Why Are the Fears of Globalization So High?

Lester Thurow

Economic historians tell us that the differences in per capita income between the wealthiest and the poorest countries in the world were small to nonexistent in 1700. In every country, 98 to 99 percent of the workforce was employed in farming, using virtually the same technologies. Half of the world’s gross domestic product (GDP) was inside India and China because half of the world’s population was inside India and China.

Then came the invention of the steam engine during the 18th century. With that, the first industrial revolution arrived and an agricultural era 8,000 years old came to an end. Some countries made the leap from agriculture to industry and others did not. Individuals and countries that moved with these technological forces became rich. Those that did not participate remained where they were and gradually became poorer relative to the industrialized countries.

In the late nineteenth century, a second industrial revolution based upon one key invention (electrification) and one key German idea (systematic investments in industrial research
and development based upon academic science) again disrupted the economic system. Systematic industrial research and development speeded up the pace of technical change and its nature. Those who would be economic leaders had to invest in it. For the first time, a large, educated workforce became central to economic success.

Again, some countries leapt into this second industrial revolution and others did not. Those that did not make the leap remained where they were, with per capita incomes similar to those that existed during feudal times. Starting from virtual equality in 1700, three hundred years later, in the year 2000, the gap in per capita GDP between the world’s richest and poorest country was approximately 140 to 1. Great inequality has replaced equality.

The Third Industrial Revolution

It is often very difficult to see major technical disruptions even when they are already underway. Looking forward, we now live in a period historians will call the third industrial revolution. Leaps forward and interactions among six key technologies (microelectronics, computers, telecommunications, manmade materials, robotics, and biotechnology) are once again sending the economy off in new directions. Collectively, these technologies and their interactions are producing a knowledge-based economy that is systematically changing how we conduct our economic and social lives.\(^1\)
A whole series of major transformations is now visible. Developments in new materials are making the long-known fuel cell into a practical device that will lead us from a hydrocarbon energy economy into a hydrogen energy economy. But it is clear that biotechnology will come to hold the place steam and electricity held in the earlier revolutions. Humans have for the first time gained the ability to change their own genetic code. They can make themselves into something different. They now control their own evolution. It is not hard to imagine that this ability to change ourselves genetically will come to be seen as the central inflection point in all of human history—more profound that the initial shift from hunter-gatherer societies to agricultural societies or the invention of writing and reading.

All technological revolutions are frightening. No one knows where they will lead and what the world will look like when they are completed. Looking at the history of economic success and failure, there is a simple message: To undertake geographic, intellectual, or economic voyages of exploration, one needs individuals willing to take risks but also societies willing to tolerate risk and finance the voyages of exploration. In the age of geographic exploration, individuals were bold enough to sail into the unknown, but they were economically supported by their countries—the king and queen of Spain in the case of Columbus. In our age of knowledge exploration, societies similarly have to be willing to finance voyages into the scientific, rather than geographic, unknown. Fearful societies are not rich societies. They won’t make the bold voyages of exploration they need to make.
Technological revolutions are hard to date. Once seen, signs of their development can be found much farther back in time. Looking back, observers often wonder how those alive at the time could have missed understanding that a revolution was underway. The double helix was discovered in the mid-1950s, and the first courses in biotechnology, then called biophysics, were taught at MIT in the late 1950s. The dating of revolutions is in many ways arbitrary, but what counts for our purposes is when those who were alive at the time came to see that something very different was happening around them. In the case of the third industrial revolution, this self-knowledge was hard to find before the 1990s, but arose at an accelerating rate during the 1990s.

The Internet was first used in the late 1960s as a means of military communications, but it emerged in its civilian incarnation in the mid-1990s. Suddenly the power of computing (something that had been developing since World War II) was widely available, widely useful, and, most important, widely visible. There was now a reason other than word processing to own a computer. New activities such as downloading music became possible. Old activities such as retailing could be done in new ways. Those first to figure out what was happening in this revolution would grow rich. No one knows what won’t work. Everything might work. It is the lip of a new era. New industries and new terms such as “dot.com” came into existence.

Bill Gates stands as the symbol of this new era. For all of human history the richest person in the world has owned natural resources—land, gold, oil. But Bill Gates owns no land, no gold,
and no oil. Owning neither factories nor equipment, he is not a capitalist in the old-fashioned sense. He has become the richest person in the world by controlling a knowledge process. As such, he marks our fundamental shift to a knowledge-based era, in which wealth is built upon skills, education, and research and development. For the first time in human history it is possible to be fabulously rich by controlling knowledge. Intellectual property rights have replaced mining rights as the drivers of success. The soft power of cultural, educational, and technological dominance has replaced the hard power of colonial rule and geographic military expansion. In a very real sense, intellectual conquest has replaced geographical conquest.

Anyone wishing to be successful in this third industrial revolution must develop the mentality of an explorer. They must actively embrace the unknown and learn from their experiences. Like previous geographic explorers, they will discover that their economic world is bigger than they thought. Previously unknown technological continents exist, and great economic rivers flow through them. The results of these newly discovered realities will change their economic diets just as the sugar cane, potatoes, corn, and tobacco of the New World changed the diet of the Old World.

The geographic model we should attempt to replicate in our intellectual voyages is that of Sir Francis Drake. He made seven voyages with six essentially ending in failure. In one he never got further than the Azores. But his willingness to keep sailing and his one successful voyage made him the richest man in England, made him a knight for his services to his
country, and put him in the history books forever. May we be so lucky and do likewise.

But it isn’t just about luck. Successful explorers study accidents to learn about preventing future accidents, to better predict when disasters will occur, to improve crisis management, to have higher survival rates, to understand how to clean up post-disaster messes quickly and efficiently, and to make what they build more disaster proof. Successful explorers study the path, nature, and momentum of the existing economic system because it lets them understand how the new forces hitting the existing system will affect its future trajectory. Most of all, explorers have fun. Let no one doubt that the intellectual explorations of the new, global, knowledge-based economy can be as exciting as the discovery of the nature of our physical globe was five hundred years ago. The traits needed to be a geographic, intellectual, technological, or economic explorer are all rather similar.

The explorers and those who follow them also have to be builders. When technologies change—and they are changing—economies must change. The first industrial revolution, the steam engine, and the second industrial revolution, electrification, destroyed feudalism. The third is just as profoundly destroying our old national industrial economies.

A Global Superstructure

Emerging communication technologies make it possible to create a global economy—and perhaps mandate its construction.
WHY ARE THE FEARS OF GLOBALIZATION SO HIGH?

Businesses located anywhere can manage activities everywhere. National economies are slowly dissolving and being replaced by a global economy. Additionally, much of the world is throwing away its communist or socialist inheritance and moving toward capitalism.

Each of these shifts is changing the economic world in which we live. Many of the effects ascribed to globalization spring from advancing technologies and changing political landscapes as well. In sum, a global superstructure is being built on a capitalistic substructure using new technologies.

As was true with the first two industrial revolutions, some countries will make the leap and some won’t. The 140-to-1 gap between the per capita GDP of the world’s richest and poorest countries will undoubtedly grow bigger if current trends are simply extrapolated forward. Participation in globalization differs enormously across countries. Based on a variety of measures such as political engagement in international organizations, use of international technologies such as the Internet, personal contacts through travel or telephone calls, and economic integration in terms of trade or investment, Ireland was rated the most globalized country in the world in 2004; indeed, Ireland has been at the top of Foreign Policy’s globalization index for the past three years. Singapore and Switzerland were second and third, respectively, on the 2004 list, and the United States was ranked seventh. For comparison’s sake, of the 62 countries on the list, in 2004 China and India were ranked number 57 and 61, respectively.2

In the 1990s, countries participating in globalization were
growing at more than 5 percent per year, whereas those not globalizing had falling per capita GDPs. As countries go up the index of globalization, there is a strong correlation with both higher wages and better management of the environment. But which is cause and which is effect? Does good performance lead to globalization, or does globalization lead to good performance?

Whether one believes that globalization is a “cause” of rising income inequality among countries is a matter of semantics. It is clearly not a cause in the sense that globalization can be accused of making the world’s poor countries poorer. Globalization does not crush countries. It ignores them. The poor are those left out of globalization.

Voices of Antiglobalization

Protestors against globalization often call for its end. Ending globalization presumably means imposing government barriers to lower or eliminate trade across national borders and capital flows between countries. If that were to happen, the standard of living for the average family would fall by a small amount in big wealthy countries, by a large amount in small wealthy countries, and by a huge amount in the third world. Yet objectors to globalization often believe they are protecting the interests of third-world countries.

Antiglobalization feelings flow from a number of vantage points, as described below.


Anti-American Objectors

Public opinion polls show that large majorities of the world’s population, even in traditionally friendly countries, think the spread of American ideas and customs is a bad idea. Fifty percent think this is so in Britain, 58 percent in Italy, and 71 percent in France. Only Japan, at 35 percent, comes in with less than a majority viewing American ideas and customs negatively.

Although American movies account for 70 percent of movies seen in Western Europe and have more than a 90 percent market share in many countries around the world, the movement of culture around the globe is not as one-way as many people think. The traditional American culture is not being exported to the rest of the world. Rather, a new global culture is being built; much of it is being built in America, but what is emerging is not a global copy of traditional American practices. World football (soccer), not American football, is a global game. Pokémon is enormously popular worldwide. Major Hollywood studios are owned by the French and the Japanese. Four of the world’s five largest music recording companies are not American-owned.

A UNESCO study of cultural exports (printed matter, music, visual arts, cinema and photography, games, and sporting goods) shows Japan with a net cultural trade surplus of $14.5 billion and the United States with a cultural trade deficit of $38 billion. Further, culture is not static but changes over time. Globalization may reduce variety, but it also widens
choices in every country. Everyone can choose to embrace cultures that are not their traditional national cultures. This freedom of choice, part of American culture, is something Americans need not be defensive about.

*Objections to Global Government*

The need for global management and the fear of global government generate antiglobalization feelings. Realistically, economic globalization requires a degree of political globalization, yet there is no global government to start, lead, or regulate the process. International organizations such as the United Nations, the International Monetary Fund, the World Bank, and the World Trade Organization present a partial answer to the need for global management. These organizations, however, have been restricted by national governments to ensure that they do not become some form of quasi world government. For example, they can interpret rules national governments have agreed upon, but they have no power to write new rules independently.

Today, there is no world government, so the United States plays the dominant role in globalization because it is by far the world’s largest economy and the globe’s dominant military power. This dominance leads to resentment and fuels anti-American sentiments, as Americans are viewed as getting too many of the gains from globalization. American higher education could help defuse this situation by contributing to the development of international organizations that effectively man-
age globalization and ultimately build a prosperous, fair, and inclusive global economy.

Religious Objectors

One antiglobalization group is easy to understand. The Buddhists who put nerve gas in the subways of Tokyo, the Hindus who tear down ancient Muslim mosques in India, the Christians who blow up government buildings in Oklahoma, the Muslims who attack the World Trade Center in New York, and Jewish fanatics who machine gun down praying Muslims in Israel know exactly what they want and why they are against globalization. They want the creation of a religious utopia—their religious utopia—in their area.

There is no doubt that parts of the world are going to stand aside from globalization to practice their religious beliefs. How much of world falls into this category remains to be seen.

There are always religious leaders who want to withdraw themselves and their followers from this earthly world. That is what monasteries are all about. The real question is why these religious leaders are sometimes listened to and influential and at other times they are not. Why does the option to withdraw into a theocracy look attractive to the potential followers? That is the real question. Understanding why people follow these religious leaders is much more important than understanding the motivation of the leaders themselves.

In many ways, the rise of religious fundamentalism is simply the return of the world that existed two or three centuries ago.
Religious wars were common between the fall of the Roman Empire and the first industrial revolution. Muslim military conquests spread Islam to North Africa, central and southern Asia, and southern Europe, starting in the seventh century with the collapse of the Sassanian rule in Egypt. Christians fought back at the time of the Crusades and later against the Moors and the Turks. Hindus fought back against Muslim rule in India and are still winning elections today by being anti-Muslim. Who can count how many wars were fought between Protestants and Catholics after the Reformation?

These religious wars were not brought to an end by settling religious issues about central truths (who has the right way to heaven) or by a rise in religious tolerance. The religious fires of earlier centuries were extinguished in the ideological battles between capitalism and socialism that arose in the nineteenth and twentieth centuries. How to organize a geographic area economically became the fighting issue that replaced the battles over how to organize that area religiously. Hitler justified his invasion of the USSR as a war against communism. The Cold War between capitalism and communism dominated the last half of the twentieth century. Hot wars between capitalism and communism were fought in Korea and Vietnam. The virtues or vices of socialism versus capitalism fueled almost all of the wars in the third world in the past century. The United States organized several invasions (Cuba, Grenada) and revolutions in Latin America (Chile, Guatemala) under the rubric of fighting communism.

It is not surprising that the death of communism brought with it the return of religious conflicts. If things aren’t going as
we would like, we all seek an ideological banner under which to fight. To be willing to die, we must have a cause that is bigger than we are. This requires an overarching ideology. Without an overarching ideology, potential revolutionaries are simply criminals—even to themselves. The need for an ideology is more important than the precise content of the ideology.

Twenty-first-century revolutionaries needing a banner under which they can fight have picked religion. Their choice is not surprising—with the death of communism and the demise of socialism, at the moment no alternatives exist. The fact that they have followers is also not surprising. What a religious guru offers is certainty: “Do what I say and you will go to heaven.” Certainty is what the average person wants in a period of uncertainty. And in the middle of globalization, the third industrial revolution, and the worldwide shift to capitalism, uncertainty is everywhere. Certainty is precisely what the secular world cannot offer. The earthly world is not certain; the only certainty to be found is in a heavenly world. That certainty is very appealing to many in both the first and third worlds.

Objections from the Left and the Right

Antiglobalization is not a traditional left-right political split. Both sides juxtapose their understanding of the good society with the American variant—“cowboy capitalism” on the left and “mongrelization” on the right. Except for their dislike of globalization and what they see as the invasion of American
culture, they agree on little else. On the far right, the fear is immigration and the threats it poses to national culture and ethnic homogeneity. Antiglobalizers see the nation to which they are attached, and with which they identify, slowly disappearing. As it does, they lose their sense of importance as people who are different and, perhaps, better than others. These fears are strongest in Europe, since the disappearance of traditional nation-states is happening rapidly with European political and economic integration.

From the left, the future predicted by today's antiglobalization groups bears a remarkable resemblance to Marx's predictions about the fate of capitalism 150 years ago. That is, that it causes so much economic inequality that eventually it will spark a general political revolt of the poor against the rich. By sheer force of numbers, the poor will seize power. Yet Marx and other critics of capitalism have been taken seriously, so much so that the system of capitalism effectively has been saved. A form of capitalism has been built—the social welfare state combined with active fiscal and monetary policies and free public education—that has limited the income inequalities and economic instabilities inherent in capitalistic structures. The same can be done for globalization.

Honest Intelligence

Building a global superstructure on a capitalistic substructure using new technologies is a complex construction. Under-
standing what is happening is not easy. What to the casual observer look like effects being caused by globalization can easily be effects caused by new technologies, by the shift to capitalism, or by interactions among the three. Understanding what must be done is even harder. New economic forces are impacting our economic lives, but their impacts depend upon a complicated interaction with the trajectory and momentum of the existing economic system. The whole is not just the sum of the parts or even more than the sum of the parts. A new and very different global economy is being created. It is not some proportional mixture of the new and the old—it shares more with the metamorphosis of a caterpillar into a butterfly.

Normally, wisdom is extracted from experience. But in the current context, wisdom cannot be extracted from experience. The economic game is changing too fast. Consensus, common wisdom reflecting past experiences, is often wrong. Individuals, firms, and nations need to understand the new global game if they are to get an edge. But since this is a new era, no one knows exactly what “getting an edge” means in practice. We do know that those who catch this wave will have a tremendous advantage. We also know that those who don’t catch the wave are going to fall behind just as those who did not catch the waves created by industrialization and the steam engine and by electrification and systematic science fell behind.

To sail into the unknown without learning everything there is to know is not to be bold. It is to be foolish. Every scrap of possible knowledge has to be acquired before setting sail. Smart choices cannot be made without the best possible intel-
ligence. A process has to be in place for generating and managing knowledge.

Each of us has to participate in that process, and higher education has much to contribute on this front. But something more is needed. As we have seen in the case of auto and aviation accident investigations, what is learned from them is not implemented unless there are institutions and people held responsible for acquiring and using the knowledge to improve future performance. Put simply, someone has to be responsible for being knowledgeable about knowledge management.

If a help-wanted advertisement were being written, it might read: “Wanted: A Chief Knowledge Officer (CKO), someone knowledgeable about technology, economics, sociology, politics, and global affairs who can lead investigations that will allow individuals, firms, and nations to better understand the path they will tread into the twenty-first century, and to let them better shape that path to their liking.”

Education and Knowledge in a Globalized Future

We can construct a better globalization. A fundamental component of the necessary social structure to do so is a commitment to an educated society. Societies in which everyone is educated are more productive than those in which just a few are educated. My education pays off more for me if you are also educated. The whole is far more than the sum of the parts.

Half of human knowledge resides in female heads. To tap
this potential, women must be given equal education and equal economic opportunities. Societies willing to do so are going to pull ahead of those that are unwilling. Even the success of male children seems to depend more upon the education of the mother than of the father. Much talk centers on the digital divide between the rich and the poor, but the real divide is educational. For a country to develop an educated and productive workforce, women must be educated and their talents fully utilized. Any country that does not take advantage of educated females will fall behind the leaders.

We can build a better global economy if we creatively apply the knowledge and technological advances that make it possible. Yet creativity is not something that occurs automatically; the conditions that foster creative and inventive environments must be socially organized. A necessary part of that social organization is a global system of intellectual property rights. The absence of such a system will slowly debilitate the economic health of a global knowledge-based economy, rendering it far less developed than it potentially could be. Advances in knowledge slow down as the incentives to invest in creating knowledge are undercut. Until we organize an enforceable system of intellectual property rights, we risk the effects of lagging creativity and energy.

Conclusion

Higher education can play a vital role in the exploration of the new world we face. Colleges and universities excel at generat-
ing knowledge. But we must also be responsible for managing and using that knowledge. We can help by contributing expertise to governments and organizations that must shape economic institutions, policies, and practices so that a better globalization can be built. Perhaps most of all, higher education leaders can help to engender the belief that countries worldwide can control their joint destiny through cooperation and by actively choosing and managing the direction of globalization.

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NOTES


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