

Artificial Intelligence and the role of civic actors – the case of Moldova

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Introduction

Algorithmic systems, more popularly labelled as „Artificial Intelligence” (AI), are soon to invade every aspect of our life: healthcare, banking and law enforcement systems, social media platforms, and even the core of our being – our human rights and fundamental freedoms.

Despite being relevant globally, the conversations about the good and bad of AI are not yet under scrutiny in Moldova. In the plethora of national strategies dedicated on economy, health care and IT sector development, artificial intelligence has a single hit mention, yet no assessment. It is also fair to say that there is a wide gap from both the state and civil society actors to understand the magnitude of such systems and their potential impact.

This primer policy document wants to shed light into the topic of AI, bringing in bits of clarity on what it exactly entails. More importantly, we seek to find guidance to the question: as civic actors from Moldova, what we should expect in the future from this technology in our line of work?. In this pursuit, we will store some of the basic concepts about the automated systems and their characteristics and locate the stakeholders at the international and regional level already working to shape regulations standards and safeguards around AI. Finally yet importantly, we will map out the potential stakeholders from Moldova entitled to design a vision for Moldova in this field and further research AI implications.

This primer was developed initially as a compilation of notes following desk research and a dedicated workshop on digital technologies and policies that impact Civic Space co-organized by LRCM and ECNL¹ in March 2021 with the support of the International Center for Not-for-Profit Law (ICNL). Many of the cited sources were consulted following the workshop presentations prepared and delivered by the following experts: Marlena Wisniak, Senior Advisor, Artificial Intelligence and Human Rights at ECNL, Francesca FANUCCI, Senior legal advisor, ECNL and Veronica CRETU, Director of Strategy and Partnerships, Global Data Barometer,

¹ European Center for not-for-profit Law (ECNL) www.ecnl.org.

member Participant of CoE Ad Hoc Committee on Artificial Intelligence (CAHAI).

The interest for the topic of AI and impact of digital technology on the work of civic space defenders was irreversibly „implanted” at the first edition of the Tech Camp for Civic Space Defenders organized by Stanford’s Global Digital Policy Incubator (GDPi) and ICNL, which the author attended in February 2020.

What is Artificial Intelligence?

In order to start discussing Artificial Intelligence (AI), it is necessary first to understand the basics of the term. With this comes a challenging task. Even at such institutions as the Council of Europe, the task to define what AI is “uneasy to build and share”.²

In an effort to put it at most simple words, AI labels any kind of automated system, designed to smooth out a decision-making process or give insight on the data it was fed. The AI Now Institute,³ an Interdisciplinary Research Centre dedicated to understanding the social implications of AI, provides a more comprehensive definition⁴:

[...] „a system that uses automated reasoning to aid or replace a decision-making process that would otherwise be performed by humans. Oftentimes an automated decision system refers to a particular piece of software: an example would be a computer program that takes as its input the school choice preferences of students and outputs school placements. All automated decision systems are designed by humans and involve some degree of human involvement in their operation. Humans are ultimately responsible for how a system receives its inputs (e.g. who collects the data that feeds into a system), how the system is used, and how a system’s outputs are interpreted and acted on”

Source: AI NOW: „Algorithmic Accountability Policy Toolkit” (October 2018)

If after reading this definition, a feeling of vagueness still stays with the reader, let us assure you that this is most common. Yet for the purpose of this document, some elements from the definition may clear things out.

² Council of Europe, “What is artificial Intelligence”, <https://www.coe.int/en/web/artificial-intelligence/what-is-ai> [All Hyperlinks last accessed on 25 May 2021].

³ AI NOW Institute, „Algorithmic Accountability Policy Toolkit” (2018), available at: <https://ainowinstitute.org/aap-toolkit.pdf>.

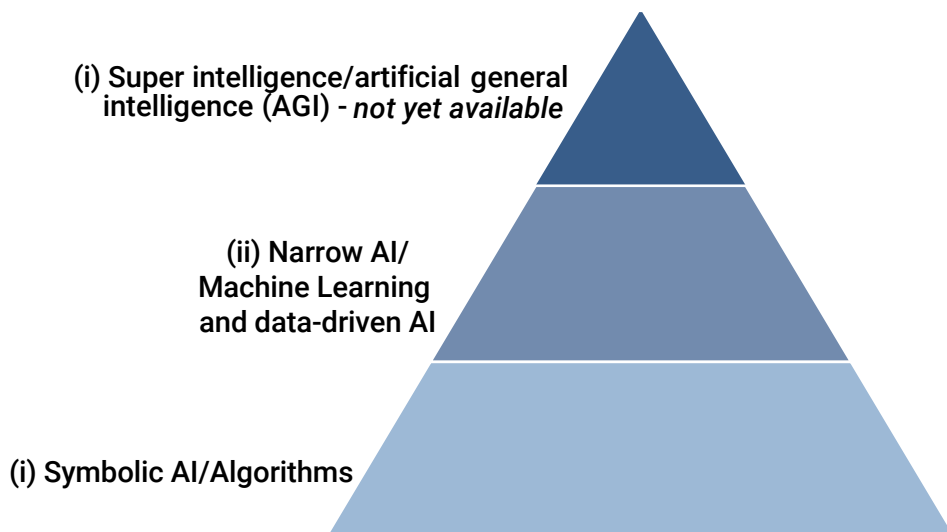
⁴ The definition is chosen at our preference from a myriad of others, yet is not intended to be presented as being exhaustive or exclusive rated as the most accurate.

Automated reasoning System	Designed by humans (usually a software)	Aid or replace decision making process otherwise performed by humans	Involve some degree of human involvement in their operation	Humans ultimately responsible for how a system receives its inputs
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The occurring elements from the definition point to the fact that the automated system can do little on its own without the human intervention that either designs it or directs it. This is the first yet most important myth that needs to be debunked when discussing AI, at least for the year 2021. **A system of superintelligence that can replace human decision-making at all (see below the AGI section) is not yet achievable.** Moreover, there are commentators that state chances of it invented soon are very slim.⁵

Today we can distinguish mainly three kinds of automated systems with different capacity:⁶

Types of automated systems



⁵ IBM Corporation, "Strong AI" (2020): <https://www.ibm.com/cloud/learn/strong-ai>.

⁶ ECNL/Marlena Wisniak, Presentation "A primer on artificial intelligence for CSOs (2021).

In case of the **Symbolic AI** – things stay simple. The symbolic AI can be attributed to any algorithmic system with simple pace of choices (If/Then Yes/No). The algorithm encodes knowledge into a set of rules that can be executed by a computer. After running the algorithm, the formula “spills out” an output.

	Example	Algorithm built (example)	Level of autonomy
Symbolic AI	The “tag” function on Facebook, where the system automatically detects a human face in a photograph	If the picture has certain patterns: face, eyes, years, mouth, hair, etc. then most likely there is a human on the picture	None, everything designed and controlled by humans

With the second type of AI, also known as **Narrow AI or Machine learning and data-driven AI**, things get a little bit trickier. Machine learning is an approach to AI that relies on training algorithms on large datasets so that they develop their own rules or discover new patterns, previously unspotted by humans.

	Example	Algorithm built (example)	Level of autonomy
Machine Learning and data-driven AI	Recommendations on YouTube or Netflix of videos/movies one might like to see based on what you other users with similar preferences have watched.	If users likes to watch comedy sit-coms, the system learns to feed new recommendations. Additionally to symbolic AI, the algorithms learn other patterns from other users that previously watched similar sit-coms, these can include known or unknown features (those who watch comedy sit-coms, perhaps	Some degree autonomy, however, the “learning process” is curated by humans

	Example	Algorithm built (example)	Level of autonomy
		like as well superheroes movies). The system is fed with this information and replicated further to provide better-tuned recommendations the next time	

Other narrow AI systems “examples”⁷

Chatbots (Facebook messenger chat bot)	Voice assistance on mobile devices (Siri, Alexa, Bixbi, etc.)	Online translation tools (Google translate)
Self-driving car technology (Tesla)	Search engine results (google search/ Yandex/Bing)	Mapping services (Google maps)

Super intelligence/artificial general intelligence (AGI) – the “pure AI” is the fully independent super intelligence mimicking human intelligence evolving on its own, even without human intervention. In other words, AGI labels the ability of a machine to perform any task that a human can.

	Example	Algorithm	Level of autonomy
Super intelligence/ artificial general intelligence	Does not exist...yet!	Unknown	Fully autonomous

⁷ United Nations (ref. A73/348) “Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression” (2018), available at: <https://undocs.org/pdf?symbol=en/A/73/348>.

Experts state that there is not enough science and computational power put together so we can discuss AGI, at least not in our century, while more optimistic voices state that deploying AGI by 2060 will be possible.⁸ Regardless of what prospects AGI has, there are states like the US, China, United Kingdom, Switzerland, Sweden, among others, and at least 40 big corporations like Alibaba, Amazon, Apple, Intel, are currently actively researching AGI.⁹

To conclude on this section, there are various types and forms of automated systems labelled as AI, with different capacity and degree of autonomy. It generally means a combination of processes and technologies enabling computers to do specific tasks, such as making decisions or solving problems, otherwise resolved by humans. In this regard, experts mention that AI is more like a “container term¹⁰” or “constellation term¹¹” to define algorithm driven technologies and systems with different level of sophistication.

⁸ Alamira Jouman Hajjar “Will AI reach singularity by 2060? 995 experts’ opinions on AGI” (2021), available at: <https://research.aimultiple.com/artificial-general-intelligence-singularity-timing/>.

⁹ Global Catastrophic Risk Institute “A Survey of Artificial General Intelligence Projects for Ethics, Risk, and Policy” (2017), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3070741.

¹⁰ ECNL/Francesca Fanucci, Presentation “AI - Regulatory Developments in Europe” (2021).

¹¹ United Nations (ref. A73/348) “Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression” (2018), available at: <https://undocs.org/pdf?symbol=en/A/73/348>.

How can AI can affect human rights

The use of automated systems labelled as artificial intelligence can bring many beneficial outcomes: combatting crime, mitigating climate change, more accurate healthcare care and even a better global pandemic response.¹²

The use of AI is already a norm in various sectors. In the last decade, car manufactures invested huge amounts of resources to improve autopilot systems that not only help improve driving but also prevent accidents.¹³ The same goes for the medical field. Automated systems already assist medical staff in the process of diagnosis.

Use of AI in the medical field

A software puts together thousands of ultrasound scans to detect common elements of a particular disease. Some common patterns discovered by the software from all the ultrasound scans were previously untraced by the doctors. These new patterns might give new insight to doctors to put a particular diagnosis more speedily next time.

Other examples of “good benefits” of AI¹⁴

¹² ITU Magazine, “AI for Good Global Impact” (2020), available at: https://www.itu.int/en/itu/news/Documents/2020/2020-02/2020_ITUNews02-en.pdf; see also: Recommendation CM/Rec(2020) of the Committee of Ministers to member States on the human rights impacts of algorithmic systems (2020), available at: https://search.coe.int/cm/pages/result_details.aspx?objctid=09000016809e1154

¹³ Nadine Cranenburgh “How data analysis and AI could help engineers make our roads safer” (2019), available at: <https://createdigital.org.au/engineers-investigating-video-analysis-ai-prevent-road-deaths/>.

¹⁴ Veronica Cretu, Presentation, „Artificial Intelligence - Where [Moldova] stands in terms of AI initiatives/National strategy, sharing experience and relevant statistics (AI Readiness Index)” (2021).

Domain	How?
Agriculture	Helping farmers better monitor their crops by using robots for precision farming
Education	Using speech technology to speed up learning processes (learning a foreign language)
Security	Anticipating cyber attacks

On the other hand, the use of automated systems can have negative consequences. Often in the media, such technologies are portrayed as entirely independent and distinct from humans. This is not quite true. As we have seen from the expanded definition of AI provided above, algorithms are human creations, so they are embedded with errors and bias like human processes.¹⁵

Every algorithm used by any type of agency, including how they are formulated and what data they rely on, can lead to harmful results for the people and communities most affected. A particular example helping us to illustrate how bias is formed on how a person can find work in the future.

Example	<p>Company A located in the city centre wants to hire new employees. To find the best suited-candidates, company A hires Company B, a specialized HR company. Company B states that it has Artificial Intelligence systems deployed to analyse thousands of CVs at time to find the best-suited candidates, including those who will less likely be late at their job, based on a fancy AI algorithm.</p>
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¹⁵ AI NOW Institute, „Algorithmic Accountability Policy Toolkit“ (2018), available at: <https://ainowinstitute.org/aap-toolkit.pdf>, p. 1.

Problem

In fact, the AI algorithm used by company B uses certain criteria to predict whether a person is more likely to be late at his job. Among such criteria, the system makes assessments on (i) how long candidates will have to commute to work based on the home address they have indicated on the CV, or/and whether (ii) they have a valid car licence. The automated system is designed to spot the candidate's home address, calculate the route he/she will have to make daily to arrive at work at time. Then the automated system makes a prediction that if a person's lives far away from the potential job (probably outside the city), and does not have a car licence, (most likely does not own a car), it is more likely that he/she will more often be late because he/she will use public transportation. The system further eliminates automatically candidates that live too far from the place of work and do not have a valid driver's licence.

Potential harm

Instead of looking into the skills and professional qualities of the candidates required to perform well on the job, the algorithm (and the engineers of the company B that designed the system) make bias suppositions, automatically rejecting candidates that live more far away for the city centre and do not have a driving licence. This ends up in discrimination, in particular of vulnerable groups of people, who most likely live outside the city or in areas not so close to the city centre and those with low income that do not have a car and use public transportation.

Applied at large scale and for long term, application of such hiring policies can lead to reinforced bias and discrimination, putting people who are already vulnerable, in a more difficult situation to find work.

Other examples of intersection of human rights and AI¹⁶

¹⁶ United Nations (ref. A73/348) "Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression" (2018), available at: [https://undocs.org/pdf/symbol=en/A/73/348](https://undocs.org/pdf/symbol/en/A/73/348), p. 13.

Automatic content regulation on social media platforms	Algorithm not capable of evaluating cultural context, detecting irony or conducting critical analysis of a text or post	Freedom of expression (the right to impart and receive ideas)
Automatic collection, storage and analysis of data	Algorithm collecting various type of data that the users have not given consent to provide, including sensitive information (sexual orientation, family relationship, religious views, health condition or political affiliations)	Right to privacy/private life
Automatic newsfeed / or sponsored content	Algorithm collects data on users views, attitudes and opinions on a particular topic, feeds back similar content, reinforcing bias and discriminatory attitudes	Non-discrimination and equality

The situations and level of sophistication of the use of automated systems can be different. However, no matter what industry, one thing stays the same - If the system is fed wrong and bias data, the system will be bias. It might affect a variety of social relations and reinforce discrimination, promote inequality and limit with the same intensity civil, political, social, economic and cultural rights. The following industries are already using or/subject to use algorithm based automated systems in the nearest future:

Sector/Domain	Use of the automated system for	Potential Human Rights implications
Banking	whether a person will be offered credit from a bank	Discrimination, right to adequate standard of living

Social benefits	whether a person is eligible to receive benefits or child welfare	Discrimination, right to social security
Education	whether a person will be admitted to a school or university	Discrimination, Right to free education, among others
Immigration and travel	whether a person will be admitted to cross a country border or be issued a visa	Discrimination, Liberty of movement,
Criminal justice	Whether a person will be detained by the police or arrested based on a risk score	Discrimination, Access to justice, Fair trial rights
Social media	Organizing what a user's see in their wall and when they see it; whether a person's comment will be restricted or deleted after being labelled as „inappropriate”	Manipulative/misleading content, freedom of expression

Global and regional policy development around AI

Despite being already in use in various sectors of economy, by private companies and even states, automated systems or AI systems are still considered a „grey area”, without proper regulation. However, it is unlikely that it will stay this way for a long time. There are global and regional efforts to regulate AI, whether these are soft law mechanisms, good practice standards or even draft binding treaties. In this section, we will locate the stakeholders at the international and regional level already working to shape such standards and safeguards.

United Nations

In 2018, the UN Secretary-General office issued the Strategy on New Technologies.¹⁷ The goal of this strategy is to define how the United Nations system will support the use of information technologies (including artificial intelligence) to accelerate the achievement of the 2030 Sustainable Development Agenda¹⁸ and to facilitate their alignment with the values enshrined in the UN Charter, the Universal Declaration of Human Rights, and the norms and standards of international law.

The UN also has a system-wide strategic approach and road map for supporting capacity development on artificial intelligence.¹⁹ The document offers a series of

¹⁷ United Nations, „UN Secretary-general's Strategy on New Technologies” (2018), available at: <https://www.un.org/en/newtechnologies/images/pdf/SGs-Strategy-on-New-Technologies.pdf>.

¹⁸ United Nations „Sustainable development agenda 2030”, (2015) available at: <https://www.un.org/sustainabledevelopment/development-agenda/>.

¹⁹ United Nations (ref. CEB/2019/1/Add.3), „United Nations system-wide strategic approach and road map for supporting capacity development on artificial intelligence” (2020), available at: https://un-sceb.org/sites/default/files/2020-09/CEB_2019_1_Add-3-EN_0.pdf.

concrete steps for building capacity to best harness the benefits of artificial intelligence technologies and mitigate their risks.

Asides strategies, the UN system has a specialized agency for information and communication technologies (ICTs), called the International Telecommunication Union (ITU).²⁰ Among other priorities, the ITU included the AI portfolio under its scope of work. The ITU provides a platform for governments, industries and academia to build a common understanding of the capabilities of emerging AI technologies. This effort is shared with other at least 37 UN agencies and bodies. A Global Summit called „AI for Good” is held on annual basis to identify practical applications of AI to accelerate progress towards meeting the United Nations Sustainable Development Goals.²¹

In 2019, under the AI for Good platform, the ITU published a Compendium called „UN activities on artificial intelligence”.²² The document outlines various sectors AI is being used or research to fight hunger, ensure food security, and mitigate climate change, among other topics. The document also provides insights into the challenges associated with the deployment of AI systems, including addressing ethical and human rights implications.²³

Besides the ITU and other UN specialized agencies, the subject of AI systems is addressed through the mechanism of UN special procedures. In 2018, the UN Special Rapporteur on the promotion and protection of freedom of opinion and expression issued a report on Artificial Intelligence technologies and implications for freedom of expression and the information environment.²⁴ The report sets up recommendations for both the state and the private sector on the use, procurement and deployment of intelligence systems. Among other recommendations, the Special Rapporteur calls on the states to ensure that human rights are central to private sector design, deployment and implementation of artificial intelligence systems.²⁵

²⁰ International Telecommunication Union (ITU): <https://www.itu.int/en/ITU-T/AI/Pages/default.aspx>.

²¹ ITU, AI for Good landing page (2021): <https://aiforgood.itu.int/>.

²² ITU, „United Nations Activities on Artificial Intelligence (AI)” (2018): available at: https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2018-1-PDF-E.pdf.

²³ *Ibidem*.

²⁴ United Nations (ref. A/73/348) „Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression”(2018), available at: <https://undocs.org/pdf?symbol=en/A/73/348>.

²⁵ *Ibidem*, recommendations section.

Council of Europe

One of the most notable efforts at the Council of Europe in shaping discussions around AI is the creation in 2019 of the **Inter-governmental Ad Hoc Committee on Artificial Intelligence (CAHAI)**. CAHAI consists of all 47 Council of Europe member states, plus five observer states (United States, Canada, Japan, Mexico, the Holy See (Vatican) and Israel), other Council of Europe bodies (Council of Youth, International Conference of INGOs), international organisations (UNESCO, European Union, etc.) private sector and observers (including non-governmental organisations).

The mission of CAHAI is to draft potential elements of a regulatory framework of development, design and application of AI, based on the Council of Europe standards on human rights, democracy and rule of law. CAHAI operates in working groups and multi-stakeholders consultations. The mandate of these working groups varies, focusing on drafting policy responses to accountability, responsibility and transparency of automatic systems.

CAHAI is rather an instrument that aims to help the countries from the CoE with recommendations, content of possible binding and non-binding regulation. It is not yet known if the work of CAHAI will result in the development of a binding instrument that will regulate the application of AI at the level of the CoE. However, it is quite possible that the negotiations will go towards designing a new Convention on Artificial Intelligence.²⁶

In complementing the efforts of CAHAI, the Committee of Ministers at the level of the Council of Europe issued a **Recommendation to the member States on the human rights impacts of algorithmic systems**.²⁷ The Recommendation highlights the obligation of members states to establish effective and predictable legislative, regulatory and supervisory frameworks that prevent, detect, prohibit and remedy human rights violations, whether stemming from public or private actors and whether affecting relations between businesses, between businesses and consumers or between businesses and other affected individuals and groups. The Recommendation provides, among others, that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms.²⁸

As a member of the Council of Europe and CAHAI, Moldova undertook a com-

²⁶ ECNL/Francesca FANUCCI, Presentation “AI - Regulatory Developments in Europe” (2021).

²⁷ Council of Europe/Committee of Ministers, “Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems” (2020), available at: https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154.

²⁸ *Ibidem*, appendix.

mitment to ensure effective and predictable legislative, regulatory and supervisory frameworks that prevent, detect, prohibit and remedy human rights violations when deploying algorithmic systems.

Organisation for Economic Co-operation and Development (OECD)

In 2019, the Organisation for Economic Co-operation and Development (OECD) approved the OECD Council Recommendation on Artificial Intelligence²⁹ and the OECD AI Principles³⁰. These documents set standards for AI that are „practical and flexible enough” to stand the test of time in a rapidly evolving field.³¹ These principles suggest, among others, that AI systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity. Moreover, they should include appropriate safeguards – for example, enabling human intervention where necessary – to ensure a fair and just society.

As a follow up step, in June 2019, the countries from the G20³² adopted human-centred AI Principles that draw from the OECD AI Principles. By May 2021, more than 40 countries signed the OECD principles on AI.³³ The OECD principles on AI prescribe recommendations to governments to facilitate public and private investment in research & development, foster accessible AI ecosystems, ensure a policy environment that will open the way to deployment of trustworthy AI is to empower people with the skills for AI and co-operate across borders and sectors to progress on responsible stewardship of trustworthy AI.

²⁹ OECD, “Recommendation of the Council on Artificial Intelligence” (2019), available at: <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>.

³⁰ OECD, “AI principles” (2019), available at: <https://www.oecd.org/going-digital/ai/principles/>.

³¹ OECD, “Recommendation of the Council on Artificial Intelligence” (2019), available at: <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>.

³² G20 is the international forum that brings together the world’s major economies: <https://www.g20.org/>

³³ *Ibidem* OECD “AI principles”.

European Union

The EU is perhaps the most advanced body to move towards having a binding legal framework on the regulation of Artificial Intelligence. The EU has set a Coordinated Plan on Artificial Intelligence in 2018 (revised in 2021)³⁴ and various task force and expert groups mandated to analyse different aspects of AI deployment. As a co-result of such efforts, in April 2021, the European Commission published the first legal framework proposal on AI.³⁵ The draft, currently called the „Artificial Intelligence Act”, was preceded by a White Paper on AI and numerous efforts and stakeholders consultations by the European Council and European Parliament on various aspects of AI, which ended up in resolutions on subjects like AI and ethics, liability, copyright, criminal matters, education, culture and the audio-visual sector.³⁶

The Artificial Intelligence Act has several chapters dedicated to defining AI, establishing aspects of AI in need of regulation, listing prohibited AI practices like systems that manipulate persons through subliminal techniques beyond people’s consciousness or those that apply *social scoring techniques*³⁷.

Social scoring?



The basic idea behind social scoring is a system that evaluates or classifies the trustworthiness of persons based on their social behaviour in multiple contexts or known or predicted personal or personality characteristics.

The Government or a private entity assigns this score, and further can make deductions for bad behaviour like traffic violations, or playing your music too loud or adding points for good behaviour such as donating to charity. The score becomes the entire basis for a person’s societal standing. Having a „bad score” could mean that you could lose certain rights. It is speculated that such systems already apply in China.³⁸

³⁴ European Commission, “Coordinated Plan on Artificial Intelligence 2021 Review” (2021), available at: <https://digital-strategy.ec.europa.eu/en/library/coordinated-plan-artificial-intelligence-2021-review>.

³⁵ European Commission, Proposal for a “Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain union legislative acts (2021), available at: <https://eur-lex.europa.eu/legal-content/EN/TX/?qid=1623335154975&uri=CELEX%3A52021PC0206>.

³⁶ European Commission, “White Paper on Artificial Intelligence - A European approach to excellence and trust” COM(2020) 65 final, (2020), available at: https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf.

³⁷ European Commission, Proposal for a “Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain union legislative acts (2021), available at: <https://eur-lex.europa.eu/legal-content/EN/TX/?qid=1623335154975&uri=CELEX%3A52021PC0206>

³⁸ Wired Magazine/Kevin Hong “The complicated truth about China’s social credit system” (2019), available at: <https://www.wired.co.uk/article/china-social-credit-system-explained>.



The closest example we can find today to social scoring in Moldova is evaluation and rating of the Taxi drivers (for instance Yandex Taxi app.). When the ride is over, clients can rate the driver and leave a comment and an evaluation of his/her experience. The rating affects whether the driver will be able to get future orders in the service. The same system is applied for the clients. Taxi drivers score the clients based on their own assessment. The rating affects whether client will be able next time to get service.

The information assigned on both, especially if inaccurate or misleading can lead to potential harm for both the Taxi drivers and the users.

Another important aspect of the act law is categorisation of different automated systems based on their risk of deployment, such as ((i) an unacceptable risk, (ii) a high risk, and (iii) low or minimal risk. The act further provides for the establishing an European Artificial Intelligence Board, composed of representatives from the Member States and the European Commission. This institution should facilitate a smooth, effective and harmonised implementation of this act by contributing to the effective cooperation of the national supervisory authorities and the Commission and providing advice and expertise to the Commission.³⁹ It will also collect and share best practices among the Member States.

Complementary to the European Artificial intelligence Board, at national level, Member States will have to designate one or more national competent authorities and, among them, the national supervisory authority, for supervising the application and implementation of the AI regulation. For the supervision of the Union institutions, agencies and bodies when they fall within the scope of this regulation, the European Data Protection Supervisor will act as the competent authority.⁴⁰

While it is not certain when the draft will be adopted and enter into force, the Artificial Intelligence act has the potential to set the trend of regulation of AI systems, not only for the members states of the EU but also for the countries in the Eastern Partnership region, Moldova included.

³⁹ European Commission, Newsroom “Proposal for a Regulation laying down harmonised rules on artificial intelligence” (2021), p. 15, available at: <https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence>.

⁴⁰ European Data Protection Supervisor, landing page: <https://edps.europa.eu/en>.

National AI strategies (NAIS) – will Moldova draft its own vision?

The first country to develop a strategic document on the deployment of Artificial Intelligence was Canada in 2017.⁴¹ As of May 2021, more than 50 countries around the globe adopted national strategies on AI, outlining a broad and strategic approach towards the development and deployment of AI systems.⁴² The majority of these countries are located in Europe.

The 2018 (and the 2021 version) of the EU Coordinated Plan on Artificial Intelligence⁴³ recommends member states of the EU to develop national strategies. The document also sets guidelines and domains which should be covered by such strategies, (i) including/such as: science, research development; (ii) education and training; (iii) regulatory aspects of AI, ethical rules, consumer protection and (iv) security issues, among others.

The strategies of the countries, which already approved such documents, can be consulted easily online. The OECD has a live repository of over 600 AI policy initiatives from 60 countries, territories and the EU.⁴⁴

In Moldova, the plethora of national strategies dedicated to economy, health care, IT sector development, artificial intelligence has a single hit mention, yet no impact assessment or specific actions.⁴⁵ The National development Strategy

⁴¹ European Parliament, “*The ethics of artificial intelligence: Issues and initiatives*” (2020) Available at: [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/634452/EPRS_STU\(2020\)634452_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/634452/EPRS_STU(2020)634452_EN.pdf), p. 8.

⁴² Misuraca, G. and Van Noordt, C., “*AI Watch - Artificial Intelligence in public services*”, EUR 30255 EN, Publications Office of the European Union, Luxembourg, 2020, doi:10.2760/039619, JRC120399.

⁴³ European Commission, “*Coordinated Plan on Artificial Intelligence 2021 Review*” (2021), available at: <https://digital-strategy.ec.europa.eu/en/library/coordinated-plan-artificial-intelligence-2021-review>.

⁴⁴ OECD, AI Policy Observatory, *National AI policies & strategies (2021)*: <https://www.oecd.ai/dashboards>.

⁴⁵ The National development Strategy Moldova-2030 approved by the Government in 2020, available at: https://gov.md/sites/default/files/document/attachments/intr40_12_0.pdf.

“Moldova-2030” approved by the Government in 2018, envisages as priority action the need to „develop and actively adopt advanced technologies (blockchain, artificial intelligence and computer-assisted learning algorithms) to increase transparency, integrity and traceability of public authorities and public management, with a special focus on public finance, public property management and public procurement”.⁴⁶

Despite the fact that we are yet to embark on the journey of developing a national strategy for AI, there is an already enabling environment for the development and deployment of AI ecosystems. According to the assessment of the AI readiness index, conducted by the Oxford Insights,⁴⁷ Moldova stands in the middle of the rank (80 out of 171 countries).⁴⁸ This index looks at three pillars: (i) Government; (ii) Data and infrastructure and (iii) Technology sector. Under each of these pillars, the index assesses the enabling conditions for AI like the data availability, digital capacities infrastructure or human capital.

The AI ecosystem seems to be in the scope of various state institutions in Moldova. Based on consulting other national strategies, the main stakeholders from Moldova entitled to get involved in drafting a national strategy, potential regulations and standards, are the following:

Main stakeholders entitled to get involved in discussions around AI⁴⁹

Academia and Research Centres/Excellence Centres (ex. Tekwill)

Human Rights CSOs/Consumer groups/organizations/ /LGBT/Ethnic minorities/Vulnerable groups

Business sector – tech community (developers)

E-GOV Agency, National Data Protection, Ministry of Economy (ICT sector)

⁴⁶ *Ibidem*, p. 103.

⁴⁷ Oxford Insights – “AI Readiness Index 2020”, available at: <https://www.oxfordinsights.com/government-ai-readiness-index-2020>.

⁴⁸ *Ibidem*.

⁴⁹ The list was drafted in a brainstorm session with CSO specialists from Moldova at the dedicated workshop on digital technologies and policies that impact Civic Space co-organized by LRCM and ECNL on 23-24 march 2021.

State Chancellery/ Office of the Prime-minister/ Human Rights Council at the Prime-Minister/Government level

Ministry of External Affairs, Diplomatic missions of Moldova representatives at the Council of Europe

Parliament/MPs – interested in this issue/with prior experience on the topic/ Special Commission/Committees/Forum at the Parliament level (among interested MPs)– committed on development of AI/IT Technologies –

The DAMEP structures from the each Ministry

Development partners – USAID/World Bank/Council of Europe, both regional and at national level, OHCHR,

National Human Rights Institutions (Ombudsman Office, Equality Council)

The role of civic actors from Moldova towards AI

The conversations about the good and bad of AI are not yet under scrutiny in Moldova. It is also fair to say that there is a wide in the ability of the state and civil society actors to understand the magnitude of such systems and their potential impact. However, based on the example from other countries, international and regional mechanisms, this seems to be just a question of time, when interest towards this topic expands in both the state and private sector.

In order to get prepared for such times, the first and foremost necessary action plan for civil society is to acquire knowledge to understand the possible implication of AI based technologies. This entails further research and „digital literacy” campaigns. Information campaigns and empowering civic actors will be at later use for debunking campaigns on what AI is and how it may affect human rights. At the same importance, there is a need to organize a core group of CSOs and educating them on the importance of their engagement in the future debates around AI in Moldova.

Secondly, it is necessary to conduct a mapping of the practices, experiences related to AI in public, private and civil society sectors, and a mapping of the regulatory framework relevant per AI agenda. We further need to prepare CSOs (and specifically those that work on human rights issues) to engage in the discussions around AI regulation in the Republic of Moldova, so that they can ensure that further AI policies like the National Human Rights Action Plan⁵⁰ include safeguards for fundamental rights and freedoms on AI deployment.

Finally, the next step is to reach out to the private sector and the Government to start a dialogue on AI, and ensure that when developing AI policies, these should also be in line with international human rights standards. Any discussion of the

⁵⁰ Parliament of Moldova, judgment 89/2018 on the approval of the National Action Plan in the field of human rights for the years 2018–2022, available at: https://www.legis.md/cautare/get-Results?doc_id=110031&lang=ro.

Government of regulation of AI should include CSOs and human rights advocates because they are the ones that best understand how AI can affect human rights.

Conclusions, possible policy actions and recommendations

- There are types and forms of automated systems labelled as AI, with different capacity and degree of autonomy. In this regard, AI is more like a “container term” to define algorithm driven technologies and systems with different level of sophistication and autonomy. AI can be labelled on any kind of automated system, designed to smooth out decision-making or give insight on the data it was fed.
- AI is still in its early days. A system of superintelligence, sometimes labelled as Artificial Intelligence that can replace human decision-making at all was not yet designed, and there are many chances it will not be invented in our lifetime.
- The use of automated systems labelled as artificial intelligence can have both positive and negative consequences. Combatting crime, mitigating climate change, bringing affordable and more accurate healthcare care and even a better global pandemic response, are just a few domains where AI can bring positive change. On the other hand, if the automated system are fed with wrong and bias data, such systems can reinforce inequality. This can lead to harmful results for the people and communities most affected, and for fundamental rights and freedoms in general.
- Automated systems or AI systems are still considered a „grey area”, without proper regulation. However, it is unlikely that it will stay this way for a long time. There are global and regional efforts to regulate AI, whether these are soft law mechanisms, good practice standards or even draft binding treaties. In this regard, the efforts in the regulation of AI at the level of Council of Europe and European Union should serve as a model for the Republic of Moldova. The EU is perhaps the most advanced body to move towards hav-


ing a binding legal framework on the regulation of Artificial Intelligence. As a CoE and CAHAI member, Moldova already has undertaken a commitment to ensure effective and predictable legislative, regulatory and supervisory frameworks that prevent, detect, prohibit and remedy human rights violations when deploying algorithmic systems.


- The conversations about the good and bad of AI are not yet under scrutiny in Moldova. Despite the fact that we are yet to embark on the journey of developing a national strategy for AI, there is an already enabling environment for the development and deployment of AI ecosystems in Moldova. Civil society from Moldova shall advocate for inclusion in the discussions about the deployment of AI systems in Moldova and invite the Government of Moldova to take a more active approach towards the potential impacts of AI technologies on various sectors of economy. A more in depth analysis and specific objectives in already existing strategies, or an assessment study on the deployment of AI systems in Moldova is necessary. Any discussion of the Government of regulation of AI should include CSOs and human rights advocates because they are the ones that best understand how AI can affect human rights.


- There is a need to organize a core group of CSOs and educating them on the importance of their engagement in the future debates around AI in Moldova. There is a misconception that only civic society organizations with technological expertise can participate in debates on AI. The initial action plan for civil society is three-fold:
 - a. Acquire knowledge to understand the possible implication of AI based technologies. This entails further research and „digital literacy” campaigns. At the same importance, there is a need to organize a core group of CSOs and educating them on the importance of their engagement in the future debates around AI in Moldova.
 - b. Conduct mapping exercises of the practices, experiences related to AI in public, private and civil society sectors, and a mapping of the regulatory framework relevant per AI agenda. We further need to prepare CSOs (and specifically those that work on human rights issues) to engage in the discussions around AI regulation in the Republic of Moldova.
 - c. Reach out to the private sector and the Government to start a dialogue on AI, and ensuring that when developing AI policies, these should also be in line with international human rights standards. Any discussion of the Government of regulation of AI should include CSOs and human rights advocates because they are the ones that best understand how AI can affect human rights.

Legal Resources Center from Moldova (LRCM) is a nonprofit organization that contributes to strengthening democracy and the rule of law in the Republic of Moldova with emphasis on justice and human rights. Our work includes research and advocacy. We are independent and politically non-affiliated.

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