

The Impact of the 4th Industrial Revolution

The 4th industrial revolution is upon us. This new wave of technological advance is changing the way in which we live, work and play. But what does this mean to the average person on the street. Well, for most of us it means that we can look forward to better products and services tailored to our personal needs. Since the start of this revolution, we have already seen some of its impact on our daily lives. Smartphones allows consumers to go onto the internet to shop and pay for products and services in minutes. These transactions are now also tracked by companies who accumulate data on consumer behavior, so-called big data, in order to anticipate consumer needs and then cater to them.

That is however only the beginning. This new connectedness that allow people to connect to each other is also spreading to devices. The connectedness between devices have been dubbed the internet of things, and it will further revolutionise the way in which we live. Some devices that are already linked up, are our phones, tablets, television sets and computers. By recording exercising data on devices such as Fitbits, Discovery health already incentivizes consumers to lead a more active and healthy life by giving them money back on their monthly installments in some form.

To date, those who have gained the most from the 4th industrial revolution are consumers. There is however also a cost to all these new innovations. As devices get smarter, and systems are placed in control of more and more tasks, people will become more and more redundant. This trend is not a new one. With every technological revolution there have been casualties in the job market. In Roman times, watermills replaced human millers that used rocks to grind grains into flour. By the late 1700s, people were replaced again. This time steam engines were used to replace weavers, farm workers and an array of other factory jobs. By the early 20th century machines developed the ability to perform more complex operations, and in the process replaced a great number of skilled craftsmen in various manufacturing and production positions.

The latest technological advance is also a force that will take its toll on the job market. What makes the 4th industrial revolution different though, is that it not only threatens blue collar jobs through advances in robotics and 3D printing, but white collar jobs are also now in the firing line. In a recent report by Deloitte it is estimated that around 33% of jobs in the UK are at “high risk” of being displaced by automation over the next two decades. These jobs are not only limited to the manufacturing sector but also include losses of over 2 million jobs in retail, 1.5 million jobs in transportation and storage, and 1.25 million jobs in health and social care. In the US, some estimates put job losses at around 47% over the next two decades.

According to the World Economic Forum, most of the job losses in the next 5 years will occur in the office and administrative space, followed by losses in the manufacturing and production sector. This kind of displacement is bad, not only because of the resultant job losses, but also because of the socio-economic conditions it might cause. Once people are replaced by robots, programs, and all sorts of new technology, it will widen the gap between rich and poor. It will be easier for big corporations to accumulate an even bigger share of existing wealth by investing in these new technologies, while those in the worker class will find it increasingly difficult to make ends meet.

These changes will however occur differently in different countries. In countries where laws and labour regulations are geared towards protecting workers, changes will not be allowed to occur as rapidly as in countries where it is easy to get rid of workers. It is then only logical to assume that countries with more flexible labour markets will see a faster replacement of labour. These changes are however not all bad. New technologies also bring with them new job opportunities. The *Future of jobs* report by the World Economic Forum also points out that a fair amount of jobs will be created in the fields of architecture, engineering, computer and mathematical sciences as well as in the broader

business realm. Knowing about this revolution is therefore important seeing as we will need to reskill ourselves to adapt to the new working environment that is being created in the process.

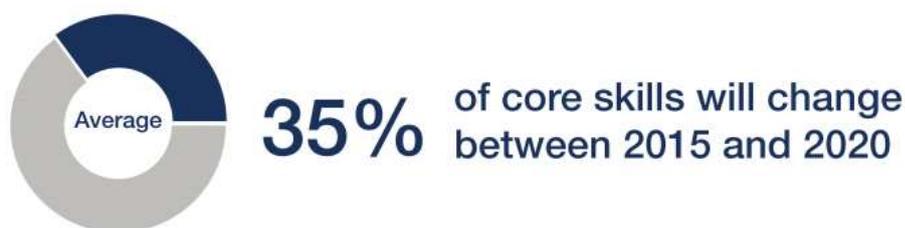
In conclusion: The 4th industrial revolution promises to bring us many new and wonderful devices that will enhance our lives tremendously. The other side of these advances will however force many people to either enhance their current skill set, or replace it completely, and those who are unable to adapt to this fast changing workplace might find themselves obsolete.

Employment outlook across job families jobs change in thousands, 2015-2020



Source: Future of jobs report, World Economic Forum

Skills Disruption



Disruption across countries and industries

43%	Financial Services & Investors	48%	Italy
42%	Basic & Infrastructure	42%	India
39%	Mobility	41%	China
		41%	Turkey
		39%	South Africa
		39%	Germany
		38%	France
		37%	Mexico
			average disruption
35%	Information & Communication Technology	31%	Brazil
33%	Professional Services	29%	United States
30%	Energy	28%	United Kingdom
30%	Consumer	27%	Australia
29%	Health	25%	Japan
27%	Media, Entertainment & Information	21%	Gulf Cooperation Council
		19%	ASEAN

Source: Future of jobs report, World Economic Forum