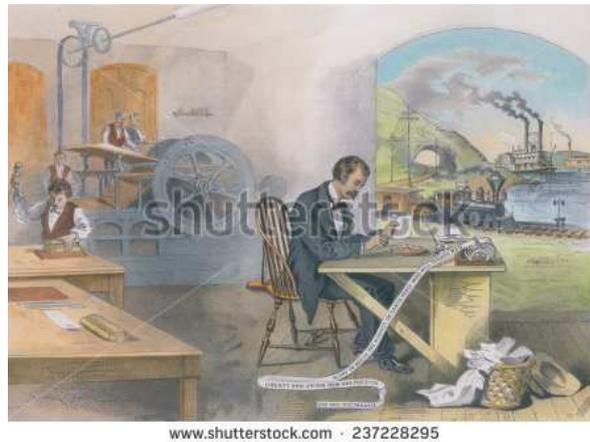


The Industrial Revolution

Prologue

Numerous developments in medieval Europe culminated in the Industrial Revolution that started in the mid 18th century. Although primarily an economic-technological development, it triggered massive changes on the global socio-political-cultural-environmental landscape.

The comfort level of present day lifestyles and the opportunities presented by globalization are consequences of this phenomenon as are the challenges thrown by globalization, global warming, and economic contagion.



The Industrial Revolution

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Revolutions are great changes in the political system, economic structure, nature of government, class / classes that wield authority, or the fundamental aims of the government. These can be sudden or gradual, peaceful or violent.

Examples of revolutions include American Revolution (A.D. 1776-83), French Revolution (A.D. 1789), Russian Revolution (1917 A.D.), Scientific Revolution (16th century) and Industrial Revolution (1750 A.D. onwards) etc.

Definition and Background

The Industrial Revolution denotes the widespread use of machines with water / steam and, later, electric power that raised production capacity to unprecedented high levels. Production factories were owned by capitalists who had the funds – the capital – to start and operate them.

Labor was subordinated to capitalists who appropriated most of the profits. Associated with this phenomenon were changes in agricultural production and in the character and exploitation of domestic and foreign markets.

Renaissance (13th – 14th century) and *Scientific Revolution* (16th century) encouraged the application of reason and introspection for improvements in all walks of life. A climate of rationalism and logic emerged culminating in *Enlightenment* and *Industrial Revolution* in the 18th century.

Origin and Growth

Industrial Revolution is widely believed to have started in A.D. 1750 with the mechanization of textile production in England. Conditions in England were conducive due to the availability of surplus capital, trade and transport (shipping) links, iron and coal, raw materials and ready markets in colonies, labor from freed serfs, and a stable parliamentary government.



Steam Locomotive was a Major Invention of the Industrial Age

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Among other factors, success in handling the industrial revolution made England a superpower in the 18th and 19th centuries. Soon, the revolution spread to Germany, USA, Russia, Japan and other nations.

The industrial revolution engendered the invention of numerous machines. Powerloom by Cartwright and Cotton Gin by Whitney were important for textiles. Steam operated railway engine revolutionized transport and accelerated industrialization. James Watt invented the condenser making steam engines portable. Stephenson adapted Newcomm's Steam Engine to pull railway wagons.

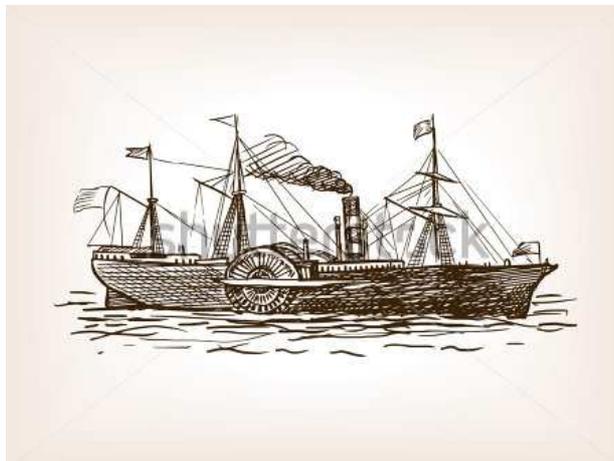
Consequences

Consequences of the industrial revolution should be seen in combination with the effects of the American and French Revolutions that inspired the concept of nationalism – wherein people have a strong sense of belonging.

- **Colonization and Imperialism:** colonies whose tariff policies could be manipulated were needed to supply cheap raw materials to factories with an insatiable appetite for production. Colonies also acted as captive markets to ‘dump’ the surplus production

Both conditions were necessary to maximize profits. Soon, industrial strength became a metric of national power and colonial expansion assumed imperialist colors with aggressive nationalist overtones

- **Tariff Barriers:** to protect indigenous manufacturers from their overseas competitors
- **Globalization:** i.e. the establishment of reciprocal links between different geographical areas of the world started with the industrial revolution. Colonization and trade links meant that events in one part of the earth now affected other areas as well



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The Steam Ship Created the First Wave of Globalization

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Cultural interactions and knowledge exchange also rose due to globalization. The scramble for colonies, association of industrial - colonial might with ‘national strength,’ and globalization were instrumental in causing the **two world wars**

- **Consumerism:** due to promotion of excessive consumption for sale of finished goods
- **Materialism:** as wealth obtained by *any* means, became the major determinant of success
- **Improved Living Standards:** machines, technology, and medicine made life easier
- **Rise of the Middle Class and Class Consciousness:** the *nouveau riche* middle class expanded their influence over government policies at the cost of the erstwhile feudal influence. Then, they began to exploit the working class – made to work in horrendous conditions for beggarly wages

Socialism and **labor movements** emerged in opposition to such exploitation. Governments then started intervening in economic activity to control abuses



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Worker Riot: Labor Exploitation was Rife during the Early Industrial Age

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- **Agricultural Improvements:** due to modern agricultural implements and practices. This provided **food security** for sustaining greater populations needed to work in factories
- **Urbanization and Urban Planning:** more and more people migrated to cities in search for work. Upgrades in agriculture had slashed labor requirements in farming

Initially, such migration created issues such as overcrowding, slums, water and sanitation problems, and epidemics. The issues gave rise to the need for proper urban planning

- **Environmental Imbalance:** resulted from excessive resource extraction and waste disposal – impacts of excessive population and consumption

Conclusion

Throughout history, changes in economic structure have often triggered social, political, and cultural transformations. The industrial revolution shifted the balance from feudal-rural-agricultural economies to urban-industrial ones. This change produced a chain reaction and, in combination with other shifts, repainted the global canvas with fresh colors. We owe much of our present day economic prosperity and problems to the industrial revolution.
