Technology with A Human-Centered Approach

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Preamble

In the following work we will explore how new technologies will affect the overall dimension of human rights and ethics, emphasizing in digital technologies that already encompass a grand variety of spaces in the development of society in terms of communication, information, validation and automatization. These advances should protect core values established by the Universal Declaration of Human Rights (UDHR) of the United Nations; in general terms, working in favor of all humans, theoretically equal, without discrimination of religion, gender, race or sexual preference.

Despite the great efforts of organized civil society, reality has made us understand that not all men and women have been, nor are they equal before the law. As stated before, only theoretically, but due to the human factor, there are serious imbalances regarding the concept of equality. Unfortunately, in full 21st century, we live with several forms of discrimination. In this sense, by incorporating technologies that might augment social disproportionalities, it becomes imperative to establish a universal and legally-binding human rights framework with laws and standards.

Not intending to demonize technology, but instead, to understand that all traditional practices and disciplines will be affected by the same, the work focuses in the use of these, to empower fundamental rights.

New Technologies

Social Networks

With the use of social networks, societies communicate and exchange information at real-time speed, which has provided the access to information for millions of people around the world.

Online social networks have developed vastly in the last decade and arguably are the technology which influences most the promotion, vigilance and subsequently, defense of fundamental rights; furthermore, a tool for the international community to respond against the perpetrators of human rights violations. This technology has enabled the global community to witness, document and advocate, against violations towards fundamental rights. Social networks create a digital infrastructure of inclusiveness in which open societies around the world, freely express ideas; ideally without discriminating or conducting hateful speeches.

Let’s use the example of #BlackLivesMatter. What started 5 years ago as a hashtag on social networks such as Twitter, regarding the shooting of the unarmed, young, black teenager, Trayvon Martin, currently makes the case of modern activism and protest.
As of 2018, the hashtag on Twitter had been used over 30 million times. As well, studies show that whenever there is a situation of discrimination, violence, or a generalized violation of fundamental rights towards any person of color, the hashtag spikes on social networks.

Another example of modern, social activism is the MeToo movement. This movement helps survivors of sexual violence, by empowering through empathy and most important, strength in numbers. Currently, the movement encompasses international scale and manages to positively influence communities around the world, to hold accountable perpetrators of sexual violence. This particular movement has seen different spikes since the foundation. (MeToo, 2018)

The first time it spiked, was in 2006, when the “MeToo” phrase started being used on the social network MySpace. Then, in 2017, the #MeToo emerged on twitter and quickly developed. The second spike had and has much more impact mainly because of the number of people using social networks. As of 2018, the hashtag had been used over 19 million times and just as #BlackLivesMatters, it develops whenever there is a case of sexual harassment or sexual assault; most recently, the case of Hollywood producer Harvey Weinstein. The MeToo movement helped initialize a public denounce towards a case of sexual abuse. (Varia, 2020)

Both cases visualize how social practices or customs create norms and norms can become institutionalized, ergo, become legally binding. Social networks, regarding the imperfections, have created worldwide, unified and interconnected communities that work in the defense of fundamental rights. This new approach helps prevent or mitigate the human rights risk that accompanies the technology in question.
Social networks have as well been utilized as tools for structural change in countries. The Arab Spring managed to achieve such momentum around different countries in the Middle East, because of the coordinate use of networks such as Facebook, Twitter, YouTube and WhatsApp. The protests that emerged in Tunisia, 2010, spread to Egypt, Libya, Yemen, Syria, and Bahrain. The status-quo was heavily compromised by protestors speaking against oppression and demanding the respect of their fundamental rights. Aside from the general outcomes, social networks turned out to be a tool, rather than the solution.

( Amnesty International, 2016)

**Since technology is a tool, then it is as good or bad as the person who uses it.**

Online social networks can be and are commonly used to polarize societies. Antidemocratic regimes around the world have used social networks to conduct campaigns of hateful propaganda against minorities or any systematically targeted group. This is one of the many forms of what is known as state terrorism.

Regimes in countries such as Iran, Turkey, Saudi Arabia, Cuba, China or Venezuela apply the most restrictive media laws in order to repress any form of opposition or critic. In these countries, freedom of expression, amplified as it is with the use of online social networks, is on the other side, taking an opposite, deteriorating position. (Reporters Without Borders, 2019)

Now, online social networks, outgoing a process of verifying information to stop the perpetuation of misinformation, are using other technologies such as artificial intelligence, big data and blockchain. In the human rights line of work, this process is fundamental. The importance of having an accurate picture of any given human rights situation will empower the network of its defenders.

**Big Data**

Traditionally, the defense of Human Rights has been carried out reactively, in situations of imminent threat or actual violations of Human Rights. Prevention activities are carried out from the promotion of rights and to require states, the application of public policies of compliance with international instruments for the protection of human rights.

With systems of indicators, or commonly known “red flags”, used on big data technologies, a situation of social deterioration can now be visualized, and societies can act in a preventive way. When predicting future behaviors or warning about the worsening of a situation of armed conflict, a change in the persecution tendencies to human rights defenders or an increase in the application of torture, cruel treatment, violation of the right to life of detainees, changes in patterns of violence against women, epidemics, famine or mass displacement of people, organizations using these technologies can issue calls to international action with sufficient anticipation of undesirable events.
In general terms, issue early alerts with a technological foundation.

It is hard to adopt an approach towards any technology, in this case, Big Data, and generate impact assessment in such an early stage. Particularly, data-driven technologies, or that use data processing for decision making, such as the case of the one we are analyzing, the model it can generate will be only valuable if the person that analyzes the same knows how to find value.

Using the most recent case of COVID-19, which manages to fulfill a global criterion, we find disturbing how the international community should have addressed early concerns based on data-driven analysis.

The most famous case of “prediction” was of Microsoft co-founder, Bill Gate’s TED talk five years ago. In which he expressed how “we are not ready for the next epidemic”, or what currently would be:

We were not ready.

Gates states the overall, small international investment in systems to stop epidemics. Secondly, used the case of Ebola. The world had no system whatsoever to manage the virus. None of the key players such as surveillance, data, personnel and most evidently, treatment, were present when the Ebola virus emerged. Using this case, and many other ones, he concludes that the elements required to stop a global pandemic were and still, are missing. Aside, he proposed to strengthen health systems around the world, create medical corps, augment the investment from the international community and incentivize research and development. (Gates, 2015)

Just as Bill Gates, many more researchers have conducted data-driven analyses. Overall, the development of data-driven practices represents an extraordinary promise in the improvement of health conditions. The main challenge is how to ensure that the countries of the world, considered collectively, make better use of the existing data and guarantee the right to a standard of living adequate for the health and wellbeing of the people as stipulated in the UDHR.

But Data-Driven analyses do not only make a case for global pandemics. As earlier stated, the application of these can cover any single past scenario and turn it into valuable data.

We should consider the possibility that wars between superpowers such as World Wars I and II do not happen today in consequence of a data-driven approach to how vast the economic and social impact may be in present times. In this sense, wars can be prevented with the use of this novel technology.

But data does not only enter the equation in macro scenarios such as global pandemics or world wars. Normal people, as a collective, each day leave vast amounts of data crumbs. Everyday people just by conducting their regular activities may lead companies that use data-driven approaches, to create the latest product or enhance an existing service. As well, governments can currently use surveillance systems, within the context of data management, to assess risk in their territories.
There are many more ways the private and public sectors can use this technology aside from the examples early mentioned, but for this technology to be human-centered, governments and private actors must become pioneers in a new set of ethical responsibilities.

**Artificial Intelligence and Machine Learning**

Going back to the predictive use of Big Data, the focus now derives to separate individuals and how their fundamental rights will be affected. Machine Learning systems, which are a method of automated data analysis by artificial intelligence (a.i) without the need for explicit programming, do not only use data to analyze a person’s specific interests. These systems as well intend to infer personal preferences and, in this sense, the rights to equality and non-discrimination may be affected. Based on stereotypes, algorithms can evaluate the separate risk each person represents to society, or in a more wicked way, a political party, ideology or economic model, and discriminate in a predictive sense, future behaviors. If this happens, algorithms may determine who gets a job, insurance, or credit based on political or sexual preference, physical traits, or any other “valuable data”.

**But new challenges generate new opportunities.**

The Universal Declaration of Human Rights or the International Covenant on Civil and Political Rights, have worked since the inception of each, to achieve and guarantee universal conditions in which each person enjoys economic, social, cultural, civil and political rights. But in the year 2020, there is an imperative need for legal instruments that defend digital rights.

Aside from the existing international human rights instruments, new protection systems for the digital age emerge around the world. Instruments such as the Toronto Declaration, created with the purpose of protecting the right to equality and non-discrimination in an age governed by algorithmic, decision-making, arrive with perfect timing.

The only way for these technologies to work for the general good, respecting freedom of thought, conscience, religion or belief, or the right people has to freely express without reinforcing already existing discrimination, will depend on legal instruments that protect fundamental rights.

In this context, well-known organizations such as Amnesty International, or AccessNow, which is a new player in the defense of digital rights and the free internet, created the Toronto Declaration. This instrument functions as a new legal layer, applying existing standards to the digital age.

As well, Artificial Intelligence has the power to change the defense, vigilance, and promotion of Human Rights, for the better.

A.I, encompasses both, big data and social networks. This technology can process immense amounts of visual and textual data in a process of evidence gathering of human rights violations around the world. It can use this information to produce models based
on violation prevention or simply to map, monitor and document unlawful acts. Not that a human cannot conduct the same tasks, but never as fast and with the combination of massive, different and contrasting sources, which is fundamental in the human rights defense line of work.

Roni Rosenfield, professor of computer science at Carnegie Mellon University, leads the machine learning department and the Delphi research group. The objective of the center is to conduct epidemiological forecasts. Rosenfeld was asked by the Center for Disease Control and Prevention (CDC), to predict the spread of COVID-19 in the United States of America.

In the following chart, the research group conducted a forecast of how the disease will possibly spread in the states of Delaware, Maryland, Pennsylvania, Virginia and West Virginia. Using machine learning, they managed to analyze how past viruses spread around the country depending on a variety of indicators. The current virus, represented by the black line is expected to peak around April and May of the present year.

(Samuel, 2020)

Once again, big data and machine learning are not only useful to prevent events, but as well to help in the defense against an ongoing critical situation.

Human-centered, A.I technologies have a vast range of opportunities to enhance the way societies can be protected from external threats (such as COVID-19), or internal, when it comes to human vs human. The potential impact of A.I in the defense of fundamental rights will be difficult to assess at such an early stage. But without doubt, if the international community creates ethical and legal guidelines, the positive impact will overshadow the negative side.

The European Commission’s High-Level Expert Group on Artificial Intelligence (HLEG), published a year ago “Ethic guidelines for trustworthy A.I”. In a general sense, the group outlines the necessity of “Trustworthy A.I”, which manages to be quite an easy term for what is needed. (High-Level Expert Group on Artificial Intelligence, 2019)
If A.I manages to achieve lawful and ethical guidelines, the general public may trust such technology. As well, the HLEG implies the need for “technical robustness” which in general words, means for the system to function. AI. technologies must be resilient, secure and safe.

The fundamental input inside the equation is transparency.

Every human is entitled to know when interacting with an A.I system and how their privacy and data might be affected. Respect for data protection is the most fundamental approach to data governance mechanisms. When utilizing data to conduct any type of analysis, by private agents or the government, all stakeholders should be able to understand and visualize the capabilities and regulate the system’s limitations.

Conclusion

Parting from the premise that all technologies in a general sense, and more specific, the ones mentioned before, are tools created by humans, we must understand that the outcome will be as good or bad as the human who uses the tool. In this sense, 5 general conclusions are proposed:

1. Implementing accountability mechanisms assuring the responsible, ethical, legal and human-center use of these technologies, will ensure the empowerment of human beings as never seen before.

2. It becomes of intrinsic value, to continue developing international instruments such as the Toronto Declaration in order to enhance the existing legal framework, emphasizing in digital rights.

3. Private actors and governments have a new set of ethical responsibilities to guarantee specific international fundamental rights such as freedom of expression, belief, peaceful assembly and non-discrimination in a data-driven world.

4. Civil society groups will be fundamental as a check and balance tool for A.I guidelines to be incorporated and respected; in this sense, creating “trustworthy” A.Is.

5. A.I technologies, fed on big data, which part comes from social networks, can positively impact the defense, promotion and vigilance of human rights. If using the technology in question with a human-centered approach, which encompasses ethical and legal guidelines, the outcome will be sufficiently adaptable for the times to come.
Bibliography


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