



# Advancing Sustainable Human Security in a Digital Era through Inclusivity and Accountability

*Darina Saliba Abi Chedid*

College of Law, Qatar University, Doha, Qatar

*dsaliba@qu.edu.qa*

Received 7 August 2024 | Accepted 4 October 2024 |

Published online 23 December 2024

## Abstract

The purpose of this article is to look at how a humanized global governance framework based on human rights, ethics, and harnessing humanities may ensure that artificial intelligence (AI) is utilized for promoting sustainable human security for all and safeguarding human rights. The digital era adds to substantial changes in understanding key viewpoints in international humanitarian law and related humanitarian practice in this environment. Notably, this article reflects the ideological, legal, social, political, and economic development of the concept of 'human security' over the years. Constitutions will inevitably undergo revisions and modifications to adapt to such developments. The article also focuses on how AI might help achieve the United Nations Sustainable Development Goals (SDGs) and other humanitarian goals.

## Keywords

accountability – artificial intelligence – digital – ethics – global governance – human rights – human security – inclusivity – sustainable development

## 1 Introduction and Background

In today's world, insecurity looms large, with threats emerging from various directions. Natural calamities, armed conflicts, persistent poverty, health crises, global terrorism, and sudden economic and financial downturns collectively

create substantial challenges, hindering the prospects for sustainable development, peace, and stability, leading to a variety of human insecurities. Nowadays, 'security' does not exclusively mean the absence of war or armed conflict, but it is also understood in terms of economic security and good governance. Undoubtedly, in an increasingly interdependent world, nations, groups, and individuals have become more vulnerable and subject to human rights violations, genocide, civil war, global epidemics, environmental degradation, forced labor, modern slavery, and malnutrition.

Human security has become in the past decade of utmost importance to many countries, institutions, and social players probing new methods and means of tackling the various non-military threats to peace and security. Human security highlights the composite relation, often overlooked or under-valued, between disarmament, human rights, and development.

Inequalities rising from digitalization are a reality, but change is possible and is already taking shape. Hence, the United Nations for Education, Science, and Culture Organization (UNESCO) is fostering the ethics of AI to generate public value and help people use technology for a good cause. The interrelation between national security and the implementation of the UN 2030 Sustainable Development Goals (SDGs) can ensure inclusive modernization and reinforce the welfare and security of citizens. In the context of the ongoing digital revolution, often referred to as the Third Industrial Revolution, it is essential to protect some specific human functions and activities. This involves preserving the role of human agents and ensuring that military technologies, for instance, adhere to ethical and legal frameworks. Key ethical values, such as human dignity and individual autonomy, must be integrated into the design and engineering of AI systems. AI is increasingly shaping global responses to challenging problems, particularly in development and humanitarian contexts. To ensure that AI tools promote human progress and contribute to achieving the SDGs, humanitarian actors must proactively develop inclusive policies and accountability mechanisms that safeguard human rights. International organizations are more and more concentrating on this sector, identifying the demand for AI-driven solutions to world challenges and the ethical hazards linked to these solutions.

The convergence of human security and digital progress represents a complex area that mirrors the intricacies of contemporary life. Over the last twenty years, the notion of human security has evolved to prioritize the preservation of essential human rights, aiming to achieve 'freedom from want,' 'freedom from fear,' and the 'freedom to live with dignity.' Digital technology has announced significant changes, providing new paths to enhance human security. Yet, it also introduces new challenges, especially within the digital

domain where the human factor is often most vulnerable. Certainly, the field of human security and digital development is enriched by the contributions of various scholars. Research indicates that while technology can greatly help human security by improving access to information and services, it may also deepen the digital gap, thus threatening security across economic, health, and personal sectors. Moreover, the enduring advancement of human security in the digital era requires alert to cybercrime prevention and prudent information and communication technology (ICT) usage, which are critical to fashioning a safe, inclusive digital space. In general, scholarly works stress the importance of a harmonious strategy that benefits from digital progress while also shielding against the potential threats to human security. Rajib Shaw and Anjula Gurtoo (2022) explain this link in their work on the impact of global pandemics on human security and the role of technology in addressing these issues (pp. 83–90). Sakiko Fukuda-Parr and Carol Messineo (2012) offer a wide-ranging critique of the human security literature, stressing the evolution of the concept and its growing application in policy and academia. Additionally, the role of cyber-security responsiveness to sustainable human development through responsible ICT use is another dynamic aspect debated in recent literature. Francesco Di Nocera, Giorgia Tempestini, and Matteo Orsini (2023) have effectuated a systematic review by MDPI on usable security shedding light on the user-centric aspects of cybersecurity from 2005 to 2022, highlighting the current dialogue between technology and human security. These authors and their works contribute meaningfully to our thoughts on how digital advancements can both challenge and enhance human security. Further recent contributions derive from Mely Caballero-Anthony, Yoichi Mine, and Sachiko Ishikawa (2024) who have examined human security and empowerment in Asia beyond the pandemic context (p. 20). Additionally, Megan Guidrey, Deanna Kolberg-Shah, and Leah Squires (2023) have developed a Digital Security Framework for Human Rights Programming, contributing to understanding the intersection of digital security and human rights. These authors advance various views and thorough analyses that subsidize a holistic understanding of the intricate connection between human security and digital development.

This article raises the following problem: How does a global governance framework based on inclusive policies and accountability mechanisms ensure that artificial intelligence is utilized for safeguarding human rights, human security, and sustainable development in a digital era? We will try to answer this question by delving first into the evolution process of the concept of 'human security' situating it in the digital era and exploring how this concept is being shaped and put into practice. We will also look into the stream of AI

regulatory activities and initiatives ranging from developing ethical guidelines for AI to implementing policies that protect personal data and prevent algorithmic biases. The role of UNESCO in promoting human security will be particularly highlighted and the inevitable shift toward a sustainable human security for all approach will be analyzed and subsidized with recommendations for promoting sustainable human security for all.

## 2      The New Facets of 'Human Security'

It is commonly established that violence, whether carried out by State entities or Non-State Actors, poses a significant risk to human security. The concept of 'duty to protect'<sup>1</sup> is the newest addition to the international community's 'toolkit.' Simply defined, the concept recognizes that the sovereign State to which a population belongs bears the primary responsibility for their protection. The crux of this concept lies in situations where a State lacks the capacity or willingness to protect its citizens or becomes a source of threats. In such cases, the international community steps in to assume responsibility. But how did the term 'security' develop over time and how is it being put into practice?

### 2.1    *The Evolution of the Concept of 'Human Security'*

Human security, peacebuilding, peacekeeping, security-sector reform, and civil-military ties have all become significant in recent years. They call for procedures allowing civilians and troops to think about security, peace, and life in new ways. This is the job of military pedagogy (Mileham 2020:372–378), which is why ethics and the notion of human security have evolved in their research and teaching roles (Micewski and Annen 2005). Most of those notions are institutional-political in nature, and we need instead an 'action competence' requesting the individual's intervention, and it is precisely here that military pedagogy faces a significant obstacle (Ben Simon 2008).

Scholars, experts, researchers, and nations have been wrestling with the notion since the United Nations Development Program (UNDP) introduced the term "human security" in international relations discourse in a 1994 Report (Arinze 1995:5), defining it as "safety from chronic threats such as hunger, disease, and repression as well as protection from sudden and harmful disruptions in the patterns of daily life – whether in homes, jobs or communities. Such threats can exist at all levels of national income and development"

---

<sup>1</sup> At the 2005 World Summit, the Responsibility to Protect was defined and adopted as a concept, making the protection of a State's citizens a condition of sovereignty.

(UNDP 1994:23). Security, according to the UNDP Human Development Report, is tied to persons rather than geographical entities, and to development rather than weaponry (*Ibid*). The concept of human security, which comprised freedom from fear and freedom from want, was broadened in the UNDP report to encompass non-traditional concerns such as hunger, diseases, and unprocurable basic necessities of life. It includes food, a safe place to live, healthcare, economic well-being, and education. While acknowledging the State's supremacy in international relations, the report's analysis identified a previously unknown link between the State, from one side, and national security and the security of individuals within the State, from another. Despite the findings of the report, the topic of human security did not get any traction until a few years later. Today, it is time to broaden the scope and encompass technological issues that threaten human security, to ponder the full impact of technology on the individual from fake news to the newest developments in AI.

Human security has regained prominence within international relations discussions since the establishment of the Commission on Human Security (CHS) in 2000, which received contributions from various States and non-governmental organizations. These efforts aimed to highlight the threats faced by people residing in developing nations. The term 'security' conjures up images of the State's territorial integrity and dignity in everyday international, regional, and national affairs discourse. This is unsurprising, considering that international relations have traditionally been more 'State-centric' than 'people-centric.' The traditional understanding of security is the defense of the State against external threats. This view has prevailed in the discourse of international relations for a long time. However, after the end of the Cold War and with globalization, the notion of security altered to emphasize the human dimension rather than the State. For example, human security can refer to issues such as poverty, health, human rights, environmental degradation, and terrorism, which affect the well-being of individuals and communities beyond the borders of States. The State has a monopoly on the rights and methods of defending its citizens, according to this view. With the rise of the modern State, the idea of sovereignty developed together with the belief that each State is free to do anything it wants inside its borders.

While the Treaty of Westphalia<sup>2</sup> defined the traditional understanding of security, the UN establishment in 1945 provided new hope for refocusing

---

<sup>2</sup> The Peace of Westphalia refers to the agreements concluded in the Westphalian towns of Osnabrück and Münster from May to October 1648. These accords brought an end to the Thirty Years' War, a conflict that raged across Central Europe from 1618 to 1648, as well as the Eighty Years' War.

security priorities, with the primary goal of protecting governments and peoples from threats beyond their boundaries. As a result, this system preserved 'collective security' by limiting governments' rights to use force in self- or collective defense in the aftermath of an assault, as determined by the UN Security Council. This security system was designed to protect the State from external attacks, which today would include cyber warfare, terrorism, or espionage. It had sophisticated tools and protocols to detect and counter any attempts to undermine the State's sovereignty, stability, or interests. What the security system did not anticipate, however, were the new types of threats that States are facing – threats from within. These threats include civil unrest, corruption, radicalization, or secessionism. They are often more difficult to identify and address, as they involve the State's own citizens, institutions, or regions. The security system was not prepared to deal with these challenges and had to adapt quickly to the changing environment. During the time between the termination of World War Two and the end of the Cold War, governments continued to handle all security challenges from a State-centric perspective. The State justified various atrocities, such as unlawful imprisonment, brutal interrogation, and mass killing, as necessary measures to protect itself. This was a period marked by numerous violations of human rights. It became impossible to distinguish between the State and the regime because what affected the regime in power was regarded by official agencies as affecting the State's integrity. Following the fall of communism and, with it, the end of the Cold War, the definition of security has been broadened to cover hitherto unconsidered challenges. This era is cited as one of the key reasons for the shift in security focus from a State-centered to a people-centered approach. The international community's approach to security has been influenced by the lack of ideological divides. The world's political, economic, and technological globalization, as well as the rise of new stakeholders in international relations, are factors-accelerators of this trend. The impact of technology, which has allowed events in one area of the world to be easily observed in another without fear of being accused of spying, has had a huge impact on the security debate. With the changing dynamics of world politics, governments faced greater internal security threats than external security threats in the post-Cold War era. It soon became clear that in addition to agitations for political power and resources, other challenges such as poverty, environmental degradation, and health represent a security danger to States and individuals.

These concerns directly affect people and their security. The development of certain diseases (HIV/AIDS, SARS17) and recently the COVID-19 pandemic, which are not limited to specific States, life stages, or skin colors, have also influenced how people around the world view security. As a result, security is no longer solely defined in military terms. It is also important to consider the

significance of changing conflict dynamics in gaining a better knowledge of and expanding security. A common and unfortunate trait of the violent clashes that took place in Africa after the civil wars ended was their internal nature. Unlike the inter-State wars that dominated the Cold War era, about 80 percent of the wars that happened after the Cold War were within States (Ben Simon 2008).

## ***2.2 Human Security and the New Digital Economy***

Human security attempts to protect people's lives, livelihoods, and dignity in the face of present and emerging challenges, which are both extensive and cross-cutting. Threats like these do not just affect people who live in extreme poverty or in areas where there is a lot of conflict. According to the Food and Agriculture Organization (FAO), "human security is the right of all people to live in freedom and dignity, free from poverty and despair," that "all individuals, in particularly vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential" (FAO 2016).

Digital technologies tend to discriminate toward those with highly skilled workers. To ensure that digital technologies are inclusive and become a driver for development, countries should make technology accessible and affordable, and invest in institutions and human capital, so that everyone can take part in the new digital economy. Overcoming the digital divide to combat food insecurity through the use of AI practices in agriculture is part of a rising discussion that aims to protect natural resources while also addressing the challenges posed by climate change and health crises. For instance, AI technology can help revolutionize food systems by automating processes that would normally be performed by humans, such as planting and harvesting. Better information and planning management can help boost production, improve working conditions, and utilize natural resources more efficiently (*Ibid*). FAO Director-General José Graziano da Silva confirms that "improved knowledge and understanding of the possible interplays between food security and human security will help shape more effective interventions and contribute to more lasting results" (UNPC 2015).

## **3 Putting Human Security into Practice**

Globally, there is a concerted effort by various entities to create robust governance structures, legal frameworks, and regulations aimed at ensuring digital technologies, especially artificial intelligence, are utilized for the benefit of humanity. This surge in regulatory activities and AI legislations vary

significantly across the globe and is a response to the rapid advancement and integration of AI into different sectors, which presents both opportunities and challenges.

### **3.1      *The Surge of AI Regulatory Activities***

In the digital era, technology plays a considerably larger role than it did in earlier generations (Hashim 2018), allowing businesses to establish ongoing and experience-driven interactions with individual customers in ways that were before inconceivable (Biltz et al. 2019). The digital era substantially changes the understanding of key viewpoints in international humanitarian law and related humanitarian practice in this environment. Sandvik et al. (2014) consider technology as a revolutionary instrument for changing humanitarian action foundations (Capgemini Consulting 2019). Microsoft, for example, will contribute \$40 million to apply AI to humanitarian concerns such as disaster response, children's needs around the world, refugee challenges, and human rights issues (Lerman 2018). In addition, in the field of conflict, digital technologies are playing an increasingly important and complex role. They are affecting conflict actors' behavior and actions by constructing conflict settings characterized by instability and fast changes in circumstances, posing major challenges to the conduct of research. Digital technologies provide new threats, but they also present new potential to increase the effectiveness of peacekeeping operations and peacekeeper safety and security.

The stream of AI regulatory activities is reflected in initiatives ranging from developing ethical guidelines for AI deployment to implementing policies that protect personal data and prevent algorithmic biases. While some countries have developed comprehensive legislation, others focus on specific use cases or rely on national AI strategies and policies. As an illustration, while a complete federal law governing AI is absent in the United States, there are developing structures and suggested rules at both federal and State tiers. In the Arab countries, there is a need for a common Arab AI Strategy that will enable Arab nations to create beneficial AI solutions, unite the region in this field, and collaborate on UN SDGs, according to Rehab Alarfaj, Strategic Advisor at the Saudi Authority for Data and Artificial Intelligence in Saudi Arabia (Mirage News 2021). In the Gulf region, the UAE Council for Artificial Intelligence is dedicated to executing the UAE's AI Strategy to position the nation at the forefront of the AI industry by 2031. This is being achieved through the creation of various committees and sub-councils to bolster its initiatives. In parallel with the UAE's vision to become a world leader in AI by 2031 (UAE Government nd), other countries are also aggressively pursuing AI advancements while trying to balance innovation with the regulation of risks. The global landscape of AI

legislation is dynamic, with jurisdictions continuously adapting to the swift development of AI technologies.

These measures are crucial in guiding the responsible development and use of AI, ensuring it aligns with societal values and enhances human welfare. To illustrate these developments, the Global AI Law and Policy Tracker show that nations are at various phases in establishing AI governance; some are considering extensive laws while others are initiating with national strategies or ethical guidelines (OECD 2019). Also, the AI Index Report 2023 (Stanford University 2023) emphasizes the increased focus on AI governance, noting the rise in countries monitoring AI laws from 25 in 2022 to 127 in 2023 (*Ibid*).

These efforts are most of the time aligned with multilateral frameworks like UNESCO Recommendations on the Ethics of AI (UNESCO 2022) and the OECD's AI principles,<sup>3</sup> which have been reaffirmed by the G7 countries and other international organizations. Many countries have convened international conferences and summits to address AI risks collaboratively, such as the United Kingdom with its first AI Safety Summit in 2023. The outcomes of these initiatives are critical and raise many curious questions: Will they pave the way for regulations grounded in human rights, fostering inclusivity and sustainability? Or will they result in hampering civic freedoms, amplifying discrimination, and deepening digital disparities? To secure a future where technology benefits all of humanity rather than a select few, and to ensure that technology fosters fairness without aggravating existing inequalities and susceptibilities, the world must engage in inclusive effective dialogue, convene on common clear ethical guidelines, and create robust oversight mechanisms. This is the motto of UNESCO in the AI realm.

### **3.2     *Promoting Digital Security: UNESCO as a Role Model***

UNESCO is one of the UN specialized agencies that has been pioneering these efforts for a global dialogue designed to promote a culture of peace and enhance human security with the establishment of an ethical framework for artificial intelligence. The mandate of UNESCO includes a focus on human security: UNESCO's main goal, according to its constitution, is to "contribute to peace and security by promoting collaboration among nations through education, science, and culture to further universal respect for justice, the rule of law, and human rights and fundamental freedoms that are affirmed for all peoples of the world, without distinction of race, sex, language, or religion" (UNESCO 1945). This UN-specialized agency emphasizes individual protection

---

<sup>3</sup> The OECD AI Principles were initially adopted in 2019 and updated in May 2024.

in the idea of human security. Claudia Fuentes and Franciso Rojas Aravena (2005) argue that human security from a Latin American perspective is about peace, international stability, and protection for individuals and communities. They include everything that is “empowering” for people, such as human rights mainly economic, social, and cultural rights, access to education and health care, equal opportunities, and good governance (p. 20).

The series of 2004 UNESCO publications titled “Promoting Human Security: Ethical, Normative, and Educational Frameworks”<sup>4</sup> highlighted three key elements for putting the idea of human security into action concretized into a commitment to protect human dignity; using existing and new rules for enhancing human security and human rights; and a strong educational component of human security. They identified various domains posing threats to human security, including vulnerabilities in socioeconomic conditions, risks from internal and international violence, challenges in social cohesion, weaknesses in political and institutional systems, and hazards from environmental degradation.

In November 2021, UNESCO witnessed a historical moment, through the approval of the UNESCO Social and Human Sciences Commission of the draft Recommendation on Ethics of Artificial Intelligence to be presented to the UNESCO General Conference. As thousands of decisions on human security, including health, employment, and welfare are being taken every day facilitated by AI, this ethical framework is relevant and timely to place humanity at the core of technology and ensure fair, transparent, and just outcomes to protect people’s rights and freedoms, and prevent new forms of exclusion. These recommendations<sup>5</sup> are considered a big step in making equality and human rights triumph in the digital world. These recommendations aim to ensure that AI systems serve the common good of humanity, respect human rights and dignity, and protect the environment and ecosystems.

---

<sup>4</sup> UNESCO has a profound and longstanding involvement in matters of peace and security – or, more recently, human security. The major periods of UNESCO’s action in this field are 1945–93, 1994–99, and 2000–07. Its current work rests on solid foundations to which it owes tribute.

<sup>5</sup> Among the values and principles upheld by the AI ethics recommendations from UNESCO figure human rights and freedoms; environmental flourishing; gender equality, diversity and inclusiveness; peaceful, just and interconnected societies; proportionality and “do no harm”; safety and security; fairness and non-discrimination; sustainability; privacy and data protection; transparency, *explainability* and accountability.

As AI operates through “black-box”<sup>6</sup> systems across different cultures, domains, and scales, the ethical implications have raised many concerns among experts. They wonder how to establish and enforce ethical standards for such complex and dynamic systems, especially when malicious actors can exploit them. This question of ethics is not only relevant for black-box systems, but also for the political sphere of many countries, where ethical behavior conflicts with States’ interests. This is the view of Kenneth A. Grady, an adjunct professor at Michigan State University College of Law and the editor of “The Algorithmic Society” (on Medium.com): “Even if we could decide on a definition [for ethics] in the U.S., it would likely vary from the definitions used in other countries. Given AI’s ability to fluidly cross borders, regulating AI would prove troublesome. We also will find that ethical constraints may be at odds with other self-interests. Situational ethics could easily arise when we face military or intelligence threats, economic competitive threats, and even political threats” (cited in Rainie et al. 2016).

In the domain of data protection and private internet companies, UNESCO responded to the increasing multi-stakeholder endorsement for improved transparency to boost accountability, and published a summary entitled “Transparency and Accountability in the Digital Age” (UNESCO 2021a). This document outlines twenty-six overarching principles designed to guide corporations, policy creators, and regulatory bodies. Besides, UNESCO’s Recommendation on the Ethics of AI outlines twelve policy areas including education, data governance, environment, culture, labor, gender, and well-being. Although brain-computer implants hold immense promise for improving human health and welfare, the absence of ethical frameworks presents significant hazards. Recognizing this, UNESCO has recently initiated efforts in the field of “neuro-ethics” (UNESCO 2021b) to ensure these technologies are developed and applied responsibly. This leads us to the ensuing question: If we can require AI ethics, can we enforce them?

#### 4 Human Security as an Accelerator of the UN 2030 Agenda for Sustainable Development

The human security approach can enhance and supplement the processes needed to achieve the SDGs. By understanding the interconnections between

6 According to Tom Cassauwers (2020), “AI is growing ever more powerful and entering people’s daily lives, yet often we don’t know what goes on inside these systems,” that is why many researchers “want to open this ‘black box’ and make AI explainable.”

the various aspects of the SDGs, the human security approach can help design more coherent and systematic responses. It can also reveal how different issues require solutions that are mutually beneficial for more sustainable and fair development. The human security approach can support the UN system in finding suitable solutions in this new direction, and advance the crucial extension of the SDGs towards greater respect for human dignity and planetary sustainability for all, based on its shared values. Many resources have been developed to offer practical guidance to people working in regions impacted by emergencies, like the use of predictive analytics for disaster's early detection and response, allowing for quicker response, lives' saving, and damage reduction.<sup>7</sup> AI can also assist in emergency resource allocation, enabling more effective distribution of medical supplies, food, and rescue teams through real-time data analysis (Beduschi 2022). The World Food Programme has developed a model that leverages predictive analytics to anticipate food insecurity in conflict areas, where conventional data collection methods are difficult to implement (WFP nd). However, these commendable efforts still encounter numerous challenges.

#### ***4.1 Ensuring a Solid Governance Framework for Sustainability and Rights Protection***

Although the concept of human security goes beyond the absence of violence, this latter remains a major source of insecurity for people, whether it comes from the State or other actors. The international community has developed the idea of "responsibility to protect" (Thakur and Weiss 2009) to address this challenge, which recognizes that the State has the primary duty to protect its people, and when it fails or refuses to protect them, or is itself the cause of threats, the responsibility falls on the international community. This resonates with the inherent obligation of the government to protect individuals from danger and enhance their welfare. To safeguard is to defend the health, welfare, and rights of people, ensuring they are free from injury, mistreatment, and neglect, and this constitutes a fundamental aspect of governance.

In 2014, the UN Office for the Coordination of Humanitarian Affairs issued a significant policy evaluation on humanitarian and transitional actions, named "Saving Lives Today and Tomorrow." The report advocated for a more anticipatory method of predicting and averting humanitarian crises, and underscored

---

<sup>7</sup> For instance, the California Department of Forestry and Fire Protection employs AI-driven image recognition to detect wildfires at an early stage, even before they are visible to humans. For more information, see ALERTCalifornia (2023).

the influence of various shocks on humanitarian situations. Following this, the UN Peacebuilding Architecture Review of 2020 stressed the importance of comprehensive and participatory solutions that merge the three pillars of the UN system and coordinate efforts toward greater peace and stability (UN nd).

Human security understands that people's well-being, survival, and dignity are threatened by complex and interrelated factors. It calls for comprehensive solutions that involve all relevant actors, such as humanitarian, recovery, and development workers. It differs from approaches that provide fragmented responses based on poorly coordinated but separate interventions that are often siloed. It also emphasizes lasting solutions that address the root causes of a challenge, rather than short-term responses that only deal with the immediate crisis. The human security approach identifies the changes needed to mitigate negative impacts and, if possible, help prevent future crises. The human security concept supports urgent humanitarian efforts in this regard. Human security initiatives have helped the UN to enhance the coherence between development and humanitarian processes, based on various experiences. These initiatives have fostered a diverse network of partners under coherent and integrated frameworks that have leveraged the expertise, capacities, and commitment of a wide range of actors in finding the linkages between the two. Experiences have shown how the UN system has improved collaboration with national and local authorities, strengthened capacities, and increased confidence in future stability by working together (UNTFHS 2016). The connection between human security and human development provided a framework for policy and UN development assistance in different areas such as economic security, food, health, personal, community, political, and environmental security. In other words, human security is a factor that enhances "human well-being" (UNDP 1994), and as we interact with AI more frequently and rely on it for vital systems, we have to ensure that AI is sustainable. More than this, one should not underestimate the crucial role that humanities and the arts as disciplines can play in helping the world envision the required changes to fashion new sustainable patterns in human practices and co-create flourishing lives and a sustainable prosperous future.<sup>8</sup> This

---

<sup>8</sup> Responding to the question "What role do the arts and humanities play in securing Human Security for all?", both Denys Zacharopoulos (art historian, critic, writer, university professor, museum director, and exhibition curator) and Benno Werlen stressed during the UNESCO-BRIDGES Coalition panel at the World Academy of Arts and Sciences on May 16, 2024 on the strengths of arts in changing our ideas about the future and finding adequate solutions (World Academy of Arts and Sciences 2024).

means that we should create, use, and manage AI in a way that respects the ethical and responsible principles that protect the long-term interests of both people and the planet. Sustainable AI also requires that we safeguard data privacy and security and that we deal with the possible impact of automation on the workforce. For example, we should ensure that AI does not discriminate against certain groups of people, or that it does not cause environmental harm by consuming too much energy. We stand at a key moment in the development of artificial intelligence. It is imperative to engage in a worldwide, scientifically informed discussion to establish common values and laws across different countries and cultures. This will guide us towards a future where AI serves as a catalyst for meeting all SDGs. Deciding now to foster an AI that supports sustainable development by 2030 can unlock advantages that extend well beyond the SDGs in our lifetime. It is decisive that every stakeholder at any place in the world participates in this discourse to guarantee inclusivity. Conversely, delaying or avoiding this essential conversation risks leading us toward a future where AI disseminates disparity and unsustainability (Vinuesa et al. 2020).

As generative AI rapidly advances, expanding its capabilities and influence, the focus shifts to establishing a robust governance system that safeguards our rights and freedoms while embracing these technological advancements and boosting investment in ethical AI. The debate is not about choosing between innovation and regulation; rather, sustainable and vigorous innovation necessitates well-crafted policies that create a conducive environment for such advancements. These policies and governmental actions foster an innovation ecosystem through funding, incentives, and legal structures. A broad array of policy tools can yield positive results. An excellent illustration of policy tools that can foster an innovation ecosystem is grant programs offered by governments to directly fund startups and small businesses involved in high-impact innovation. This financial assistance can effectively bridge the gap between initial development and market entry. The Horizon 2020 program by the European Union serves as a prominent example, providing substantial funding for research and innovation projects across Europe (Dutta et al. 2019). It is the government's responsibility to prevent adverse effects and to have mechanisms for accountability and reparation in case of harm. Crafting perfect policies from the outset is challenging, but it is imperative to move away from a scenario where market forces alone dictate critical global decisions.

Obviously, sustainable AI is not only a technical, social, and environmental challenge, but also a governance one. We need to be aware of the potential risks and benefits of AI and act accordingly to ensure its positive impact on our future.

#### **4.2     *Human Rights and Human Security: a Mutual Enhancement Relationship***

The individual human being is the core and beneficiary of both, human rights and security. Both concepts value the person and their dignity. Security in its various forms is part of human rights,<sup>9</sup> as upheld by various documents such as the UDHR, the UN Covenants on Economic, Social, and Cultural Rights, and the UN Covenant on Civil and Political Rights, as well as regional treaties on human rights. Congruently, people's rights to civil, cultural, economic, political, social, and developmental aspects are the core of human security. Human rights, humanitarian law, and refugee law support these rights and establish a robust legal basis for human security. They also enable human security to be defined and applied as a useful concept.

Thus, human security and human rights can enhance each other in multiple ways. For example, security can protect human rights from violations by external or internal threats, while human rights can provide legitimacy and accountability for security measures. A balanced and mutually reinforcing approach to security and human rights can contribute to peace, stability, and development. Human rights violations are the primary causes of insecurity, violence, and conflict, and they pose a threat to human security. Respect for human rights, on the other hand, prevents insecurity. The UN Resolution 290 clearly stipulates that "human security calls for people-centered, comprehensive, context-specific and prevention-oriented responses that strengthen the protection and empowerment of all people and all communities," acknowledging that it also "equally considers civil, political, economic, social and cultural rights" (UN 2012).

A human security perspective can enhance the understanding of human rights in relation to security issues. Human rights are essential for preventing, managing, transforming, and rebuilding after conflicts. Violations by non-state actors (like terrorist groups or mafias) of human rights, can be better understood in terms of their impact on human security. Moreover, when human security is valued as much as national security, human rights are less likely to be neglected or abused under the pretext of national or State security. A comprehensive approach to human security could help to overcome the division between first- and second-generation rights.<sup>10</sup>

---

<sup>9</sup> Human security forms include personal security, being free from arbitrary arrest and detention by the authorities; social security, having access to food, water, and health care; and international security, living in a world without war and violence.

<sup>10</sup> The rights related to civil and political freedoms versus the rights related to economic, social, and cultural well-being.

In 2019, resolutions from both the UN General Assembly and the UN Human Rights Council (HRC) emphasized the need to apply international human rights law to AI and other emerging digital technologies. The General Assembly specifically cautioned that “profiling, automated decision-making, and machine-learning technologies,” if used without adequate safeguards, could impact negatively human rights. The question remains whether AI empowers or disempower persons. In 2017, Heather M. Roff published an article titled “Advancing Human Security through Artificial Intelligence” in which she attempted to answer the dilemma of AI and empowerment. She called this dilemma “the tyranny of the majority,” explaining that human rights and empowerment have equal importance, making it hard to balance them when they conflict, and doubting whether AI can help or harm these rights. She supported this statement by referring to the situation whereby AI uses big data to find patterns that can help diagnose diseases like cancer, but by doing so, it can also find patterns that are problematic in some way, such as if they are clearly racist, sexist, or extremist (Roff 2017).

Moreover, human security can enhance human rights because it includes risks that are not covered by human rights as well as threats from actors that are not believed to be properly constrained by international human rights legislation (Oberleitner 2002). The 1994 UNDP Human Development Report states that political security requires “people (to) be able to live in a society that respects their basic human rights.” However, this vague expression does not specify what constitutes a “society” that respects basic rights, or what role State institutions have in guaranteeing their protection.

Political security is linked to human security and social order. The main function of political institutions is to ensure social order, which is a prerequisite for human security. However, many countries are still undermining their citizen’s human security with their high military expenditure, military regimes, or political instability (Burgess et al. 2007).

Lastly, as the essential and normative cornerstone of human security is human rights, education remains an important part of the human security agenda because it is crucial for conflict prevention, democratization, and governance-building processes. The importance ascribed to the ethical, civic, and cultural aspects of teaching and learning for human rights as a basis for addressing some of the “major problems of mankind,” such as world peace and security, equality, economic growth, and social development, and the preservation of mankind’s cultural heritage is reaffirmed in the Final Report of the UNESCO Advisory Committee on Education for Peace, Human Rights, Democracy, International Understanding, and Tolerance’s Fifth Session from March 2000. This document explicitly emphasizes the importance of “creating

the conditions for an education of learning to care and learning to share" as a contribution to the process of building a culture of peace and human rights (UNESCO 2000). In its Recommendation on Education for Peace, Human Rights and Sustainable Development (2024), UNESCO has put fourteen guiding principles for transformative education, through transformative and qualitative education policies, programmes, and activities, including educational laws, policies and strategies, curriculum and pedagogy, teacher development, assessment, teaching and learning materials, and learning environments. This unique definitional framework for HRE is based on the accomplishment of world peace as its starting point and aim, and it is considered one of the building blocks for establishing a culture of peace.

## 5 Conclusion

Promoting sustainable human security for all in a digital era is vital and possible. AI may have a role to play in helping humanitarian efforts, if created and deployed in an inclusive and rights-respecting manner, together with ethical guardrails. Human rights concepts should be included from the start to ensure that these systems' hazards are minimized and their benefits are maximized. Organizations and governments can take a number of essential initiatives in the near future.

First, an organization developing or deploying AI in humanitarian settings might adopt a set of principles to guide its work with AI, based on human rights and complemented by ethics. These principles should be tailored to the particular situations in which the organization operates, and they may differ from one organization to another. Furthermore, eliminating discriminatory effects necessitates diversity and inclusivity. From the early phases of creation to implementation and follow-up, various teams should be involved in an AI project. It is also critical to put in place processes that ensure acceptable levels of technical and organizational transparency. While complete technical transparency may not always be possible, other mechanisms, such as explanatory models, can help educate and inform implementers, impact populations, and other stakeholders about the benefits and risks of an AI intervention, allowing them to deliver input and perspective on whether and how AI should be used, as well as challenge how AI is used (Pizzi et al. 2020).

Some recommendations for the future of the Arab countries include adopting a common Arab AI strategy and creating a new hub that unites all Arab AI researchers, encouraging learning and knowledge exchange among nations, and developing a strong infrastructure with qualified personnel to support the

usage and advancement of AI. This will help them advance valuable AI solutions, unite the region in the field of AI, and allow all countries in the region to jointly work to achieve the SDGs. Yet, finding adequate solutions for today's problems and getting social change necessitates the embracing of 'human security for all' approaches, a humanization of all disciplines, and interpersonal community-driven partnerships and alliances between all sectors. We need to take a closer look at AI's involvement in peacetime threats, cybersecurity, and ethics, as well as the application of AI in peace negotiations and nonviolent conflict change. We must also ensure that individual citizens are informed about AI and its consequences. Individuals can only make informed decisions about the information they are presented with and their digital security after that. It is up to us as humans to think about what kind of future we want to build with these technologies. Whereas threats constitute an inextricable part of our lives, we must bring about new opportunities to preserve and sustain human security for all while fostering an ethical atmosphere that respects human rights, freedoms, and dignity.<sup>11</sup>

## References

- ALERTCalifornia. 2023. "ALERTCalifornia and CAL FIRE's fire detection AI program named one of TIME's Best Inventions of 2023." University of California, San Diego. (<https://alertcalifornia.org/alertcalifornia-and-cal-fires-fire-detection-ai-program-named-one-of-times-best-inventions-of-2023/>).
- Arinze, A.I. 1995. "Human Development Report 1994 by the United Nations Development Programme (UNDP), New York." *Economic and Financial Review* 33(1): 5.
- Beduschi, Ana. 2022. "Harnessing the Potential of Artificial Intelligence for Humanitarian Action: Opportunities and Risks." *International Review of the Red Cross* 104(919): 1149–1169.
- Ben Simon, Okolo. 2008. "Human Security and Responsibility to Protect Approach: A Solution to Civilian Insecurity in Darfur." *Human Security Journal* 7: 44.
- Biltz, Michal, Marc Carrel-Billiard, Paul R. Daugherty, Ethan Hadar, and Edy R. Liangosari. 2019. "The post-digital era – technology trends and needed research." Accenture Technology Vision 2019. ([https://www.researchgate.net/profile/Ethan-Hadar/publication/333186238\\_The\\_post-digital\\_era\\_-technology\\_trends\\_and](https://www.researchgate.net/profile/Ethan-Hadar/publication/333186238_The_post-digital_era_-technology_trends_and)

<sup>11</sup> Finland has taken the lead in citizen education by developing and launching a free online course in May 2018. "The Elements of AI course is designed to demystify AI by making it more approachable to anyone interested in learning more about it (Helkkula 2018).

- \_needed\_research/links/5cdxfc34692851c4eabaa5945/The-post-digital-era-technology-trends-and-needed-research.pdf).
- Burgess, J. Peter, Anthony Amicelle, Edien Bartels, Rocco Bellanova, Alfio Cerami, Erik Eggum, Gunhild Hoogensen, Sonja Kittelsen, Kim Knibbe, Martijn de Koning, Khalid Koser, Keith Krause, and Oscar Salemink. 2007. "Promoting Human Security: Ethical, Normative and Educational Frameworks in Western Europe." UNESCO Digital Library. (<https://unesdoc.unesco.org/ark:/48223/pf0000151144>).
- Caballero-Anthony, Mely, Yoichi Mine, and Sachiko Ishikawa. 2024. *Human Security and Empowerment in Asia: Beyond the Pandemic, First Edition*. London: Routledge.
- Capgemini Consulting. 2019. "Technological innovation for humanitarian aid and assistance." European Parliamentary Research Service, Scientific Foresight Unit (STOA), Brussels, European Union.
- Cassauwers, Tom. 2020. "Opening the 'black box' of artificial intelligence." European Commission, Horizon, The EU Research & Innovation Magazine, December 1. (<https://projects.research-and-innovation.ec.europa.eu/en/horizon-magazine/opening-black-box-artificial-intelligence>).
- Di Nocera, Francesco, Giorgia Tempestini, and Matteo Orsini. 2023. "Usable Security: A Systematic Literature Review." *Information* 14(12): 641.
- Dutta, Soumitra, Kanini Mutooni, and Arun Sharma. 2019. "Accelerating the Emergence and Development of Innovation Ecosystems through Procurement: A Toolkit." Weforum.org, White Paper, October. ([https://www3.weforum.org/docs/WEF\\_Innovation\\_Ecosystems\\_Toolkit.pdf](https://www3.weforum.org/docs/WEF_Innovation_Ecosystems_Toolkit.pdf)).
- Food and Agriculture Organization of the United Nations (FAO). 2016. "Evaluation of FAO's Strategic Objective 5." (<https://openknowledge.fao.org/server/api/core/bitstreams/9e428a3d-30e9-446d-abe4-db5882bbo0a55/content>).
- Fuentes, Claudia F. and Francisco Rojas Aravena. 2005. "Promoting human security: ethical, normative and educational frameworks in Latin America and the Caribbean." UNESCO Publishing. ([https://unesdoc.unesco.org/ark:/48223/pf0000138940\\_eng?posInSet=7&queryId=63184316-12a9-4b08-a8e7-479ecff651ba](https://unesdoc.unesco.org/ark:/48223/pf0000138940_eng?posInSet=7&queryId=63184316-12a9-4b08-a8e7-479ecff651ba)).
- Fukuda-Parr, Sakiko and Carol Messineo. 2012. "Human Security: A critical review of the literature." Centre for Research on Peace and Development (CRPD) Working Paper No. 11. (<https://soc.kuleuven.be/crpd/files/working-papers/wp11.pdf>).
- Guidrey, Megan Deanna Kolberg-Shah, and Leah Squires. 2023. "Digital Security Framework for Human Rights Programming." FreedomHouse.org. (<https://freedomhouse.org/sites/default/files/2024-02/HRSMDigitalSecurityFrameworkwithAppendix.pdf>).
- Hashim, Harwati. 2018. "Application of Technology in the Digital Era Education." *International Journal of Counseling and Education* 1(2): 1.
- Helkkula, Karoliina. 2018. "AI for all: How Finland (and other countries) are delivering free, accessible digital skills training." Nesta.org.uk, June 14. (<https://www.nesta.org.uk/article/ai-for-all-how-finland-and-other-countries-are-delivering-free-accessible-digital-skills-training>).

- .org.uk/blog/ai-all-how-finland-and-other-countries-are-delivering-free-accessible-digital-skills-training/).
- Lerman, Rachel. 2018. "Microsoft to invest \$40 million in AI technology for humanitarian issues." PHYS.org, September 28. (<https://phys.org/news/2018-09-microsoft-invest-million-ai-technology.html>).
- Micewski, Edwin R. and Hubert Annen (Eds.) 2005. *Military Ethics in Professional Military Education – Revisited*. New York: Peter Lang.
- Mileham, Patrick J.R. (Ed.) 2020. *Jus Post Bellum. Restraining, Stabilisation and Peace*. The Netherlands: Brill.
- Mirage News. 2021. "Towards common Artificial Intelligence strategy for Arab States: Digital Inclusion Week 2021." (<https://www.miragenews.com/towards-common-artificial-intelligence-strategy-694003/>).
- Oberleitner, Gerd. 2002. "Human Security and Human Rights." Occasional Paper Series, Issue 8, European Training and Research Centre for Human Rights and Democracy. (<https://www.files.ethz.ch/isn/31301/08.pdf>).
- Organisation for Economic Co-operation and Development (OECD). 2019. "OECD AI Principles Overview." OECD.ai. (<https://oecd.ai/en/ai-principles>).
- Pizzi, Michael, Mila Romanoff, and Tim Engelhardt. 2020. "AI for humanitarian action: Human rights and ethics." *International Review of the Red Cross* 102(913): 145–180.
- Rainie, Lee, Janna Anderson, and Emily A. Vogels. 2016. "Experts Doubt Ethical AI Design Will Be Broadly Adopted as the Norm Within the Next Decade." Pew Research Center, June 16. (<https://www.pewresearch.org/internet/2021/06/16/experts-doubt-ethical-ai-design-will-be-broadly-adopted-as-the-norm-within-the-next-decade/>).
- Roff, Heather M. 2017. "Advancing Human Security through Artificial Intelligence." International Security Department and US and the Americas Programme, Research Paper, Chatham House, The Royal Institute of International Affairs. (<https://www.chathamhouse.org/sites/default/files/publications/research/2017-05-11-ai-human-security-roff.pdf>).
- Sandvik, Kristin Bergtora, Maria Gabrielsen Jumbert, John Karlsrud, and Mareile Kaufmann. 2014. "Humanitarian technology: a critical research agenda." *International Review of the Red Cross* 96(893): 219–242.
- Shaw, Rajib and Anjula Gurtoo. 2022. *Global Pandemic and Human Security: Technology and Development Perspective*. Singapore: Springer Publisher.
- Stanford University. 2023. "Artificial Intelligence Index Report 2023." Aiindex.stanford.edu. ([https://aiindex.stanford.edu/wp-content/uploads/2023/04/HAI\\_AI-Index-Report\\_2023.pdf](https://aiindex.stanford.edu/wp-content/uploads/2023/04/HAI_AI-Index-Report_2023.pdf)).
- Thakur, Ramesh and Thomas Weiss. 2009. "R2P: From Idea to Norm – and Action?" *Global Responsibility to Protect* 1(1): 22–53.
- UAE Government. n.d. "Artificial intelligence in government policies." Retrieved 12/06/2024. (<https://u.ae/en/about-the-uae/digital-uae/digital-technology/artificial-intelligence/artificial-intelligence-in-government-policies>).

- United Nations (UN). 2012. "Resolution Adopted by the General Assembly on 10 September 2012: 66/290. Follow-up to Paragraph 143 on Human Security of the 2005 World Summit Outcome." UN.org, October. (<https://www.un.org/humansecurity/wp-content/uploads/2022/06/N147622.pdf>).
- United Nations (UN). n.d. "2020 Review of the UN Peacebuilding Architecture." (<https://www.un.org/peacebuilding/content/2020-review-un-peacebuilding-architecture>).
- United Nations Development Programme (UNDP). 1994. *Human Development Report 1994: New Dimensions of Human Security*. New York, Oxford: Oxford University Press.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 1945. "Constitution of the United Nations Educational, Scientific and Cultural Organization." UNESCO.org. (<https://www.unesco.org/en/legal-affairs/constitution>).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2020. "Fifth session of the Advisory Committee on Education for Peace, Human Rights, Democracy, International Understanding and Tolerance, UNESCO, Paris, 20–22 March 2000: final report." (<https://unesdoc.unesco.org/ark:/48223/pf0000120250>).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2021a. "Letting the sun shine in: transparency and accountability in the digital age." UNESCO.org. (<https://unesdoc.unesco.org/ark:/48223/pf0000377231>).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2021b. "Ethics of Neurotechnology." UNESCO.org. (<https://www.unesco.org/en/ethics-neurotech>).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2022. "Recommendation on the Ethics of Artificial Intelligence." UNESCO.org. (<https://unesdoc.unesco.org/ark:/48223/pf0000381137>).
- United Nations Peacebuilding Commission (UNPC). 2015. "Peacebuilding Commission, Special meeting, 26 January 2015, Chairperson's Summary of the Discussion." UN.org, January 26. ([https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/150129\\_chairs\\_summary-special\\_meeting\\_of\\_the\\_pbc\\_26jan2015\\_draft\\_pf\\_jp\\_hjb\\_im\\_o.pdf](https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/150129_chairs_summary-special_meeting_of_the_pbc_26jan2015_draft_pf_jp_hjb_im_o.pdf)).
- United Nations Trust Fund for Human Security (UNTFHS). 2016. *Human Security Handbook*. (<https://www.un.org/humansecurity/wp-content/uploads/2017/10/h2.pdf>).
- Vinuesa, Ricardo, Hossein Azizpour, Iolanda Leite, Madeline Balaam, Virginia Dignum, Sami Domisch, Anna Felländer, Simone Daniela Langhans, Max Tegmark, and Francesco Fuso Nerini. 2020. "The role of artificial intelligence in achieving the Sustainable Development Goals." *Nature Communications* 11(1): 233.
- World Academy of Arts and Sciences. 2024. "Harnessing the Humanities for Human Security of Law & Multilateralism." YouTube Video, May 20. (<https://www.youtube.com/watch?v=Rg8kAVDjAFw>).
- World Food Programme (WFP). n.d. "HungerMap." (<https://hungermap.wfp.org/>).