

Facts and figures: Science and technology

McKinsey Global Institute (MGI) projects that if automation adoption is in the midpoint of a range of scenarios, about 15% of the global workforce, or 400 million workers, will be displaced by 2030. There are also another 8 – 9% of employees who will work in categories that do not yet exist today.

<https://www.forbes.com/sites/kweilinellingrud/2018/10/23/the-upside-of-automation-new-jobs-increased-productivity-and-changing-roles-for-workers/#3497c39f7df0>

The U.N. mission in Afghanistan (UNAMA) said 506 weapons were released by drones in 2012, compared with 294 the previous year. Five incidents resulted in casualties with 16 civilians killed and three wounded, up from just one incident in 2011.

<https://news.yahoo.com/un-drones-killed-more-afghan-civilians-2012-145931602.html>

Schawbel interviewed 100 top young leaders from companies like Facebook, Google, Uber, Nike, Walmart, and the United States Air Force to ask them how they viewed technology in their roles. Most agreed that it's a "double-edged sword," in that it helps their teams become more efficient, highly informed, and super-connected, but at the cost of the human touch.

In most cases, technology can actually make the workplace more dysfunctional. It keeps employees constantly working, even after they leave the office, leading to burnout and health problems.

<https://www.inc.com/marcel-schwantes/new-study-technology-is-causing-burnout-social-isolation-in-workplace-heres-how-you-can-avoid-both.html>

The research of Dan Schawbel's global study, conducted in partnership with Virgin Pulse, uncovered a startling statistic. One-third of the more than 2,000 employees surveyed work remotely, and they're much less likely to stay at their company long-term.

<https://www.inc.com/marcel-schwantes/new-study-technology-is-causing-burnout-social-isolation-in-workplace-heres-how-you-can-avoid-both.html>

In a study that appeared in American Journal of Preventive Medicine, people who reported spending the most time on social media — more than two hours a day — had twice the odds of perceived social isolation than those who said they spent a half hour per day or less on those sites. And people who visited social media platforms most frequently, 58 visits per week or more, had more than three times the odds of perceived social isolation than those who visited fewer than nine times per week.

<https://www.npr.org/sections/health-shots/2017/03/06/518362255/feeling-lonely-too-much-time-on-social-media-may-be-why>

The Mars Orbiter Mission (MOM) spacecraft, also known as Mangalyaan, arrived at the Red Planet on the night of Sept 23, 2014. Mangalyaan, which means 'Mars craft' in Sanskrit, was the first interplanetary probe ever launched by the Indian Space Research Organisation (ISRO) and it cost them \$74 million compared to the US Maven orbiter that cost NASA \$672 million, making MOM the cheapest space orbiter mission. However, there has been a debate on whether the

nation's exploits in space are a waste of resources given that it could have been spent on helping to fix India's impoverished populace.

<http://news.trust.org/item/20131113093713-yij0s/>

CRISPR was invented by scientists who wanted to figure out how to exploit a quirk in the immune systems of bacteria to edit genes in other organisms — plants, mice, even humans. With CRISPR, they can now make these edits quickly and cheaply, in days rather than weeks or months. The powerful new tool to control is able to control the genes that get expressed in plants, animals, and even humans; the ability to delete undesirable traits and, potentially, add desirable traits with more precision than ever before.

<https://www.vox.com/2018/7/23/17594864/crispr-cas9-gene-editing>

On 12th May 2017, there was a global wide-spread infections of a ransomware known as "WannaCry" aka. WanaCrypt0r. This ransomware has the capability to spread over the network by scanning for vulnerable systems, and infecting them. It then encrypts files on the system, and exhorts a ransom payment in bitcoin for the decryption of files. The attackers on a Windows exploit developed by NSA called EternalBlue. Since then, it has spread rapidly across the world affecting thousands of systems in over 100 countries.

<https://www.csa.gov.sg/gosafeonline/go-safe-for-me/homeinternetusers/wannacry-ransomware-what-you-need-to-know-and-the-actions-to-take>

In September 2014, HDB unveiled the Smart HDB Town Framework, which maps out how smart initiatives will be introduced in five key domains - smart planning, smart environment, smart estate, smart living and smart communities - to create a more liveable, efficient, sustainable and safe living environment for HDB residents.

<https://www.businesstimes.com.sg/hub/asean-singapore-2018/smart-technologies-to-enhance-singapores-living-environment>

In 2015, expenditure on R & D in the EU was two thirds of that recorded by the US, but 49 % higher than in China, more than double the R & D expenditure in Japan, and over five times as high as in South Korea.

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R_%26_D_expenditure