Technology has always played a significant role in our daily lives. It often plays as an agent between the user and their surroundings. Our lives are getting more and more intertwined with technology at so many different levels, as augmented reality, virtual reality, self-driving cars, robotics, space technology, etc. are used on a much larger scale. It is very important for organizations to keep a check ethical issue that may arise during the course of creating a product. Disruptive technologies definitely empower an organization to become more efficient, agile, flexible and responsive. In spite of this, organizations encounter issues related to privacy, preferential algorithms, and a series of other technology related questions which could hamper their reputation and also can risk their financial stability (https://news.harvard.edu/gazette/story/2020/10/experts-consider-the-ethical-implications-of-new-technology/, n.d.) (https://superhumantalks.com/technology-ethics/, n.d.)

Ethics problem in modern technology

The main purpose of technology was to automate things. As we look back at history, walking was automated by bikes, horse-carriage was automated by cars, written calculations performed by people was automated through the first computers. Initially, only simple errands were automated, but gradually progressed towards complicated projects. We have advanced from simple computers in the 1980's to super-robots like in sci-fi movies in the present day.

On the other hand, we have the medical domain responsible for saving lives. The have their own concerns regarding the principles and ethics of automation. Algorithms have been developed by researchers which can foretell the last wishes of debilitated patients closer to what could be their real wishes. This has been achievable for the last 10 years.

Are we willing to let life-or-death decisions to be taken by computers ? Computers are emotionless machines which analyses the situation and tries to accomplish its objectives successfully based on what they have been instructed to do. We need to ponder upon some critical questions such as, in case the algorithm suggests a particular action, resulting in the death of someone, who is ethically responsible for it ? The program, the programmer, the person who carried out the advised operation, the authorized regulator ? The traditional way of ethical thinking doesn't really work with

expanding technology. Computer ethics were never really looked at as a concern before the beginning of 21st century, however, it appears that we might be little too late.

Moral responsibility is very subjective and differs for everyone. Adults and adolescents have far more responsibilities than infants and children. Also, the ones whose actions are affected by external forces like psychological disability or addictions are considered to be less responsible ethically. Based on these observations, researchers assume that interference by machines would decrease human accountability. Computers have enabled us to accomplish targets faster and accurately. However, an average operator does not really know the inner functioning about the calculations performed, hence making humans non-liable for their actions (https://medium.com/@matthewbiggins/modern-technology-has-an-ethics-problem-abcfa755fb97, n.d.).

Some of the areas where concerns have been raised with respect to ethics are mentioned below. Every one of them show huge potential steering us towards a promising future. However, each of them also has the possibility to turn against us. A brief summary with some of the domains where ethics are of major concern.
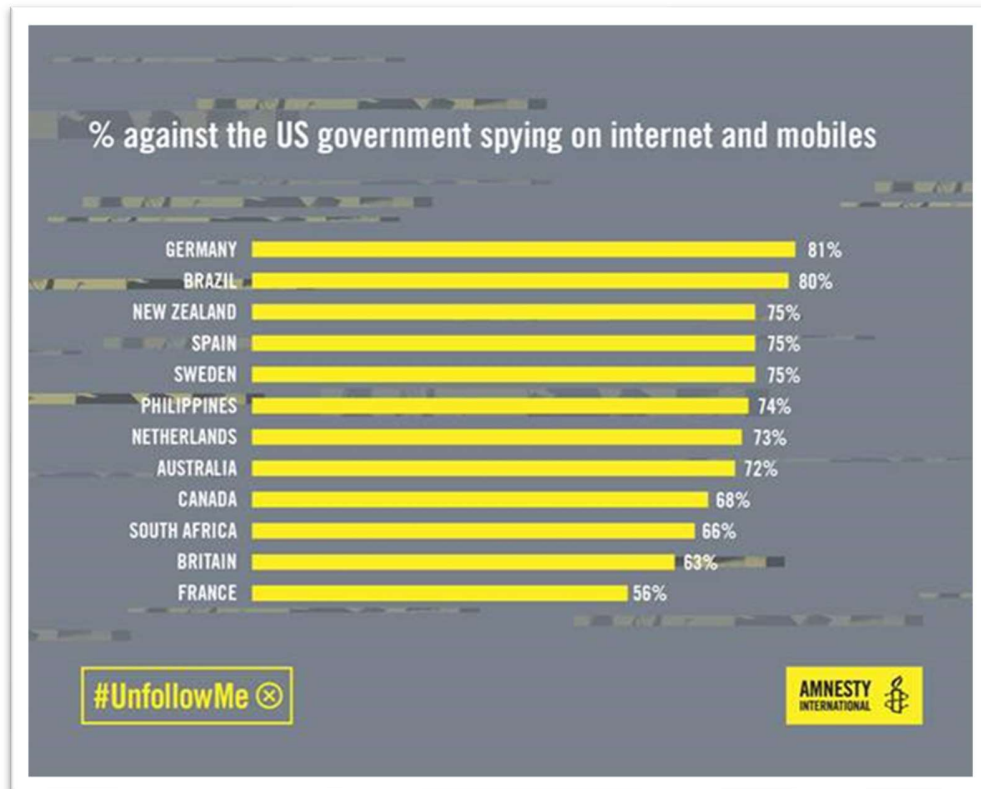
Mass surveillance

It is true that active surveillance can act as a deterrent in many cases, however also have a huge potential of being misused. Social media giants as well as network provider organizations are gathering large amount of detailed data, real-time location and transmission meta-data which are later sold to or shared with authorities from law enforcement, immigration enforcement and other intelligence agencies without the users' consent.

These systems under immigration authorities could literally lead to life and death situation. The technologies can be used by the law enforcement to track protestors and identify them. Devices such as Amazon Ring can bestow risks that protectors of law could heighten their way of retorting against unlawful activists.

Figure 1. US government spying in different countries

(https://www.amnesty.org/en/press-releases/2015/03/global-opposition-to-usa-big-brother-mass-surveillance/, n.d.)

Deepfakes

An insurance company called State farm created a TV commercial displaying a sports presenter predicting a stunningly precise outcome of a basketball game about the year 2020, in 1998. This was a highly alarming deepfake, which started trending in the media worldwide.

Deepfakes are usually media versions of individuals uttering or performing activities that they didn't really utter or perform. Someone collates all the videos, photos, audio clips of someone and swaps them to someone else's interests. These tools can be used to manipulate the public during elections or hamper some famous personality's reputation. Imagine a deepfake of a prominent personality such as the President of United States threatening or saying some nasty things to

another world leader, which could lead to catastrophe. In a way deepfakes are another tool to spread misinformation (https://www.prindlepost.org/2020/12/ethical-considerations-of-deepfakes/, n.d.).

Disinformation

Unlike misinformation, this is a way of spreading propaganda to misdirect your opponents. Misinformation is false or inaccurate information provided irrespective of intention to deceive. Disinformation is a type of misinformation here the main intention is to deceive. The biggest example in recent times is said to be the online propaganda campaigns which were speculated to be run by Russian agencies to manipulate the social system to support Donald Trump's position in 2016 US election.

Disinformation can snowball into various kinds of activism or protests, damaging public property, governments reputation and financial losses. Another major example we came across in recent times is during the Brexit deal. Social media platforms were used by miscreants to create chaos and panic amongst the citizens to achieve their vicious goals. It is very easy to fall prey to these kinds of devices. Therefore it is very important to stay vigilant and to get information from reliable sources (https://www.triplepundit.com/story/2020/5-ethical-issues-tech/138326, n.d.), (https://ethicaljournalismnetwork.org/resources/publications/ethics-in-the-news/fake-news, n.d.)

Data portfolio of children

Parents are considered to be the rightful owners of their children's privacy. The frightening part is that now-a-days parents are the ones who breach their children's privacy by posting pictures of ultrasounds on social media platforms and sharing real time information during the child's birth implies that children already have digital footprints even before they are born. And as anything on the internet is considered to be unsecure and hackable, there were already reports that families were extorted for money due to the result of this. The FBI in the US has also cautioned that children are at high risk in school as hackers have already stolen academic and character data from hundreds of schools. In the age of high relevance on digital data and personality, it leaves the future of children at high risk.

Autonomous translation

Many big tech firms are working on developing AI technology that can make instantaneous translation of human conversations. As we all know, languages are not that simple. Also add to it the idioms and slangs to make it even more complicated for a machine to produce a satisfactory translation to bank on it in delicate circumstances like during a military confrontation. There are possibilities that the translator is unavailable and so there is no option but to work with such technologies. Regardless of predestined advancement ahead, it a thought worth pondering if we're willing take a chance by using this technology and put over lives at risk.
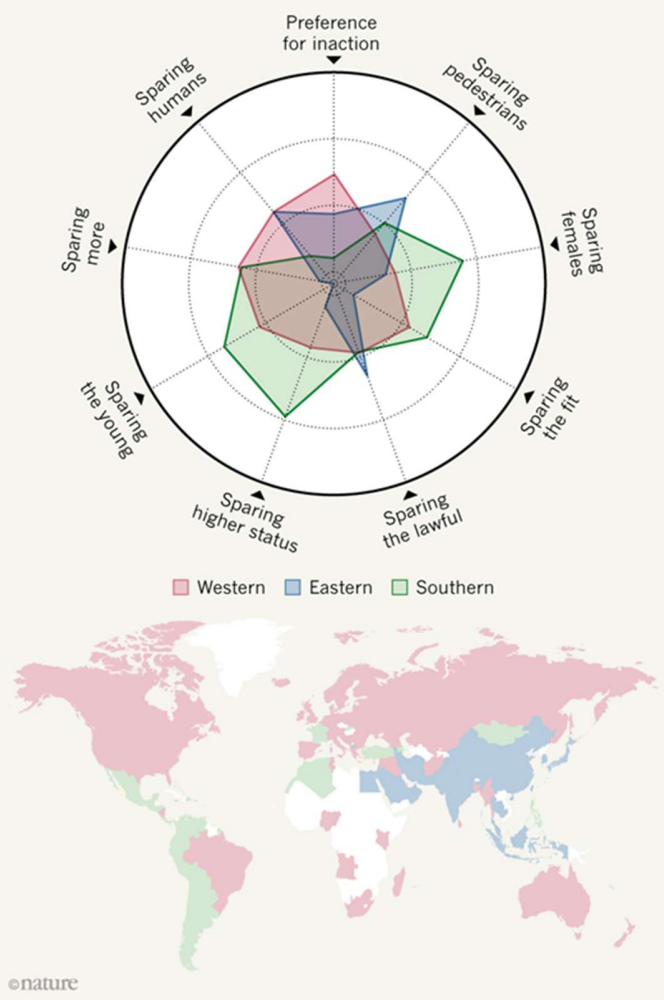
Behaviour Identity

As we move further ahead from using touch screen smartphones to other high end devices, we leave a lot of digital trace such as hand-eye coordination, pressure point of the finger, angle of device while operating with hand, hand tremors, steering pattern, hand shudders and other gestures to verify if you are the rightful user of the device while logging in an app. While wanting to be protected from hackers, it is very important to contemplate in what way your information is gathered, kept and utilized. We might want to know what kind of behavioural identity we have (https://www.forbes.com/sites/jessicabaron/2018/12/27/tech-ethics-issues-we-should-all-be-thinking-about-in-2019/, n.d.).

Autonomous Vehicles As tech giants along with automakers move to take the next big leap with driverless vehicles, we ought to know about the dilemma in this story as well. We all are excited to delegate the tedious job of driving through a traffic, to a machine. While we sit and enjoy our journey, our car operated by a computer will make traffic decisions on the go, when to speed up, when to brake and when to make the appropriate turns. However, in the case of an unavoidable accident, involving someone's death, the question to ask is if the car would choose to save the driver or the pedestrian. If the pedestrian is an infant or a pregnant woman or an old person or a handicapped person, how will the car choose to decide who lives and who doesn't. According to some surveys carried out, this choice is mostly based on cultural factors as well. Some cultures chose the option to save the life of the other person over themselves. Some chose the death of the person crossing the street illegally. Car companies claim that such surveys might help them decide how to design the algorithm, however, morality is not universal. Hence, this question is yet to be answered. ttps://www.nature.com/articles/d41586-07135-0, n.d.)

MORAL COMPASS

A survey of 2.3 million people worldwide reveals variations in the moral principles that guide drivers' decisions. Respondents were presented with 13 scenarios, in which a collision that killed some combination of passengers and pedestrians was unavoidable, and asked to decide who they would spare. Scientists used these data to group countries and territories into three groups based on their moral attitudes.

Figure 2. Moral compass around the globe

(https://www.nature.com/articles/d41586-018-07135-0, n.d.)