

The relationship between technology and progress

[Science](#), [Social Science](#)



of Lecturer] History and Political Science Short Essay Answers The
Relationship between Technology, Rationality, and Progress

Technological rationality is an old concept postulated and used by past scholars and authors such as Herbert Marcuse in his 1941 article "Some Implications of Modern Technology". The connection between technology and rationality became rife in the 1960s following the holistic treatment of Marcuse's book entitled "One-Dimensional Man". Rudi Volti, writer, also vastly covered the relationships among technologies, rationality, and progress. In his 1988 book "Society and Technological Change", Volti asserts that through the rational incorporation of appropriate technologies into society is a sure way of promoting progress and growth. He also posits that once technology is universal, rational changes would be initiated and implemented. Surely, technology, if rationally used, does make processes move easier and quicker, thus supporting change and progress. According to Volti, society will only benefit from technology if it is considered in its larger social context. In fact, technology, as defined by Volti, is humans' ability to design and develop the systems by which they survive by the use of organizational forms, knowledge, and physical objects to realize specific objectives (Volti, P. 8). Progress is connected to technology because technology is primarily cumulative, optimistic, and progressive and requires incessant perfection in its internal mechanisms. Rational world view of technology is thus important in establishing the interactions between technology and society. This rational view is that the assumption that the world can be controlled, more so by addressing problems with technological solutions. There is also a causative connection between technology and

economic progress. The connection between technology and economic progress has its consequences, some positive and others negative. In fact, some of the benefits of technology could be harmful to others (Volti, P. 19).

Scientific Versus Industrial Revolutions

The interrelationship between scientific and industrial revolution is a rather apparent one. In fact, the Industrial Revolution was caused by the many scientific inventions of the 16th and 17th century. The industrial revolution refers to the 1750-1850 period during which many changes occurred in the agriculture, technology manufacturing, mining, and transportation sectors, leading to far-reaching improvements on the social, economic and cultural conditions of life during this period (Henderson & Yount, P. 142). In fact, every aspect of life changed during the industrial revolution, which begun in the United Kingdom and spread to North America, Western Europe, Japan, and ultimately to other corners of the world. For the industrial revolution to occur, the Scientific Revolution had to occur to provide the necessary techniques, tools, machinery, and manpower to drive the industrialization. The Scientific Revolution, which occurred between the 16th and the 17th centuries in Europe, was a period in which scientists extensively applied observation, experimentation, and special scientific equipment to discover various laws and aspects of nature. These experiments and observations led to the invention of equipments such as the thermometer, the sextant, and the microscope, which paved the way for improved services such as health care and easier navigation and exploration of the earth and its resources. Scientists of great renown such as Isaac Newton (1642-1727), Joseph Priestley (1733-1804), and René Descartes (1596-1650) made some of the

revolutionary discoveries in astronomy, mathematics, and physics, which were quite instrumental during the Industrial Revolution. The Scientific Revolution was thus quite important for without it the Industrial Revolution would not have occurred. In fact, it is the numerous scientific inventions that resulted in the practical applications including the farm machinery, weaving looms, steam locomotives technologies, which caused the Industrial Revolution in the mid-1700s-mid-1800s period (Henderson & Yount, 68).

The Luddites and Neo-Luddites

Unfortunately, some groups and individuals had negative attitudes towards technology. In modern society, these groups and individuals are referred to as Neo-Luddites and they believe that there are a lot of grave moral, ethical, and social ramifications of technology (Halsall, P. 58). Neo-Luddites are thus critical of technology and are against its early adoption. Although not opposed to technology per se, they demand for more serious discussions and deliberations on the role and effects of technology in society.

Nonetheless, some Neo-Luddites dislike technology and would rather people lived voluntarily simple lives. The term Neo-Luddite is coined from the word Luddite, which refers to an Industrial Revolution era movement, which disliked the use and spread of scientific and industrial technological advancements such as mechanized looms (Halsall, P. 65). That is, the Luddites did not approve of these machines being used to accomplish tasks that people should have done by hand.

Works Cited

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