DATAFICATION

& the Future of Human Rights Practice

JustLabs

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Author:
Juan Ortiz Freuler

Director:
Juan Camilo López Medina

Design and illustration:
Alejandro Ospina García

Editorial coordinator:
Jordan Taylor Jones

With contributions from
Beatriz Botero Arcila

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JustLabs
Calle 63 # 3 - 12 / Bogotá, Colombia

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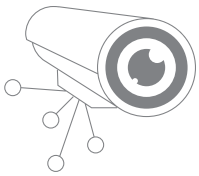
FOREWORD



The world we live in has been changing at a dramatic pace. Facial recognition technology,

which was assumed to be a signal of the distant future, has become a standard feature in mobile devices. Meanwhile, the widespread usage of data collection technology has rendered navigating public spaces anonymously virtually impossible. According to surveys across a wide array of sectors, the pandemic has sped up the rate of digital adoption by at least seven years.

In such a context, JustLabs has been nurturing a group of experts from a wide range of fields to sketch, tinker, and reformulate a toolbox to aid human rights practitioners in exploring new forms of activism and creating new narratives. One key tool in that toolbox is foresight or "futures thinking." Foresight is the process of looking to the past and present to envision and prepare for different futures, which will then inform us to make strategic decisions today. To make this tool actionable, earlier this year, we released a guide which includes over a dozen activities to help teams and individuals apply this methodology to the social change field.

More recently, our team has been trying to parse the landscape by identifying signals of change and establishing how these changes might have an impact on the present and future of human rights. As an extension of our work on the future, this report is part of a series in which we explore a set of cutting edge issues and reflect on the ways in which they can both strengthen and undermine progress in the acknowledgement and defense of human rights.

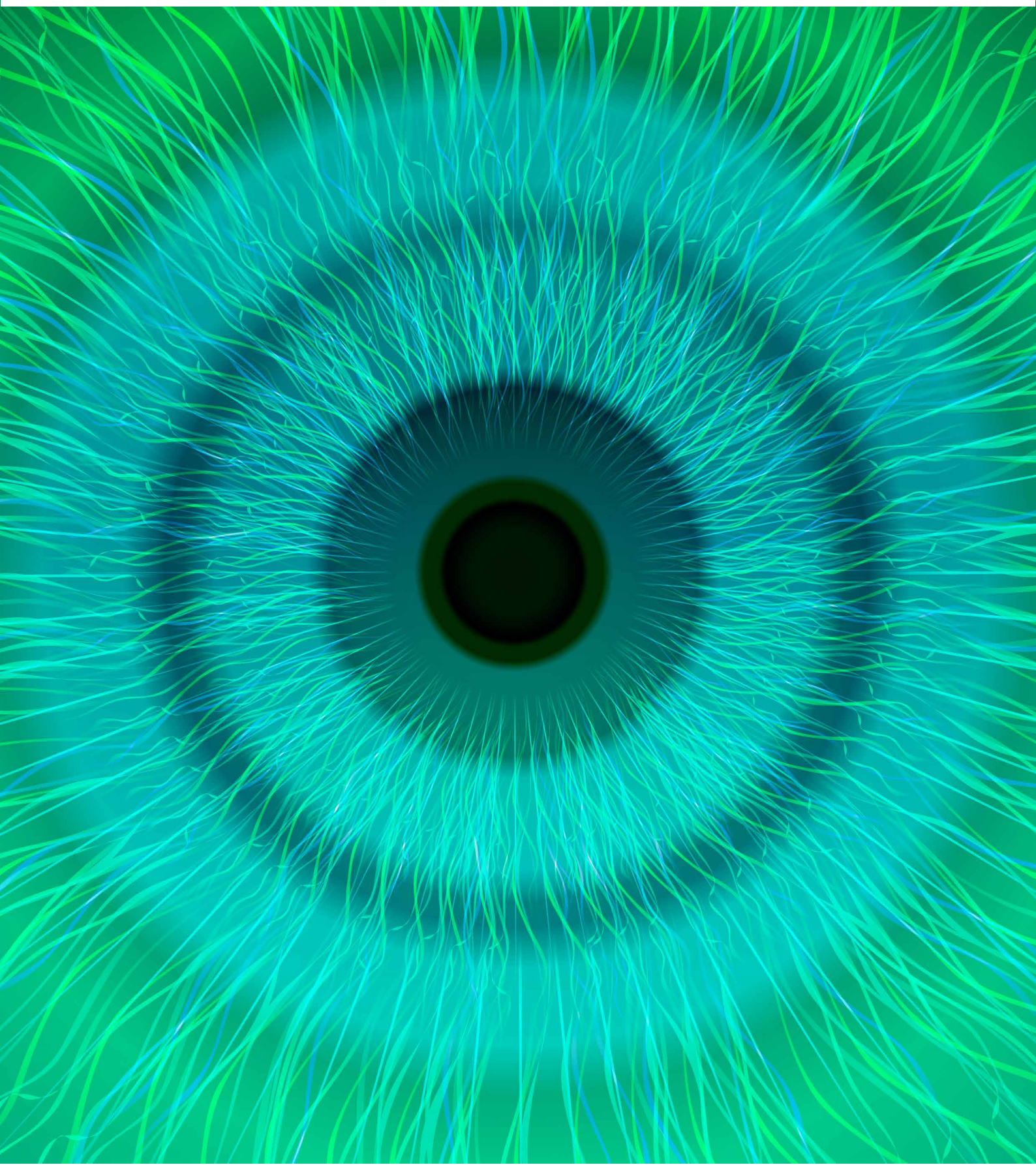
We hope you find this document thought-provoking and a useful means to spark conversation with colleagues and acquaintances in the human rights field. Given the evolving landscape in which we find ourselves, this is by no means a closed document, and we hope you will participate in enriching it for the next reader by adding your thoughts and reflections in each of the designated spaces. We also trust you will continue to engage with JustLabs and its human rights agenda.

There is a long and interesting road ahead!

Sincerely,

Juan Camilo López Medina
Executive Director

INTRODUCTION TO DATAFICATION



The process of demanding, acknowledging, and adjudicating rights

is mediated by a broader set of values and mediums. How we perceive each other and understand what is valuable will determine the goals we establish as a community, the life projects we deem worthwhile for individual flourishing, and the types of relations we forge as a community to enable and support their achievement.

DATAFICATION: TO TRANSLATE A PHENOMENON INTO A STRUCTURED FORMAT SO THAT IT CAN BE TABULATED, ANALYZED OR ACTED UPON BY MACHINES. [2]

This report seeks to draw attention to the ongoing process of datafication, and explore the ways in which it could bring about fundamental changes to the understanding, defense and promotion of human rights by the year 2030.

But what is *datafication*? The term refers to the process of turning phenomena into data. Over the past decades, the increasing reliance on statistics for decision-making in both the public and private sectors[1] has been paired with an explosion in the use of computers, which have powered processes of digitization and automation.

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1 Gil Rothschild-Elyassi, "The Datafication of Law: How Technology Encodes Carceral Power and Affects Judicial Practice in the United States," *Law & Social Inquiry*, undefined/ed, 1–40, https://doi.org/10.1017/lsi.2021.10.

2 Also see Alberto Romele, "The Datafication of the Worldview," AI & Society, 2020, https://doi.org/10.1007/s00146-020-00989-x.; Ulises A. Mejias and Nick Couldry, "Datafication," *Internet Policy Review* 8, no. 4 (2019), https://doi.org/10.14763/2019.4.1428;

As with any process of change, the final outcome ultimately depends on the balance of power shaping it. Thus, the degree to which human rights practitioners are capable of understanding the ways in which such processes of change might affect the rights and interests of people, and power relationships at large, is key for an effective defense of human rights in the years to come.

As implied by our proposed definition, datafication is a process whereby a series of characteristics are identified as relevant and then synthesized and translated into a structured format to enable downstream tabulations, classifications, analysis, and actions. As such, datafication is a deep driver of change. One which is likely to have a structural impact on rights and governance practices.

This report focuses on the risks and opportunities the process of datafication brings to the field of human rights as a whole. As outlined in the figure below, the analysis is structured around the impacts that the process of datafication had on public and intimate spaces over these past decades, and how the way in which the risks and opportunities played out in the past can inform our understanding of how this process might impact our rights and interests in the near future.

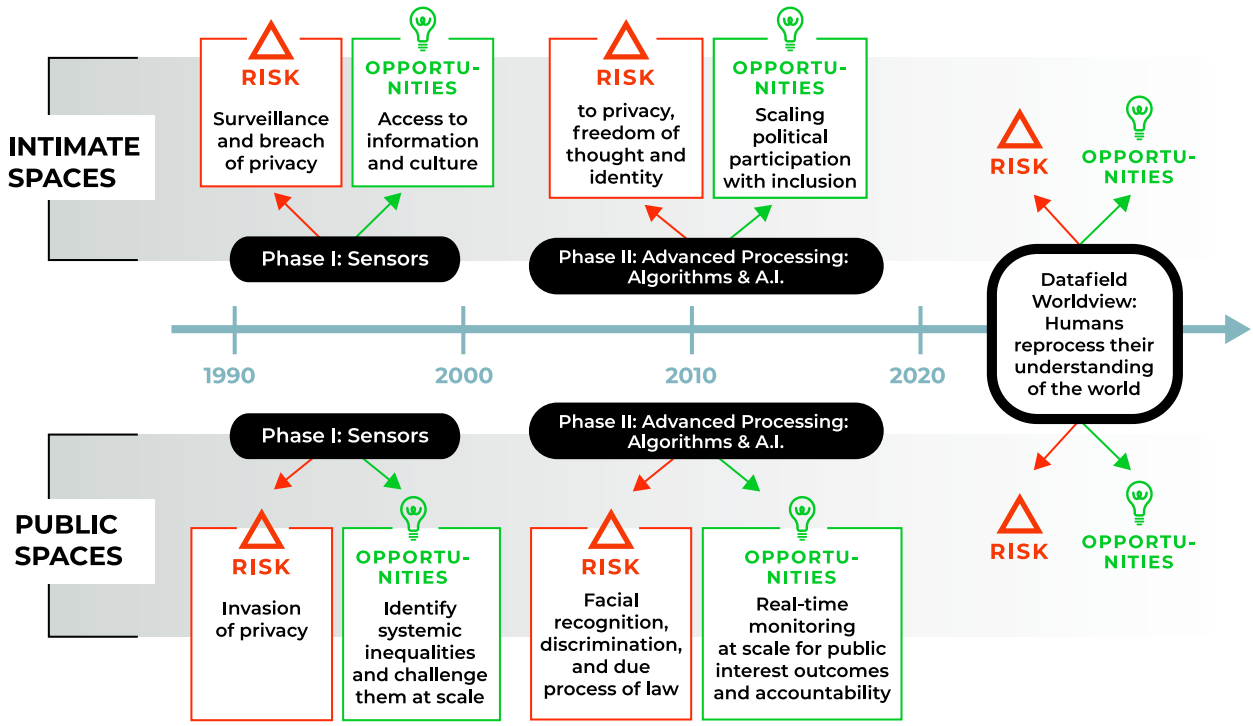


Fig. 1

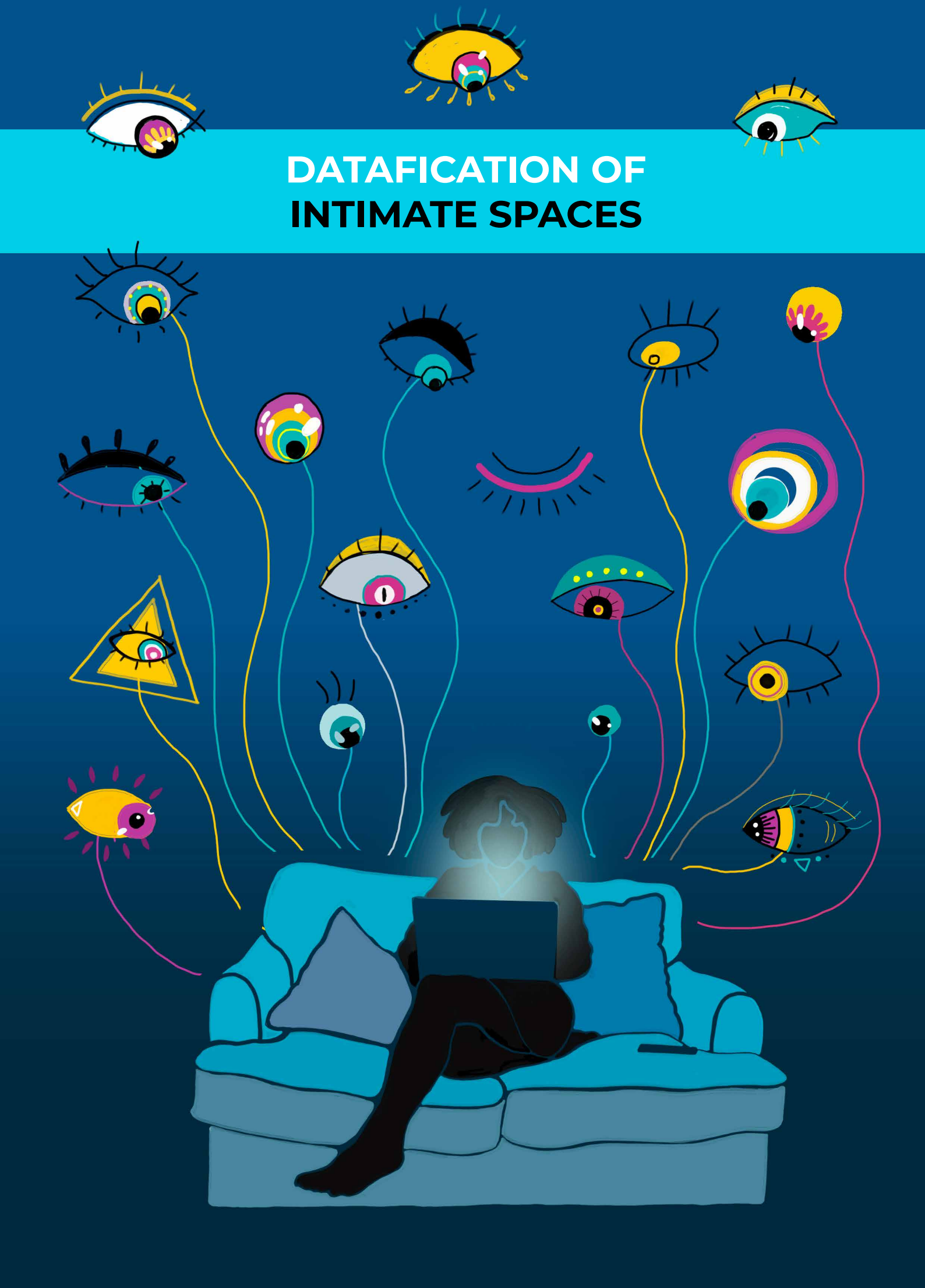
DATAFICATION IS CHANGING THE WAY PEOPLE INTERACT WITH THEIR SURROUNDING SPACE AND WITH EACH OTHER. BY 2030, THIS SHIFT WILL HAVE TRIGGERED A FUNDAMENTAL CHANGE IN HOW RIGHTS ARE CONCEIVED AND ENFORCED. HOW SHOULD THE HUMAN RIGHTS FIELD REACT TO THIS PROCESS?

The goal of this report is to imagine a possible future, and reflect on what the practice of human rights might look like in 2030, as a way to discuss how we should be acting today.

The two deep dives in the following chapters provide an opportunity to explore what has been happening at the edges of the present. The report then flows into sketches of futures scenarios built on JustLabs' future-shaping methodology, followed by three interviews with advocates who are at the cutting edge, where we showcase their experience in a way that can depict how the past and present flow into the future. The report then closes off with a conclusion and set of recommendations for practitioners in the field. In the annex we offer a list of readings, podcasts and contacts for those interested in digging deeper into these questions.

We hope this report contributes to informing the actions of young practitioners, law professors, leaders, and founders who might benefit from using this current moment to prepare themselves and their communities to shape the world into a place that is closer to our dreams in the near future.

DATAFICATION OF INTIMATE SPACES



Technological development has allowed us to move powerful computers from

warehouses to homes, and from there to people's pockets, wrists, and even under people's skin. Following this process of technological adoption, the spaces that used to be intimate and private are now increasingly datafied and then absorbed into the digital realm of the internet. Throughout this chapter we explore the process of datafication of intimate spaces, and what risks and opportunities it creates for the field of human rights.

Datafication of intimate spaces

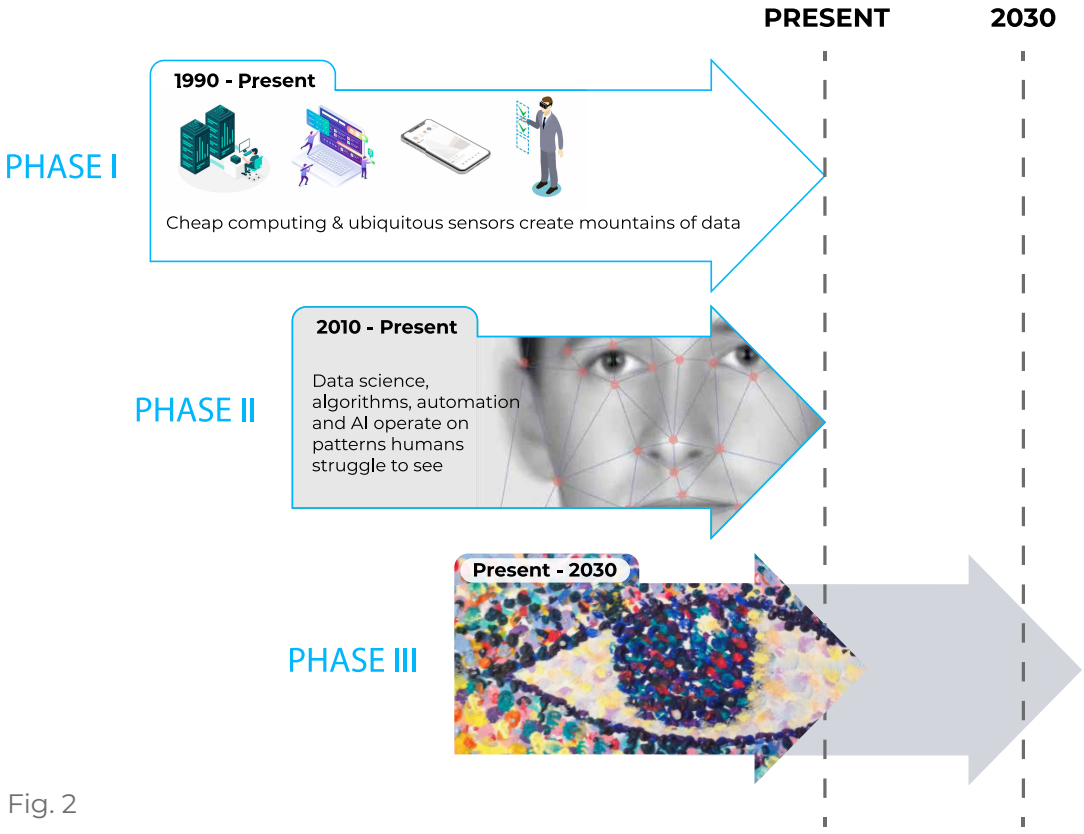


Fig. 2

PHASE 1: 1990-Present-> Cheap computing & ubiquitous sensors create mountains of data. A quantitative change.

Over time, cheaper computing systems allowed more and more private individuals to have access to computing power. Perhaps an obvious example is the mobile phone. Whereas in the early 90s, few people had access to a mobile phone, by 2010 there were over 75 phone subscriptions for every 100 people in the world, and as of 2020 there are already more subscriptions than people.[3] Mobile phones, whether or not they are connected to the internet, enable powerful bi-directional data flows. And, crucially, they fit in people's pockets, enabling an always-on connection and tracking. This is part of a broader trend, where in affluent areas, people are adding "smart" appliances across their homes, meaning appliances that receive, create and report data. From smart vacuum cleaners to toasters, every possible appliance is getting a chip inserted into it.[4]

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3 "World Development Indicators | DataBank," accessed May 8, 2021, https://databank.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/1ff4a498/Popular-Indicators#.

4 "*Privacy Not Included: A Buyer's Guide for Connected Products," Mozilla Foundation, accessed May 9, 2021, https://foundation.mozilla.org/en/privacynotincluded/; "Global Smart Appliances Market Report 2021: Washer, Dryer, Air Conditioner, Vacuum Cleaner, Refrigerator, Dishwasher, Freezer - ResearchAndMarkets.Com," April 27, 2021, https://www.businesswire.com/news/home/20210427005530/en/Global-Smart-Appliances-Market-Report-2021-Washer-Dryer-Air-Conditioner-Vacuum-Cleaner-Refrigerator-Dishwasher-Freezer---ResearchAndMarkets.com.

Furthermore, as of 2020, over half the world population has access to the web[5], and with it, to a human-made, virtual universe where much of a person's activity is being tracked and analyzed, both to ensure things operate smoothly, as well as to develop synthetic profiles of users that facilitate targeted advertising.[6] Not only is the proportion of people engaging with the web growing, but also, the amount of time spent online by those who are connected. Whereas in 2010 it is estimated that the average person spent just over an hour online, today those same estimates place us at over three hours.[7] Tracking capabilities in the online space have also increased, all of which means more data and more detailed data.[8]

These trends suggest that a first phase consists of the creation of mountains of data to representing the different characteristics of individual people and their personal space. The internet plays the dual role of connecting swarms of sensors in private spaces as well as being itself a space where people spend time in and create data knowingly or unknowingly. This first phase triggers questions such as why such data are valuable, what data are created and collected and for what purposes, who is collecting and storing such data, and how value associated with such data should be distributed. These questions in turn present risks and opportunities to the human rights field.

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5 "World Internet Users Statistics and 2020 World Population Stats," accessed December 15, 2020, https://internetworldstats.com/stats.htm.

6 Mozilla, "Internet Health Report: The Good, the Bad and the Ugly Sides of Data Tracking," January 29, 2018, https://internethealthreport.org/2018/the-good-the-bad-and-the-ugly-sides-of-data-tracking/.

7 "Daily Time Spent Online by Device 2021," Statista, accessed January 15, 2021, https://www.statista.com/statistics/319732/daily-time-spent-online-device/.

8 Jordan Mitchell, "The Evolution of the Internet, Identity, Privacy and Tracking: How Cookies and Tracking Exploded, and Why We Need New Standards for Consumer Privacy," IAB Tech Lab (blog), 2019, https://iabtechlab.com/blog/evolution-of-internet-identity-privacy-tracking/.

SURVEILLANCE AND BREACH OF PRIVACY

Description: People are increasingly surrounded by gadgets that have the ability to create, process, and share data about them. Especially since most of these objects are connected to the internet, and because of the amount of time people spend knowingly and unknowingly creating data on the internet itself, there is a loss of privacy. Some of it might be cultural. Some groups –including younger generations– of people might be genuinely more willing to share intimate details with larger groups. Meanwhile, another process takes place under the hood, where governments and corporations are collecting data in ways that people are unaware of and often unable to protect themselves against.[9] The massive migration onto digital data allows for computers not only to transform sounds and writing into something that can be parsed, tagged and retrieved by computers, but also to create a variety of markers onto such data, such as geolocation, timestamp, device make and model, which enable quicker parsing, and are often unknown to the people who are creating it.

What is XKEYSCORE?

1. DNI Exploitation System/Analytic Framework
2. Performs strong (e.g. email) and soft (content) selection

3- Provides real-time target activity (tipping)

4. "Rolling Buffer" of -3 days of ALL unfiltered data seen by XKEYSCORE:
   - Stores full-take data at the collection site - indexed by meta-data
   - Provides a series of viewers for common data types

1. Federated Query system - one query scans all sites
   - Performing full-take allows analysts to find targets that were previously unknown by mining the meta-data

9 Jared Newman, "Most People Are Embracing IOS 14.5's New Anti-Tracking Features," Fast Company, May 7, 2021, https://www.fastcompany.com/90633965/ios-14-5-tracking-opt-out-rate.

Example:

In 2013, Edward Snowden revealed the extent to which the NSA, a US intelligence agency, was carrying out an indiscriminate data collection from people all around the world. The NSA described the goals as "Collect it All," "Process it All," "Exploit it All," "Partner it All," "Sniff it All" and, ultimately, "Know it All.[10] In a single month in 2011, the NSA collected 71 million calls and e-mails from Poland alone, a country with a population of 38 million people, and not a country typically discussed as being a terrorist hub.[11] Turning such massive databases into actionable intelligence required a system to organize such troves. This was the role of the XKeyscore project[12], and an example of how the process of datafication was enabling surveillance at an unprecedented scale. Beyond the direct consequences to those being surveilled, this has a widespread chilling effect on the broader universe of people, raising questions regarding the current and future capabilities of such programs.[13]

10 David Cole, "'Collect It All,' 'Know It All,'" *Washington Post*, May 12, 2014, sec. Opinions, https://www.washingtonpost.com/opinions/no-place-to-hide-by-glenn-greenwald-on-the-nsas-sweeping-efforts-to-know-it-all/2014/05/12/dfa45dee-d628-11e3-8a78-8fe50322a72c_story.html.

11 ibid

12 "XKeyscore Presentation from 2008 – Read in Full," the Guardian, July 31, 2013, http://www.theguardian.com/world/interactive/2013/jul/31/nsa-xkeyscore-program-full-presentation.

13 https://twitter.com/_jack_poulson/status/1417231837106159617 (Excerpt from Patrick Biltgen and Stephen Ryan, *Activity-Based Intelligence: Principles and Applications* (Artech House, 2016).

Key Human Rights at stake:

Article 12 of the Universal Declaration of Human Rights (UDHR): 'No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honor and reputation. Everyone has the right to the protection of the law against such interference or attacks.'

Contextualized: *"The right to privacy must be protected by standards of confidentiality and integrity of IT-Systems, providing protection against others accessing IT-Systems without consent."*
- IGF Charter of human rights and principles for the Internet, 2014

Article 19 of the International Covenant on Civil and Political Rights (CCPR):

(1) Everyone shall have the right to hold opinions without interference.
(2) Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.

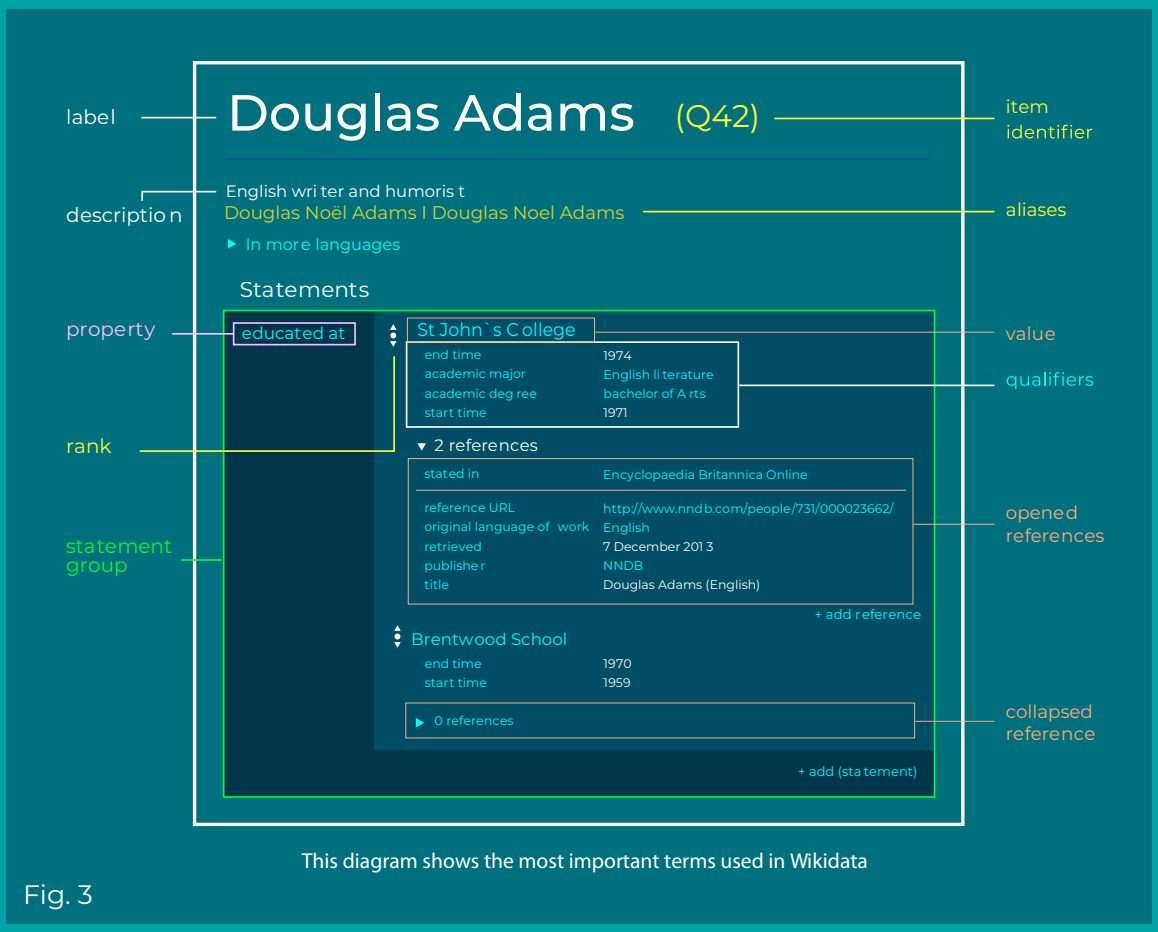
Contextualized: *"It follows that any capture of communications data is potentially an interference with privacy and, further, that the collection and retention of communications data amounts to an interference with privacy whether or not those data are subsequently consulted or used. Even the mere possibility of communications information being captured creates an interference with privacy, with a potential chilling effect on rights, including those to freedom of expression and association... The onus would be on the State to demonstrate that such interference is neither arbitrary nor unlawful."*
– Office of the High Commissioner of Human Rights,30 June 2014 (A-HRC-27-37)"

Article 17 of the International Covenant on Civil and Political Rights (ICCPR): 'No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honor and reputation.'

Contextualized: *"States parties are under a duty themselves not to engage in interference inconsistent with article 17 of the Covenant and to provide the legislative framework prohibiting such acts by natural or legal persons.... The gathering and holding of personal information on computers, data banks and other devices, whether by public authorities or private individuals or bodies, must be regulated by law.... In order to have the most effective protection of his private life, every individual should have the right to ascertain in an intelligible form, whether, and if so, what personal data is stored in automatic data files, and for what purposes. Every individual should also be able to ascertain which public authorities or private individuals or bodies control or may control their files." – Human Rights Committee, General Comment 16, adopted on 8 April 1988*

OPPORTUNITY: ACCESS TO INFORMATION AND CULTURE

Description: With digitization and the popularization of the web, a massive amount of data became available. But ensuring it was easily retrievable, and transformed into valuable knowledge required systematization and structuring. In this first phase, datafication was mostly understood as the process of creating categories and standardizing them into what is often referred to as *metadata* (data about data). Structured data enabled people from all across the world to quickly find pieces of information that were key to their personal development as individuals and collectives. Being able to find each other also meant the development of new collectives, and the strengthening of ties, among members of geographically dispersed groups, such as migrants and refugees, and people with rare health conditions.[14]



This diagram shows the most important terms used in Wikidata

Fig. 3

Example:

Launched in 2001, Wikipedia was by 2007 among the top ten most visited websites in the US, and remains still this day among the world's 20 most visited websites.[15] Beyond creating an active community that has tested the boundaries of traditional governance systems,[16] Wikipedia has enabled free access to trustworthy information, while relying chiefly on the work of thousands of volunteers who produce, on average, 1.9 edits every second and 594 new articles per day.[17] However, since 2012, Wikipedia has relied on a system called Wikidata, designed to be readable by both humans and machines. It aims at creating structured descriptive elements for each catalogued entity, and ensures consistency of key data across articles and languages, synchronizing updates, including automated ones like the age of people. Perhaps more importantly these data are *linked* data, meaning that entities represented as data are connected in ways that denote their relationship to each other, enabling the realization of complex queries that can uncover patterns and advance human understanding.[18]

15 "Wikipedia," in *Wikipedia*, May 17, 2021, https://en.wikipedia.org/w/index.php?title=Wikipedia&oldid=1023666526. "Alexa - Top Sites," accessed May 17, 2021, https://www.alexa.com/topsites.

16 Andrea Forte and Amy Bruckman, "Scaling Consensus: Increasing Decentralization in Wikipedia Governance," in *Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS 2008)*, 2008, 157–157, https://doi.org/10.1109/HICSS.2008.383.

17 "Wikipedia:Statistics," in Wikipedia, May 13, 2021, https://en.wikipedia.org/w/index.php?title=Wikipedia:Statistics&oldid=1023035045.

18 "Wikidata, Knowledge Graphs, and Beyond - YouTube," accessed May 17, 2021, https://www.youtube.com/watch?v=Oips1aW738Q. Digitization and datafication are also at the heart of Harvard's Case Law project, which now enables anyone to execute structured queries on a database containing 360 years of US caselaw, for example, to interrogate how the judiciary conceptualized human rights as *law or practice*, and how this changed over time, probably driven by political events: https://case.law/trends/?q=human%20rights%20%2a&ny=1951

Key Human RIghts at stake:

Article 27 of the Universal Declaration of Human Rights (UDHR): 'Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.'

Contextualized: "*With the Internet emerging as a critical platform for scientific and cultural flows and exchanges, freedom of access to the Internet and maintaining its open architecture are important for upholding the right to participate in cultural life and to enjoy the benefits of scientific progress and its applications.*"

– Frank La Rue - Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 16 May 2011 (A/HRC/17/27)

Article 15 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) 1. The States Parties to the present Covenant recognize the right of everyone:

(a) To take part in cultural life;

(b) To enjoy the benefits of scientific progress and its applications;

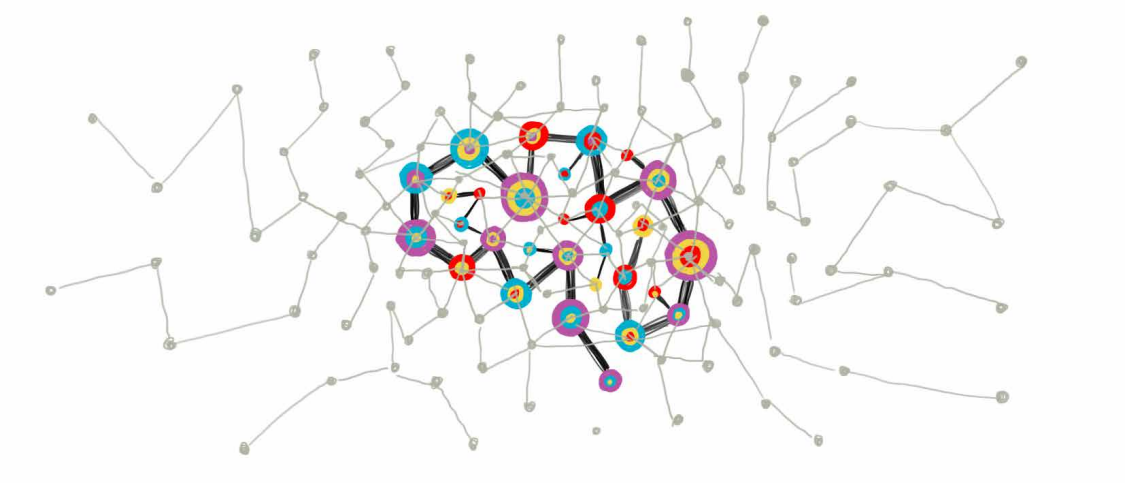
Contextualized: "Governments must respect and protect freedom of information and expression, including on the Internet to ensure the implementation of article 15 of the Covenant. With the Internet emerging as a critical platform for scientific and cultural flows and exchanges,freedom of access to it and maintaining its open architecture are important for upholding the right of people to science and culture."

– Farida Shaheed - Special Rapporteur in the field of cultural rights, 14 May 2012 (A/HRC/20/26)

What other risks and opportunities do you think data practices could create for the human rights field?

Tweet at us using #HumanRights2030

PHASE 2: 2010-Present-> Data science, algorithms, automation and AI operate on patterns humans struggle to see. A qualitative leap.



As the business model [of many consumer facing tech companies] continues to benefit largely from targeted advertising[19], data extraction and processing become key drivers of growth, and the focus of research and development teams. Therefore, not only are more resources devoted to data collection, but data processing takes major leaps by incorporating complex algorithms into everyday tasks and the management of virtual news feeds on popular commercial platforms where people are spending more and more of their time.[20]

As the complexity of these systems increases, people's ability to understand the outputs created by these systems is becoming more limited. On the one hand, there is a small group of people who argue this is due to people's natural limitation to deal with the scale computers can deal with, and that we should accept this as a tradeoff as long as we are happy with the outcomes it creates.[21]

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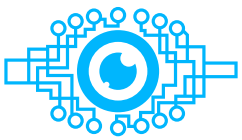
19 Jeff Desjardins, "How the Tech Giants Make Their Billions," Visual Capitalist (blog), March 29, 2019, https://www.visualcapitalist.com/how-tech-giants-make-billions/.

20 "Daily Social Media Usage Worldwide," Statista, accessed May 10, 2021, https://www.statista.com/statistics/433871/daily-social-media-usage-worldwide/.

21 David Weinberger, "Our Machines Now Have Knowledge We'll Never Understand," Wired, accessed May 9, 2021, https://www.wired.com/story/our-machines-now-have-knowledge-well-never-understand/.

On the other hand, there is a growing camp that argues that such unintelligible systems should not be deployed. Within this camp, some argue this is a matter of principle, i.e we should not be expected to blindly trust systems;[22] while others argue the lack of intelligibility typically masks forms of discrimination that reflect the biases of their creators, and are most likely responsible for actual harms.[23]

In synthesis, along this second phase the mountains of data representing different aspects of people's identities are increasingly processed, reprocessed and repurposed. The intermediaries carrying out this role get to define the characteristics around which things and people will be grouped, and thus reformulate identities in ways that have very tangible consequences on people's lives. It also raises questions regarding the types of knowledge we want to see constructed through such mechanisms, the set of risks we believe false positives should be allowed to create[24], and who gets to oversee the criteria upon which such systems it are built.[25] These questions in turn present risks and opportunities to the human rights field.



22 Ortiz Freuler, J. (2018) Is artificial intelligence a ticket to Borges' Babylon? https://juanof.medium.com/is-artificial-intelligence-a-ticket-to-borges-babylon-fbf90a449da5

23 Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (NYU Press, 2018).

24 Eubanks, V. (2018). Automating inequality: How high-tech tools profile, police, and punish the poor. St. Martin's Press.; Barrett, L., & Liccardi, I. (2021). Accidental Wiretaps: The Implications of False Positives By Always-Listening Devices For Privacy Law & Policy. Available at SSRN.

25 Frank Pasquale, *The Black Box Society* (Harvard University Press, 2015); Joy Buolamwini, *How I'm Fighting Bias in Algorithms*, accessed May 10, 2021, https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms; Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*, First edition. (New York: Crown, 2016).

TO PRIVACY, FREEDOM OF THOUGHT AND IDENTITY

Description: The gadgets surrounding people are increasingly responsive and proactive. They aren't just collecting data, but providing information and stimulus that is tailored to each individual person. The flow of information is bidirectional. To achieve this degree of personalization the systems rely on mountains of data previously collected on each person, as well as data from persons the system. has catalogued as similar.[26] These systems thus have the capacity to create specific information environments for each person in ways that are increasingly seamless.[27] Over the past decade we have seen the shift from people having to search for information, to people relying on news-feeds that organize information on the fly.

26 Juan Ortiz Freuler and Carlos Iglesias, "Algorithms and Artificial Intelligence in Latin America" (Web Foundation, 2018), https://webfoundation.org/docs/2018/09/WF_AI-in-LA_Report_Screen_AW.pdf.

27 Juan Ortiz Freuler, "The Present and Future of a Centralized Internet," *OpenDemocracy*, accessed August 3, 2021, https://www.opendemocracy.net/en/digitaliberties/present-and-future-of-centralized-internet/.

Yet, these newsfeeds still require the user to scroll. Just in the past three years we have begun to use Instagram-Story-type like features, where the "scrolling" is automated and time management is performed by the machine.[28] In the upcoming decade we can expect augmented reality and virtual reality to become more mainstream; investment in brain-computer interfaces already aims at achieving widespread commercially available products. In parallel, the capacity of these systems to influence or impact human behaviour is reported to be increasing.

Example:

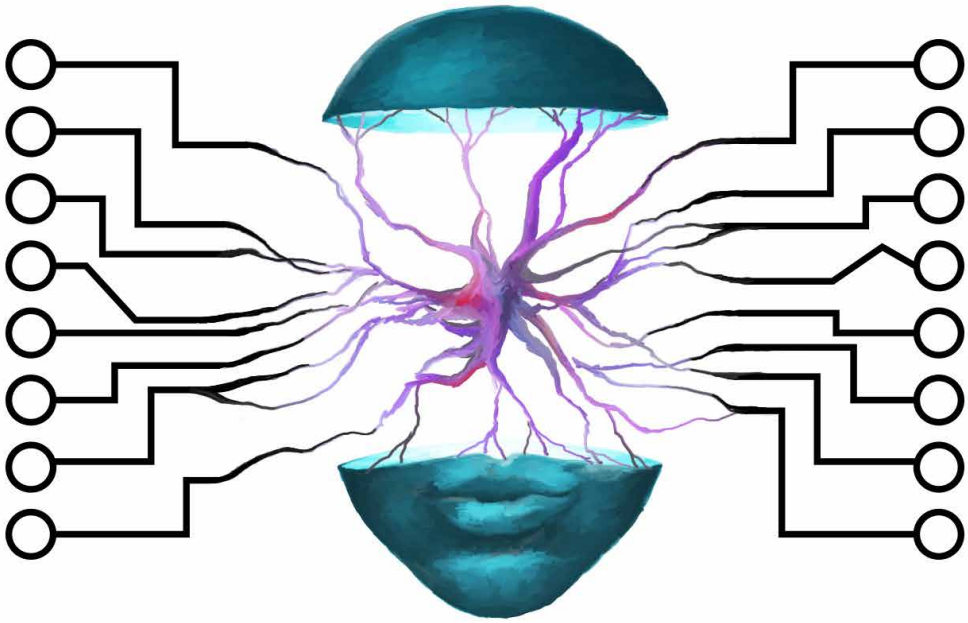
The space is moving at a disquieting pace. From Facebook's contagion experiment in 2014, where the company argued it was capable of affecting user's emotions by manipulating what they saw in the newsfeed[29], to widespread claims in more recent years that artificial intelligent systems can not only identify us from our faces, but identify our emotions.[30] In the coming years, regardless of the actual effectiveness of these systems, it is likely we will be discussing whether or not AI systems are able to understand our thoughts. Several major commercial companies are involved in the development of these technologies, including Elon Musk's

28 Which in turn creates questions regarding the broader question of how as a society we manage time, and the ways in which we distribute socially necessary labor time and free time across society, in a way that promotes human flourishing. The tensions between automation and human nature were perhaps most poignantly depicted by Chaplin's assembly line in modern times (see https://www.youtube.com/watch?v=NT-mVVprnbs). The way in which this debates translates onto the design of online spaces is further discussed here https://www.opendemocracy.net/en/oureconomy/case-digital-non-aligned-movement/

29 Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock, "Experimental Evidence of Massive-Scale Emotional Contagion through Social Networks," *Proceedings of the National Academy of Sciences* 111, no. 24 (June 17, 2014): 8788–90, https://doi.org/10.1073/pnas.1320040111.

30 Paweł Tarnowski et al., "Emotion Recognition Using Facial Expressions," *Procedia Computer Science*, International Conference on Computational Science, ICCS 2017, 12-14 June 2017, Zurich, Switzerland, 108 (January 1, 2017): 1175–84, https://doi.org/10.1016/j.procs.2017.05.025; Evan Selinger, "A.I. Can't Detect Our Emotions," Medium, April 6, 2021, https://onezero.medium.com/a-i-cant-detect-our-emotions-3c1f6fce2539; "Play the Fake Smile Game and Expose Flaws in AI-Powered Emotion Recognition," Cambridge Independent, April 8, 2021, https://www.cambridgeindependent.co.uk/news/play-the-fake-smile-game-and-expose-flaws-in-ai-powered-emot-9193941/.

Neuralink[31] and Facebook's wristband[32], among many others.[33] Such is the concern regarding the types of risks these technologies could unlockt[34] hat a group of neuroscientists has been promoting the adoption of neural rights, aimed at limiting the types and breadth of neural activities that these companies can record, and the way in which they should conduct research and product development. The government of Chile has already taken steps to adopt such protections.[35]



31 Sam Shead, "Elon Musk's Neuralink Explains How a Monkey Used Its Brain-Computer Tech to Play Pong," CNBC, April 9, 2021, https://www.cnbc.com/2021/04/09/elon-musks-neuralink-shows-video-of-monkey-using-mind-to-play-pong.html.

32 Lauren Goode, "Facebook Finally Explains Its Mysterious Wrist Wearable," *Wired*, accessed May 18, 2021, https://www.wired.com/story/facebook-wrist-wearable-human-computer-interactions/.

33 Cathy Hackl, "Meet 10 Companies Working On Reading Your Thoughts (And Even Those Of Your Pets)," Forbes, accessed May 18, 2021, https://www.forbes.com/sites/cathyhackl/2020/06/21/meet-10-companies-working-on-reading-your-thoughts-and-even-those-of-your-pets/.

34 Liam Drew, "The Ethics of Brain–Computer Interfaces," *Nature* 571, no. 7766 (July 24, 2019): S19–21, https://doi.org/10.1038/d41586-019-02214-2.

35 "Unanimously: [Chilean] Senate Approves Regulation of NeuroRights | NeuroRights Initiative," accessed May 18, 2021, https://nri.ntc.columbia.edu/news/unanimously-chilean-senate-approves-regulation-neurorights.

Rights at stake:

Article 19 of the International Covenant on Civil and Political Rights (ICCPR):

1) Everyone shall have the right to hold opinions without interference.

(2) Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.

Contextualized: "*Among the most important steps that private actors should take is the development and implementation of transparent human rights assessment procedures.... Such assessments should critically review the wide range of private sector activities in which they are engaged...; the impact of products,services and other commercial initiatives on users' freedom of expression as they are being developed,including design and engineering choices...*"

– David Kaye - Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 11 May 2016 (A/HRC/32/38)

Article 1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR)

1. All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.

Contextualized: "The Guiding Principles [on business and human rights] establish a framework according to which companies should, at a minimum:

(a) Avoid causing or contributing to adverse human rights impacts and seek to prevent or mitigate such impacts directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts (principle 13); (...)

c) Conduct due diligence that identifies, addresses and accounts for actual and potential human rights impacts of their activities, including through regular risk and impact assessments, meaningful consultation with potentially affected groups and other stakeholders, and appropriate follow-up action that mitigates or prevents these impacts (principles 17–19);

How are algorithms and automation affecting your communities?

Tweet at us using #HumanRights2030

OPPORTUNITY: SCALING POLITICAL PARTICIPATION WITH INCLUSION

Description: Advances in technology have facilitated the scaling of communication and enabled unprecedented amounts of people to coordinate around specific political actions.[36] IIn parallel, the state apparatus, be it through taxes or communication, is managing to reach further and further into the periphery. As this process advances, the challenge of scaling deliberation to ensure that decision making includes the voices and interests of the broadest possible number of stakeholders and perspectives becomes urgent. To remain legitimate the government needs to ensure there are processes designed to identify the arguments and opinions of those who belong to systematically excluded groups, and ensure they get proper representation. This is the type of actions the existing data points can help with defining, and progress in the field of natural language processing and natural language understanding can provide great leaps in.

36 Helen Margetts et al., *Political Turbulence: How Social Media Shape Collective Action* (Princeton University Press, 2015).

Example:

Over the past decade we have seen social media companies leverage the vast amounts of text and signals such as likes, shares and the language within comments, to understand not only what the text is referring to, but more broadly what it meant and the emotions surrounding it. In just the past couple of years, this has led to effective profanity filters, sentiment detection, topic classification and entity detection. We have seen the power of these systems first hand in the automated flagging of content on social media. And much of it is also focused on powering the ad-targeting systems upon which the revenue of the social media companies depend.. Too much of the power afforded by these technologies is still only being exercised towards maximizing ad revenue for big tech corporations. However, some experimentation is ongoing. Twitter, for example, is taking steps to understand how its algorithms create harm[37], and how its design can promote better conversations.

37 Jutta Williams and Chowdhury, "Introducing Our Responsible Machine Learning Initiative," accessed May 23, 2021, https://blog.twitter.com/en_us/topics/company/2021/introducing-responsible-machine-learning-initiative.html.

Human RIghts at stake:

Article 25 of the International Covenant on Civil and Political Rights (ICCPR):

"Every citizen shall have the right and the opportunity (...):
(a) To take part in the conduct of public affairs, directly or through freely chosen representatives;"

Contextualized: "*ICT participation tools should be human rights compliant by design, and participation through the use of ICTs should follow the same principles of offline participation. This entails ensuring that the development and deployment of ICTs, including new data-driven technologies for participation, is guided and regulated by international human rights law, with particular regard to gender equality, in order to avoid any adverse human rights impact on individuals and groups that are marginalized or discriminated against, whether the impact is intentional or unintentional.*"

– Guidelines for States on the effective implementation of the right to participate in public affairs (2019)

Article 19 of the International Covenant on Civil and Political Rights (ICCPR):

1) Everyone shall have the right to hold opinions without interference.

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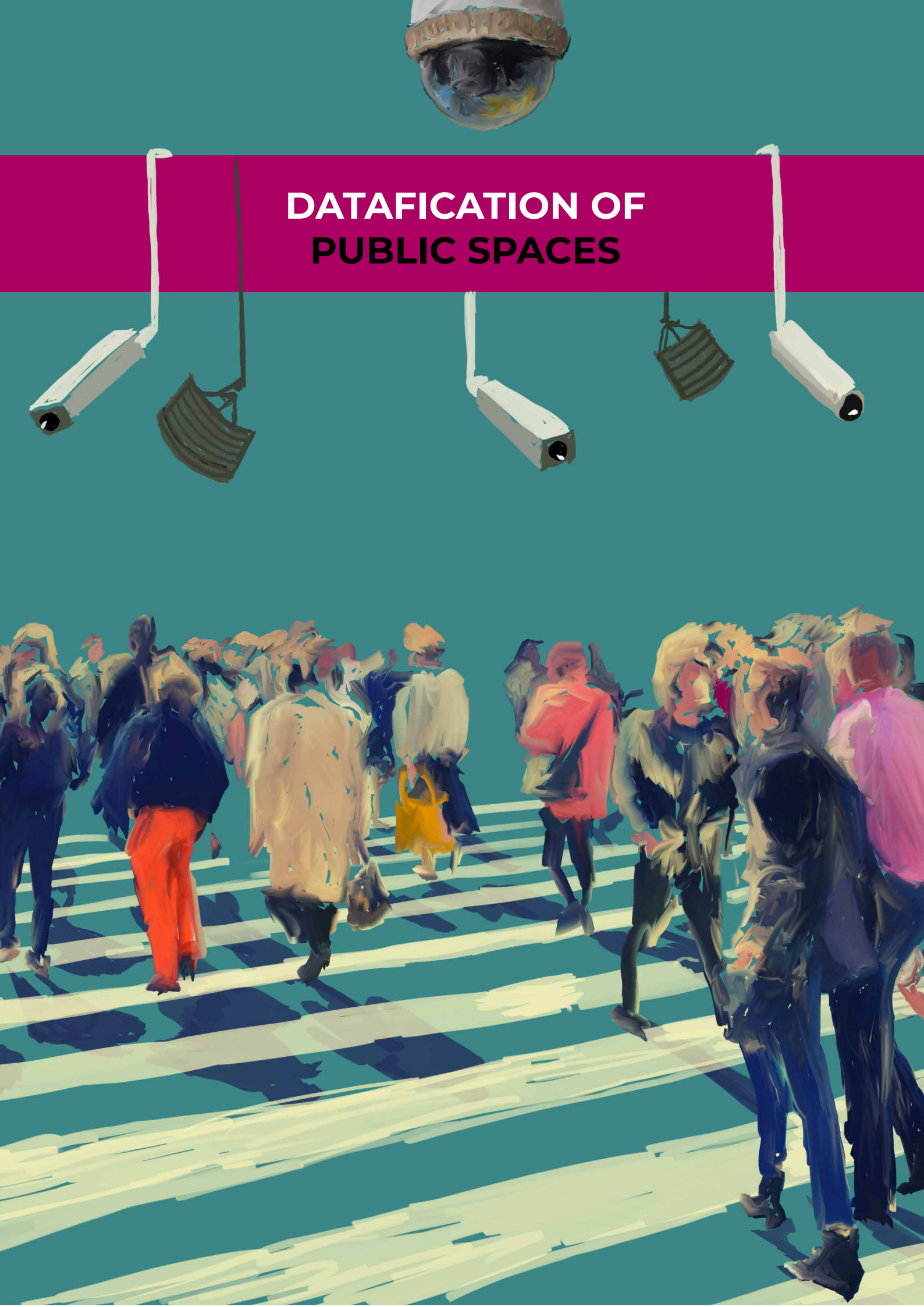
DATAFICATION OF PUBLIC SPACES



The clearest example of how datafication takes place in public spaces

is the set of processes taking place under the umbrella term *Smart City*. Working definitions for a city typically set the lower population boundary at 100,000 people who coalesce into some form of societal agglomeration. Indeed, cities can be synthesized as agglomerations of persons, but it is the set of dynamic exchanges in terms of information, culture, and goods that emerges from such agglomeration that is what is typically considered to make them special. *Smart* is largely a commercial term that is also loosely defined. But it is used in reference to the processes and subset of markets focused on the adoption of digital technologies for city-services. These technologies collect vast amounts of data about people and firms working in cities, how they interact with municipal governments and with the cities' infrastructure. The term, though, usually raises a heated debate, intersected by different conceptions of rights and ethics. Throughout the next subsections, we will explore how the concept of smart cities and the technologies powering them have been evolving, and the types of risks and opportunities this creates for the human rights field.

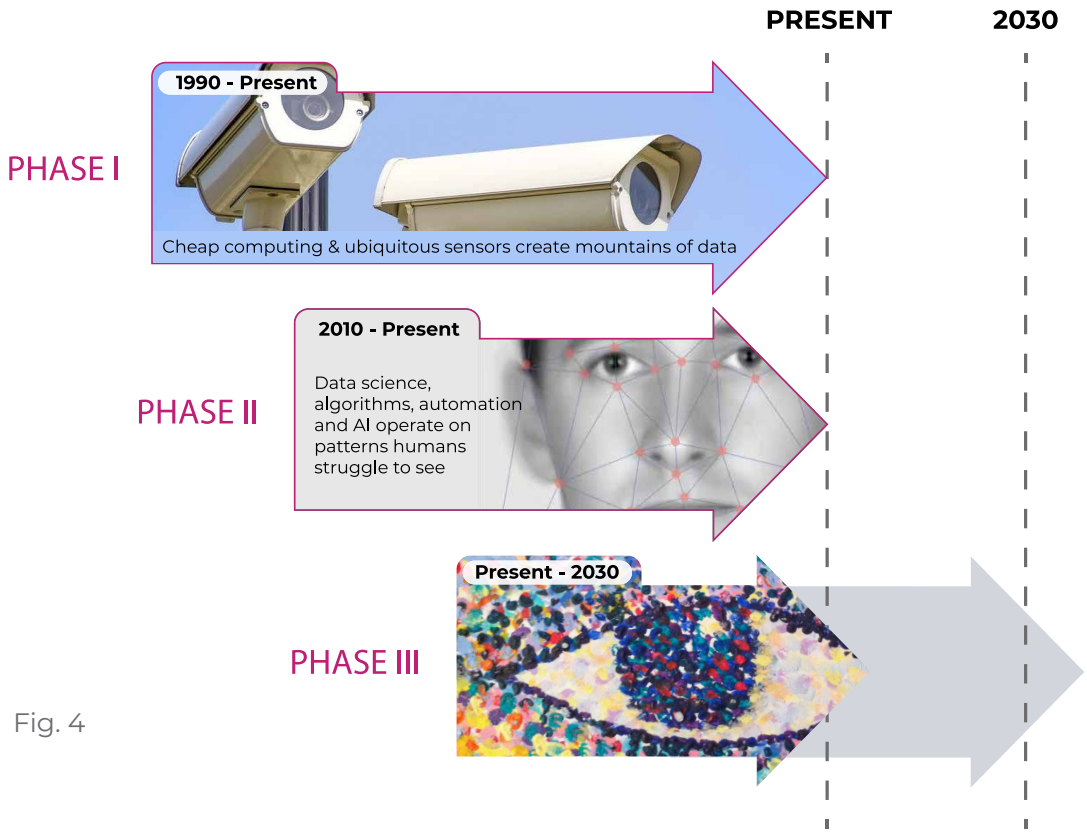
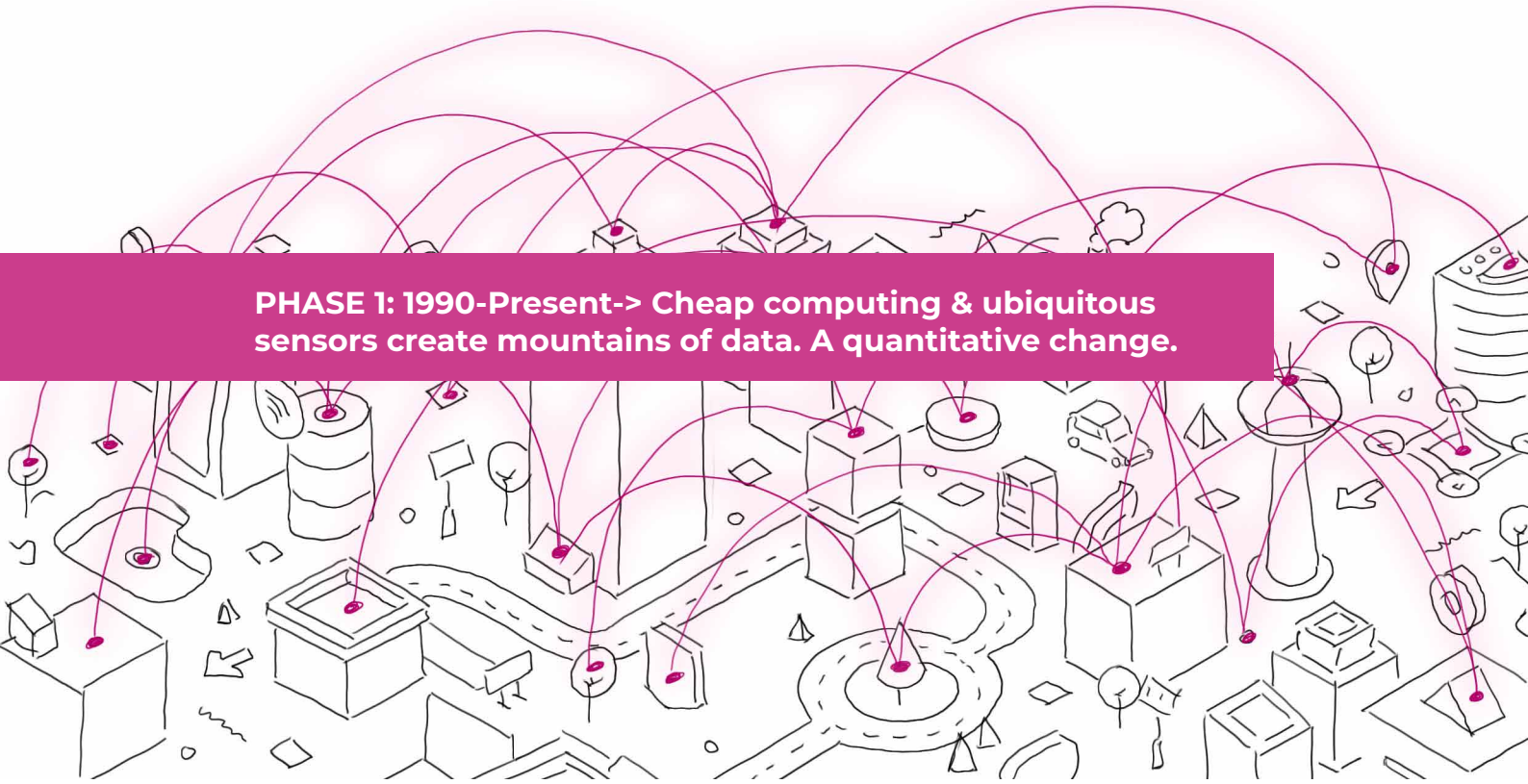


Fig. 4



PHASE 1: 1990-Present-> Cheap computing & ubiquitous sensors create mountains of data. A quantitative change.

Key to this phase is the development of chips that connect to the internet and can be embedded into public spaces from streelights that react to traffic, to stops that let you know when the bus is coming, to trashcans capable of signaling when they need to be emptied. Cheaper computing systems allowed governments and private infrastructure managers to observe the city on a new scale. This was also facilitated by the fast adoption of smartphones that communicate locational data and allow individuals, governments and corporations to interact, digitally, with different services and infrastructures and collect data to make these different processes more efficient. A variety of new tools also appeared and added to our cities' infrastructures: from CCTV cameras to sensors that monitor rainfall and air quality.

In this first phase mountains of data representing different aspects of the city and its inhabitants takes place. Ubiquitous connectivity facilitates data creation and collection. In most cases, it is still difficult to harness all data together and analyze it comprehensively. It is mostly private actors that are coming up with AI-driven software and are able to do so ever more effectively. This creates questions around what data are created and collected, who is collecting data, how it is being used, and how the value created by such data is used by the actors processing it - often businesses or state agencies. These questions have different distributional effects in different communities and their answers present risk and opportunities for the human rights field.

INVASION OF PRIVACY

Description: Widespread deployment of sensors and other data collection technology increasingly means that we cannot navigate public spaces anonymously. This creates risks to the right to privacy in general, and to a broader range of political and civil rights, such as the right of assembly, which are closely tied to the use of public spaces for the development of collective identities. Civil society has thus understandably pushed back on government development of such data collection. On the one hand, because these systems dehumanize people by treating them as sources of data instead of active participants of an effort to collect data about relevant phenomena[38] ; and on the other hand, because there is a lack of appropriate legal frameworks and/or the necessary tools and institutions to ensure such frameworks are respected.[39] The backlash has included the formal abandonment of Google's partnership with the government to refurbish a 4.9 hectares area in Toronto[40], to protesters in Hong Kong destroying lamp posts they fear might have sensors.[41]

38 Cory Doctorow, "The Case for … Cities That Aren't Dystopian Surveillance States | Cory Doctorow," *The Guardian*, January 17, 2020, sec. Cities, http://www.theguardian.com/cities/2020/jan/17/the-case-for-cities-where-youre-the-sensor-not-the-thing-being-sensed.

39 Global Focus and North America, "What's Fueling the Smart City Backlash?," Knowledge@Wharton, accessed August 2, 2021, https://knowledge.wharton.upenn.edu/article/whats-behind-backlash-smart-cities/.

40 Ian Austen and Daisuke Wakabayashi, "Google Sibling Abandons Ambitious City of the Future in Toronto," *The New York Times*, May 7, 2020, sec. World, https://www.nytimes.com/2020/05/07/world/americas/google-toronto-sidewalk-labs-abandoned.html.

41 Ellen Ioanes, "Hong Kong Protesters Destroyed 'smart' Lampposts Because They Fear China Is Spying on Them," Business Insider, accessed August 2, 2021, https://www.businessinsider.com/hong-kong-protesters-smart-lampposts-are-spying-on-them-2019-8.

Example:

In London, ahead of the 2012 Olympics an advertising company called Renew received authorization from the government to deploy 100 recycling bins. A subset of these bins were equipped with sensors capable of harvesting data from people whose phones broadcasted information in search of wifi. The ultimate goal was to profile the foot traffic in different areas and sell the information to local retailers who could then target prospective customers with ads. The Information Commission Office halted the program shortly after it was disclosed.[42] The London experiment might have been halted, but the broader attempt to rely on hidden sensors to capture data from passersby is far from over. Only a handful of years later, a Boston startup launched a projects focused on selling smart benches that people could use to charge their phones. The benches collected information about how many people used the benches, which could in turn indicate to governments - who pay for these benches - the way in which public space is utilized by people. The company claims that the benches didn't collect personal identifiable information, but developing audits to ensure that this remains the case is important.[43] And of course much of the provision of free public wifi is often used to collect all sorts of personal data and authorizing its use for commercial and advertising purposes by the city government.[44]

42 Zachary M. Seward Datoo Siraj, "City of London Halts Recycling Bins Tracking Phones of Passers-By," Quartz, accessed August 2, 2021, https://qz.com/114174/city-of-london-halts-recycling-bins-tracking-phones-of-passers-by/.

43 "Soofa Makes 'smart Benches' to Help Boston and Other Cities Work Better - Bizwomen," The Business Journals, accessed August 2, 2021, https://www.bizjournals.com/bizwomen/news/profiles-strategies/2018/03/smart-benches-help-cities-work-better.html?page=all.

44 "What Do Argentinians Give Up in Exchange for 'Free' WiFi in Buenos Aires?," *Global Voices Advox* (blog), February 17, 2018, https://advox.globalvoices.org/2018/02/17/what-do-argentinians-give-up-in-exchange-for-free-wifi-in-buenos-aires/.

Key Human RIghts at stake:

Article 19 of the International Covenant on Civil and Political Rights (ICCPR):

1) Everyone shall have the right to hold opinions without interference.

(2) Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.

Contextualized: "*Among the most important steps that private actors should take is the development and implementation of transparent human rights assessment procedures.... Such assessments should critically review the wide range of private sector activities in which they are engaged...; the impact of products,services and other commercial initiatives on users' freedom of expression as they are being developed,including design and engineering choices...*"

– David Kaye - Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 11 May 2016 (A/HRC/32/38)

Article 1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR)

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(a) Avoid causing or contributing to adverse human rights impacts and seek to prevent or mitigate such impacts directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts (principle 13); (...)

c) Conduct due diligence that identifies, addresses and accounts for actual and potential human rights impacts of their activities, including through regular risk and impact assessments, meaningful consultation with potentially affected groups and other stakeholders, and appropriate follow-up action that mitigates or prevents these impacts (principles 17–19);

OPPORTUNITY: IDENTIFY SYSTEMIC INEQUALITIES AND CHALLENGE THEM AT SCALE

Description: Through digitization, cities are able to directly connect citizens and their requests with the relevant departments, pull relevant metrics on wait times, identify emerging challenges[45] and, overall, make service delivery clearer for local officials and more transparent for citizens as records are also often disclosed on Open Data Portals. The existence and availability of such data also allows for actors interested in accountability to and in the unravelling of systemic inequality to make patterns of exclusion evident to the public and public officials.[46]

45 https://datasmart.ash.harvard.edu/news/article/modernizing-311-in-los-angeles-959

46 See https://dataforjustice.github.io/warondrugs/ "Paola Villarreal | Innovators Under 35," accessed August 2, 2021, https://www.innovatorsunder35.com/the-list/paola-villarreal/; "ACLU of Massachusetts Victory Sets up Single Largest Dismissal of Wrongful Convictions in Nation's History," American Civil Liberties Union, accessed August 2, 2021, https://www.aclu.org/press-releases/aclu-massachusetts-victory-sets-single-largest-dismissal-wrongful-convictions-nations

Example:

In 2018, a Mexican coder at the US civil rights organization ACLU combined data from the City of Boston's open data portal and census data to show the degree to which the city was subject to racial segregation, in general, a racist deployment of stop and frisks under the guise of a war on drugs. Part of a broader investigation on the falsification of evidence and racial profiling, this exercise led to the formal revision of over 20,000 convictions for drug related crimes in the city of Boston.

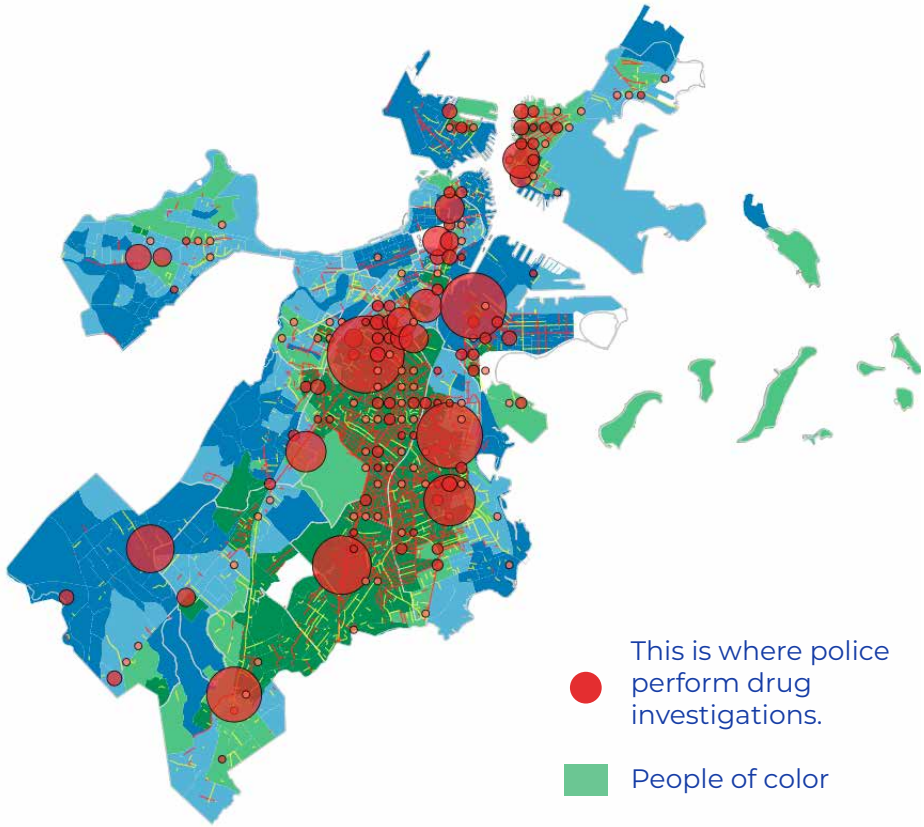

Fig. 5

Screenshot from https://dataforjustice.github.io/warondrugs/

Key Human RIghts at stake:

Article 19 of the Universal Declaration of Human Rights - Freedom of Information

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Contextualized: *"ICT participation tools should be human rights compliant by design, and participation through the use of ICTs should follow the same principles of offline participation. This entails ensuring that the development and deployment of ICTs, including new data-driven technologies or participation, is guided and regulated by international human rights law, with particular regard to gender equality, in order to avoid any adverse human rights impact on individuals and groups that are marginalized or discriminated against, whether the impact is intentional or unintentional."*

– Guidelines for States on the effective implementation of the right to participate in public affairs (2019)

Article 11 of the International Covenant on Economic, Social and Cultural Rights - right to an adequate standard of living.

1. The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions.

The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent.

2. The States Parties to the present Covenant, recognizing the fundamental right of everyone to be free from hunger, shall take, individually and through international co-operation, the measures, including specific programmes, which are needed:

(a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources;

(b) Taking into account the problems of both food-importing and food-exporting countries, to ensure an equitable distribution of world food supplies in relation to need.

PHASE 2: 2010-Present-> Data science, algorithms, automation and AI operate on patterns humans struggle to see. A qualitative leap.

In this second phase, with sensors and other digital technologies having made mountains of data available to its managers, algorithms and other automated systems were developed to sieve through the data and mine them to deliver a processed and more manageable output to humans. This includes the processing of CCTV cameras footage to [identify potential police abuse, but also systems that claim too predict crime and deploy police to an area, predict traffic and, reroute cars in real time, or redistribute city-bikes.

It is important not to overstate the functionality of many of these tools. Oftentimes, complex societal problems and challenges require much more than data analytics and algorithms to be solved. They need to be implemented with a careful understanding of the problem, and implementation of other (non-digital) policies and measures. Early contact tracing apps in the Covid pandemic, for

example, are good examples of technology solutions that didn't seem to work well.[47] The complexity of society often implies, however, that digital technologies can exacerbate power inequalities in society: those who already have power are more able to produce and analyze data and thus gain increased abilities to exercise their power and advance their interests. Indeed, these technologies are not built and trained in a vacuum, but in socio-economic contexts where certain groups are more advantaged than others. Research shows that as data are gathered in unequal systems, algorithms typically reflect these inequalities - certain algorithms in the US used in the policing context, for example, are likely to flag a Black person as likelier than a white person to commit a crime. This is mostly the case because the algorithm is trained with data from the criminal law enforcement system in which it Black people are a vast majority of suspects and felons . The algorithm is taught to make a prediction based on that data - not because it is an objective truth. Thus, algorithmic decision-makings, can replicate systemic inequalities and replicate and reinforce patterns of disadvantage and discrimination.

The risk, consequently, is that in some specific circumstnaces - often when human rights are at stake - data driven systems may be replicating, in unjustifiable ways, patterns of discrimination and inequality. This creates questions around who gets to design and manage these systems, what data are being used, collected and why, who-if anyone- gets access under the hood, and, ultimately, whether our public spaces should indeed be increasingly managed and automated through systems that tend to be either inherently too complex or designed to be inscrutable by outsiders, or whether the types of barriers this create for accountability are too high and– when consequential– incompatible with rights based societies.

47 Cat Ferguson, Do digital contact tracing apps work? Here's what you need to know. MIT Technology Review. November 20, 2020 https://www.technologyreview.com/2020/11/20/1012325/do-digital-contact-tracing-apps-work-heres-what-you-need-to-know/.

FACIAL RECOGNITION, DISCRIMINATION, AND DUE PROCESS OF LAW

Description: The public spaces within cities are increasingly digitised through technologies such as facial recognition. These tools are essentially equipped with software that can take pictures of individuals and classify them according to their assumed gender, ethnicity and age, and, often, trace it back to a database that can be as narrow as a cities' own database or as broad as the faces available on social networks like Facebook. The technologies are presented as useful for law enforcement agencies looking to identify suspects of a crime. However, this profiling is broadly considered to be eroding legal liberties (especially when these technologies are used without a warrant) or companies and authorities rely on them to define the services or opportunities people can access based on the places the database understands they frequent. Since most of these algorithms are less accurate in identifying people of color, these practices are considered to reinforce systemic biases.[48] Since information collected in public spaces or for public security purposes is often less protected by privacy and data protection laws, these systems have proliferated perhaps beyond what the public would assume they have. At the time of publication, most countries in the world are using this tech in one way or another.[49] This includes the police in at least 11 EU countries[50] and most states in the US, but also in the Global South, in the capital cities of countries like Argentina, Brazil, Uruguay[51], as well as in Kenya, South Africa, India and Indonesia.

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48 For an in depth discussion on notions of bias and accuracy, see Colman, Romina; "The construction of the notion of accuracy in the live facial recognition technology used by the met police in London", 2021 https://www.lse.ac.uk/media-and-communications/assets/documents/research/msc-dissertations/2020/255-Colman.pdf

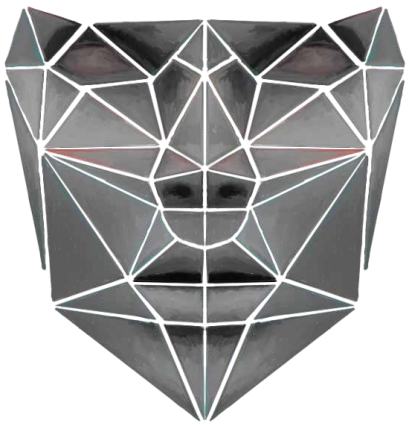
49 VISUAL CAPITALIST https://www.visualcapitalist.com/facial-recognition-world-map/

50 ALGORITHMWATCH https://algorithmwatch.org/en/face-recognition-police-europe/

51 https://www.accessnow.org/facial-recognition-latin-america/

Example:

Clearview AI is a technology company that has recently fallen under public scrutiny, not so much because it offers facial recognition technology to police departments, but because the system was trained on public pictures scraped from the public web, including the pictures on social media profiles, where people provide their real names next to their pictures. This practice allowed the company to create a massive database that some members of law enforcement argue has meant the system is much more effective than competing services.[52] This company therefore developed a system to surveil and exploit online public space in order to train and develop systems that could then transfer such learnings onto surveilling physical public space. To achieve this, the company most likely abused the terms of service of several online platforms,[53] and in doing so increased the perception that activity in online spaces can and will be exploited for goals other than those the individuals engaging in it are aware of or consenting to. This pattern of abusing online public spaces to train systems that will be deployed into the physical space is sadly likely to become commonplace over time. This underscores the need to develop tools and institutional capacity to ensure that human rights are respected online to avoid loopholes that are then very quickly exploited online and in physical spaces within cities.



52 NYT https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html

53 Alfred Ng, "Clearview AI Hit with Cease-and-Desist from Google, Facebook over Facial Recognition Collection," CNET, accessed August 2, 2021, https://www.cnet.com/tech/services-and-software/clearview-ai-hit-with-cease-and-desist-from-google-over-facial-recognition-collection/.

Key Human RIghts at stake:

Article 20 of the Universal Declaration of Human Rights (UDHR)

Freedom of Association: Everyone has the right to freedom of peaceful assembly and association.

Contextualized: *"The use of facial recognition technology brings about significant risks for the enjoyment of human rights, including the right of peaceful assembly. Despite remarkable accuracy gains in recent years, this technology is still prone to errors. For example, an image may be falsely considered a match (known as a "false positive"), with significant consequences to a person's rights, including in cases where a person is wrongly flagged as a suspect of a crime and may be detained and prosecuted. When facial recognition technology is used on a large number of people, even low rates of error may result in the inaccurate flagging of hundreds of individuals."*

– Annual report of the UNHRC (July 2020): Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests (A/HRC/44/24)

Article 12 of the Universal Declaration of Human Rights (UDHR)Privacy

No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Contextualized: *"The duty to protect is reflected in pillar I of the Guiding Principles on Business and Human Rights, entitled the "State duty to protect human rights", which elaborates on the implications of the duty of States to protect against adverse human rights impacts involving companies. Principle 1 of the Guiding Principles requires that appropriate steps be taken to prevent, investigate, punish and redress human rights abuses through effective policies, legislation, regulations and adjudication. The subsequent principles outline the different legal"*

– Annual report of the UNHRC (August 2018) The right to privacy in the digital age. (*A/HRC/39/29*)

Article 2 of the Universal Declaration of Human Rights (UDHR): Equality

Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. ...."

Contextualized: *"Facial recognition technology may perpetuate and amplify discrimination, including against Afrodescendants and other minorities, women or persons with disabilities, because it can be used to profile individuals on the basis of their ethnicity, race, national origin, gender and other characteristics. This technology may also lead to unintended discrimination in light of the fact that its accuracy depends on factors such as skin colour or gender, and experience has shown lower accuracy rates for the recognition of dark-skinned persons and women'*

– Annual report of the UNHRC (July 2020): Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests (*A/HRC/44/24*)

OPPORTUNITY: REAL-TIME MONITORING AT SCALE FOR PUBLIC INTEREST OUTCOMES AND ACCOUNTABILITY

Description: Beyond being a tool that can enable dynamic and real time coordination between actors[54], and facilitate accessibility measures to historically marginalized groups such as the visually impaired[55], algorithms can be used to understand and act upon systemic inequalities that may otherwise be difficult to unravel. Data on lead pipes, evictions, public transportation, library use, health care, parks or school attendance levels can be mapped and tracked to reveal potentially unexpected associations between different variables in ways that can help us understand how to best promote compliance with human rights standards. This kind of information could then be used by social workers and other officials to reduce the risk of human rights abuses, as well as by human rights activists demanding (and providing evidence for the need for) specific interventions by the government.[56] On the accountability side, these systems are also particularly capable of processing and monitoring large quantities of data in search for anomalies in public expenditure, which can help identify potential cases of corruption.

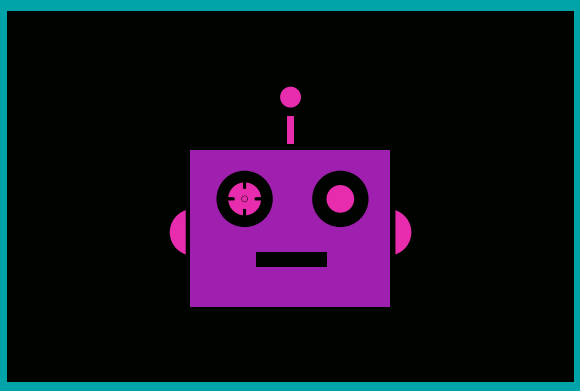
54 Ben Green, *The Smart Enough City: Putting Technology in Its Place to Reclaim Our Urban Future* (MIT Press, 2020).

55 "Smart Cities Make Room for the Visually Impaired," World Economic Forum, accessed August 3, 2021, https://www.weforum.org/agenda/2019/09/smart-cities-visually-impaired-new-outlook-urban-life/.

56 Juan Ortiz Freuler and Carlos Iglesias, "Algorithms and Artificial Intelligence in Latin America" (Web Foundation, 2018), https://webfoundation.org/docs/2018/09/WF_AI-in-LA_Report_Screen_AW.pdf.

Example:

In Brazil, a group of activists launched Operação Serenata de Amor (Operation Love Serenade)[57], a project to monitor and create public debate around the reimbursement requests filed by members of the federal parliament. The hacktivists behind the project understood that transparency portals were overcrowded with data, but there weren't enough eyes to run through them. Machines were needed to make these types of disclosures actionable. Rosie, a system specifically designed to assess the reimbursement requests, and understand the regulations that surround this process, is able to identify expenditures that look suspicious either because of what is being reported (eg. alcohol) or the amounts being requested.[58] Whenever Rosie identifies a suspicious expense, it broadcasts it over Twitter to its over 40,000 followers and requests assistance in verifying whether the expenditures are in fact reasonable or not, as well as calling on the member of Congress to provide any justification that might excuse or explain the situation.[59]



57 "Operação Serenata de Amor," accessed August 3, 2021, https://serenata.ai/.

58 "Rosie the Robot: Social Accountability One Tweet at a Time," accessed August 3, 2021, https://blogs.worldbank.org/governance/rosie-robot-social-accountability-one-tweet-time.

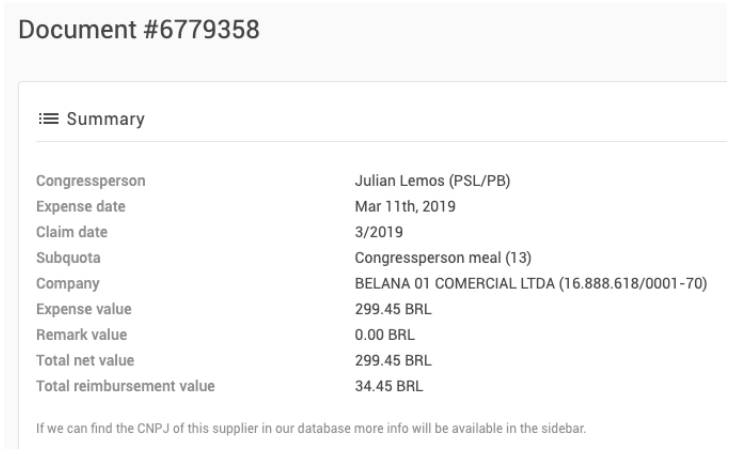
59 https://twitter.com/RosieDaSerenata

Key Human RIghts at stake:

Article 19 of the Universal Declaration of Human Rights - Freedom of Information

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Contextualized: *"Calls on States ...To harness the power of information communication technologies (ICTs) to realize the right to information and to foster enhanced pluralism in information flows"* - Brisbane Declaration on Freedom of Information (2010)


Document #6779358

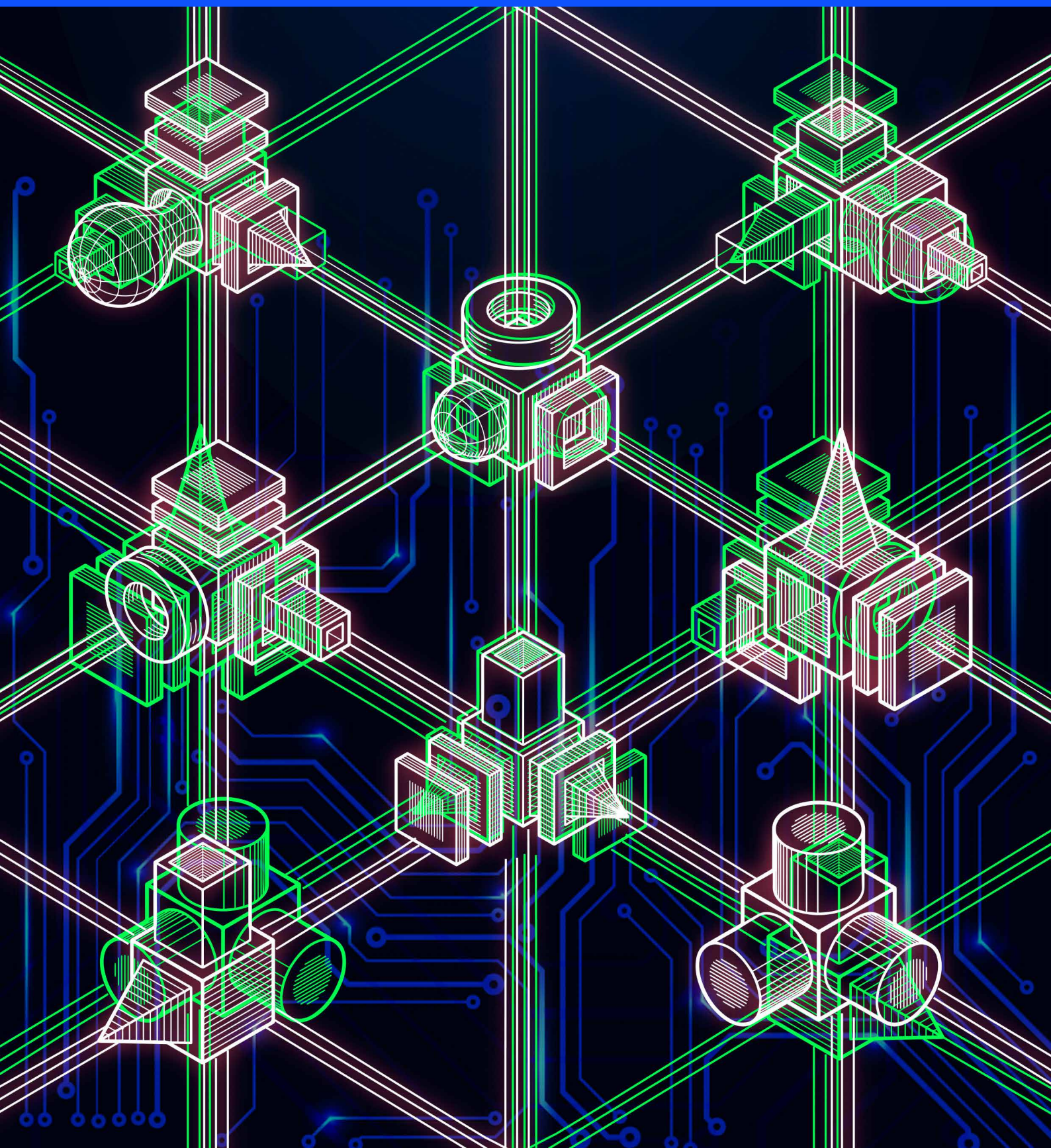
Summary

Congressperson	Julian Lemos (PSL/PB)
Expense date	Mar 11th, 2019
Claim date	3/2019
Subquota	Congressperson meal (13)
Company	BELANA 01 COMERCIAL LTDA (16.888.618/0001-70)
Expense value	299.45 BRL
Remark value	0.00 BRL
Total net value	299.45 BRL
Total reimbursement value	34.45 BRL

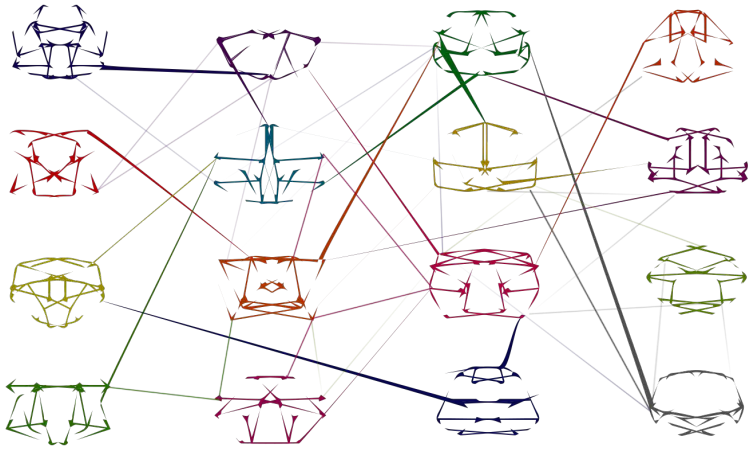
If we can find the CNPJ of this supplier in our database more info will be available in the sidebar.

Screenshot from an expense flagged as suspicious by Rosie because of its price.
https://jarbas.serenata.ai/layers/#/documentId/6779358

THE UPCOMING PROCESS OF DATAFICATION OF PUBLIC AND INTIMATE SPACES



Phase 3: Present - 2030-->2050-> An epistemological shift? Adoption of a data worldview? Friction around the concept of the individual? What happens to individual rights?



Given this third phase is focused on the future, we decided not to differentiate between public and intimate space, and instead focus on how distilling the essential aspects of the previous phases can offer us some indication of the challenges that humans and human rights can face in the future.

As the depth and breadth of the delegation of tasks onto data-powered algorithms increases and becomes commonplace, a set of basic assumptions regarding who we are and how the world works are likely to change. Algorithms operate at a scale that is different from that of humans. On the one hand, datafication appears to be operating on a shorter scale than that of our deeply rooted collective culture. Datafied systems are, for example, potentially quicker to react to changes in the data stream than humans, who typically allow their actions to be informed by values and culture that might have been forged over centuries—centuries during which data were not produced at the scale that it is produced today, and therefore not informing the analysis of datafied systems. On the other hand, datafication operates on a scale broader than that over which our individual memories can operate. These datafied systems are processing and reacting upon billions of datapoints every second. Enabling space for the type of systems datafication provides, for better or for worse, is likely to either require or trigger a shift in our worldview.

Running in parallel, but also exerting its influence over the way technologies are designed and datafication takes place, are what power has considered its peripheries. With the advancement of communication technologies, people from the periphery are not only receiving information, but adding their voices, cultural perspectives and even tech in ways that shape the hegemonic views and the tech landscape that enables the process of datafication. This includes cultures that developed somewhat detached from the western tradition that were dominant during much of the 20th century, with it's most obvious roots in Greco-Roman and Jewish, Christian and Muslim traditions. This encompasses much of both the East and South of the world, whose communities often have radically different traditions and value systems, and are more actively shaping the global stage through soft and hard power.[60]

The world will be a very different place in 2030 and the decades following that, when we compare it to the times in which most of the core human rights declarations and conventions were discussed and ratified. Since the days in which the core conventions and declarations were agreed upon, many African states have gained their independence and are now and coordinating in favor of their interests. Countries like Brazil, China, Indonesia, Mexico and Nigeria are increasingly capable of shaping global technologies, regulation and markets in line with their cultural views. The combination of political, geopolitical, technological and socio-cultural shifts suggests a change in the way we understand rights is already underway. And one undercurrent fueling this process is most likely the shift in worldview fueled by datafication[61]. The tensions at this fault line are becoming apparent. Be it when the Indian Executive defends its extensive data collection scheme by claiming that privacy is a western construct[62], or when the EU requires that companies processing data regarding its citizens do

60 See for example: Sabelo Mhlambi, "From Rationality to Relationality: Ubuntu as an Ethical and Human Rights Framework for Artificial Intelligence Governance," *Carr Center Discussion Paper Series*, no. 2020–009 (2020).

61 See Alberto Romele, "The Datafication of the Worldview," AI & Society, 2020, https://doi.org/10.1007/s00146-020-00989-x. and Rob Kitchin, "Big Data, New Epistemologies and Paradigm Shifts," Big Data & Society 1, no. 1 (April 1, 2014): 2053951714528481, https://doi.org/10.1177/2053951714528481.

62 Chinmayi Arun, "A Judgment for the Ages," *The Hindu*, August 3, 2017, sec. Lead, https://www.thehindu.com/opinion/lead/a-judgment-for-the-ages/article19409905.ece.

not send it over to the US, its historical ally, because it considers the US to violate basic privacy rights.[63]

Throughout this upcoming third phase, of datification, categories that might have been cornerstones of our past and present might very well become outdated. A key category that is likely to come under pressure is that of the individual. Since datafication is typically leveraged to segment and group, it is likely that such groupings become increasingly relevant, perhaps at the expense of the notion of the *individual*, which might become just another collection of varied characteristics. A unit of analysis that is considered at times too broad, and at other times too narrow to be considered relevant or useful.

Some of the early expressions of such pressure points were perhaps first visible through the coining of concepts such as *context collapse*[64] to describe how what used to be separate practical identities (father, son, colleague) merged into one by centralized social media where people suddenly had to face their varied audiences all at once. This exemplified the power tech has to force a rearticulation of personal identity. The way in which computers dissect and process the faces of people to define what their relevant and unique characteristics, are yet again involves a process of redefinition and rearticulation of identity in a way that is consequential[65]. Lastly, because we share so many characteristics with others, some of these systems are able to construct synthetic variables about us to represent characteristics we have not disclosed but which can be extrapolated onto us based on information that people who are considered to be similar to us in relevant ways *have* disclosed. This suggests that we may no longer be in control over who we are in the face of these systems, This further suggests datafied systems do not understand our identity as something cohesive, but rather as a collection of characteristics. If this construct continues to develop

63 Ryan Browne, "Facebook's EU-U.S. Data Flows Are under Threat — That May Spell Trouble for Other Tech Giants," CNBC, May 20, 2021, https://www.cnbc.com/2021/05/20/facebook-eu-us-data-flows-are-under-threat-heres-what-that-means.html.

64 Alice E. Marwick and danah boyd, "I Tweet Honestly, I Tweet Passionately: Twitter Users, Context Collapse, and the Imagined Audience," *New Media & Society* 13, no. 1 (February 2011): 114–33, https://doi.org/10.1177/1461444810365313.

65 Vox, *What Facial Recognition Steals from Us*, accessed August 3, 2021, https://www.youtube.com/watch?v=cc0dqW2HCRc.

we would need to re-evaluate the boundaries between individual autonomy and group rights.[66]

In synthesis, the ways in which we will define and redefine our existence is inextricably linked to the process of datafication and automation. The value systems promoted by such technologies can become normalized, adopted, and thereafter difficult to observe as such, and even more difficult to push back against.

This phase triggers broader questions regarding our value systems and the processes of collective reflection that are needed to ensure we are able to see them as such, and question them accordingly.

It is crucial for human rights practitioners to understand these processes and help shape them, guiding or combatting their designs and deployment as we move into the future.

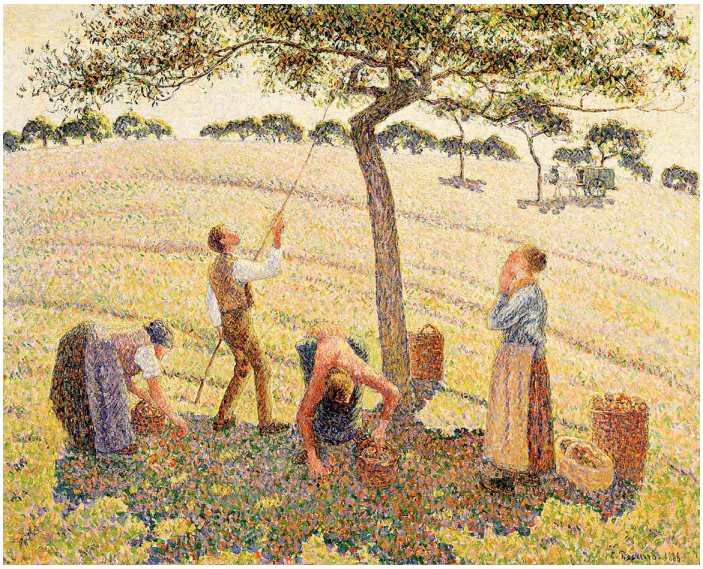
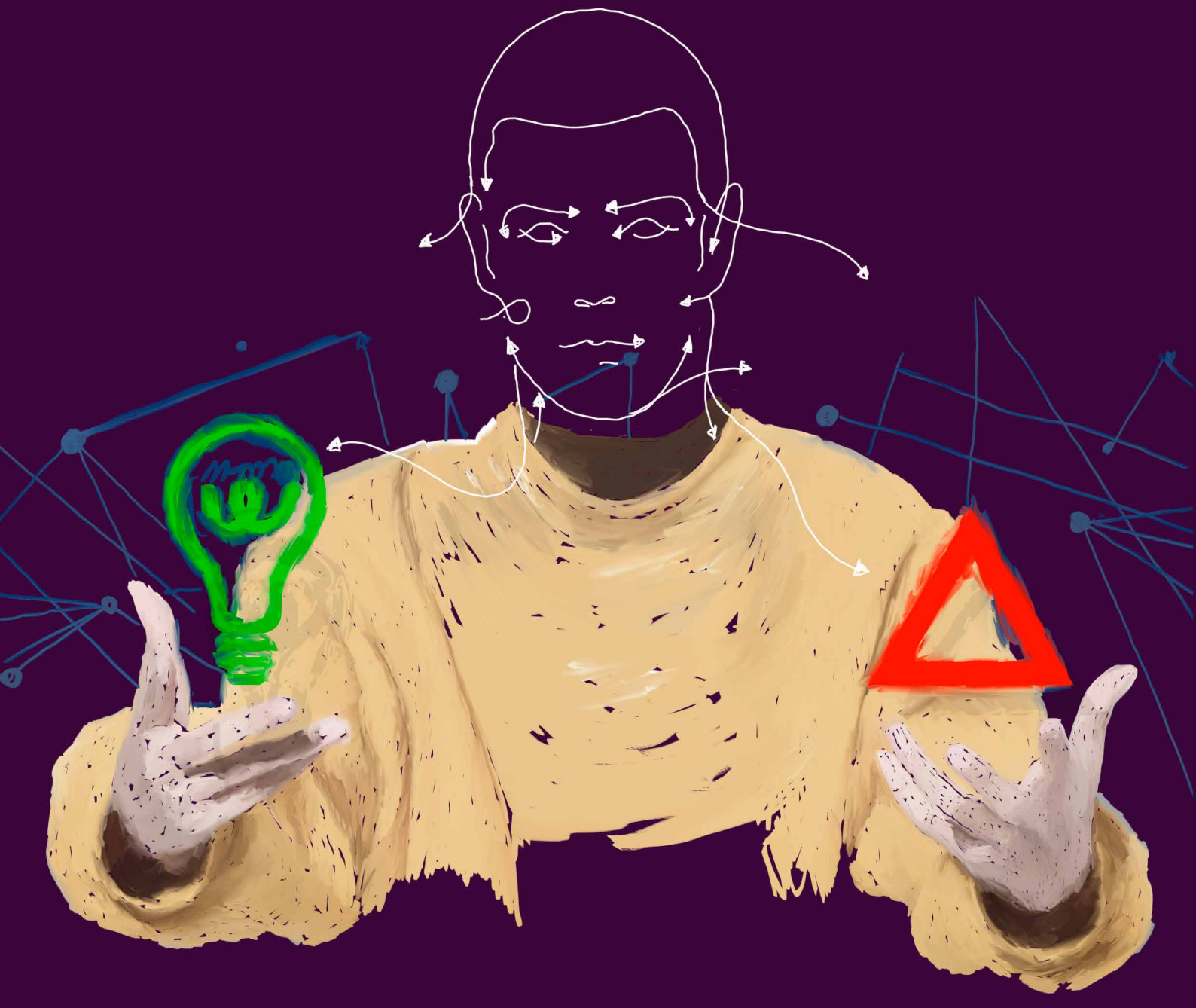


Fig. 6. Apple Harvest at Eragny, by Camille Pissarro (1888). Pointillism provides a graphic representation of how, as humans of our times, we are trained to understand this painting has four characters, trees, apples, and baskets, when that is but one arbitrary way of grouping the dots. If we paid attention to one color at a time, we might see there are other possible constructions, based on another set of shared characteristics.

66 Brent Mittelstadt, "From Individual to Group Privacy in Big Data Analytics," *Philosophy & Technology* 30, no. 4 (December 1, 2017): 475–94, https://doi.org/10.1007/s13347-017-0253-7.

APPLYING FORESIGHT:
A FUTURE SCENARIO



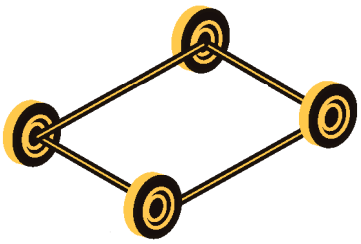
Understanding that a small shift in the political or technological equation today

can create waves into the next decade, this section will provide a rough compass of how things might evolve by reacting to certain assumptions. Far from offering a set of predictions, this section relies on an exploratory methodology to construct different scenarios aimed at fostering discussion around the types of risks and opportunities the future might have in store, and the types of actions we might need to be taking now to shape our odds down the line.

Notes on how we built these future scenarios:

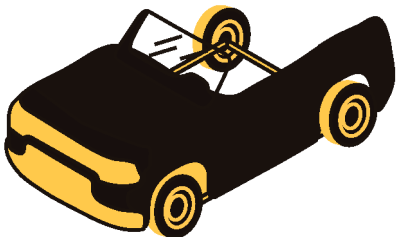
Step 1

Identifying the forces that shaped the past. As visible throughout the prior chapters, we carried out desk research to understand how the past blended into the present. In that process, we strived to identify and synthesize some of the key technological trends on the one hand, and socio-political processes shaping them on the other, uncovering and reporting on a varied set of signals of change and one deep driver of change: datafication.



Step 2

Creative scavenging into the future. Having carried out much of step 1 separately, the members of the team got together on a virtual call. In order to relax our judgement, we first collaborated in developing a set of fictional stories regarding the future, following the method for an exquisite corpse. Immersed in such a dynamic of executive and non-judgemental collaboration, we quickly shifted to discussing the two key axes that could determine the ways in which datafication would evolve. We then discussed the types of worlds different combinations of elements might provide.

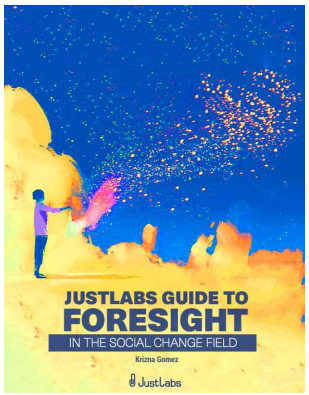


Step 3

Critical revisions. The text was set aside for a week before we carried out consecutive rounds of critical revisions, in which we engaged once again with the literature and historical processes in order to provide a thought provoking reflection.

Interested in exploring this methodology with your team?

Check out JustLabs' Guide[67]



Sketching the key variables and exploring their implications

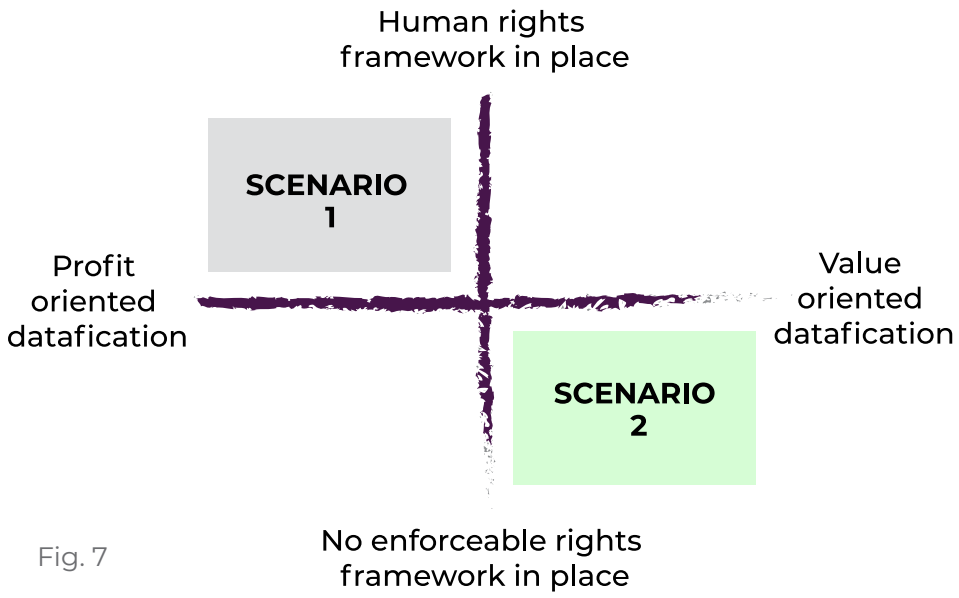


Fig. 7

67 Krizna Gomez, "Why Foresight Should Be in the DNA of the Social Change Field," *JustLabs* (blog), accessed August 3, 2021, https://www.justlabs.org/futures.

Datafication 2030

Corporatized datafication:

Synthesis: A technocratic system guided by capitalist goals of profit, operating within wide margins afforded by a rights system.

Goal: Emphasis on increasing efficiency, without much focus on the distribution of the efficiency gains.

Example: Broadening the proportion of public space subject to loosely regulated market mechanisms. Carbon-credit-like[68] policy approaches for the smart city, overall reducing emissions, but incapable of solving structural issues such as inequality.

Collective datafication:

Synthesis: Institutions relying on centralized data sets measure and manage progress towards socially defined targets branded as the "common good".

Goal: A major shift towards prioritizing the interest of the community over those of the individual (at the expense of liberties)

Example: A reloaded Cybersyn project[69], where preferences and interests are surreptitiously captured and interpreted to enable more dynamic and real-time governance, as opposed to active expression of such preferences through periodic elections or price-driven markets.

Noose datafication:

Synthesis: Humans coerced into a data-driven caste system.

Goal: Human relationships are re-engineered to maximize profit, and human development redesigned to increase productivity.

Example: Credit scoring systems that assess personal relationships and interactions as an indicator of risk of default, promoting and enforcing social stratification.[70] The use of data and machines to accelerate the production processes already being enforced on Amazon workers as well as Spotify artists.[71]

Loose datafication:

Synthesis: Individuals build isolated communities based on the control of their own data.

Goal: A self-generating process towards value without an established framework that might require any form of centralized governance or enforcement.

Example: Decentralized data collectives coalescing around similar values and relying on tech to ensure individual-collective alignment in terms of how data are used.[72]

Fig. 8

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68 "Carbon Credit," in Wikipedia, July 30, 2021, https://en.wikipedia.org/w/index.php?title=Carbon_credit&oldid=1036275581.

69 Eden Medina, Cybernetic Revolutionaries: Technology and Politics in Allende's Chile (Cambridge, MA, USA: MIT Press, 2011); Evgeny Morozov, "Digital Socialism?," New Left Review 116–117 (June 2019), https://newleftreview.org/issues/ii116/articles/evgeny-morozov-digital-socialism.

70 Katie Lobosco, "Facebook Friends Could Change Your Credit Score," CNNMoney, August 26, 2013, https://money.cnn.com/2013/08/26/technology/social/facebook-credit-score/index.html; Netflix, Black Mirror | Nosedive Featurette [HD] | Netflix, accessed August 3, 2021, https://www.youtube.com/watch?v=R32qWdOWrTo.

71 Amazon worker: "We are not treated as human beings, we're not even treated as robots. We are treated as part of the data stream" - Former Amazon warehouse employee (Amazon Empire: The Rise and Reign of Jeff Bezos | FRONTLINE. Available at https://www.youtube.com/watch?t=2111&v=RVVfJVj5z8s&feature=youtu.be . Spotify CEO claiming working musicians may no longer be able to release music only "once every three to four years"..." it's about creating a continuous engagement with their fans. It is about putting the work in, about the storytelling around the album, and about keeping a continuous dialogue with your fans."Spotify CEO Daniel Ek Says Working Musicians May No Longer Be Able to Release Music Only 'Once Every Three to Four Years,'" The FADER, accessed August 3, 2021, https://www.thefader.com/2020/07/30/spotify-ceo-daniel-ek-says-working-musicians-can-no-longer-release-music-only-once-every-three-to-four-years.

72 "Homepage · Solid," accessed December 19, 2020, https://solidproject.org/; Ruben Verborgh, "A Data Ecosystem Fosters Sustainable Innovation," December 7, 2020, https://ruben.verborgh.org/blog/2020/12/07/a-data-ecosystem-fosters-sustainable-innovation/.

Diving into the scenarios

SCENARIO 1: Corporatized datafication in the context of an enforceable human rights framework paired with technological developments focused on return on investment.

SynchroniCITY, corporatized datafication for a more efficient city

Description:
A technocratic system guided by capitalist goals of profit, operating within the broad margins afforded by a weak rights system.

Exploration:
A new corporation, SynchroniCITY, has won the final bid to manage the urban areas in most major cities. SynchroniCITY promotes a post-state system that uses advanced data processing algorithms to identify ways in which to increase efficiency. Once SynchroniCITY has been deployed, the traditional political institutions are terminated, since, as per SynchroniCITY creed:

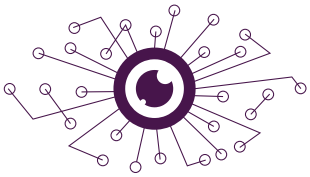
Voting is friction,
Synchronicity is seamless.

One of the first phases is the development of vast data collection infrastructures needed for the God's Eye, SynchroniCITY's flagship component, and responsible for a massive reduction in the carbon

footprints of cities, a core issue given the adoption of a carbon credit system at a global level.

In some initial iterations, part of this infrastructure was taken from pre-existing private companies. However, it soon became evident that they were from before the mental leap, the moment in which society embraced coordination as a core value, and thus behaved differently, and designed objects and interactions very differently. Soon after, the old systems were decommissioned completely. Officially, it is claimed this was done to reduce the risk of signal interference[. However, some argue that the old systems were taken down] to make it more difficult for the small but problematic asynchronous outcasts, still navigating the city without using the appropriate sensors to interface with Synchronicity's proprietary tech[. They believe the systems were decommissioned to quash the remaining attempts] to resist the adoption of the new tenets.

SynchroniCITY claims it is value-neutral and rights enhancing, meaning that beyond maximizing efficiency, it does not interfere with people's lives, but that efficiency allows greater resources to be devoted to the task of complying with rights. However, those resisting it argue that their exclusion from basic services, such as access to public transport, should be proof enough that SynchroniCITY violates human rights. Given the poor state of public institutions in regions that have adopted the system, asynchronous people are taking their case to regional bodies. Most, however, are already seeking asylum in the deserts of Africa, South America, and Asia, where nomadic tribes are once again flourishing in isolation.



SCENARIO 2: Loose datafication in light of the absence of an enforceable rights framework paired with technological developments that strive to increase value.

Tides of loose datafication

Description:

A self-generating process towards value without an established framework that might require any form of governance or enforcement. Isolated communities operate within a network i.e.

Exploration:

Following the decade of violence triggered by the collapse of ecosystems, dispersed groups coalesce to produce and collect very specific data. These groups form strategic alliances about how core communications infrastructure is to be maintained, and agree upon values that define how their data can be used.

Each data cluster reflects specific communities and their needs, and such clusters often join other clusters when circumstantial needs or interests are aligned. People's identities are also shaped by these clusters, which force them to choose what elements of data are most representative of their identities.

These data entities—often, and for purely cultural reasons, formed around historical legal figures such as trusts or cooperatives—are constituted based on self-generating values. Once the parameters are discussed and set, the entities are capable of autonomously bargaining on behalf of its members with the state and private corporations regarding how the data can be accessed and used.

Thus, for example, groups that are more privacy-wary may not want to include their data on health-related databases. On the one hand, this has benefits for the group, as their privacy rights are secured, but may have wider societal costs as health-related research could benefit from more diverse and complete data sets. On the other hand, involvement in such processes of democratic governance over data strengthen self-determination and people's ability to engage with core questions regarding datafication, providing for resilient and innovative societies.

However, since these autonomous systems compete and often displace the role of centralized institutions as the main definer of data governance, some public actors are striving to limit their ability to scale. They argue that societies require power to be centralized in public authorities, with the ability and standing to exercise such power, even against the interests of specific individual hold-outs.

SPOTLIGHTS: INTERVIEWS WITH PRACTITIONERS ON THE FOREFRONT

It can often seem like the future is too uncertain, or that things are looking too bleak. At those times, it is always important to remind ourselves that some of our older peers most likely have lived through similarly complex situations, and might have something to share, but also that some of our colleagues around the world are positioned in places that might allow them to see the waves that are coming before they arrive. This section consists of a set of short interviews with colleagues who we believe are in such positions. We hope that in reading their reflections you gain some insights into what the near future might bring, and also remind ourselves that we are all human, even those who achieve extraordinary feats.

Spotlight 1: The growing adoption of digital ID in Kenya and how it is changing people's relationship with the government. A conversation with Grace Mutung'u

Full name:
Grace Mutung'u

Nationality:
Kenyan

Background:
law and information systems

Favourite dish:
ugali

Favourite song:
Shekere, Yemi Alade & Angelique Kidjo

How did you end up working on digital rights?

After high school, and in the period before we typically attend University in Kenya, I was sent to Strathmore College to study information systems management. This was just after the Y2K craze and everyone was very curious about technology. When I joined the University of Nairobi law school, law seemed completely abstract. Since Kenya is part of the common law system, we end up reading a lot about what some Lord said in the 1800s, and it was quite difficult to relate to. I recall making the link between legal rulings and programming quite early on: *If this then that*, pervasive in computer programming seemed very much like the types of tests judges were using to determine how a case should be decided. So for me, the association between the legal

and information realms was kind of built early on...Then came the public interest component. During my time at law school, Kenya went through a big debate regarding whether the Constitution should be reformed. At the University, we were all involved in some way or another through student movements. Part of the debate was regarding how a constitutional reform would incorporate human rights. That triggered my interest. With my background in info systems, I could see that, for example, much of the debate around rights such as freedom of expression would define how people would interact in the decades to come with technology like the mobile phones and messaging systems that were becoming a thing at the time.

What surprised you the most about the way technology is reshaping the way people relate to governments?

At the beginning in the early 2000s, being in the space involved selling the case to governments: we focused on why they should adopt tech. That was also around the time we had the structural adjustment program, and our giant telco was being split up. There was a lot of discussion about how to get more companies into operating within Kenya. There was a narrative about the government being behind the curve in terms of tech adoption. So, in practical terms, our work involved pushing governments to adopt email, for example. Little did we know that tech was a small piece in a massive infrastructure of control governments already had in place. You add some of these tech components and it creates a whole new relationship with people. So the story changed from adoption to let's also have some *checks and balances*. People could now see that governments already have a lot of power, and when coupled with some of the new techs it could exercise such power in new and problematic ways. Now we have a mixed conversation. A part is access: Making tech accessible to everyone. Governments have adopted it quite a lot, especially in a country like Kenya where there are so many competing needs. Now the government often seems to be saying its services are unavailable to those who don't use certain technology. It's such a full

circle when you compare it with the early 2000s.

To many of us, it now seems technology can and is very much being used to maintain the unequal relation between government and people. What might save us is not so much activism for digital rights, but what we had in that constitutional movement, which was not a tech movement, but a movement fighting for a multi-party state and a more plural society; one with a broader civic space and more public debate.

Tell us a bit about your work around digital identity. What is your perception of the risks at hand? What has changed since you started working on this topic?

I had the fortune of being an observer of two elections, called in to specifically look at the use of tech. This drew my attention to how political actors were leveraging tech more and more. At first it involved sending SMS messages to potential voters ahead of the election. Then resources started being allocated to collecting data in the periods between elections. Kenyans are typically quite vocal about politics. And public reps started getting more interested in gathering data from social media. This made me curious to think where this might be going.

The government now requires you to get a digital ID with biometrics and all. This includes fingerprints, iris scan, facial photo and even an ear lobe scan (which is a curious component given many tribes elongate their

lobes). The idea is that these features are unique to a person, allowing the system to record the relationship between a person and the government from birth to death. When you add biometrics to the fact that people use phones that are constantly tracking location, and that many people use mobile payments, and the fact that we have to register the phone cards, it means that a massive amount of very granular data about individuals is being collected constantly, and that social relationships are set to radically change because of this.

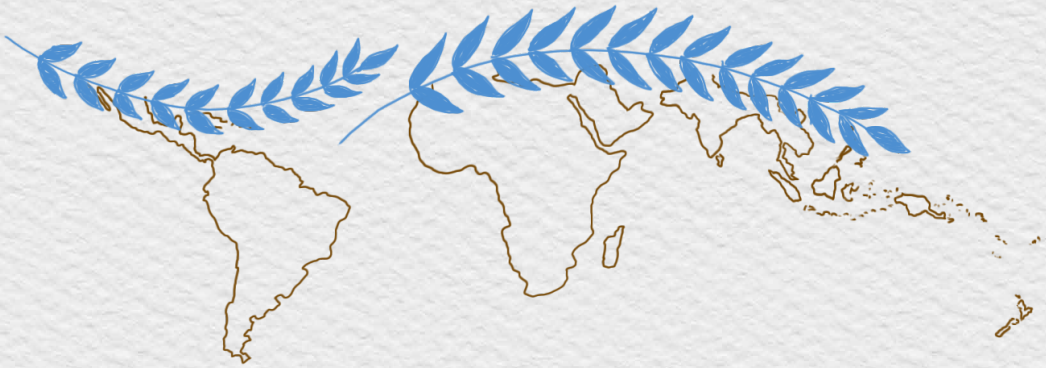
What is more, Covid accelerated the process of roll-out and adoption. To get a vaccine you need to have a digital ID. Of course there are advantages to this type of system, but it makes you wonder the cost, and how these things were managed in the past before intensive use of these tracking techniques. There seems to be a drive to adopt these systems without a proper assessment of the needs. It's more that these systems exist and it somehow follows that they therefore *should* be adopted. The issue of how such needs were conceptualized has happened in a separate forum, inaccessible, secret, and it's now just about adopting.

Looking into the past, it becomes evident that, like in other battles, there are issues that get silenced. People working on ecosystems and environmental rights are concerned with the energy required for all this system to run. All the steps that are needed prior to any interaction, and then all the places where such interaction gets recorded, copied and replicated. People raising these questions are being silenced, as are the africanists who question the coloniality of this process. And they are being silenced by the same digital means. The decoloniality movement is asking why we have to be consumers in all eras, why we never get a seat at the table. There's the risk of not getting to shape the tech and the system it creates, but also the harm of not getting a fair share of the benefits of the system that is currently in place. We have so many young people who have a stake in the future, but they seem to only afford a slot at the margins of that future.

In what ways do you think the process of datafication[73] is currently affecting human rights practitioners? What are some ways in which this process might evolve in the next ten years?

One of particular concern is that human rights practice has not been elevated itself at a par with the processes of datafication. We are on the outskirts of the debate. It's also a cause for fatigue, because there is no single space for these debates. Even at the UN we are outsiders. It seems like in the global south we get access to a somewhat shortened version of human rights. What others have somehow defined as core *human rights*, is what we get. Social and economic rights, for example, are presented as something that will be discussed later on [See also]. I have not seen a holistic approach on human rights in this sense. Not even at the UN, and even after the adoption of Guiding Principles on Business and Human Rights.

I want to be optimistic and think that with all the exposure the mainstream is getting on issues such as inclusion in the tech sector, we might move forward. Another hope comes from the fight of the generation of so called *millenials*. They seem to approach life in a more conscious way. They seem to make certain connections between the environment and the lifestyles they lead, which makes me feel there might be a glimpse of hope. But it also depends on the human rights movement to keep it up so things keep changing.



73 Datafication: to translate a phenomenon into a structured format so that it can be tabulated, analyzed or acted upon by machines.

What do you think the work of a human rights practitioner will look like in 2030?

Honestly, I think it will be a lot of the same issues with a tweak that incorporates some tech aspect. I think labor rights are and will continue to be a big issue. Especially given the way capitalism continues to operate. Perhaps the set of key actors will have changed or will be expanded, but at the end of the day regardless of whether you give your labor as a gig worker or in a field, the way labor relationships are shaped will remain a big issue.

I do think we will see people demanding traditional institutions like the World Bank to be more accountable. A lot of the reform processes in Africa, and those involving tech in particular, are being promoted by institutions like the World Bank. And people are increasingly aware that if such institutions impact their lives, they should be accountable to them. I also feel that the concept of *a human rights practitioner* might become more circumstantial. We increasingly see people who play a huge role in enacting change by relying on Information Communication Technology (ICTs) to expose HR violations, even though they are not specifically trained as HR practitioners.

It's Wednesday, November 30th, 2030. You're sending an email discussing....?

I fear that by 2030 everything, even our minds will be read, hence you might be connected in ways that will not require emailing (*laughs*). I mean, I compare it to the time in which I had my first phone, which required an external keyboard. Now you touch whatever you want on the screen, and more of your senses are being embedded in the process of engaging with this communication.

But what will be discussed....? (She pauses to think) I hope it's data trusts. Given it's November 2030, [which is the time of the year the government does its transparency and accountability reporting, I hope we will be discussing how our data have been used over the course of the year.

Spotlight 2: Using public data to uncover systemic racism in Boston: An interview with Paola Villareal

Full name:
Paola Villareal

Nationality:
Mexican

Background:
Data Scientist and Software Engineer

Favourite dish:
Enfrijoladas

Favourite song:
Queen - I want to break free

Paola, you identify as a data scientist and a software engineer. How did you end up working with the lawyers at ACLU (American Civil Liberties Union)?

I applied to the Ford Mozilla Open Web Fellowship in 2015.

What surprised you the most about the way human rights practitioners work and think?

I learned about community organizing, strategic litigation and other tools they use to achieve the ultimate goal of protecting peoples' rights.

Tell us a bit about the project. What challenge or problem was it created to solve? What changed as you were working and what impact do you think it has had?

Lawyers and activists at the ACLU were able to obtain data but didn't have the technical capacity to make the most of it, so I created the Data for Justice project which aims to make it easier for them to utilize the data in very impactful ways.

How is datafication* currently affecting human rights practitioners? What are some ways that might evolve in the next ten years?

I think datafication is enabling the analysis of social issues that was not possible without structured data, but, at the same time, it concentrates power in those who can use these technologies, with their biases and blind sides.

What do you think the work of a human rights practitioner will look like in 2030?

It will be a mix between extreme data-centricisim and grassroots work. Making sure data and tech have a positive impact on communities.

It's Wednesday, September 30th, 2030. You're sending an email discussing....?

Data analysis optimized for decision making processes that take into account many different layers of information including demographics, economics, politics.

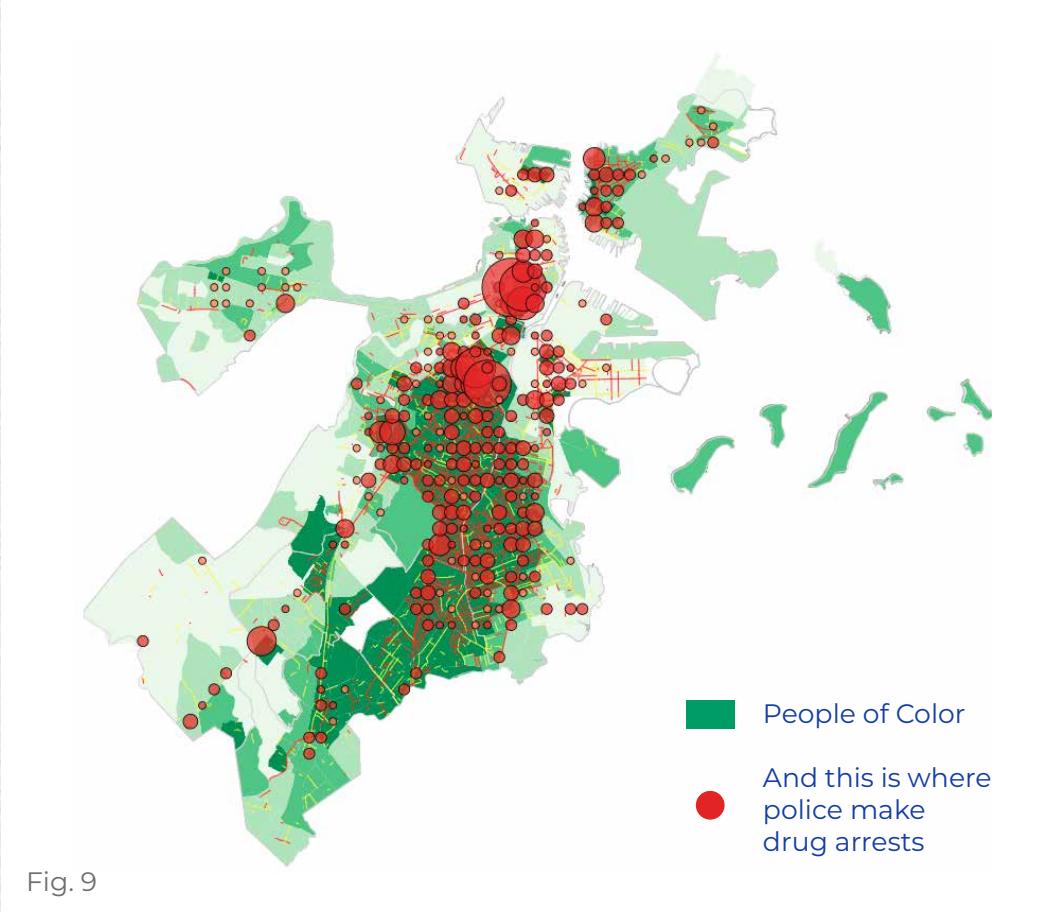


Fig. 9

Fig. 9. Section from one of the Data for Justice visualizations produced for ACLU, which shows how police predominantly perform stop and frisk, carry out drug investigations and make arrests for drug related crimes in areas inhabited predominantly by people of color.

Spotlight 3: Human rights and tech activists sharing an office: Portrait of an experience in Argentina

Full names:
Sebastián Pilo (ACIJ)
Yas Garcia (Conocimiento Abierto[74])

Nationality:
Argentinean

Background:
SP: Law
YG: Programmer

Favourite dish:
SP: Asado
YG: Milanesa with fries

Favourite song:
SP: Canción para los días de la vida, by Spinetta
YG: Imagine, Lennon

How did you two first meet?

Sebastian Pilo (SP): hmmm ...good question. I think we met on a trip to Montevideo, Uruguay, for a regional gathering of the Open Government Partnership agenda, and in one of the after hours we ended up sharing a table and getting to know each other.

Yamila Garcia (YG): Yes, I believe so. I mean, we already had contact with ACIJ before that time...and even before Conocimiento Abierto was formally constituted as an organization, but that trip to Montevideo might have been the time we actually had a proper

74 Note: Though it shares an agenda and a similar names with the Open Knowledge Foundation, this is an independent and unaffiliated organization.

conversation with Sebastian. We knew ACIJ from before, because those of us working with government data noticed that it was difficult to come by, and that we needed a freedom of information law; At that point, we started to connect with organizations that were working on promoting such a law, including ACIJ.

What was behind the decision to start sharing office space?

YG: We had had informal conversations with members of ACIJ regarding the concept behind the Open Gov Hub in Washington DC, which brings together about a dozen organizations that work on similar issues under the same roof. We never got to achieving a full fledged version of this project of course, but when our organization was looking for space, at ACIJ they mentioned they had vacant space for a small organization. So it feels that we were perhaps at an initial milestone in that direction...and then came Covid!

SP: Indeed! We knew Conocimiento Abierto beforehand, and when we moved to a bigger office we noticed we had some vacant space and offered it to them....part of it was cost sharting, but of course quickly noticed the potential.

Can you share any intentional or unintentional interactions that emerged as the result of this decision?

YG: So we shared meeting spaces and lunch spaces, as well as the areas for events. Our offices were just a couple of meters apart. On the informal side, members of Conocimiento Abierto would provide support to a team within ACIJ that was handling databases on access to education for people with disabilities and were often hitting roadblocks. This was not planned, but the result of small-talk.

SP: Then there were formal collaborations. There was a project that might have happened regardless of the shared space: the development of a database on judicial cases dealing with corruption which is going to be launched very soon, so stay tuned! And a second project where our teams collaborated in striving to backwards engineer the algorithm that allots cases to judges, which is presented as being random but has created suspicions, given several uncanny coincidences and patterns. This project was initially born out of a hackathon led by Conocimiento with support from OGP. They then continued with support from OGP, and the interactions of shared office space helped make the collaboration happen.

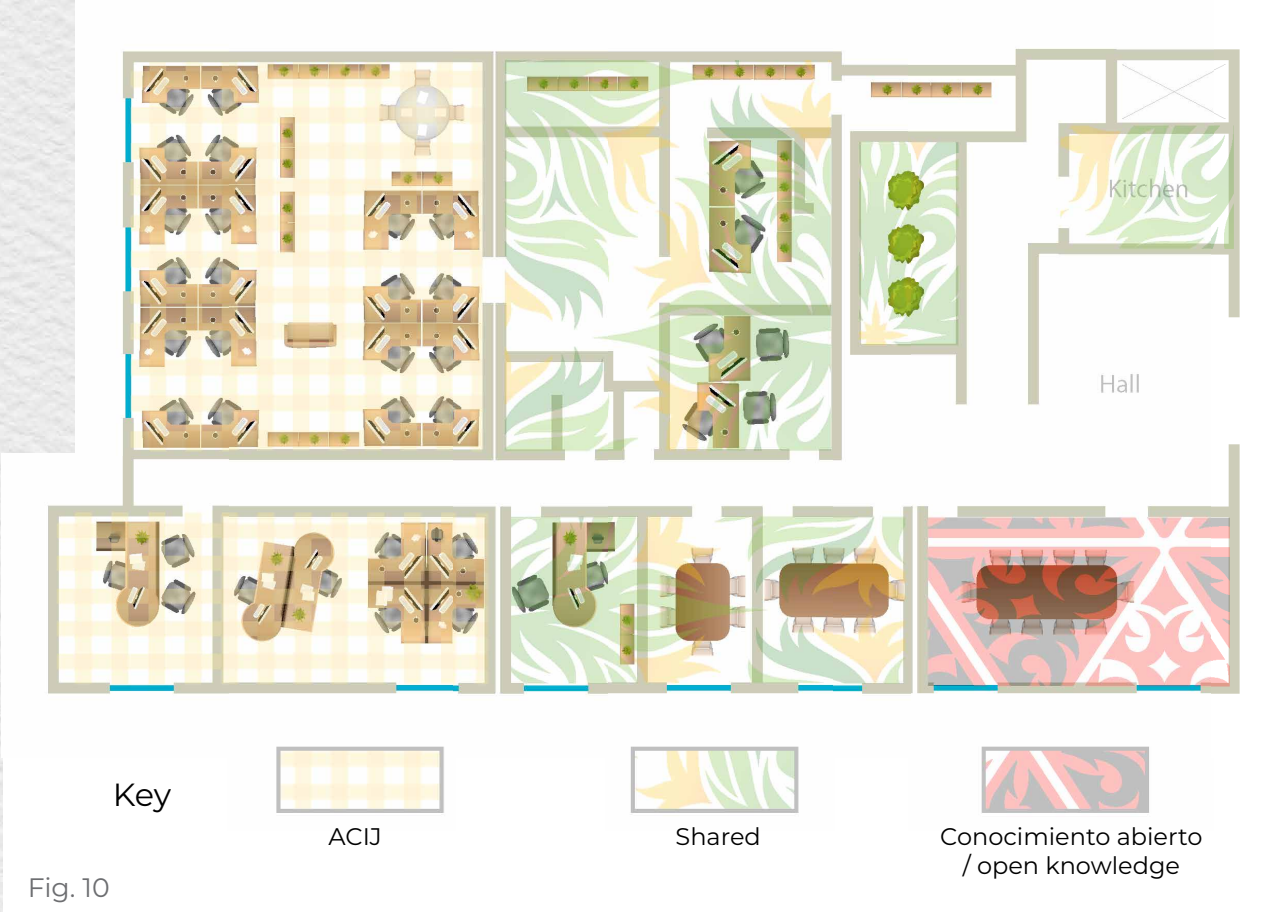


Fig. 10

What value do you think this arrangement has added to your work?

YG: The pandemic pretty much put stuff on hold. It was a good experience. We didn't manage to build the hub we originally planned for. There were changes in staff on both sides. There are times in which we end up drinking beers and get to know each other. I think it's a positive experience. We didn't manage to explore as much as we would've wanted to. We learned from sharing space with an organization that was bigger and older, and there were many admin learning experiences. It felt like we were being hosted by a bigger org.

SP: I believe the best part was having people around that weren't over contaminated by the legal mindset, or the specific agenda in which we were working on. Some of the members of Conocimiento abierto had a very different way of approaching problems, which was always refreshing. Institutionally we could definitely have done more to increase these interactions. But it's also true that once this mindset of collaboration with partners working on data was initiated it pushed us towards further projects. We are also collaborating with *Democracia en red* on a project mapping how the judicial branch operates, called Justa, that was recently launched, for example. The experience of sharing space definitely reinforced our interest in multidisciplinarity in our teams and partners.

How is datafication currently affecting human rights practitioners? What are some ways that might evolve in the next ten years?

YG: Over the next decade a lot of work will be done around standardization of data to facilitate the process of automation, with all the challenges that implies. Our work is mostly focused on how to engage around this process with partners. One of the challenges is that governments are now moving much faster than Civil Society. Organizations are typically not in control over the data they produce or they require. There are

exceptions, but in general terms there is a lot of work to do and a lot of potential. At least, in South America, I can confidently say there's a big gap. Part of it is visible in how organizations hire. It's a matter of how they manage their vision. They don't see it as part of what they can monetarily afford, or they don't see it as part of a long-term sustainable project. They still are predominantly dependent on externals who come in to solve a specific need but aren't embedded in organizations in the long run, with all the challenges that creates, and all the missed opportunities in terms of how these people could help shape projects and agendas. In ten years time I believe these agendas will be much more embedded within these organizations. Many organizations are starting to pick up on the issue through data visualization, for example. I'm sure they all will have a person with data skills in house by 2030, which is the only way to work on the process of datafication at the pace at which the agenda is moving.

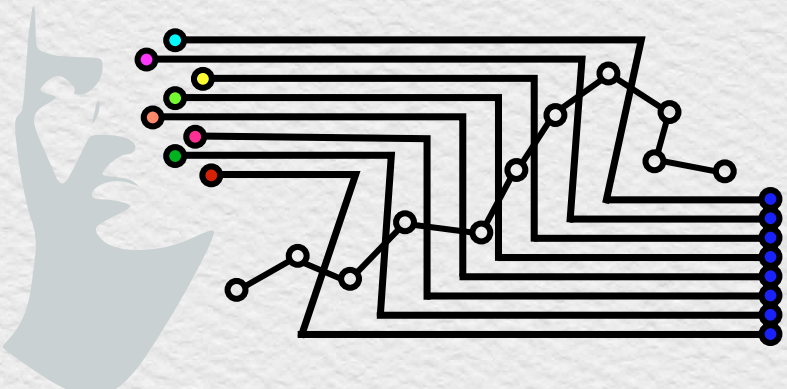
SP: The use of data as part of a strategy in human rights projects has become a bit more mainstream and naturalized. Those coming from the data space have won the battle of showing there is value in understanding how to collect, process and visualize data, and those of us running organizations need to learn how and when to rely on this resource without over-romanticizing the techniques. It's a process that will increase but will not monopolize the resources around our work. It's a process that definitely adds value to our work. Of course some people go overboard, or oversell what they are doing, but I guess that's a natural component of the early phase we're in.

It's Wednesday, September 25th, 2030.
Your team is releasing a newsletter focused on....?

SP: We might still be demanding that the Ombuds get appointed [*laughs*], it's been 13 years now that Civil society has been demanding that Congress appoint someone to that key institution... Some of the agenda

will most likely be similar to the one we have now. The institutional challenges are structural and I don't think will be resolved any time soon. That said, I believe the intersections with gender rights, migration and climate will probably become more salient. Our work towards resolving inequalities is definitely an issue that will continue. I often see that given the limited time and resources there is a bit of tension between innovating in the agendas and old but persistent problems. I believe we balance it out by trying to innovate on the strategies while continuing to push on ongoing and unresolved battles.

YG: There will be no newsletters in 2030! (*Laughs*) I mean, people don't want to read anymore. Maybe it's audio? Everything seems to be moving so fast. I don't think we will be discussing artificial intelligence as such, for example, but something around those processes that rely on it. I often feel a lot of development heading in a bleak direction. I don't see a way out at this point, given we lack a critical public understanding of these issues. Many people are involved with these technologies on a daily basis, but only a very small proportion is actually empowered to act on it. There is a lot of bs tech development as well, which only makes matters worse and more confusing. The pandemic limited public demonstrations, and meanwhile, in the background, we had a lot of big changes taking place without any formal public acknowledgment or debate. Power is ever more concentrated and resistance is very much dispersed. I don't lose hope, but am increasingly concerned with how things are moving.



CONCLUSION

Throughout this document we have explored how datafication is and will be impacting human rights practice and the broader human rights field. We have discussed a series of signals of change, outlined in this document in the form of risks and opportunities. We believe these signals of change provide a strong indication of a deeper driver of change, which we have referred to as datafication, and understand it is an ongoing process that permeates every aspect of the way in which individuals and collectives interact in and with the world.

A shift in our worldview would imply, trigger and/or require the revision of many assumptions we take for granted in our everyday lives. For the human rights community this might involve a discussion on whether or not key institutions such as the court system require a radical redesign. In such a process of reflection and revision it is likely that humanity would come to debate the validity and usefulness of some of the core documents underlying the discipline, such as the Universal Declaration of Human Rights (1948), the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights (drafted in 1954, signed in 1966), for example. This process is not only going to unleash questions regarding how to best defend people's rights, but also extend itself to a broader and perhaps slower reflection on what we understand by both people and *rights*. A conversation that might extend itself and evolve beyond 2030.

We understand that the future is being built collectively, and thus we cannot have too many certainties over how it might materialize. One certainty we do have is that power relationships not only shape technology but also the dynamics that define how they are used.

Whether future developments end up strengthening or weakening our capacity to defend, uphold and promote human rights is in itself a question of power. And our ability to harness such power to forward the principles of justice underlying our quest for the protection and promotion of human rights will depend on our ability to coordinate at scale. Activism matters. The latest example is from September 2021, when, following years of activism, the U.N. High Commissioner for Human Rights, stated that countries should expressly ban AI applications which do not comply with international human rights law.[75]

We will be facing new questions and challenges in the years to come, and we will need to find answers to such questions together. A key to the sustainability of these efforts is developing a community of people that has hope, solidarity and confidence in our collective capacity to understand and overcome challenges.

There is a long road ahead, and we hope to continue exploring it together. As part of our collective reflection on the future, we invite you to explore the recommendations we sketch in the next chapter, and hope you share your own recommendations with us and the broader community as we continue to navigate through this conversation together.

75 "UN Urges Moratorium on Use of AI That Imperils Human Rights," AP NEWS, September 15, 2021, https://apnews.com/article/technology-business-laws-united-nations-artificial-intelligence-efafd7b1a5bf47afb1376e198842e69d.

RECOMMENDATIONS

For individual trailblazers

To do now

- Sign up to the mailing list of a digital rights organization of your choice.

Short term

- Set up a reading group within your organization (possible materials)
- Engage with the local communities shaping the tech and data discourse in your city (eg. *Hacks & Hackers* and *Meetups*).

Long term

- Promote data literacy and technical intuition within your team.
- Work on developing a cross-disciplinary support network.

For organizational leaders

To do now

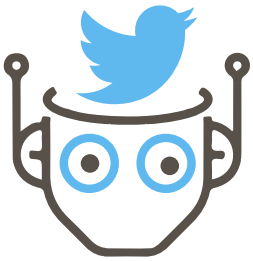
- Identify congressional representatives and staffers who are working on tech issues and request a meeting to discuss their main concerns in the human rights field and ways in which your organization can support their work.

Short term

- Establish a joint discussion group or happy hour with organizations or companies in the tech sector.
- Establish monthly luncheon talks at your organization where you bring in people who observe or study data processes.
- Run an advanced search to see how the digital rights community is discussing issues that are core to your organization (example here or create a web alert).

Long term

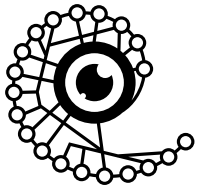
- Identify offices or co-working spaces where staff could mingle or easily interact with employees in tech organizations or companies.
- Identify strategic funders eager to promote joint projects on cutting edge challenges at the intersection of datafication and Human Rights.
- Develop a system to enable staff to develop new skills in data literacy.



What professional tips would you share with practitioners joining the human rights field today?

Share it with us at #HumanRIghts2030

ANNEX



In this annex we include a preliminary set of contacts and materials that might be useful to those working on the impacts of datafication on human rights, or interested in understanding how it might impact on their work! The database includes a curated list of readings, podcasts and training programs readers might want to follow up on. It also includes a list of contacts of thought leaders and places where these issues are being discussed, so that you can contact them directly or follow their work online and over social media.

At the time of publication, our database includes:

- **Readings:** 55
- **Podcasts:** 5
- **Free online trainings:** 9
- **Contacts:** 9

Below are our top picks. But, since the issue is alive, this list should keep growing! If you see something missing, please add it through this form! Datafication resource database

Contacts:

- An interactive database of CSOs working on digital rights
- Hacks & Hackers: A Global community of civic hackers with local chapters
- Tierra Comun: A Latin American community of academics focused on decolonizing data

Readings:

- Alberto Romele, "The Datafication of the Worldview," AI & Society, 2020.
- Gil Rothschild-Elyassi, "The Datafication of Law: How Technology Encodes Carceral Power and Affects Judicial Practice in the United States," Law & Social Inquiry
- Rob Kitchin, "Big Data, New Epistemologies and Paradigm Shifts," Big Data & Society. 2014
- Mozilla Report on Data for empowerment

Podcasts:

- Tech Won't Save Us: Why we need a democratic approach to data, with Salome Viljoen (2021)
- Interpreting India: Applications and Ethics of AI with Chinmayi Arun and Matt Sheehan (2020)

Free Trainings

- Harvard's introduction to computer science, designed especially for lawyers
- MIT's Exploring Fairness in Machine Learning for International Development
- Khan Academy's basic course on statistics

Full database:

https://docs.google.com/spreadsheets/d/1s3z-VXV-jPh9NroxQvIg8B1R-kuI6zBVsiQeSPMWaxG3E/edit#gid=23133994

Is something missing? Add it!

https://docs.google.com/forms/d/1Kff-6HB-d2e-DUu7p-VxkU-YZ0H2cQ3gXZJazxKL-QyUYk/edit

Duck or Rabbit?