and its annual compilation (Marien, 1986) can provide a link. Informative abstracts are organized under such headings as defense and disarmament, energy, environment and resources, the economy, unemployment and jobs, corporate innovation and organization, special groups in the labor force, health, higher and continuing education, and science and technology.

The third stream is literature specifically on the future of adult education. It discusses changes in adult learners, changes in the content and methods of adult education, needed research and theory in adult education, new services or institutions, and changes in the profession of adult education. At least one or two journal articles and dissertations per year deal with likely or preferred futures for adult education. Examples

during the past five years or so include the following: Bachand (1984), Birkey (1984), Dohmen (1985), Gordon (1983), Hoare (1982), and Petska (1982). In addition, several earlier works are still thought provoking and useful; examples include Hiemstra (1976), McKenzie (1979), and Tremor (1974).

Humanity's future will benefit from adult educators who have a strong commitment to making a positive difference as the unfolding human drama moves through its next exciting scenes. As educators of adults increase their thoughtful understanding of potential futures, their new wisdom will lead to an enhanced impact for their programs—and an enlarged vision for the institution's mission. AAACE

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