

4.2_E

Change or die!

The challenge of new technology

example

result of tech.

new tech. in
the past

example of
problems

benefits

Although we live in a time of technological change, the impact of new technology on business is nothing new. Technology has always been an important aspect of the external environment.

For example, in the 18th century in England – the beginning of the period known as the Industrial Revolution – several inventors made machine tools for working with steel, which allowed other people to make industrial machines. Mechanization enabled new production methods, which not only radically changed manufacturing, but also society.

New technologies have also always brought with them both opportunities and threats. In the Industrial Revolution in England, many people made their fortunes through the establishment of companies that exploited the new technology, and great advances in living standards for many people were achieved. However, there were also less positive social and political repercussions. For example, in the textile industry, the 'flying shuttle', invented by John Kay in 1733, resulted in increased production from a single machine and so reduced the number of workers needed. This device was very much disliked by workers because of their fear of becoming unemployed, and, in 1755, Kay was attacked and one of his machines was destroyed by an angry crowd. Fortunately, many people realized that this invention would make cloth cheaper and more available and would actually improve people's lives.

The Industrial Revolution of the late 20th and 21st centuries has been in computing and information technology. There is probably no aspect of work, in general, and business, in particular, that has not been greatly changed by the use of computers and artificial intelligence. In factories where robots are used, production methods have reached a point where the workers just watch or regulate the machines, rather than making products themselves. Functions of a business such as finance, marketing and human resources rely on electronic storage of information and labour-saving applications. In addition, computer-aided design is used for the development of new products, while just-in-time technologies have revolutionized the provision of raw materials and distribution of finished products. Consequently, all of these aspects require special skills, so with the arrival of electronic technologies, many new types of jobs have been created, while old jobs have disappeared.

In the 1990s, information technology – in partnership with telecommunications – resulted in the globalization of the internet, which has also had a profound effect on business. On the marketing side, companies rely on data which they hold about their customers, and they must also ensure they maintain an internet presence through well-designed websites. In retail businesses, consumers can shop 24 hours a day from their homes. So older retail companies must adapt to online shopping or lose their market shares. Furthermore, since communication is now extremely quick and easy through email, online meetings and conference calls, work environments are changing rapidly. Many employees are now able to work remotely from home instead of going into an office, which has a number of benefits for them.

In conclusion, digital technologies are developing incredibly fast. This means that it is extremely important for companies to respond to changes in their operating environment if they wish to keep or gain competitive advantage. Companies which are slow to react are likely to go out of business. However, we should not forget, as Rosabeth Moss Kanter, one of the world's leading business thinkers, pointed out in her book *Evolve!* (2001): human relationships remain the key to business success, even in the digital age.

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Answers

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