

Informative essay on industrial revolution

[History](#), [Revolution](#)



The Industrial Revolution was a time of drastic change and transformation from use of hand tools and handmade items to machine-made and mass produced goods. This change generally helped life, but also hindered it as well. Pollution, such as carbon dioxide levels in the atmosphere, rose. Working conditions declined, and the number of women and children working increased. The government, the arts, literature, music, architecture, and man's way of looking at life all changed during the period.

Two revolutions took place, both resulting in productive, but also dire consequences. The Industrial Revolution's impact on Europe like the mechanization of the textile industries, the development of iron-making techniques and the increased use of refined coal. Trade expansion was enabled by the introduction of canals, improved roads and railways. The Industrial Revolution provided both the mechanical engine of progress and the emotional engine of progress. These two things, the capacity to expand and the will to expand, fed directly into imperialism.

Marxist Theory also made a huge because it developed socialism and communism, by placing more emphasis on value, rather than generating profit. Before the first Industrial Revolution, England's economy was based on its cottage industry. Workers bought raw materials from merchants and took it back to their cottages, and produce the goods at their home. It was usually owned and managed by one or more people, who were generally close to the workers. There was a good worker/boss relationship, which was demolished and destroyed by capitalism (Wyatt 7).

This industry was efficient but the workers' productivity was low and it made costs higher. The longer it took one person to manufacture a product, the higher the price. Subsequently, goods were more expensive and exclusive only to the wealthy people. In 1733, the demand for cotton cloth was high, but production was low. This crisis had to be solved or England's economy would be hindered. The answer came from a British weaver, John Kay, who invented and fashioned the flying shuttle, which cut weaving time in half. John Kay was a pioneer and his invention paved the way for numerous inventors (Wyatt 13).

Although at first many workers didn't accept machines, in fact, many inventions were destroyed. But what was inevitable, couldn't be stopped. In the 1750's, the Industrial Revolution had begun. At first, inventions were strictly limited to cotton weaving. Inventions such as the spinning Jenny and the water-powered frame, both of which provided spinning yarn faster, the spinning mule, the power loom and the cotton gin all helped the manufacture of cotton goods by speeding up the process (Wyatt 35). Mass production had begun, along with capitalism.

Capitalists, people who have their own materials, money and space, bought many machines and stored them in a factory. They hired people to run the machines and produce manufacturing goods. The factory system had replaced the cottage industry. Mass production made usually expensive items, such as shoes, but now they were less expensive and affordable to more people. The quality of life had improved. In the 1800's, inventions weren't just limited to the cotton industry. Steam engines were invented,

providing a faster mode of transportation, instead of the use from rivers and sources of water, to thrive (Wyatt 58).

The First Industrial Revolution merged into the Second Industrial Revolution around 1850, when technological and economic progress gained momentum with the development of steam powered ships and railways, and, later in the nineteenth century, with the internal combustion engine and electrical power generation. The torrent of technological innovation and subsequent social transformation continued throughout the twentieth century, contributing to further disruption of human life circumstances (Beard 25).

Today, different parts of the world remain at different stages in the Industrial Revolution with some of the countries behind in terms of industrial development being in a position, through adopting the latest technologies, to leapfrog over even some more advanced countries that are now locked into the infrastructure of an earlier technology. The first Industrial Revolution had forever changed England, and later the world. England was now ready for another change, as life with machinery had already been assimilated into society.

The second Industrial Revolution proved more drastic not only in inventions, but in social and government policies and reforms. Art and culture flourished and was transformed into many different and unique styles. The second Industrial Revolution utilized the power of electricity to help develop technology, to help social and home life. Michael Faraday, a British scientist, demonstrated how an electric current could be made. This concept and

principle is still used today. Electricity improved life by supplying people with light and electricity to power machines (Thomas).

Communications improved as a result of electricity (Thomas). The telephone and telegraph were the first communicational devices that were for public use (Thomas). With the development of technology, radio waves were discovered (Thomas). Now messages could be sent over long distances in virtually no time. Advances in science were also made. The discovery of radioactivity by Marie Curie used radioactivity as a power source, but also led to the discovery of the nuclear bomb. During the 1800's over 70, 000 chemical compounds were broken down (Beard 45).

Some of these were Portland cement, vulcanized rubber, synthetic dyes, and petroleum products. Petroleum began to be widely used as an alternate energy source (Beard 46). Gasoline was also needed for transportation, which evolved from steam engines to the internal combustion engine (Beard 47). The internal combustion engine made transportation faster and decreased the need for public transportation because people could own a their own cars. During this time, another a new technology was born in the field of transportation.

Orville and Wilbur Wright successfully completed the first airplane flight at Kitty Hawk. The air plane industry was born (Hudson 15). Prior to vaccinations, medicine before the 1750's and in the 1750's wasn't well developed. Once infection set in, nothing was possible to save the patient. Various diseases couldn't be stopped or controlled because of limited technology. In the 1850's however, vaccinations were discovered and

administered. X rays were also discovered and provided doctors with a faster way of diagnosing medical problems.

Louis Pasteur discovered and fabricated a way to eliminate all germs in milk. Called pasteurization, this technique is now widely used on all milk. The technique involves heating the milk to slow the fermentation process (Clare 23). and plants evolve from a lower species. He also developed the concept of Social Darwinism that the strongest survive. Many people contested his ideas and argued against them (Doty 25). Life was drastically changed during the Industrial Revolution. People were living in germ infested, crowded and very unhealthy conditions, much like their place of work (Hudson 45-46).

Children and women labored in harsh conditions, working long hours with little pay (Hudson 34). The British Parliament stepped in to limit and control child labor (Hudson 34). This sparked a rebellion. People, especially wealthy capitalists, wanted the government to stay out of its issues. It was called the laissez-faire system (Hudson 56-57). Many people opposed the laissez-faire system, saying the capitalists would gain too much power and people would be mistreated. The laissez-faire system was disregarded after a few years, and it is still used today.

Art changed with the different ideas of social Darwinism, the laissez-faire system and the Industrial Revolution. Romantic artists painted emotions that they had no control over, such as love, religion, and beauty. It showed more of how people felt at one moment in time. Realism tried to capture what was really happening, all of the sadness, and tried to make people work to

change what was happening (Wyatt 65). Socialists were reformers who wanted to construct a better life for all people. Among them, Robert Owen, an owner of a textile mill, whose reforms reshaped the working class.

He raised pay, improved working conditions, and didn't allow children younger than eleven to work. Directly related to Owens' reforms, crime and disease rates dropped and life improved. Marx, another socialist, started the class struggle (Wyatt 68). The conflict between the different classes of people, made an impact on the changes that occur in history. The Industrial Revolution brought on more technology, wealth and power, but at what consequence? The people were living in filth, working unthinkable hours and being paid very little.

The revolution shaped modern society to what it is today. As Rousseau said, " Civilization spoils people "(Montagna)," but did people spoil civilization by implementing machines to do our work? The Industrial Revolution provided both the mechanical engine of progress and the emotional engine of progress. These two things, the capacity to expand and the will to expand, fed directly into imperialism. On a more direct, grounded level, the Industrial Revolution gave Europeans the ability to mass produce weapons and technologies.

This gave rise to a need to export manufactured goods and under the Mercantile Economic System (which was in its final days) export regions were taken as colonies to be administrated by the producing power. The weapons that were mass produced made warfare much easier. The technologies and products that came out of the factories raised the standard

of living of Europeans, which lead to an increased value in how they saw their civilization. Europeans believed that their culture was behind their consistent technological progress, and moved to annex regions to "improve" their culture.

This mentality was encapsulated by the White Man's Burden (Newton). The Expansion of Empire itself was also symbolic of European dominance and cultural superiority as they reasoned that only powerful empires can expand over new territories. Even though the Industrial Revolution significantly helped the United States and Western Europe, there were few consequences with the Industrial produced so much fewer educated people than Europe or North America. The pioneers who had done so well with first-generation approaches, technology, and general attitudes saw little need for improvement until too late.

Eric John Ernest Hobsbawm was a British Marxist historian of the rise of industrial capitalism, socialism, and nationalism. Hobsbawm claimed that since the British middle class made money so easily in the first years of the Industrial Revolution, they simply did not work as hard as their rivals in other countries. Workers, which were average people, were disadvantaged because the Industrial Revolution brought massive greed from big businesses run by people like Andrew Carnegie, John D. Rockefeller, and J. P Morgan. These employers demanded longer working hours (usually 12-hour shifts) and lower pay (Clare 34-37) .

There were harsh conditions and no regulations that protected the workers (Clare 42-44). No unions. This was what led to the rise of

socialism/communism and the unions (Clare 45). During the Industrial Revolution, big business controlled the government more than the government controlled itself. Thus, there were no environmental pollution laws. Factories could spit out as much pollution as they wanted and freely dump into the world's oceans (Clare 55). Its effects are still today, and has devastated certain parts of the world.

Due to the Industrial Revolution, many Western European nations, particularly England, France, Portugal, Germany, and Spain, had a massive need for resources. Thus, they occupied underdeveloped and weak civilizations in Africa and the Americas (Princeton). This was an easy way to get free resources and feed their growing industrial might. But it had a devastating effect on the people living there, as they were often treated harshly and without care. The Industrial Revolution marked a major turning point in Earth's ecology and humans' relationship with their environment.

The Industrial Revolution dramatically changed every aspect of human life and lifestyles. The impact on the world's psyche would not begin to register until the early 1960s, some 200 years after its beginnings. From human development, health and life longevity, to social improvements and the impact on natural resources, public health, energy usage and sanitation, the effects were profound (Princeton). The onset of the Industrial Revolution marked a major turning point in human history, almost every aspect of daily life was eventually influenced in some way.

It started with the mechanization of the textile industries, the development of iron-making techniques, and the increased use of refined coal (Doty 2).

Trade expansion was enabled by the introduction of canals, improved roads and railways. The introduction of steam power fuelled primarily by coal, wider utilization of water wheels and powered machinery (mainly in textile manufacturing) underpinned the dramatic increases in production capacity (Doty 3). The development of all-metal machine tools in the first two decades of the 19th century facilitated the manufacture of more production machines for manufacturing in other industries.

The effects spread throughout Western Europe and North America during the 19th century, eventually affecting most of the world, a process that continues. The impact of this change on society was enormous (Doty 4). The Industrial Revolution witnessed the triumph of a middle class of industrialists, and businessmen over a landed class of nobility and gentry. Ordinary working people found increased opportunities for employment in the new hours of labor dominated by a pace set by machines. However, harsh working conditions were prevalent long before the Industrial Revolution took place.

Pre- industrial society was very static and often cruel” child labor, dirty living conditions, and long working hours were just as prevalent as before the Industrial Revolution (Corrick 42). The factory system was largely responsible for the rise of the modern city, as large numbers of workers migrated into the cities to work in factories. The transition to industrialization was not without difficulty. For example, a group of English workers known as Luddites protested against industrialization and sometimes sabotaged factories.

Child labor had existed before the Industrial Revolution, but with the increase in population and education it became more visible. Many children were forced to work in relatively bad conditions for much lower pay than their elders (Corrick 46). Living conditions during the Industrial Revolution varied from the splendor of the homes of the owners, to the squalor of the lives of the workers. Poor people lived in very small houses in cramped streets. These homes share toilet facilities, had open sewers and were damp (Corrick 67).

The Industrial Revolution concentrated labor into mills, factories and mines, thus facilitating the organization of combinations, or trade unions to help advance the interests of working people. The power of a union could demand better terms by withdrawing all labor and causing a consequent cessation of production. They forced employers to decide between giving in to the union demands at a cost to themselves, or suffer the cost of the lost production. Skilled workers were hard to replace, and these were the first groups to successfully advance their conditions through this kind of bargaining (Corrick 45).

During the Industrial Revolution, the life expectancy of children increased dramatically. The percentage of the children born in London who died before the age of five decreased from 74.5% in 1730-1749, to 31.8% in 1810-1829 (Corrick 43). Also, there was a significant increase in worker wages during the period 1813-1913 (Corrick 52-54). According to Robert Hughes in *The Fatal Shore*, the population of England and Wales, which had remained steady at 6 million from 1700 to 1740, rose dramatically after 1740.

The population of England had more than doubled from 8.3 million in 1801, to 16.8 million in 1851 and, by 1901, had nearly doubled again to 30.5 million (Corrick 55). As living conditions and health care improved during the 19th century, Britain's population doubled every fifty years (Corrick 56-57). Europe's population doubled during the 18th century, from roughly 100 million to almost 200 million, and doubled again during the 19th century, to around 400 million (Corrick 58).

The growth of modern industry from the late 18th century onward led to massive urbanization and the rise of new great cities, first in Europe elsewhere, as new opportunities attracted huge numbers of migrants from rural communities into urban areas. In 1800, only 3% of the world's population lived in cities (Corrick 59), a figure that rose to nearly 50% at the beginning of the 21st century (Corrick 60). In 1717 Manchester was merely a market town of 10,000 people, but by 1911 it had a population of 2.3 million (Corrick 61). The Industrial Revolution had a huge impact on the United States and Western Europe.

We still use technological advances today and if it wasn't for such advancement we wouldn't have these technologies. Before the Industrial Revolution, each generation of people economic wealth was fairly stagnant. After industrialization, production grew quickly and it generally increased each year. The Industrial Revolution led to many new theories, especially in social, economic, and scientific areas. Many of these theories had positive effects, but quite a few had negative effects. The new scientific theories

were mostly positive because many resulted in inventions that improved the quality of life for most people.

Social changes had both positive and negative impacts. However, many of the negative impacts, such as poor working conditions and child labor were reformed through formation of labor unions and passage of child labor laws.