

Chapter VII

From Global to Universal-Complementary Civilization

INTRODUCTION

The purpose of this chapter is to define processes triggering the emergence of global civilization at the beginning of the 21st century. In addition, a proof is provided that the fourth wave of globalization leads towards the emergence of global civilization as one of facets of world civilization, including a proposal of the direction in which one must lead the further development of world civilization.

The further purpose of this section is to define the sources of crisis affecting civilization and to define a solution by developing the concept of universal-complementary civilization. The study is based on the critical theory of civilization, which not only analyzes “how it is” but also provides some solutions “how it should be.” A graphic modeling of civilizations will be applied to move from scenario-driven considerations to system-driven synthesis of components and their relationships. First to be analyzed will be symptoms of the civilization crisis in general. Later, the question is posed: Can Western and global civilizations solve this crisis? Eventually a new solution is offered under the term “universal-complementary civilization,” as a foundation for all kinds of particular and common (global) civilizations. The life cycle of this new civiliza-

tion is defined and the strategy how to begin its implementation will be suggested.

THE FOUR WAVES OF GLOBALIZATION

The first wave of globalization took place in the 16th and 17th centuries, when the Atlantic Europeans (from Spain, Portugal, England, France, and the Netherlands) migrated to new colonies in America and Asia at the rate of tens of thousands per year. For example, out of a maximum home population of 1.9 million, half a million Dutch emigrants moved to Asia (Indonesia mainly) between 1600 and 1700 (Parry, 1966). The “Little Ice Age” in Europe and the growth of population, as well as progress in the construction of long-distance sailing ships and firepower, triggered this wave. Raudens (1999) argues that this colonizing conquest caused nineteenth- and twentieth-century European imperialism directly and perhaps did much to cause industrialization as well.

The second wave of modern globalization took place from 1870 to 1914 due to advances in transportation, reduced trade barriers and migration of 10% of the global population to less densely populated countries (from Europe to America, from India to Sri Lanka and Africa, from China

to Burma, Thailand, the Philippines, Vietnam, and Singapore, and so forth). Protectionism and ineffective economic policies led to an increased gap between globalizers and the rest of the world. Two World Wars and the Great Depression stopped the global economic integration as too far-reaching for the post-war and post-crisis times.

The third wave of globalization took place from 1950 to 1980. Its goal was to integrate economically the richest countries: Europe, North America, and Japan. Policies of trade liberalization were developed within frameworks of the General Agreement on Tariffs and Trade (GATT) and the Organization of Economic Co-operation and Development (OECD). Exports from developing countries were limited to commodities and such specialized products as art.

The current and fourth wave of globalization takes place on the threshold of the third millen-

nium, and is the most extensive. The World is shrinking fast and coming together as a global civilization, which shapes our lives and changes politics, work, and families.

THE ENABLING FACTORS OF THE FOURTH-WAVE GLOBALIZATION

Preconditions of Fourth Wave of Modern Globalization

A. Technological advances in transportation and communications technologies

These technologies provide the infrastructure for globalized operations. Table 7-1 illustrates the decreased costs of transportation in the last 160 years (1830-1990); Table 7-2 shows how the

Table 7-1. Transport costs, 1830-1990

Year	Ocean Transport		Average Air Transportation Revenue per Passenger Mile (in 1990 US\$)
	Wheat, Percent of Production Cost Spent for Transportation	Ocean Freight 1920 = 100	
1830	79		
1850	76		
1880	41		
1910	27.5		
1920		100	
1930		65	0.68
1940		67	0.46
1950		38	0.30
1960		28	0.24
1970		29	0.16
1980		25	0.10
1990		30	0.11

Sources: Baldwin and Martin (1999), *World Economic Outlook*, May 1997, Table 11.

Table 7-2. Communication and computer costs, 1960-2000

Year	Cost of a 3-minute Telephone Call, New York to London (in 2000 US\$)	Price of Computers and Peripheral Equipment Relative to GDP Deflator (2000=1000)
1960	60.42	1,869,004
1970	41.61	199,983
1980	6.32	27,938
1990	4.37	7,275
2000	0.40	1,000

Sources: World Economic Outlook, May 1997, Table 11, updated to 2000; U.S. Commerce Department, Bureau of Economic Analysis and Masson (2001).

costs of communication and computers declined in the last 40 years (1960-2000). During the first and second waves of globalization, technology provided incredible productivity in making and moving things. In the third wave, technology is driving the productivity of information itself.

B. Information-communication Technology (ICT)

ICT triggers a shift in the postindustrial society's *modus operandi*, which is based on new key features (Bell, 1981):

- (1) The shift from a goods-producing to a service economy,
- (2) The increasing reliance on theoretical knowledge, and
- (3) The creation of a new "intellectual technology" based on computers and other smart machines.

Manuel Castells (1996) observes that "what has changed is not the kind of activities humankind is engaged in, but its technological ability to use as a direct productive force what distinguishes our species as a biological oddity: its superior capacity to process symbols." The ICT does not replace agriculture and industry but instead optimizes them. It leads towards the informatization

of the global society, which by connecting all of us makes us the Global Open Society (Anderson, 2004). (The "Open Society," according to Karl Popper (1971) and George Soros (2003), is based on the recognition that people have divergent views and interests and that nobody is in possession of the ultimate truth. Therefore, people must be given the greatest degree of freedom to pursue their interests as they see fit, provided that these interests can be reconciled with those of others. The Open Society is based upon the postulate of radical fallibility and reflexivity.)

An emerging global digital consciousness (GDC), a symbiosis of humans and machines, provides cognition and external memory systems that support the global civilization and vice versa. Hence, the GDC is composed of

- infosphere (computerized information-communication systems composed of databases, applications, and networks)
- cyberspace (the Internet and Web applications)
- mediasphere (radio, TV, cable)
- mindsphere (global ideas generated by previous global spheres) (Arquilla and Ronfeld (1999) call it *noosphere*, a term coined from the Greek word for "mind").

The Globalization Index, which breaks globalization down into its most important components, indicates that the “most wired” countries in the world are beneficiaries of globalization. The Globalization Index tracks the movements of money in terms of investments and business transactions in the era of “electronic capitalism” (Bledsoe, 2001).

C. Manufacturing Outsourcing

In the 1980s, the developed countries began to outsource manufacturing to countries with cheap labor. As a result, poor countries broke into global markets of manufacturing goods and services. Their export of manufactured goods and services rose from 25% of total export in 1980 to more than 80% by 1998. The most successful countries in this trend are Brazil, China, Hungary, India, and Mexico, with 20 others following up. With 3 billion people, they reached a level of growth 5% higher than developed countries. The rest of the developing world trades less at the beginning of the 21st century than it did in 1980, which means that 2 billion people are marginalized, with some countries even showing negative growth. In more successful developing countries, the poverty level decreases. The total number of *poor* people in rural China alone was reduced from 250 to 34 million from 1980 to 1999 (Stern, 2002).

D. Lowering Tax Barriers

The reduction in average tariffs is highest in South Asia, from 65% in the early 1980s to about 30% in 2002. In the same period, Latin America, East Asia and the Pacific lowered tariffs from 30 percent to 15 percent, Europe and Central Asia from 15% to 10%, the most industrialized economies from 8% to 5%. Only Sub-Saharan Africa, the Middle East and North Africa lowered tariffs by small percentages, maintaining them at roughly the 20% to 25% levels that existed in 1998 (World

Bank, 2001). Countries like Ethiopia and Uganda liberalized trade significantly. Average tariffs in rich countries are low, but they maintain barriers in exactly the areas where developing countries have comparative advantage, agriculture and labor-intensive manufacturing. The cost of protection by rich countries and paid by poor countries is at the level of \$100 billion per year, which is twice the size of aid from the northern to the southern hemisphere (Stern, 2002).

GLOBALIZATION BENEFITS

A. Higher Economic Growth

Almost every product or service market in the major economies of the world civilization has foreign competitors. Increased foreign competition is in itself a reason for a business to globalize—in order to gain the size and skills to compete more effectively (Yip, 1995). The globalizers are mainly Americans, Europeans, Japanese and Chinese. The more globalized developing countries increased their per capita growth rate from 1% in the 1960s, to 3% in the 1970s, 4% in the 1980s, and 5% in the 1990s. The less globalized developing countries experienced negative growth, minus 2%, in the 1990s. Rich countries saw a positive 2% growth during the 1990s (Dolar & Kraay, 2001).

B. Poverty Reduction

The globalization impact on poverty reduction is well illustrated by the cases of Uganda, India, Vietnam and China in 1992-1998. These countries were able to reduce poverty by 6% to 10% annually. The number of people living on less than \$1 per day declined between 1960 and 2000, from 1.4 to 1.2 billion (Stern et al., 2002).

Table 7-3. *Infant mortality, life expectancy, and adult illiteracy (selected countries and regions, 1960-1999)*

Country, Region	1960	1999
China		
Infant mortality rate (per 1,000 live births)	132	30
Life expectancy at birth (years)	36	70
Adult illiteracy rate (%)		17
India		
Infant mortality rate (per 1,000 live births)	151	70
Life expectancy at birth (years)	43	64
Adult illiteracy rate (%)	76	48
Ghana		
Infant mortality rate (per 1,000 live births)	131	57
Life expectancy at birth (years)	45	58
Adult illiteracy rate (%)		30
Latin America and Caribbean		
Infant mortality rate (per 1,000 live births)		31
Life expectancy at birth (years)	82	69
Adult illiteracy rate (%)		13
United States		
Infant mortality rate (per 1,000 live births)	26	7
Life expectancy at birth (years)	70	77
Adult illiteracy rate (%)	2	<5

Source: *World Development Indicators and World Development Reports (various issues)*, World Bank

C. Life Quality Improved

The quality of life measured by infant mortality, life expectancy, and adult illiteracy has improved significantly from 1960-1999, as shown in Table 7-3.

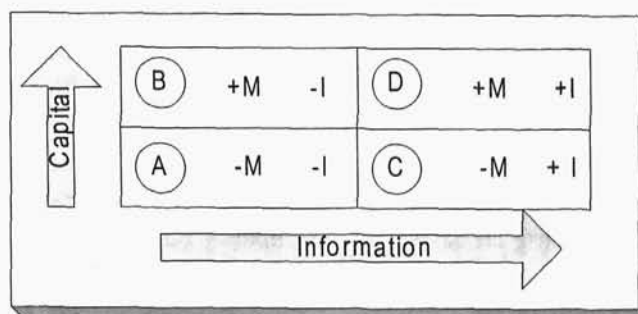
GLOBALIZATION PROBLEM-CAUSING FACTORS

A. Inequality

The fast pace of the third globalization wave causes widespread anxiety, because it leads to *inequalities within and among countries*, including developed countries. The latter, by outsourcing their production and services, trigger labor

layoffs in their workforce. These trends can be viewed as civilization aid provided by developed countries for developing countries at the cost of their own labor. In the long term, the outsourcing strategy may reduce the number of consumers in developed countries, who will not be able to buy even the less expensive products and services from developing countries. It may have an impact on the research and university communities in developed countries, because they will have fewer industries waiting for innovations and fewer students to educate for jobs, which no longer exist in their own countries. There is an opinion that income inequality growth in some countries, such as the U.S., India, China, and Poland, is caused by the *impact of technological change on workers' skills* rather than by globalization. On other hand, one cannot neglect the fact that in India, China, and

Table 7-4. Paths of human wealth development vs. the digital divide



Poland such income inequality is possible only because globalization causes more demand on these countries' labor.

B. Digital Divide

ICT acts as both a greater lever of opportunity and an amplifier of inequality. Table 7-4 illustrates four paths of human wealth development and their impact on the "digital divide."

Option A describes a case of individuals who have neither money nor information and eventually no opportunities to improve their conditions.

Option B reflects "old money" which has been or is being made in a traditional manner. It is exemplified by an uninformed individual or company, who over time will lose to those who have better information.

Option C depicts a person or company with little or no money but with access to better information that may improve its financial situation. This option is exemplified by college students and some early dotcom start-ups.

Option D illustrates a case of people or companies having both money and information, so their economic/social position will grow. It is exemplified by computer/software entrepreneurs

who by the end of the 20th century became the richest people in the world.

Digital Divide is illustrated in a well-known title, *Jihad vs. McWorld*, by Ben Barber (1996), who draws a line not between the political right and left but between two opposed tendencies, tribalism and globalism, each with its own vision of the world's future.

C. Volatility

The openness of national financial markets to global capital markets brings volatility of economic activities at all levels of the World Economy. The financial crisis in the 1990s was a good example of that kind of volatility, which was based on overvalued exchange rates and unsustainable fiscal positions. The lesson from that crisis is that free flow of capital requires appropriate intergovernmental regulations to correct the markets' failures.

D. Antiglobalization

Since the fall of the Berlin Wall in 1989, the deaths of fascism, socialism and communism are heavily advertised. If there is an idea that unites much leftist economic thought today, it is that globalization is the root of many evils. Many people

from many international communities organize themselves against corporate power and corporate control. Globalization is perceived by them as the worldwide extension of capitalism, with stateless corporations which are driven mostly by greed. The disappearance of alternative models of development provoked anguished reactions from the old anti-capitalists, whose dreams have vanished. For many young people, particularly students, capitalism cannot create an adequate response to the challenges of social justice (Bhagwati, 2002). They also do not remember or do not know that centrally planned economies (in Eastern Europe and China) worsened rather than improved unequal access to resources. David Korten (2001) in his book *When Corporations Rule the World* provides an anti-globalist's vision of the better world—of disarmament, tolerance, gender equality, less consumption, global trust-busting, debt write-offs, the transformation of international financial institutions into democratic, cooperative institutions, voluntary executive salary caps, grassroots democracy, and so forth. He offers a vision of a market economy composed primarily though not exclusively of family enterprises, small-scale co-ops, worker-owned firms, and neighborhood and municipal corporations. He also argues that we should create societies that give a higher value to nurturing love than making money. These ideas are reminiscent of the "Small is Beautiful" (Schumacher, 1975) conception. It is easy to define noble aims, but achieving those aims in a very complex civilization is a monumental task. How do we accomplish such a transformation, through another Bolshevik Revolution?

The culmination of a three-year project by the International Forum on Globalization, whose members included Ralph Nader, David Korten, Lori Wallach, Jerry Mander, and John Cavanagh (2002), presented a sober critique of globalization as well as practical, thoughtful alternatives. The authors assert ten core requirements for democratic societies, including equality, basic human rights, local decision making, and ecological

sustainability. They demonstrate how globalization undermines each. Offering specific strategies for reining in corporate domination, they address alternative systems for energy, agriculture, transportation, and manufacturing, ideas for weakening or dismantling the WTO, World Bank, and IMF, and rebuilding economies that are responsive to human needs. Caused by this type of issues, for example WTO's conference in Cancun in 2003 was a fiasco.

The opposite movement to anti-globalization is the globalizing right, which promotes Adam Smith's free market forces on the basis that these will provide greater peace and prosperity for all. They speak for minimal tariffs and economic stability ("Peace through Trade") assisted by business-friendly international institutions such as WTO, IMF, World Bank, and so forth.

E. International Institutions in Question

The belief that international institutions such as the IMF can facilitate smooth globalization is challenged by Nobel Prize laureate Joseph Stiglitz (2002) (J. Stiglitz was a chief economist for the World Bank, chairman of President Clinton's Council of Economic Advisers, and cooperated with the IMF in 1993-2000), who states that the IMF is a last resort for desperate situations. Furthermore, its remedies have failed often, even more often than they worked. IMF structural adjustment policies—the policies designed to help a country adjust to crises as well as to more persistent imbalances—led to hunger and riots in many countries. Even if the policies worked, they worked rather for those who are better off, sending those at the bottom to even greater poverty. The IMF thinks that to achieve long-term stability of a given country, some pain is necessary. Stiglitz agrees that some pain may be necessary, but the level of pain in developing countries created in the process of globalization guided by the IMF and international economic organizations has been far greater than necessary.

There is some hypocrisy in the argument that developing countries should open markets for goods from developed countries that keep their own markets protected. This type of policy makes the rich richer and the poor more impoverished—and more angry. This approach takes place, for example, in agriculture, when WTO wants the developing countries to open their markets for products subsidized by developed countries. The developing countries resist this policy because it would destroy their unsubsidized agriculture. Hence, the free global market becomes an illusion³.

The optimal solution, as viewed by Stiglitz, is to see cooperation between government and markets to minimize their limitations and failures. This cooperation should be led not only by financially-oriented mind-sets but also by socially-oriented actions.

F. Culture Invasion

Globalization causes concerns among developing countries that it threatens their power, culture and the environment. The rest of the world, including Western Europe and Japan, is afraid that American culture will dominate them. The developing countries are too small to compete with Hollywood movies, fast food chains (McDonalds) and so forth. They are also too weak to debate the legal issues governing the global economy and environmental issues. So they suffer from global warming while developed countries generate most of the carbon dioxide (CO₂).

G. Rising Chaos

Higher business profits are a primary driver of globalization, and they can be achieved by lowering taxes. Lower taxes result in the decline of the state apparatus, which in developing nations leaves room for warlords, mafias and gangs. It is reminiscent of the Middle Ages, when after the fall of the Roman Empire, roads deteriorated,

cities depopulated and taxes were collected by warlords. The Middle Ages ended when the rise of capitalism on a national scale led to powerful states with sovereignty over particular territories and people (generally accepted to be marked by the Treaty of Westphalia in 1648). Now that capitalism is operating globally, states are eroding and a new medievalism is emerging, marked by multiple and overlapping sovereignties and identities (EU, NAFTA, FTAA and so forth). This occurs particularly in the developing world, where gangs rule some areas of such mega-cities as Rio de Janeiro, Mexico City, and Baghdad and states were never strong in the first place (Rapley, 2006).

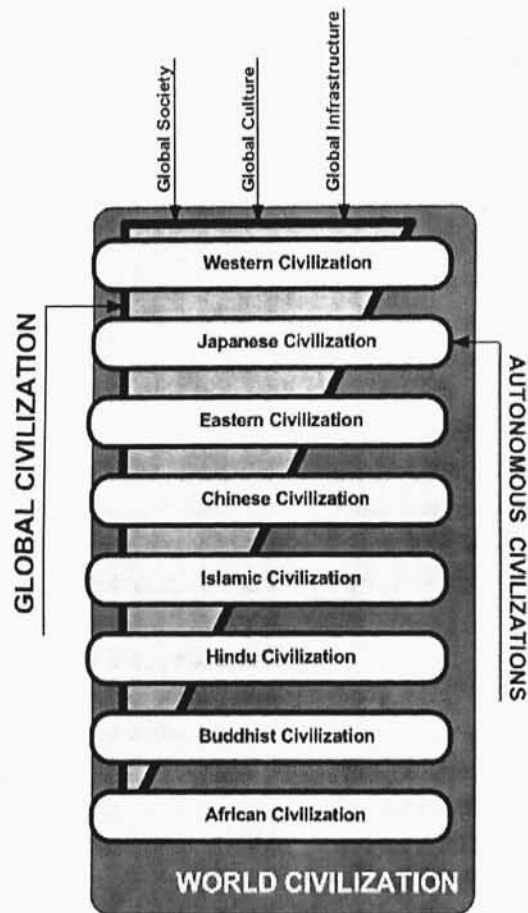
The issue of *standardization* or *homogenization* should be guided by the differentiation and harmonization rules, allowing for different solutions at national levels and universal solutions, when they are applied at the global level. The application of these rules will keep civilization active and developing.

WHY GLOBAL CIVILIZATION?

The fourth wave of globalization leads towards the emergence of Global Civilization because it meets the general criteria of civilization (Targowski, 2004). For example its:

- Human entity as the Global Society is composed of certain segments of the societies of eight autonomous civilization (Western, Eastern, Islamic, Japanese, Chinese, Buddhist, Hindu, and African), which apply global culture and infrastructures
- Culture has global character, which means that certain more or less identical patterns of behavior are practiced (*de facto* by certain segments of those societies only) in those autonomous civilizations, for example, such behaviors as the English language, profes-

Figure 7-1. The emerging global civilization as a new layer of the world civilization

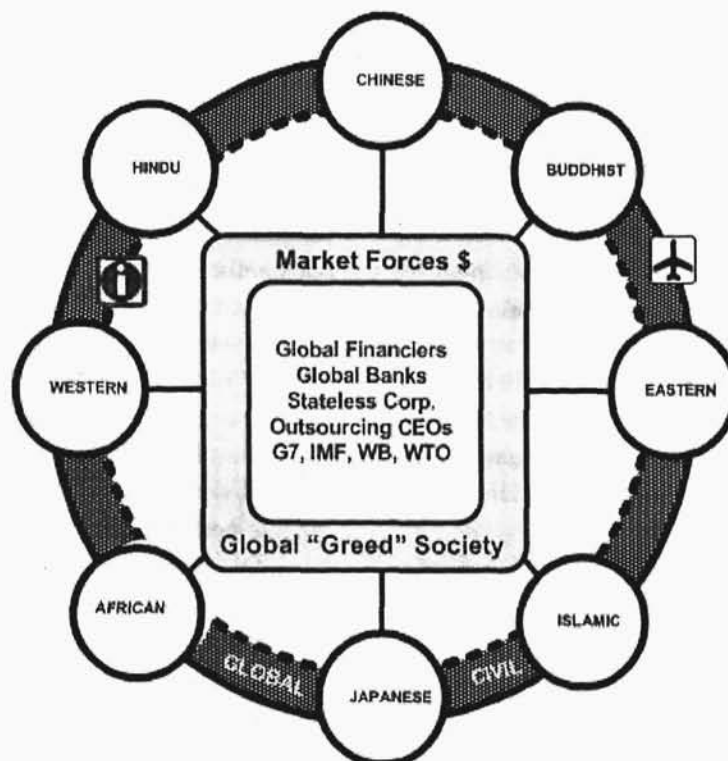


sional and student dress code, music, movies, food, drinks

- Global Infrastructure; composed of
- Information (1) (the Internet and Global Area Networks),
- Material (2) (transportation, finance, and business) is reaching every autonomous civilization and integrating them into an emerging global society and global economy
- Global Infrastructure of Regulations (3), including many international organizations

(for-profit and non-profit, official and unofficial) such as the U.N., UNESCO, GATT, WTO, WB, IMF, and NATO. This last kind of infrastructure plays paradoxical roles, promoting justice and enhancing inequality, triggering world conflicts and instability. For example, globalization triggers the anti-globalization movement putting the emphasis upon local forces and potential, which de facto can be called "GLOCAL" (GLOBAL-local), since their uniqueness is a product

Figure 7-2. The solar medal of global civilization in the 21st century



of global forces. Among anti-global forces, one that is becoming very violent is global terrorism, which can destroy huge parts of any civilization. In response, civilization develops security systems, which protect global order against global chaos. Hence, the global infrastructure at the same time creates both order and chaos!

However, global civilization is not another autonomous civilization, which could be called *vertical*. It is in fact a world civilization, which *horizontally* penetrates autonomous civilizations as shown in Figure 7-1. Some critics may say that the reach of global civilization in the least developed autonomous civilizations is yet very modest (such as the presence of a small number of users of the Internet or telephones). On the other hand this reach is observable and known in

those civilizations, whose elites are active users of global civilization.

GLOBAL CIVILIZATION IN THE 21ST CENTURY

At the end of the second millennium, two civilizations; Western-West and Japanese, were at the level of saturation. This pushed them to external expansion, leading to the creation of the global economy. From the end of World War II until 1973, the United States experienced sustained economic growth. But at the beginning of the 21st century, the U.S., with a saturated national economy, looks to assure sustainable growth by exercising competitive advantage through lowering costs with the help of outsourcing strategies around the globe. Outsourcing provides growth