

TECHNICAL BACKGROUND OF GLOBALIZATION¹

Éva TÓTH

Department of Innovation Studies and History of Technology
Budapest University of Technology and Ecomins
H-1111 Budapest, Stoczek str. 2, 1st floor #7.
Tel.: +36 1 463 2141, Fax: +36 1 463 1412
e-mail: etoth@eik.bme.hu

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Abstract

The technological development is a kind of constraint and considering this fact is vital in terms of the globalization processes studied. In the past fifty years close relations have been developed between science and technology. The other driving force is the change of the relation between consumers and the industry. The accelerating technical development of the last fifty years did not refer to national boundaries. Technology, along with the scientific development that preceded it, will not remain within the national borders, but it will disseminate and will take along the cultural background needed for its usage. Economic and political globalization is based on this process. Technology-based globalization, in its wider sense, will take place anyway. Its extent and nature depend on the economic and political methods and efforts. Fighting against technical globalization is like tilting at windmills, through which you lose the chance to ensure an appropriate place for yourself in the globalizing world.

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August 1945, the time of the first atomic bomb destruction, is not only the specific milestone of the history that deals with political life and the utilisation of scientific results. It is also the beginning of a world-wide crisis, which can last for a long time and which predicted and revealed the essence of the probable changes.

A book was published in 1946 written by physicians and soldiers, who took part in the scientific research and organizational activities related to the construction of the atomic bomb. From our point of view even the title of the book is very important: *One world or no world...* Each study of the book reveals the recognition that with the creation and the use of atomic bombs the international relations have changed or they have to change. National compartmentalization and potential resulting hostilities are intolerable if people, blinded by the enchantment of power, can easily and at low cost get at weapons that can cause large-scale destruction. The authors of the book suggest the setting up of international organizations to control institutions dealing with scientific life and technological development. They think that a supranational association should guard the military affairs.

The authors of this book write about a world-wide crisis, but it is the article at the end of the book, which reveals what they exactly mean by crisis. This

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was attached to the book by the American Association of Atomic Scientists to characterize the forthcoming world in three points. The first point discusses the probable crisis, which is not interpreted as an economic crisis, but as a long-lasting process, in which none of the important principles means the same as it meant before the explosion of the atomic bomb. Our values will change and we will not consider our partial or regional interests only. Instead, our main aim will be the global survival, and this will be a condition for regional life as well. Thus, the goal is not the use of atomic bombs in order to resolve a conflict in the frontier zone, but it has to be achieved that nobody ever uses an atomic bomb. Referring to some of the military expressions, it is pointed out that the meaning and methods of defence, intelligence, war, rescue and disaster have to change as well, since their former meaning cannot be used in the age of atomic bombs. A moral and cultural crisis will also follow, which is rooted in the change of values as well.

Another important feature of the forthcoming period of the world will be the fact that its problems will occur at a global level. For instance, if a scientific result has been produced or a new technical solution has been created, their outcome cannot be locked inside the borders of a country, not even for a short period. The results and their consequences will rapidly spread all over the world, arranging events in the direction of uniformity.

The third predicted characteristic of the world is in connection with the role of politics. It was thought that the significance of politics, as a specific regulatory system of society, would increase. On the one hand, this change in role means that the scope of the activities of politics will be expanded, the regulatory principles and methods of politics will be openly and generally applied to social spheres, where they could remain in the background before. On the other hand, politics will seem to be a determinant power instead of a regulative one in regions that have been sensitive even before.

Fifty years have passed since the publication of the book and we can say that this prediction is exceptional: hardly ever has the future of the world been characterized so accurately. The three characteristics, which I briefly mentioned above, are interdependent. The change of the role of politics can be tolerated in a global world only, so that it can create the harmony of regionalization and globalization. And it is only in a global world, where cooperation and multilateral interdependence, which were described by the first characteristic, are not considered to be Utopia or idealism.

It is a long-term prediction and after fifty years we can say that the future described by these characteristics is just becoming real. In some respects many things have happened, the role of politics has increased perceptibly, the crisis predicted has become more widespread and it will last for a longer time than they thought, the signs of globalization are obvious and significant, etc. In other respects, e.g. regarding the developing relation of globalization and regionalization, we can only see a direction (which has become somewhat stronger), which was predicted fifty years ago by atomic scientists in their vision for the future.

How could it happen that such a vision for the future, which seems to become reality, could be outlined by experts, who did not know much about the complex

economic processes of the world, or about the global problems, which were identified twenty years later and which we consider as important parts of the vision for the future. This could only happen due to the fact that they were the only ones who knew that one of the many processes of the world would not be utilized by the military exclusively, but it would enter the civil world and reshape it as well. This process was the common result of science and technological development and they were the ones who knew it best at that time. It has been revealed since then – although we have always been aware of this connection in theory – that this process has, although in a latent way, a significant effect on the significant processes, for instance on the economic ones, on the environmental conditions, etc. And this process is technology. The researchers, whose articles were published in the book *One world or no world*, introduce a technical achievement, the impact of which could be discussed only by them at that time, and this achievement is the atomic bomb. They thought that this alone will be a sufficient reason and condition for starting the process of globalization in the world in the sense that together, with the cooperation of all the nations, we can create the conditions for peace. Thus, they imagined a purposeful, political globalization.

In the past fifty years such a rapid development has taken place that was never seen before. In the first period of the peaceful use of nuclear energy, which was peaceful indeed and illusory with respect to usage, large amounts of energy could be produced cheaply and in an environmentally friendly way. It was a heroic era, inspiring great achievements. Although this era lasted for ten or fifteen years, we thought that Bacon was right and the secret of human happiness can be found in technological development. It has come to light since then that the energy produced in nuclear power stations is not as cheap and environment-friendly at all as we thought before. However, the process has started, and significant agricultural and industrial development has been based on this energy, not mentioning the expansion of services.

As we know, technological development is a kind of constraint and considering this fact is vital in terms of the globalization processes studied. In the past fifty years close relations have been developed between science and technology. Hundreds and thousands of scientists work in institutes financed by the clients to fulfil the specific orders of industry. Researchers do not have to peddle their results, since these, before the “ink dries on the paper”, fall directly into the hands of technicians, who are already fully prepared to put them into practice. One of the main driving forces of rapid technological development is the new relation of science and technology. The other driving force is the change of the relation between consumers and the industry. Managers, the modern experts of industry, are not only responsible for ensuring the internal management of the industry at a high level, but they also had to develop a new method for the communication with consumers. They had to work out a method to make sure the industry to be developed in a way that can be accepted by the consumers, and encourages them to purchase. A large industrial sector, the advertising industry has been developed.

The above outlined process, the accelerating technical development of the last fifty years did not refer to national boundaries. Such a rapid industrial and

agricultural development sweeps away the political boundaries without respect.

Let us take a well-known example! Car has been invented more than a hundred year ago, but using cars has become a widespread process only in the past fifty years. What do cars mean in terms of globalization? Cars, produced by appropriate research and planning efforts, must be sold, since production is profitable only if large quantities are produced. However, in this way the sale of products cannot be planned within the national boundaries. Cars, leaving a given country, take along all the infrastructural needs necessary for their use. For instance they take along the consumers' desire that me too should own a car, since society has already created the opportunity, and it's me who has to take the last step.

Cars, as a symbol or means of independence or even freedom, are great success in each society. No doubt it could be foreseen that it would cost everyone, both the individuals and the society, a great deal. There were societies, which tried to resist the temptation and attempted to hamper the spreading of cars. However, while they were trying to protect themselves, they only contributed to their own fall. They wanted to cut themselves off from some of the world-wide processes, thus from the spreading of cars as well, and this led to their decline. In this way it has been proved that national boundaries cannot be used to prevent the spreading of technological development.

Cars thus enter the country through their own international ways and the conditions for their operation have to be created. This has to be done on an international level, since a product functions properly only if the conditions are ensured on a high level. A given quality is required in the case of roads, fuel, service networks, etc. However, the roads that have been built do not provide the opportunity for cars to enter the country only, but also for the people who produced or use the cars. And they bring along their own needs and habits.

Roads open up the country to the world. They function like an information network through which information is carried in and out by the travelling people and goods. We live in the same way, we buy the same products and we create the same living conditions for ourselves as others in other countries and all over the world.

Technical development can be hindered by one obstacle only. This is when society cannot adopt the new products because social conditions, cultural traditions, habits and values do not prefer the methods which have been developed in another society, according to a different value system. As we could observe it, there is no such obstacle in our country. Our society absorbs new products like a sponge. However, it absorbs infrastructural conditions with some more difficulties. It should be noted that the conditions for adopting new technologies are improving all over the world, since the lack of these conditions would mean an isolation from the processes of the world, and this would affect other fields of society as well, moreover, it could lead to catastrophic consequences.

Thus, we have to admit that technical development globalizes the world in the sense that all of the societies will use the same methods, and in this way they will join the operating system of the world. However, this will also give way to other cultures and create a rather dangerous possibility of uniformity. It is dangerous because

uniformity induced by technology is forceful, since it is aware of the overwhelming force of its rationalism. If we buy cars, roads must be built, which implies the use of identical standards, pushing individuality in the background. The same roads, with the same services, with the same car-parks, the same petrol stations and restaurants, post offices, shops, benches, trees, grass, etc.

If we build shopping centres in order to make shopping easier then shopping becomes an event and we create the necessary conditions for entertaining the potential customers while shopping and the possibility for them to go to the cinema and watch a film. We want to keep the customers in the shopping centre so that they spend a lot of time there and buy something inevitably. But if there are more and more cinemas, more and more films are needed. Moreover, the main tasks of these films are to entertain only, thus they do not, or at least not necessarily mean a cultural experience. We do not have enough money to provide these cinemas with this kind of films, thus it is the shopping habits that take along the huge number of films representing foreign (at least we believe foreign) values and popularize their own worlds.

Thus, the main danger of globalization is becoming uniform. The question is how we can protect ourselves from it, or if we want to protect ourselves from it at all.

Before answering this question we should draw our attention to the fact that beside political and economic globalization there is technical globalization as well. Economic and political globalization means taking advantage of an opportunity. In fact, considering the above mentioned facts, it should be called a constraint rather than an opportunity. Technology, along with the scientific development that preceded it, will not remain within the national borders, as we have seen it, but it will disseminate and will take along the cultural background needed for its usage. Economic and political globalization is based on this process. Technology-based globalization, in its wider sense, will take place anyway. Its extent and nature depend on the economic and political methods and efforts.

Thus, I believe that fighting against technical globalization is like tilting at windmills, through which you lose the chance to ensure an appropriate place for yourself in the globalizing world. The globalizing world is uniform. There will never be one large country, or at least, considering the current situation, (even if there are some who are longing for it) we are still far away from that. In the future of the globalizing world there will always be regions, with the same level of technological background, yet they will represent a geographical, economic and cultural uniqueness, and provide an appropriate community for each individual.

Therefore our main task is not to fight against globalization, but to create a strong community, which has a special economy, and is made up of free and creative people. A community, which can preserve its uniqueness instead of isolation beside the other similar communities of the world, and the members of which will become honoured members of the globalizing world due to their great knowledge and their ability to protect their freedom and independence.