The mismeasure of the human

Big data and the 'AI turn' in global governance

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'I am here to help humanity create the future.' Symbolic and performative are the words we might choose to describe the conversation between Sophia, the life-sized 'social robot', and the United Nations Deputy Secretary-General, Amina J. Mohammed, on 11 October 2017. That day, Sophia entered the UN Headquarters in New York to participate in the event *The future of everything – sustainable development in the age of rapid technological change*, and to explain how artificial intelligence (AI) can and will help to create a better future for humanity (Fig. 1).[1]

While the more vaunted claims seem far away, digital technologies and AI systems are already transforming our world socially, economically and politically and affect people's everyday lives, most of the time in invisible ways.[2] The 'artificial intelligence turn', in which data processing and automatic reasoning have become central in governance and decision making (Gurumurthy & Bharthur 2018), is having immediate consequences for a wide range of issues. These include (to mention a few): who will be targeted as a criminal; which families obtain resources or who is investigated for fraud; which justice campaigns will succeed in being heard (or not); where a mass grave containing evidence of a war crime is likely to be found; what aid is available and where it will be directed; and how human rights monitoring and intervention occur. Such developments in technoscientific knowledge produce and emerge out of an intellectual and cultural movement that Upendra Baxi (2007: 214) refers to as 'the benign post-human', which affirms the possibility of improving the human condition through applied reason.

Virginia Eubanks (2018) analyses the effects that the digitalization of governance practices have on the vulnerable and poor in the USA, showing that certain individuals and groups become even more visible to states by way of over-policing and data collection, while others among the marginalized produce results that are 'unreadable to', or 'errors of', AI systems, thereby becoming victims of neglect in the system of 'good governance'. These systems undermine basic rights while making it increasingly difficult to legally challenge adverse decisions because of their invisibility, opacity, and often the absence of legal regulatory frameworks.[3]

Along similar lines to Eubanks, Philip Alston, outgoing UN Special Rapporteur on extreme poverty and human rights, presented a report to the UN General Assembly on what he calls 'the rise of the *digital welfare state*'.[4] He considers how semi-automated and automated decision-making technologies, often presented as 'simple administrative technical innovations', are revolutionizing the interactions between governments and the most vulnerable in society; warning that nations around the world are 'stumbling zombie-like into a digital welfare dystopia' in which AI and other technologies are used to target, surveil, punish and further marginalize the poorest people.

These contributions reveal that decision making and sociality already take place through digital infrastructures, machine learning, algorithmic assemblages and quasi-automatized predictions, blurring the boundary between human and not-human agency, and creating new human realities at the same time. This development raises challenges and concerns, and signals the need for legal transformations, not just in the policy areas where they are used, but also for society as a whole.

What happens when it is not just states that are adopting AI in governance practices, but also international institutions, such as the United Nations? What happens when these systems are used to manage conflict situations, humanitarian intervention, to administer logistics as well as develop law and policies? What is the place of these technologies in deploying or expressing relationships of power? How do they contribute to the creation of the reality of the intervention, through deciding what does or does not matter? How, in other words, does the 'AI turn' of governance contribute to the ways human belonging is conceptualized and acted upon? How is collective life imagined and how can anthropologists approach it?

In this paper, I offer some reflections on the possible effects that the AI turn of global bureaucracies has for human rights practice, particularly in the case of the United Nations (Fig. 2 & 4). This turn begins with the UN's intervention in major crises, and continues with the creation of more mundane policies and law. I also want to show that, beyond the policy and crisis-intervention orientations of AI, we are witnessing the creation of new foundations for human belonging and being. All this is taking place through the automatization of decision making in the context of the increased interdependence between private and public sectors.

The UN and AI: Creating knowledge, creating intervention

Machine learning (ML) and automated decision making (ADM) technologies, part of what is generally known as AI systems, have an aura of objective truth and scientific legitimacy that draws attention away from their contingencies and constructive (and destructive) powers.[5] However, many experts have pointed out that these systems are socially embedded. What constitutes ML is 'a composite figure in which humans learn collaboratively with algorithms, and algorithms with algorithms' (Amoore 2020: 58). It is not only the often opaque algorithmic 'black box' that informs decision making and intervention, but, most important, the original data and models that are used to

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1. https://news.un.org/en/story/2017/10/568292-un-robot-sophia-joins-meeting-artificial-intelligence-and-sustainable. Accessed October 2020.
2. For some literature, see Benjamin 2019; Eubanks 2018; O'Neil 2017; Vinuesa et al. 2020.
3. Nevertheless, several cases where algorithms were used affecting people's rights have been brought to court (AI Now 2018).
4. Online streaming 18 October 2019. See 'Seventy-fourth session Item 72(b) of the provisional agenda* Promotion and protection of human rights: Human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms', 11 October 2019.
5. For an illustration on the differences between these forms

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Fig. 1. *ECOSOC, Second Committee Discuss Sustainable Development and Rapid Technological Change. Deputy Secretary-General Amina Mohammed (right) is seen interacting with a robot named Sophia during the meeting, United Nations, New York.*

MARIA SAPIGNOLI

Fig. 2. *United Nations Headquarters, Geneva.*
Fig. 3. *AI for Good Global Summit 2018.*

of AI technology, see Boden 2016; Crawford & Joler 2018.

6. This term refers to the use of a technology, system or data beyond the purpose for which it was originally intended.

7. The use of AI and related systems in the work of the UN is discussed in the 2018 UN Secretary General's strategy on new technology and in many other reports and documents produced in the past few years. See, for example: Data privacy, ethics and protection: Guidance note on big data for achievement of the 2030 Agenda; UNDP 2017: Personal data protection and privacy principles; UN Global Pulse 2018: A guide to data innovation for development. From idea to proof-of-concept; UN Global Pulse and UNDP 2016: United Nations activities on artificial Intelligence (AI); UN ITU 2019: The age of digital interdependence. UN report on the UN Secretary General's High-level Panel on Digital Cooperation 2019.

8. OCHA (Office for the Coordination of Humanitarian Affairs) Centre for Humanitarian Data https://centre.humdata.org.

9. See UN Global Pulse and UNHCR Innovation Service White Paper 2017 Social media and forced displacement: Big data analytics & machine-learning. https://www.unhcr.org/innovation/wp-content/uploads/2017/09/FINAL-White-Paper.pdf. For a complete list of UN Global Pulse's projects, see https://www.unglobalpulse.org/projects. Accessed 3 October 2020.

10. See https://www.wfp.org/news/wfp-introduces-innovative-iris-scan-technology-provide-food-assistance-syrian-refu. https://www.wfp.org/news/palantir-and-wfp-partner-help-transform-global-humanitarian-delivery. Accessed 3 October 2020.

11. See note 4

AI Now 2018. *Litigating algorithms: Challenging government use of algorithmic decision systems*. Institute report in collaboration with Center on Race, Inequality, and the Law Electronic Frontier Foundation, September.

Amoore L. 2020. *Cloud ethics: Algorithms and the attributes of ourselves and others*. Durham: Duke UP.

Baxi, U. 2007. *Human rights in a posthuman world: Critical essays*. Oxford: Oxford University Press.

Boden, M.A. 2016. *Artificial intelligence: A very short introduction*. Oxford: Oxford University Press.

Browne, S. 2015. *Dark matter: On surveillance of blackness*. Durham: Duke UP.

train ML systems and the chain of people, codes, information and 'function creep'.[6] Datafication often implies the distortion of the complexity of social phenomena, but data also frequently mirror existing and past forms of structural discrimination and inequality – if inputted data have biases, or misrepresentations, embedded in them, these will be reproduced in the workings of intervention (Johns 2016). If data are absent, they will remain so through the process by which the AI program contributes to decisions or visualizes problems. Yet the writing of the algorithms makes present what did not exist in the past; it discovers abnormalities that create norms (Amoore 2020: 103). In fact, according to Louise Amoore, algorithms 'actively generate recognizability' (2020: 69); they create realities as much as they affect them; they decide what matters by reducing the 'multiplicity of the plural possible outputs [and futures] in one' (Amoore 2020: 17).

The subjectivities that emerge from computational reasoning, our 'digital selves', are temporary and out of the subject's control. Digital identities depend on the algorithms that interpret them and on the data that make them in that specific moment (Cheney-Lippold 2017: 25). Furthermore, technicians' own understandings of policies and data are put into models and algorithmic coding, together with their own perceptions of the problem they want to track, map and resolve. On all these processes depend the prediction, the production of knowledge and ultimately the future-present they create. Just as indicators contribute to the creation of the world they are measuring, making it actionable though their translation of the buzzing confusion of social life into neat categories (cf. Merry 2016), so do algorithms measure and simplify the world. But algorithms go a step further: they use such indicators together with other data to make automated or semi-automated *decisions*, increasing the fiction of the non-political in the technologies of governance through the illusions of objectivity and inevitability.

ML technologies have been incorporated into many UN initiatives, such as education, health, food delivery, peace, refugee management, aid, human rights and environmental monitoring, Sustainable Development Goals and humanitarian crisis response. Under the banner 'AI for good' (Fig. 3), AI systems are becoming more and more central to the agendas of global institutions, as technologies to be regulated and embraced at the same time.[7] According to a report by the UN Office for the Coordination of Humanitarian

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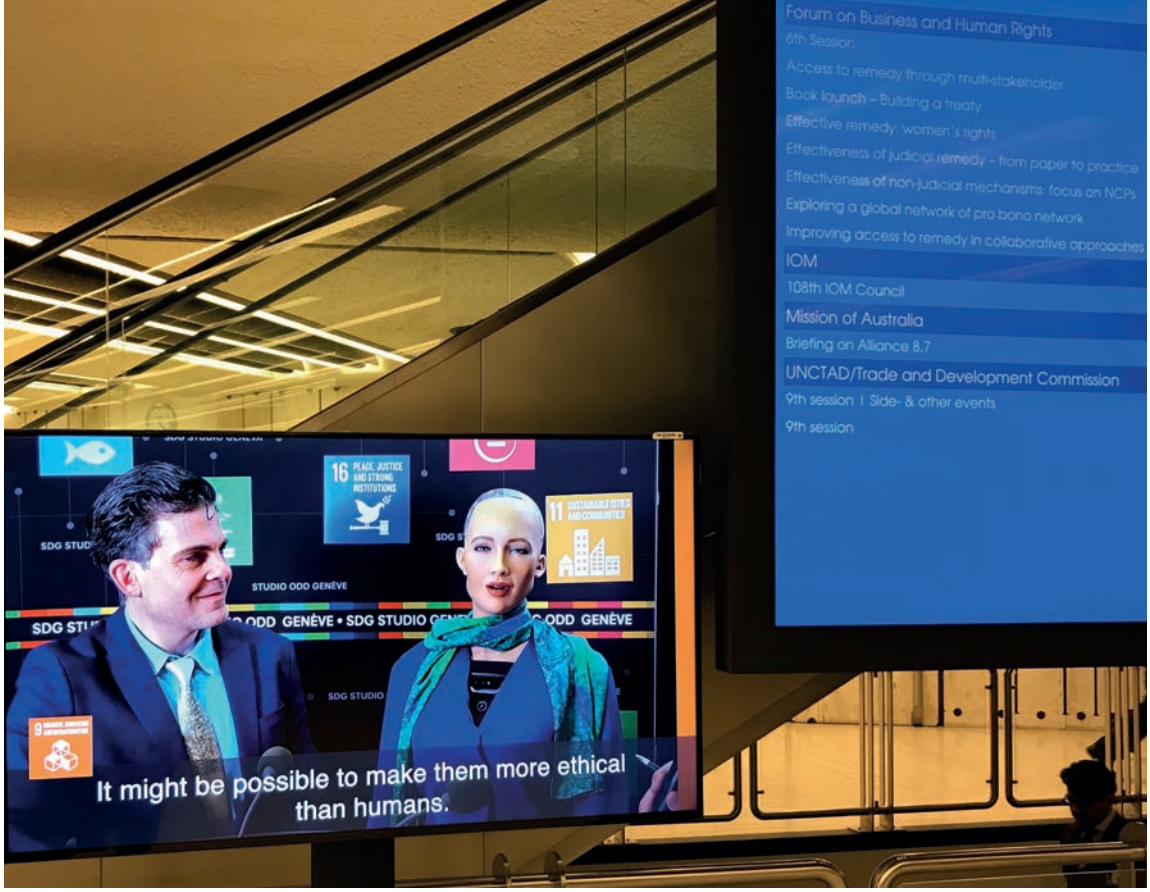
Affairs, digital technologies are increasingly impacting the work of the UN in three ways: (1) changing the political, social and economic environment; (2) providing new tools for its core mandate; and (3) creating new policy issues.[8] Few studies have been done analysing the impact that those technologies are having on the work of the UN, but several Special Rapporteurs are taking the issue of the impact of new digital technologies and ADM in state governance as central in their reports, as seen, for example, in a recent report of the Special Rapporteur on Racism (2020).

The use of information technology (IT) in international governance has a more extended history than the more recent AI turn (Fig. 5). International organizations, in some ways weakened by state-centric structures of governance, have been turning with some optimism toward the power of IT and 'big data', through the creation of new large-scale 'data mining': the extraction of patterns and knowledge from massive and often diverse sources of information (Fleur 2016; Merry 2016). They want to rely on computers with high-speed capacities, cloud systems, predictive risk models and complex algorithms as technological means toward improved decision making and problem solving. This turn is inspired by the hope that decisions based on AI systems can make violations of human rights and international law, as well as the presence of humanitarian crises, more visible and responses more efficient. At the same time, but at a slower pace, the UN is trying to catch up with the development of policies and guidelines to regulate the uses of AI that are already underway, apparently following the principle 'digital first, law later'.

There are benefits in using AI technologies and real-time data analytics, especially in emergencies when decisions have to be made quickly by analysing vast amounts of data, in circumstances in which places are not physically



MARIA SAPIGNOLI

Fig. 4. *Video on the use of AI for SDGs screened in the corridors of the UN Headquarters in Geneva during the UN Forum on Business and Human Rights.*

reachable, or when administrative burdens can be reduced through simple automated applications. But several empirical studies (in addition to almost daily news items) have recently reported on the harmful effects that automated decisions can have, especially when governments delegate essential governance functions to these systems.

Numerous UN initiatives involve the use of 'real-time data' and 'crisis mapping'. These initiatives pilot the use of digital platforms and AI to plan humanitarian interventions, conduct human rights monitoring and develop 'quick and time-efficient policies'. In recent years, for example, UN Global Pulse, a Secretary-General's initiative on big data and artificial intelligence, has developed and tested several projects that utilize ML systems for development, humanitarian action and peace (Fig. 7). Its project in collaboration with the UN refugee agency (UNHCR) is designed to perform automatic classification and mining of crisis-related messages posted to social media during humanitarian crises to predict emerging conditions of conflict and displacement. Decision makers can then use this information to inform 'programmatic responses and alterations'.[9]

However, problems of surveillance and exclusion of the most marginalized can happen when the results from mining social networks and platforms are used as indicators to direct humanitarian intervention. For instance, Twitter and its algorithms shape the way tweets are created and retweeted; it encourages users to post information that is expected to be recognized and attract attention, likes and retweets from other users (Crawford & Finn 2015). The presence of 'bots' (automated tweets) makes it challenging to evaluate the representativity of the datasets. Claims are also affected by the opaque ranking of data in internet search engines, such as Google algorithms, which can harm the public expression of human rights grievances, including the massive amplification of distinct voices and the silencing of others (Niezen 2020: 118). Moreover, the representativity of this data gathering assumes that people have the relevant technology and technological literacy.

Mass biometric registration, satellite remote sensing and mobile digital tracing have become some of the leading digital means for intervention and remote humanitarian management, but also for guiding national welfare reform and implementation (Fig. 6). Organizations like the World Food Programme[10] or UNHCR are deploying biometric technologies like iris scans and digital fingerprints to monitor suspicions of fraud during food distribution, or to follow the movements of refugees and asylum seekers to corroborate their claims (see Hosein & Nyst 2013). Last year, the WFP was awarded the Nobel Peace Prize for its relief work against hunger and its contribution to bettering conditions for peace in conflict-affected areas. The controversial data-analytics technology company Palantir played a key role in the WFP effort to get food and supplies distributed amid the pandemic. This raises issues of privacy and safety, surveillance and control, unwanted inclusion and forced exclusion. The legal scholar Mark Latonero in a *New York Times* opinion piece referred to the use of biometric technologies in humanitarian aid as a form of 'surveillance humanitarianism', in which 'the enormous data deployed by aid organizations facilitate the creation of a digital underclass who are forced to hand over their personal data in exchange for basic need without dignity of choice' (Latonero 2019).

These digital practices influence the ways institutions interact with and understand the population. They result in leaving many unrepresented in the 'digital smoke signals' (Lohr 2013) that the UN is seeking to use to understand the conditions of the populations they serve. The emphasis on big data and the use of ML could also mask the differences in power among social groups and regions of the world, represented by the kinds of data that come to matter, those that are missing and the new knowledge of social belonging that is created. Data that are missing, incomplete or prone to error are misrepresented or unrepresented in AI-based solutions and predictions. In other words, much like the indicators explored by Sally Engle Merry (2016), new technologically sophisticated practices can reproduce historical inequalities as well as unintentionally create new ones.

Moreover, the very structure of the technology and its human and not-human chain can impede the UN's foundational legal and bureaucratic requirements of explicability and accountability. Trade secrets, ML systems or, more simply, the retooling of software, hardware and data that are being used for different purposes from those for which they were conceptualized often prevent disclosure

Burns, R. 2019. New frontiers of philanthro-capitalism: Digital technologies and humanitarianism. *Antipode* 51: 1101-1122

Cheney-Lippold, J. 2017. *We are data: Algorithms and the making of our digital selves.* New York: New York University Press.

Couldry, N. & U.A. Mejias 2019. *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford: Stanford University Press.

Crawford, K. & M. Finn 2015. The limits of crisis data: Analytical and ethical challenges of using social and mobile data to understand disasters. *GeoJournal* 80(4): 491-502.

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Fig. 5. *UN Technology Permanent Exhibit opening titled* Technology museum: Delivering the message of peace *located in the visitors lobby in the General Assembly Building at the UN Headquarters, New York. The exhibit is focused on connecting the past, present, and future of technological progression at the United Nations..*

UN/ALBERT GONZÁLEZ FARRAN

Fig. 6. *UNMIL peacekeepers prepare for troop withdrawal. A member of a Chinese Formed Police Unit (FPU) deployed with UNMIL operates a drone with a video camera during a long-range patrol to Tubmanburg, destination of the last patrol the contingent is conducting before withdrawal.*

or transparency on how decisions are made. What assumptions and ideas lie behind the collection of data? How are data collected? Are they anonymized? Who owns these data? How do algorithms make decisions? Often answers to these questions are difficult, if not impossible, to find, and detailed information is missing, raising concerns of consent, privacy and safety as well as possible discrimination and other kinds of harm.

GovTec, BigTec and crisis policing

International crises often create the space where the public and the private sectors can experiment (cf. Duffield 2016; González & Marlovits 2020), where states and international institutions become the first clients of tech companies. The recent Covid-19 pandemic, for instance, has become a natural laboratory for the emergence and fast adoption of experimental technologies, which often operate remotely through telecommunications infrastructures, drones and satellite data gathering. In such emergencies, people tend to give away their data more readily, and institutions tend to adopt surveillance technologies with less scrutiny. The adoption of tracing apps and thermo-scanner tools have been key for gathering data for health surveillance. Smartphones became digital health passports to establish people's freedom of movement or fitness to enter work. Online platforms have been key distribution channels for news surrounding the virus and for governments' 'sentimental analysis' in order to predict possible social discontent and disorder; ML systems have been used to quickly identify patterns, speeding up research and treatment, but also to decide which patients should enter intensive care units, with the risk of further discriminating against 'second-class citizens' and vulnerable groups.

It is not just 'crises' that offer a laboratory for tech experimentation; these technologies have a long history of inimical consequences for vulnerable and marginalized populations (Browne 2015). The Global South has become a mostly unregulated laboratory, and its populations are unwitting test subjects for the extraction of data that are sold or used for AI training, beta testing, the development of smart technologies and data mining experimentation (Jacobsen 2015; Shakir et al. 2020: 11). In Africa, for instance, the Chinese Digital Silk Road and tech giants' connectivity plans (notably those of Facebook and Google) are oriented toward connecting the continent to the atmosphere through the use of drones, balloon cables and satellites or to the oceans through the use of underwater cables. These infrastructures, while offering more comprehensive connectivity, also facilitate data extraction for purposes that range from aid delivery, education and advocacy to marketing, surveillance and the development of richer datasets necessary in the east-west AI race. This resembles the colonization of human life in the form of data colonialism (see Couldry & Mejias 2019; Duffield 2016; Tilley 2011).

It is essential to acknowledge that AI systems produced in the Global South or by marginalized and discriminated groups have been developed to offer a counter-hegemonic narrative and diversity in knowledge production through locally produced datasets, proxies and codes, and ownership of the data at the local level. UN agencies have been encouraging localized AI developments through the creation of UN tech labs and supporting small tech start-ups often in parentship with universities, governments and civil society (even if frequently involving the use of open-source algorithms provided by companies based in the Global North).

The tools of big data have made a handful of corporations hugely significant for the information-gathering objectives of global governance, often in partnership or in competition with international organizations and states (see, e.g., Burns 2019). The UN, together with its corporate partners, is developing technologies that present both critical opportunities and risks in the administration of programs, the geography of global governance and their legal frameworks. With private-public consortia, data for security, commercial and aid purposes are merged. Tech corporations are increasingly imbricated in global governance for the simple reason that the private sector has the resources and proprietary interests involved in the development of new technologies that are being used in a wide range of initiatives. These initiatives take the form of data philanthropism, joint ventures, UN Lab technology incubators and UN investments in external start-ups and companies (Fig. 8).

In this context, both the capacities and the ethical answerability of global governance seem to be shifting from the more or less exclusive prerogative of legal and administrative experts toward the expertise of data engineers, software designers and digital investigators, as well as toward the algorithms themselves. While the UN has its technical experts, much of its work using digital technologies depends on access to the vast datasets in the realm of big data, together with those experts in the private sector who have the requisite training to design and implement technologies for 'good' use of proprietary software applied to a myriad of the world's problems. The use of these technologies can empower these technical experts to overrule the decision of the less informed policy makers. It can also facilitate top-down policy decisions. Sometimes these experts resemble human rights practitioners and advocates when they have to predict the form of violence and human rights abuse that a technology they are designing could produce, when they translate policy into coding, or when they boycott their own company because it does not adhere to its principles of 'social good'. Moreover, 'the gap between what a person can do and what a computer can do' (Gray & Siddharth 2019: xxii) is filled by the many 'ghost workers' who tag words and images for datasets,

Latonero, M. 2019. Stop surveillance humanitarianism. *The New York Times*, 11 July.

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Fig. 7. *Press Briefing by Director of UN Global Pulse, Robert Kirkpatrick, United Nations, New York.*
Fig. 8. *President of General Assembly (2017) visits Microsoft exhibit at UN Headquarters, New York.*

check the quality of training data and, in tandem with algorithms, clean platforms of possible offensive content, for example making decisions about what constitutes hate speech that risks inciting violence.

Through their development of this technological capacity for governance, major tech corporations are burnishing their public image by developing tools oriented toward human rights compliance, a sort of 'ethics washing' (Metcalf et al. 2019). At the same time, there are new human rights challenges arising from digital technologies, which have shone a spotlight on the responsibility of social media platforms for human rights violations, such as Facebook's role in spreading hate speech that fuelled the Myanmar genocide (Miles 2018). The impacts of new technologies, in other words, is an emerging field for the development of human rights standards, which goes beyond the identification of human groups as distinct human rights claimants, and focuses instead on technologies as actors and agents – including digitalization, algorithms and 'killer robots' – that act in important ways on human lives (see Sapignoli & Niezen in press; van Veen 2018).

Conclusion

While the use of AI is expanding rapidly, not everything AI-related is negative or fraught with risk. The use of real-time big data analytics and AI systems can help the UN to gather data in almost inaccessible contexts and respond to emergencies even before they happen, challenging its history as an institution that too often has not been responsive to humanity's crises. At the same time, however, the use of new technologies for human rights should continue to raise concern and questions over the place of algorithms in deploying, creating or expressing relationships of power and producing actionable knowledge. In particular, it should draw attention to the role of tech corporations in informing governance, policies and laws. As Philip Alston put it: 'There is a real risk here that the rule of web design will replace the rule of law.'[11] This is so particularly when public and private collaborations and state geo-sovereignty and tech cyber-sovereignty merge. The UN still lacks internal policies and auditability mechanisms for assessing the impacts of AI and the digitalization of bureaucracy. Whenever the UN shares its information with third parties, in practice they lose control of such information, and programmes set up to help bureaucratic practices and intervene in crises could easily switch to something else if states' politics change.

Similar to what Sally Engle Merry finds regarding the use of indicators in global governance, AI technologies are not inherently good or bad as modes of governance, 'but contribute to the ways in which the world is understood and decisions are made in the global arena' (2016: 33). The AI turn takes things a step further, to the point at which decision making seems to be shifting from the human to the humanoid.

Anthropologists investigating this emerging field will likely find themselves coming to terms with four emergent phenomena: (1) a growing role of data technicians in developing digital technologies applied to a myriad of the world's problems; (2) greater private sector participation in, and responsibility for, human rights and global governance, often in ways that are inseparable from corporate goals of image production and profitability; (3) the invisible hand of automatic decision making affecting the targeted population; and (4) the creation of data identities that change every time new data enter the system and through algorithmic interpretation, where computational calculation defines who we are.

Computational logic, data mining and algorithmic techniques are a suitable subject for anthropological study because they incorporate the complex dynamics of human and other-than-human agency in emerging processes of knowledge formation and power. Algorithmically mediated knowledge and power are becoming increasingly significant in defining areas of human rights concern and methods for addressing them. In a way, ML promises to uncover and discover unseen patterns in human interaction through processes that resemble the ethnographic inductive method, with large amounts of information forming the basis of analysis and interpretation. Experts' values and understanding of social issues influence the development and application of ML and big data. Ethnographers are well suited to look at both the effects of AI systems in society, in human rights practices, and at the construction and operation of algorithmic assemblages as extended sociotechnical systems (see Forsythe 1993; Lowrie 2018; Seaver 2018). Understanding the social changes and the future that these new technologies produce – including why they get used in the first place, why people trust (or suspect) them, how they are created and finally translated and deployed – are of particular importance in a time when AI is becoming a vital tool for governance, affecting decision making that impacts people's fundamental rights, dignity and opportunities in life. ●

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