



Toward an ethical code of AI and human rights in Morocco

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Abstract

This paper aims to introduce the subject of Artificial Intelligence (AI) interference in the enjoyment of human rights and suggest a first reflection on the framework that should take place at the national level. This paper is mainly a review of the literature on the subject with concrete proposals regarding the supervision of AI in Morocco. Thus, it suggests broad consultations between stakeholders for co-regulation that should lead to an ethical code. This code, with a human rights-based approach, is called to address the subjects based on principles of transparency and trust, equity, safety, human freedom and autonomy, accountability and justice, dignity and integrity, sustainability, solidarity, and inclusiveness.

Keywords— artificial intelligence, human rights, ethics, human rights-based approach, regulation, NHRI.

INTRODUCTION

Technological development has accelerated since the end of World War II. However, for 40 years, with the development of personal computers, the Internet ... technology has occupied an increasingly significant place

in human life. Artificial Intelligence (AI) is now located at the central axis of this technology.

In the literature [1] [2] [3] [4] [5], we can find several definitions of Artificial Intelligence:

- “Systems that mimic cognitive functions generally associated with human attributes such as learning, speech and problem-solving.”
- Systems with the “ability to independently interpret and learn from external data to achieve specific outcomes via flexible adaptation.”
- “An area of study in the field of computer science ... [that] is concerned with the development of computers able to engage in human-



like thought processes such as learning, reasoning, and self-correction”.

- “AI will be such a program which, in an arbitrary world, will cope no worse than a human.”
- “The simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions), and self-correction. Particular applications of AI include expert systems, speech recognition, and machine vision. Examples of AIs include personal helpers (like Siri and Alexa), medical diagnostic aids, and self-driving vehicles”.
- “Artificial Intelligence as a superintelligence as a system surpassing a person’s intellectual abilities.”

We adopt the following definition: Artificial Intelligence is at the same time a field of computer science (with other disciplines: Neurology, Psychology, Engineering, Robotics, Sociology, ...) whose goal is to create a technological equivalent to human intelligence and autonomous and intelligent systems equipped with algorithms capable of reproducing tasks hitherto performed exclusively by humans, or of helping decision-making (or even making decisions) or of self-learning through information (data) made available to them.

AI is now investing in more and more fields and contributing to significant technological and economic advances. These areas are diverse and affect all aspects of human life, including transport: autonomous vehicles, applications linked to means of transport, automatic detection, etc.; Imaging: facial recognition, labeling, classification, archiving, image processing, positioning, etc.; Data processing and decision support: insurance, credits, human resources, etc.; Predictive maintenance & prevention; Conversion of data and documents; Finance; Medical analysis;



Cartography: GIS, BIM, localization; Information and communication.

The proliferation of social networks in the region [6], the question of “living together” in the era of the connected world [7], inclusion, the cultural dimension, the human factor, ... are all of the questions that are urgently raised concerning AI.

AI helps the enjoyment of human rights, of course, but its use is likely to create infringements of fundamental rights and freedoms. Indeed, the National Human Rights Council (CNDH) [8] [9] [10] [11] [12] [13] [14] [15] has raised in its previous reports certain issues in this respect, such as disinformation, biometric data use, and retention, the digitization of courts, the need to create algorithms that stimulate pluralism, etc.

In this paper, an overview of the subject will be made through a review of relevant literature and listing cases of AI interference in the enjoyment of human rights and fundamental freedoms. We will then explain why it is important to move towards some form of regulation in this area in Morocco. Lastly, a suggestion of general

principles to regulate AI with the aim to make it ethical, responsible, and respectful of human rights.

II. *AI & INTERFERENCE IN THE ENJOYMENT OF HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS*

As stated previously, AI could have impacts on human rights. In this paragraph, some results of our monitoring of human rights in the various environments using Artificial Intelligence will be presented, mainly in Morocco, but also at the regional and international levels. The aim is to illustrate these interferences between AI and the enjoyment of human rights. We have chosen to illustrate three axes of interference: disinformation & echo chambers; profiling & discrimination; radicalization, addiction, and conspiracy theories.

A. *DISINFORMATION & ECHO CHAMBERS*

The exploitation of social media platforms' algorithms, often opaque, by groups and individuals leads to more and more frequent cases of human rights and fundamental freedoms violations. In 2018, researchers from the Oxford Internet Institute



(University of Oxford) [16] concluded with an unequivocal statement: “In one year, the number of countries victims of vast campaigns of manipulation organized on social networks exploded from 28 to 48”. The think tank ‘Ecole de Pensée sur la Guerre Economique,’ commenting on a campaign to boycott certain commercial brands in Morocco (started on April 20th, 2018, on the internet), concludes bluntly: “The April boycott is not a spontaneous movement. It was premeditated and used professional means, technically and narratively. It is therefore not the work of isolated individuals and does not reflect a genuine popular enthusiasm: it is a real campaign of information manipulation that has hit Morocco”. In its report [17] on the Al Hoceima protests, the CNDH documented findings regarding the AI algorithms used by social media platforms in disinformation and propaganda.

The use of AI through these methods leads to human rights abuses:

- Impact on freedom of expression insofar as the massive use of disinformation makes this freedom impossible, either by intimidation (expression of a

different opinion) or by obstructing the circulation of expressions.

- Infringement of freedom of opinion by exposing oneself to unfounded information, thus skewing personal analysis (example of massive exposure to conspiratorial theories) and/or by acute polarization around subjects or opinions.
- Obstruction of freedom of assembly and association through the artificial creation of followers, which would lead to unprotected demonstrations.

Note that the United Nations Special Rapporteur on the rights to freedom of peaceful assembly and association, in his 2019 report [18], recommended to digital technology companies:

“Companies should exercise human rights due diligence to identify, prevent, mitigate and address violations of the rights to peaceful assembly and association, including by undertaking human rights impact assessments which incorporate the rights to freedom of peaceful assembly and



of association when developing or modifying their products and services.”

The AI algorithms that social media use are responsible for the personalized and targeted content that each user sees on their personal space (e.g. news feed). Algorithms are also used for classifying sources through a ranking system. The tech industry has concluded that ad revenue is a direct factor for the time the user spends on the platform, also known as attention time. To increase this attention span, algorithms are being developed to analyze data (information) on usage and past interactions to provide specific content that maximizes the time spent on the platform and thus the revenues of the latter. This phenomenon creates what are called filter bubbles or echo chambers, which is a space in which only the content that we are used to consuming is contained. In other words, this situation is similar to the following one: a supermarket manages to offer, for each customer, based on their previous invoices, a route where they will see only the products that they used to buy. The echo chambers affect users in such a way that they believe that the Truth is only in the

content that fits the same beliefs. This phenomenon was also noted in the CNDH thematic report [14] dealing with the protests of Jerada with the “circulation of unreal information and images on social networks” which would have created amongst some protesters an image not at all accurate during the events.

Indeed, the UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, in his 2018 report [19], recommended to digital technology companies:

“Companies should make explicit where and how AI technologies and automated techniques are used on their platforms, services and applications. The use of innovative means to signal to individuals when they are subject to an AI-driven decision-making process, when AI plays a role in displaying or moderating content or when individuals’ personal data may be integrated into a dataset that will be used to inform AI systems is critical to giving users the notice necessary to understand and address the impact of AI systems on their enjoyment of human rights”.



A. PROFILING & DISCRIMINATION

The CNCDH in France, in an opinion [20] in 2018, estimated that “Large IT companies ... indeed have the capacity, thanks to the increasing size and interconnection of data files - big data - and to the development of powerful algorithms, to make scattered information (that we thought was silent) talk, thus revealing, sometimes, the intimacy of an infinite number of people”. A report [21] from the UK parliament goes in the same direction: “The EU Data Protection Regulation provides some safeguards where data processing profiles people according to particular characteristics. It essentially prohibits ‘profiling’ of people according to characteristics which would normally be discriminatory, except for ‘public interest’ or legal requirements”.

Researchers at Stanford University [22] “trained a deep neural network to ‘predict’ the sexual orientation of their ‘subjects,’ without obtaining their consent, using a set of images collected from dating websites.” Research has demonstrated, beyond various methodological shortcomings, how disrespecting privacy rights increases the

risks of algorithmic surveillance, where data collected and analyzed threatens to reveal personal information (whether true or false is not the question) about users. The Council of Europe has revealed [23], for instance, that “In the Netherlands, the Supreme Court has questioned the discriminatory nature of a national police program (known as the “Moelander” project) allowing the police officers to target cars with Eastern European plates when performing road checks.” “The Council of Europe believes that while the use of machine-learning algorithms to support police work is still in the experimental stage, governments should put in place a clear set of rules and regulations regarding the trial and subsequent application of any algorithmic tool designed to support police work.” “This should include a defined trial period, human rights impact assessments by an independent authority, and enhanced transparency and disclosure obligations, combined with robust data protection legislation that addresses artificial intelligence-related concerns. Machine-learning systems should benefit from a pre-certification of conformity, issued by



independent competent authorities, able to demonstrate that measures were taken to prevent human rights violations at all stages of their lifecycle, from planning and design to verification and validation, deployment, operation and end of life”, adds the COE report.

In this regard, the recommendation [24] of the UN Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity is relevant: “Cooperation with a multiplicity of actors, including community leaders (such as political and religious leaders) and those in the medical and scientific professions, the business sector and the media (e.g. social networks) should be fostered in order to protect against violence and discrimination on the basis of sexual orientation and gender identity, with that protection underscored by international human rights law.” Furthermore, the United Nations High Commissioner for Human Rights recommended [25] that “business enterprises: ... (c) Also carry out human rights due diligence to identify, prevent, mitigate and account for any adverse human rights impacts of the use of facial

recognition technology before deploying and throughout the entire life cycle of facial recognition tools”.

B. RADICALIZATION, ADDICTION AND CONSPIRACY THEORIES

Beginning December 2020, the Moroccan press echoed a crime committed by a teenager addicted to online video games, on his mother, who would not accept his request for internet recharge to continue his game. This tragic event is unfortunately not isolated. The press reports daily extreme examples of video game addiction, such as a Filipino teenager addicted to video games is fed by his mother while he plays: he no longer even takes breaks to go to restrooms, or how some photo-based social media might influence teenagers, even pushing some to suicide.

Conspiracy content is in full swing during the Covid-19 era. “We’re not just fighting an epidemic; we’re fighting an infodemic,” the WHO director-general warned [26] in February 2020. Several experts also suspect that the algorithms used by social networks promote the spread of radicalizations and conspiracy theories. InfluenceMap [27] estimates that since the Paris Climate



Agreement, more than 70 million people have accessed content on Facebook that includes disinformation about climate science. The think tank discovered 51 different announcements of climate-skeptical content on Facebook. Of these ads, only one has been removed by the platform, whilst all 8 million users in the United States have viewed these ads! Similarly, according to a Bloomberg [28] study, “Youtube would not only have turned a blind eye, but helped conspiratorial content to proliferate, not hesitating to put it forward to generate ever more engagement.” The press reported [29] the 26-year-old’s experience “of being radicalized by what he calls a “decentralized cult” of far-right YouTube personalities, who convinced him that Western civilization was under threat from Muslim immigrants and cultural Marxists, that innate IQ differences explained racial disparities, and that feminism was a dangerous ideology.”

In an opinion piece on the United Nations website [30], Jamaica’s permanent representative to the UN wrote: “It is particularly important that people

understand the role of the AI systems with which they will interact, and that there are ethical considerations and expectations surrounding the use of such systems. They must be alert to the possibility of media manipulation and signs of the penetration of social media by terrorist or criminal networks. Consumers of digital content must also be able to identify and respond to risks such as cyberbullying, revenge porn, internet addiction, and other problematic internet use”. Moreover, the “Rabat Plan of Action on the prohibition of advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence” [31], by the OHCHR, recommended to stakeholders: “self-regulation, where effective, remains the most appropriate way to address professional issues relating to the media. In line with principle 9 of the Camden Principles, all media should, as a moral and social responsibility and through self-regulation, play a role in combating discrimination and promoting intercultural understanding”. UNESCO, in its report “youth and violent extremism on social media” [32], also recommended to “Evolve social media Terms of Service in a



consultative manner so as to ensure a legal and proportionate basis for action, especially in relation to governments or other third party pressures for tracking, disclosing or sharing information about young users, and for removal of content aimed at inciting radicalization towards violent extremism.”

III. AI, ETHICS AND HUMAN RIGHTS OVERVIEW AND LITERATURE REVIEW

In recent years, several UN organizations, NHRIs, international organizations ... have looked into the issue of AI and Human Rights. We will present here some initiatives and projects likely to provide an interesting benchmark for Morocco. The author of the reference work “Artificial intelligence on trial: advocacy for international and European regulation” [33], has listed more than 126 initiatives on ethical guidelines in AI. However, experts [34] in the field note that the majority of these initiatives come from more economically developed countries (23.8% in the United States of America, 16.7% in the United Kingdom).

In the Joint Statement of the Founding Members of the Global Partnership on

Artificial Intelligence, the founders [35] committed “to supporting the responsible development and human-centered use of artificial intelligence (AI), with respect for human rights, fundamental freedoms, and our common democratic values, in compliance with the OECD Recommendation on AI.” The International Telecommunications Union (ITU) organized the fourth edition of the AI for Good Global Summit in 2020. The ITU Secretary-General said: “The AI for Good Global Summit is the leading United Nations platform for inclusive dialogue on AI. The summit identifies practical applications of AI to accelerate progress towards the SDGs and builds collaboration to assist these applications in achieving global impact” [36]. In its document “Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems,” the Institute of Electrical and Electronics Engineers (IEEE) wishes to formulate high-level ethical concerns that apply to all types of Autonomous and Intelligent Systems (A/IS), regardless of whether they are physical robots (such as healthcare robots or driverless cars) or software systems



(such as medical diagnostic systems, intelligent personal assistants or algorithmic chatbots). The initiators were motivated “by a desire to create ethical principles for A/IS that:

1. Embody the highest ideals of human beneficence as a superset of Human Rights.
2. Prioritize benefits to humanity and the natural environment from the use of A/IS. Note that these should not be at odds — one depends on the other. Prioritizing human well-being does not mean degrading the environment.
3. Mitigate risks and negative impacts, including misuse, as A/IS evolve as socio-technical systems. In particular, by ensuring A/IS are accountable and transparent”.

The UNESCO’s COMEST, World Commission on the Ethics of Scientific Knowledge and Technology (an advisory body and forum of reflection set up by UNESCO in 1998), launched in 2019 a “preliminary study on the ethics of artificial intelligence” [37], which suggests, for a normative instrument, the following principles:

- “a. Human rights: AI should be developed and implemented in accordance with international human rights standards.
- b. Inclusiveness: AI should be inclusive, aiming to avoid bias and allowing for diversity, and avoiding a new digital divide.
- c. Flourishing: AI should be developed to enhance the quality of life.
- d. Autonomy: AI should respect human autonomy by requiring human control at all times.
- e. Explainability: AI should be explainable, able to provide insight into its functioning.
- f. Transparency: The data used to train AI systems should be transparent.
- g. Awareness and literacy: Algorithm awareness and a basic understanding of the workings of AI are needed to empower citizens.
- h. Responsibility: Developers and companies should take into consideration ethics when developing autonomous intelligent system.



i. Accountability: Arrangements should be developed that will make it possible to attribute accountability for AI-driven decisions and the behaviour of AI systems.

j. Democracy: AI should be developed, implemented and used in line with democratic principles.

k. Good governance: Governments should provide regular reports about their use of AI in policing, intelligence, and security”.

Thus, several initiatives at regional and international levels are underway to establish codes for AI. Certainly, experts [34] note that the majority of initiatives have come from a few countries, especially Western ones. They also note the “deadlock” for certain initiatives, particularly on the issue of cultural diversity, and deplore the imposition of “a Western vision onto the rest of the world.” But the approach of international and regional institutions (UN, UNESCO, ITU, OECD, etc.), combined with the involvement of more and more countries, in addition to the adoption of the human rights approach, will be very useful in bringing together a universal ethical framework in

AI. In this sense, experts [38] note that African and South American countries are not present in terms of initiatives outside of international organizations. These experts, having analyzed more than 84 documents on the subject, find that the majority lean towards guidelines for AI codes of ethics.

IV. TOWARDS WHAT TYPE OF REGULATION IN MOROCCO?

The OECD recommended in 2020 [39] “that Members and non-Members adhering to this Recommendation promote and implement the following principles for responsible stewardship of trustworthy AI, which are relevant to all stakeholders.” Progressively more countries and international organizations are launching initiatives to set up guidelines, ethical codes, regulations ... in the field of AI. Morocco has more than 27 million Internet users or 75% of its population [40]. The rate of equipment in technological tools continues to increase. Public administrations are increasingly using electronic government (e-gov) services and are increasingly using AI in the services provided to citizens. As seen in the examples of paragraph II above, multiple interferences are recorded apropos human



rights in environments using AI. The outlook for the next few years portends a significant increase in AI: 5G, increasing use of algorithms in online public services (examples of services in the Covid-19 period), Morocco's new development model would focus on consolidating technological added value, etc.

In this respect, it is important to supervise the use (design, use, development, R&D, etc.) of AI by rules and processes aimed at moderating individual and organizational behavior, to achieve the objectives of respect for human rights. This framework can generally be broken down into three types:

Self-regulation: When the field's stakeholders organize themselves to establish codes, standards or guidelines to be complied with voluntarily to address the issues raised within this field.

Co-regulation: When stakeholders and government work together to establish strategies and codes to be respected in the field.

Legal regulations: When legal or regulatory texts make it compulsory to comply with the rules and/or installations of monitoring and/or control institutions. For example, the Australian Human Rights Commission (Australian NHRI) proposes [41] the "creation of a new AI Safety Commissioner to give Australia expert leadership on AI." The proposed AI Safety Commissioner could address three critical factors: Expertise, Trust and Economic opportunity, explains the commission. The European Network of National Human Rights Institutions (ENNHRI) has another point of view that it proposed to the European Commission in a white paper [42]: "Many AI initiatives are guided by ethical frameworks, which typically are voluntary. A fundamental rights-centered approach to AI is underpinned by legal regulation, where the responsibility for protecting rights rests with the state".

In the Moroccan context, we propose co-regulation. Stakeholders (especially technology companies, universities and associations), along with the government, are called upon to launch a broad consultation on an ethical code for AI.



V. GENERAL PRINCIPLES TO GOVERN RESPONSIBLE, ETHICAL AND HUMAN RIGHTS-RESPECTING AI

Researchers, in a systematic review [38], dressed the most relevant principles for a responsible & ethical AI:

Ethical principles	Occurrence	Themes
Transparency	86,90%	Transparency, explainability, understandability, interpretability, communication, disclosure, demonstration
Justice and equity	80,95%	Justice, equity, coherence, inclusion, equality, equity, (non-) prejudice, (non-) discrimination, diversity, plurality, accessibility, reversibility, remedy, redress,

		challenge, access and distribution
Non Maleficence	71,43%	Non-maleficence, security, safety, damage, protection, precaution, prevention, integrity (bodily or mental), non-subversion
Responsibility	71,43%	Responsibility, accountability, compliance, act with integrity
Privacy	55,95%	Confidentiality, personal or private data
Beneficence	48,81%	Benefits, beneficence, well-being, peace, social good, common good



Freedom and autonomy	40,48%	Freedom, autonomy, consent, choice, self-determination, liberty, empowerment
Trust	33,33%	Trust
Sustainability	16,67%	Sustainability, environment (nature), energy, resources (energy)
Dignity	15,48%	Dignity
Solidarity	7,14%	Solidarity, social security, cohesion

Table 1: Occurrence of ethical principles in AI guidelines (source [38]).

For reasons of literature review synthesis, we suggest that the proposed consultations in the previous paragraph focus on the following principles:

- Transparency & Trust.
- Equity.

- Safety.
- Human freedom & autonomy.
- Accountability & justice.
- Dignity & integrity.
- Sustainability.
- Solidarity & inclusiveness.

VI. CONCLUSION

In this paper, we have outlined human rights issues in relation to AI. We have exposed some issues relating to the national and international level, as we have mentioned the initiatives launched to supervise the use of AI in order to respect human rights. We have proposed an approach based on human rights to set up co-regulation in this area in Morocco. It should focus on the following principles: Transparency & Trust; Equity; Safety; Human freedom & autonomy; Accountability & justice; Dignity & integrity; Sustainability; Solidarity & inclusiveness.

This paper aimed to introduce the subject of AI interference in the enjoyment of human rights and the proposal for a first reflection



on the framework that should materialize at the national level. This paper opens the door to specific research, particularly pertaining to the human rights-based approach to AI supervision, the type of regulatory frameworks, the choice of fundamental principles in supervision, etc.

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