

# **Global Trends 2005: An Owner's Manual for the Next Decade**

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## Trend One: The Foundations

### DEMOGRAPHY

The first and most basic element of the human environment is the size and character of the human population – demography. The sheer numerical advance of humanity over the millennia is certainly astonishing, never more so than today. Most recently, the nations of the world have added 3 billion people to the planet in the space of only three decades. World population will continue to rise, only after 2020 world population will begin to decline.

The growing dominance of the elderly people in many developed nations could produce tensions between the old and the young workers paying huge bills to finance elder services.

Today population growth rates in cities are three times higher than in rural areas. The United Nations estimates that by the year 2025, 61% of humanity –more than five million people– will be living in cities.

One result of population growth in the developing world alongside minimal, or even negative, growth in the developed world will be intense new pressures for immigration and migration.

### EMERGING ENVIRONMENTAL DANGERS

We will experience a growth of the gases that produce global warming as a consequence of the increased energy use. Toward the end of the next decades developing nations may surpass developed ones as consumers of energy. The massive coastal flooding and worldwide agricultural shifts predicted by some scientists may occur –but if they do, it will be well into the next century. An expanding human population and the environmental effects of its activities will cause the extinction of some species.

### FOOD: A VEGETARIAN FUTURE

Because feed animal consume so much grain, diets rich in meat require three times as much of it to feed a person as do vegetarian diets. Such a shift may indeed be under way. U.S. consumption of beef, for example, has dropped from 60 kg per person annually in 1976 to about 45 kg in the 1990s. The trend is especially powerful among younger Americans: 15% of U.S. college students call themselves vegetarians.

### WATER

Growing worldwide population will place new pressures on world water supplies. Global demand for water increased 900% in the 20<sup>th</sup> century; it increased by a factor of 4 between 1940 and 1990 alone and is expected roughly to triple again by the year 2020. While the Earth is quite literally awash in water, only a tiny percentage is available for human use. Conservation of water is a potential trend as a solution to water shortages.

### NUCLEAR POWER

Since the 1960s through 1985, nuclear energy grew rapidly. In 1970 nuclear plants generated 3 % of electricity; by 1985 that figure reached 25 %. Since that time nuclear energy's contribution has leveled off. Fear of nuclear accidents among other concerns has conspired to reduce it. In the U.S. it is expected a growth of only 0.2 to 1 % a year over the next decade.

### ELECTRIC CARS AND SCOOTERS

The emergence of a new breed of electric or hybrid gas-electric cars would revolutionize the energy picture in developed or developing nations. A broad shift to hybrid electric would be “the biggest change in industrial structure since the microchip.”

### CULTURE

Culture plays an important role in shaping the everyday thoughts, beliefs, commitments, and decisions of all human beings. Some cultures will equip their people for success over the next decade better than others. Culture will exercise an important influence on the history of the next decade.

### POLICY RECOMMENDATIONS: TREND ONE

1. Inaugurate a major new worldwide program of research and development for renewable energy.
2. Continue and expand research in agriculture.
3. Increase the investments in heading off disaster in the arc of crisis.
4. Develop a standing international humanitarian disaster response unit.
5. Pursue pension reform, saving enhancements, and debt reduction.

The world will face long-term challenges that impose transitional requirements. The strategies designed to deal with such transitions should begin to take shape over the next decade. The result is a clear requirement for long-term thinking with policy responses to match, guided by visionary leadership.

## Trend Two: The Engines of History

### THE ENGINES: SCIENCE AND TECHNOLOGY

Biotechnology: February 1997 brought news that stunned the scientific world. Biologist in Scotland announced that they had cloned adult mammals, in this case sheep. This is a field that will transform the human environment over the next decade (biotechnology). The Human Genome Project, transgenic artificial human chromosomes, genetically engineered food are some of the applications related to biotechnology in the next decade.

Renewable energy will be a significant issue over the next decade, even though its impact will be limited. One of the most important emerging renewable energy technology are fuel cells which use hydrogen as fuel, electrochemically reacting it with oxygen to produce electricity.

Information technology has changed a lot in the last few decades, however the next decade will witness a dramatic advance in this field. Massive supercomputers of astounding power will be coming into service. A "Pervasive Knowledge Network" (anytime / anywhere access to voice or video communications, Internet or networked computer access and entertainment) will be in operation. Tiny chips capable of wireless communications will join with miniature video transmitters to make possible another revolution –a thoroughly sensing environment. Cars, medicine, videophones are some of the applications that will be dramatically changed by its use. "Virtual Reality" in applications as tele-medicine and tele-education will begin to come into its own the next decade.

### THE ENGINES: SOCIAL AND PSYCHOLOGICAL

In the next decade changes also will be propelled by a number of social and psychological engines that will transform the character of governments and societies around the world.

The organizational requirements of modern societies, combined with the rationalistic decision-making procedures fostered by a scientific age, gradually push human societies down a historical funnel because they are products of the same historical engines. This global convergence of values and beliefs is most apparent among the young. The world's teen population is not homogeneous but it is linked. Moreover, a globalization of adolescent culture is occurring rapidly. This, it does not mean that all cultures are going to become one, but there will be a convergence.

The human nature and needs, through people's actions, individual as well as collective, shape societies. Security (physical as well as economic), relationship (affection, community, belonging as well as ties to nature); and identity (dignity, recognition and related needs) are some of the needs that offers a framework for thinking about their practical implications over the next decade.

Social construction and evolutionary learning offer an important perspective on the nature of history as well as its direction. The social construction is shaped by the social context. Human beings are not static, they draw conclusions and modify their perceptions, in short they learn. Evolutionary learning and social construction reinforce one another. It is not clear if social construction will take us over the next decade, but it will be in evidence on issues as globalization and the spread of democracy.

### WHERE ARE THEY TAKING US?

Socioeconomic convergence and economic reform to political freedom are some implications of the various trends discussed throughout the book. The engines of history surveyed here also push the world further in the direction of increased freedom and democracy. Expanded freedom is partly a product of the economic liberalization. Economic freedom creates expectations of liberty that seep into the political realm.

The universalization of free-market economic models will expand minority rights and gender equity in the next decade. The engines of history have surveyed the decline of major war and the rise of more institutionalized and enforced international cooperation in a global social contract. On the other hand, the most important implication of the engines outlined is the fact that technological, economic, and social convergence will generate profound instabilities, especially in countries in transition to liberal economic and political orders.

## Trend Three: A Human Resource Economy

Driven by the stunning technological advances of the twentieth century the nature of economic activity is changing rapidly and radically affecting the stability of modern society and the future of conflict within and between nations. The central thing of this new economy is knowledge.

### A NEW KIND OF ECONOMY

The new economy's primary good is knowledge, not natural resources or a tangible product. It involves the development, exploration, storage, interpretation, and application of knowledge in all fields such as telecommunication, science, education, media, etc. Not all cultures are well organized to deal with the application of knowledge. Hierarchical cultures, or those opposed to change must alter their ways or be left frustrated by the side of the emerging human resources economy. The notion of a human resource economy is much more than computers or televisions on top of an industrial economy, it is one that trades and deals in knowledge rather than goods, in ideas rather than things. This is not to suggest that manufacturing is going to disappear. Because of automation, very small percentage of the workforce can produce all the goods needed by the population. But the knowledge era means more than just traditional services, it means an unprecedented emphasis on providing not just one service in isolation but a "holistic package of goods and services" to meet the consumer's total need. Service-sector productivity growth will become the major engine of rising standards of living over the next decade.

### THE REORGANIZATION OF WORK

The most sweeping implication of a human resources economy will be a dramatic change in the nature of work. The idea of a single career for life with a major corporation is a thing of the past. Shifting career paths, serial careers, and less loyalty on both sides of the relationship are the norm for the new economy era. Forms of work – for some decades a relatively rigid forty-hour, five-day week– have become much less stable, uniform and centralized; the new patterns include consulting, part-time and temporary positions and the like.

The knowledge era's ultimate corporate institutional form is that of substantially "virtual" organizations. It involves organizations that exist mostly on papers –employees who work independently and communicate by e-mail, telephone, and fax and normally do not share the same work space. A world of virtual corporations is increasingly a world of alliance projects, as groups of specialized companies come together in virtual alliances that then melt away. The behavior and strategies of business in this world will differ dramatically from the individualistic basis of competition of the industrial age.

Some observers suggest that the world has entered the early stages of a delaborization of the economy. For example, the futurist Jeremy Rifkin puts it in the title of his recent book, *The End of Work*. Automation and other forms of technological advance have dramatically reduced the number of people required to do many jobs. Knowledge-era businesses are seeking smaller, highly talented workforces; moreover, this era is not inherently job intensive.

### OTHER ASPECTS OF THE NEW ECONOMY

Another hallmark of the human resources economy is the growing dominance of networked organizational forms, based on decentralization, participation, and coordination. For example, electronic sales do not require as many employees and can be done from almost anywhere. Intellectual property is another symptom that is becoming the central focus of trade policy.

Privatization and liberalization and the use of the latest technology in developing countries will help them to compete with developed world. On the other hand, it threatens to expand the gap between haves and havenots in both developed and developing countries.

### CONFLICT IN THE KNOWLEDGE ERA

This new era is transforming the nature of conflict. Today, armies are achieving a concentration of information instead of force and mass. Militaries (and terrorists) are increasingly looking into the potential of computers, telephones and broadcast media. For example, computer hackers with a few keystrokes would bring down systems than manage billions of dollars in a day. In the future enemies of the US (or any knowledge-era power) will be able to attack it directly by interfering with its national information infrastructure, the electronic warfare.

The human resource economy represents both the end of an old form of economy and the birth of a new one. This transition will bring a tension that is the most important challenge of the next decade.

