

THE ROLE OF SCIENCE IN THE PROCESS OF GLOBALIZATION

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It is hard to determine when exactly the process of globalization started. Its beginning may be considered the conquests of Alexander the Great and the birth of Hellenistic world. However, globalization did not have that significance at that time which it has now. Ancient nations achieved a great success in science and technology: they were able to build tremendous buildings, such as Babylon in Mesopotamia and the Pyramids in Egypt, Greeks and Indians made significant progress in mathematics and logic. Unfortunately, this knowledge was dissipated all over the world, so it could accelerate neither general development of human society, nor the globalization process. Moreover, sometimes due to xenophobia or religion policy of the country achievements of other nations could not be accepted. Later, through the economic, social and scientific development, which allowed the European society to enter the new epoch of the Renaissance, to rethink their worldview through art and then, as a result, to leave the framework of scholasticism during the Reformation. The colonial period stimulated research of our planet and connection between different countries. Finally, after the Industrial Revolution the world entered a new age of global science and technology developments.

Before the Industrial revolution, war and trade were the main factors, which propelled globalization, but after – science and technological progress substituted

them. The development of medicine and the increase of living standards provided rapid population growth, which created sustained demand for commodity. The transport revolution that appeared in first half of 19th century involved more nations into international trade. The invention of steamships and railroads significantly decreased the cost of international and inland transport. Industrialization enabled to standardize products, which help to maximize compatibility or quality. The globalization process would have not gotten such powerful impetus, if it had not been for science. One of the most important factors that affect development of science and globalization in general is the movement of information. Back then, its speed was limited and definitely inhibited economic and social development, as soon as the speed of different courier services was limited. First electronic communications improved situation on the continent, however, there still was a problem with transatlantic connection that was solved with the first transatlantic cable, which reduced the communication time considerably. The science propelled the globalization not only through technological progress. Sometimes countries combined their sources to achieve the same scientific goals. The first example of such cooperation is the Manhattan Project, where scientists from the United States, UK, and France worked on creation of nuclear weapon. More peaceful example is the Human Genome Project (HGP) supported by scientists from 6 other countries. The greatest example of science globalization is the nuclear research laboratory at CERN, where more than 3000 employees from different countries work.

In the past globalization helped to spread knowledge and science, but nowadays science spreads globalization.

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