

"Artificial Intelligence and its Impact on the Rules of Public International Law"

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Abstract

The rules of public international law are stained with rapid development; this development passes through several stages until the international legal rule been mandatory, whether in written or customary form; the caution must be exercised during the formulation of such rules by the natural person; what is the legal perception required if the formulating process of International legal rules is a program? Which relies on artificial intelligence techniques; which in some of its applications, these rules or algorithms by which operate these programs can develop them without human intervention, and affect the decisions of natural humans without their knowledge of this evolution in the rules or algorithms.

An example of this; The insurance programs based on artificial intelligence technologies where the legal status of the insured person is affected by simply wearing a hand watch depends on artificial intelligence technology and changes as a result of his commitment to health habits appropriate to his condition daily clauses of his contract with the insurance company such as *Validity* application, so we wonder what if The rules of international law in various international relations depend in their development and formulation on techniques of artificial intelligence? So that the

impact of the rules of international humanitarian law, especially the protection of civilians during armed conflict, if they use weapons based on artificial intelligence techniques? Is there a way to international standards for the uses of artificial intelligence; and how to address this at the international level? We explain the answers to these questions in four parts in this Article: Part I Introduction, Part II The international legal concept of artificial intelligence, Part III The impact of the uses of artificial intelligence on the rules of public international law. Part IV Conclusions.

Keywords: *Artificial Intelligence AI - Public International Law - International Law of Artificial Intelligence.*

I. Introduction

The rules of public international law are characterized by a special nature that mimics the society and the persons that address it⁽¹⁾; therefore, when we look at the nature of the rules of public

⁽¹⁾ “ *The nature of international law displays a highly problematical issue in the Western legal theory. This is due to the fact that many writers, when they speak of law, think of it in terms of national or municipal law, and, consequently, judge the nature of international law by the same standards. This analysis convinced some to deny international law the definition of law since the international society lacks the three indispensable elements required for producing a rule of law; namely, the legislature, the executive and the sanction.* ” *Al Ghunaimi M.T. (1968)*

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international law, we find them differentiate with new relations in the international community to constitute a new legal branch of public international law⁽¹⁾ Among these new branches such as the international law of communications⁽²⁾ And international tourism law⁽³⁾ and international sustainable development law⁽⁴⁾; Finally, international law on artificial intelligence⁽⁵⁾. So we search in this

Nature and Genesis of International Law. In: The Muslim Conception of International Law and the Western Approach. Springer, Dordrecht; https://doi.org/10.1007/978-94-011-9508-9_4 (last acceded 1/6/2020)

⁽¹⁾ Toebes, B. *International health law: an emerging field of public international law. Indian Journal of International Law* 55, 299–328 (2015).

<https://doi.org/10.1007/s40901-016-0020-9> (last acceded 1/6/2020)

⁽²⁾ Richard Hill, *The New International Telecommunication Regulations and the Internet A Commentary and Legislative History*, Schulthess Juristische Medien AG, Zurich – Basel – Geneva 2013. <https://doi.org/10.1007/978-3-642-45416-5> (last acceded 1/6/2020)

⁽³⁾ Fennell D.A. (2019) *The Future of Ethics in Tourism*. In: Fayos-Solà E., Cooper C. (eds) *The Future of Tourism*. Springer, Cham; https://doi.org/10.1007/978-3-319-89941-1_8 (last acceded 1/6/2020)

⁽⁴⁾ de Andrade Correa F., Venâncio M.D. (2019) *International Environmental Law in the Anthropocene: Addressing the Gaps Towards 'Sustainable Development Law'*. In: Lim M. (eds) *Charting Environmental Law Futures in the Anthropocene*. Springer, Singapore; https://doi.org/10.1007/978-981-13-9065-4_4 (last acceded 1/6/2020)

⁽⁵⁾ Wang J., Yu X., Li J., Jin X. (2018) *Artificial Intelligence and International Norms*. In: Jin D. (eds) *Reconstructing Our Orders*. Springer, Singapore; https://doi.org/10.1007/978-981-13-2209-9_7 ;

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Article the international legal concept of artificial intelligence. And the impact of the use of artificial intelligence on the rules of public international law; concluding this Article with several findings and recommendations regarding the future of this new branch of public international law; called the international law of artificial intelligence.

II. The international legal concept of artificial intelligence.

If we want to define international law for artificial intelligence, we must set a general framework for the international relationship according to which an independent branch of international law has several characteristics and advantages. Makes it have a great space of independence and differentiation that makes him unique as other branches that settled in the conscience of the international community.⁽¹⁾

Abeyratne R. (2019) Regulating Artificial Intelligence. In: Legal Priorities in Air Transport. Springer, Cham; https://doi.org/10.1007/978-3-030-18391-2_12 (last acceded 1/6/2020)

⁽¹⁾*Martin-Mazé M. (2018) Multiple Correspondence Analysis in International Relations. In: Devin G. (eds) Resources and Applied Methods in International Relations. The Sciences Po Series in International Relations and Political Economy. Palgrave Macmillan, Cham; https://doi.org/10.1007/978-3-319-61979-8_10 (last acceded 1/6/2020) ; Varella M.D. (2014) The Greater Complexity of International*

And if we want to distinguish the new international relations which constitute an independence legal branch of Public international law, has some differentiation that makes it clear in its features and sources, the international relations must be diverse between bilateral, regional or global relations.⁽¹⁾ In rare cases, it may be the individual practices of one country⁽²⁾ But it is a role

Law with the Intensification of Relations Among States and International Organizations. In: Internationalization of Law. Springer, Berlin, Heidelberg;

https://doi.org/10.1007/978-3-642-54163-6_3 (last acceded 1/6/2020)

⁽¹⁾ (2009) *Law of Treaties. In: Max Planck Institute for Comparative Public Law and International Law. World Court Digest (Formerly Fontes Iuris Gentium), vol 4. Springer, Berlin, Heidelberg;*

https://doi.org/10.1007/978-3-540-87467-6_7(last acceded 1/6/2020) ; Brölmann, C. *Contemporary Issues in the Law of Treaties. Neth Int Law Rev 54, 166–168 (2007). https://doi.org/10.1017/S0165070X07241555* (last acceded 1/6/2020); Hofmann R., Kokott J., Oellers-Frahm K., Oeter S., Zimmermann A. (1993) *Law of Treaties. In: World Court Digest. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-37779-6_7* (last acceded 1/6/2020)

⁽²⁾ Bossacoma Busquets P. (2020) *Unilateral Declarations of Independence Under International Law. In: Morality and Legality of Secession. Federalism and Internal Conflicts. Palgrave Macmillan, Cham; https://doi.org/10.1007/978-3-030-26589-2_6* (last acceded 1/6/2020); Cottier T. (2016) *Improving Compliance: Jus Cogens and International Economic Law. In: Heijer M., van der Wilt H. (eds) Netherlands Yearbook of International Law 2015. Netherlands Yearbook of International Law, vol 46. T.M.C. Asser Press, The Hague;*

model for later international practice⁽¹⁾. Not as a matter of obligation; rather, as a matter of inference and guidance with international best practice. ⁽²⁾We cite an example of this in the

https://doi.org/10.1007/978-94-6265-114-2_11 (last acceded 1/6/2020)

⁽¹⁾ Olawuyi D.S. (2019) *Local Content Policies and Their Implications for International Investment Law*. In: Chaisse J., Choukroune L., Jusoh S. (eds) *Handbook of International Investment Law and Policy*. Springer, Singapore; https://doi.org/10.1007/978-981-13-5744-2_78-1 (last acceded 1/6/2020) ; Brar M. (2019) *The National Treatment Obligation: Law and Practice of Investment Treaties*. In: Chaisse J., Choukroune L., Jusoh S. (eds) *Handbook of International Investment Law and Policy*. Springer, Singapore; https://doi.org/10.1007/978-981-13-5744-2_5-1 (last acceded 1/6/2020); Sterio M. (2018) *Human Rights: Future of Ad Hoc Tribunals*. In: Oberleitner G. (eds) *International Human Rights Institutions, Tribunals, and Courts*. International Human Rights. Springer, Singapore; https://doi.org/10.1007/978-981-10-4516-5_12-1 (last acceded 1/6/2020); Skaar E. (2018) *Transitional Justice for Human Rights: The Legacy and Future of Truth and Reconciliation Commissions*. In: Oberleitner G. (eds) *International Human Rights Institutions, Tribunals, and Courts*. International Human Rights. Springer, Singapore; https://doi.org/10.1007/978-981-10-4516-5_15-1 (last acceded 1/6/2020)

⁽²⁾ Fumagalli L. (2013) *Evidence Before the International Court of Justice: Issues of Fact and Questions of Law in the Determination of International Custom*. In: Boschiero N., Scovazzi T., Pitea C., Ragni C. (eds) *International Courts and the Development of International Law*. T.M.C. Asser Press, The Hague, The Netherlands; https://doi.org/10.1007/978-90-6704-894-1_11 (last acceded 1/6/2020); Adinolfi G. (2012) *Customs Obstacles to Relief Consignments Under International Disaster Response Law*. In: de Guttry A., Gestri M.,

individual confrontations of some countries in radioactive nuclear accidents, and these are of relative scarcity, which makes one confrontation (international practice) an international custom if international practices are follow it.⁽¹⁾

By following the definitional concepts of some other branches of public international law, we find that they agree on a specific definition consisting of several elements⁽²⁾Take, for example, the definition of international humanitarian law⁽³⁾ ; Which

Venturini G. (eds) International Disaster Response Law. T.M.C. Asser Press, The Hague, The Netherlands; https://doi.org/10.1007/978-90-6704-882-8_22 (last acceded 1/6/2020)

⁽¹⁾ *Akram M. Elsayed Ahmed Alzoghbi, International Protection of Nuclear Radiation, Volume :41 Issue : 3 2017 ;<http://www.pubcouncil.kuniv.edu.kw/jol/home.aspx?id=8&Root=yes&authid=2175#> (last acceded 1/6/2020)*

⁽²⁾ *Von Bogdandy A., Dann P., Goldmann M. (2010) Developing the Publicness of Public International Law: Towards a Legal Framework for Global Governance Activities. In: von Bogdandy A., Wolfrum R., von Bernstorff J., Dann P., Goldmann M. (eds) The Exercise of Public Authority by International Institutions. Beiträge zum ausländischen öffentlichen Recht und Völkerrecht (Veröffentlichungen des Max-Planck-Instituts für ausländisches öffentliches Recht und Völkerrecht), vol 210. Springer, Berlin, Heidelberg; <https://doi.org/10.1007/978-3-642-04531-8-1> (last acceded 1/6/2020)*

⁽³⁾ *Otto R. (2012) Part Two –International Humanitarian Law. In: Targeted Killings and International Law. Beiträge zum ausländischen öffentlichen Recht und Völkerrecht (Veröffentlichungen des Max-Planck-Instituts für*

some define as "that branch of general international law that consists of a set of written or customary legal rules applied to persons of international humanitarian law within the international community, especially at the time of armed conflict, whether it is an international or non-international armed conflict."⁽¹⁾ Given this definition, we find it contains several elements; a set of legal rules⁽²⁾ ; written⁽¹⁾Or customary⁽²⁾Applied to persons of international

ausländisches öffentliches Recht und Völkerrecht), vol 230. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-642-24858-0_3 (last acceded 1/6/2020)

⁽¹⁾ del Prado J.L.G. (2017) *The Ineffectiveness of the Current Definition of a "Mercenary" in International Humanitarian and Criminal Law*. In: Torroja H. (eds) *Public International Law and Human Rights Violations by Private Military and Security Companies*. Springer, Cham; https://doi.org/10.1007/978-3-319-66098-1_4 (last acceded 1/6/2020)

⁽²⁾ Fawcett J.E.S. (1970) *Natural Sanctions in International Law*. In: Alexandrowicz C.H. (eds) *Studies in the History of the Law of Nations*. Springer, Dordrecht; https://doi.org/10.1007/978-94-017-5985-4_5 (last acceded 1/6/2020); Mohamad R. (2015) *Unilateral Sanctions in International Law: A Quest for Legality*. In: Marossi A., Bassett M. (eds) *Economic Sanctions under International Law*. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-051-0_4 (last acceded 1/6/2020); Roskam H.D. (2018) *Crime-Based Targeted Sanctions: Promoting Respect for International Humanitarian Law by the Security Council*. In: Gill T., McCormack T., Geiß R., Krieger H., Paulussen C. (eds) *Yearbook of International Humanitarian Law Volume 19, 2016*. Yearbook of International Humanitarian Law, vol 19. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-213-2_4(last

humanitarian law⁽³⁾ Within the international community⁽⁴⁾ At the time of armed conflict, whether international or non-international.⁽⁵⁾

acceded 1/6/2020) ; Milaninia N. (2015) Jus ad bellum economicum and jus in bello economico: The Limits of Economic Sanctions Under the Paradigm of International Humanitarian Law. In: Marossi A., Bassett M. (eds) Economic Sanctions under International Law. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-051-0_6 (last acceded 1/6/2020)

⁽¹⁾ Singh, P. Hugh Thirlway: *The sources of international law. Indian Journal of International Law* 55, 151–152 (2015). <https://doi.org/10.1007/s40901-015-0008-x> (last acceded 1/6/2020)

⁽²⁾ Thompson B. (2015) *Sources of International Law. In: Universal Jurisdiction: The Sierra Leone Profile. International Criminal Justice Series, vol 3. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-054-1_2 (last acceded 1/6/2020); Hofmann R., Kokott J., Oellers-Frahm K., Oeter S., Zimmermann A. (1993) *Sources of International Law. In: World Court Digest. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-37779-6_2 (last acceded 1/6/2020)**

⁽³⁾ Jolly S., Ahmad N. (2019) *Climate Change Migration: Legal Protection Under International Refugee Law and Climate Change Legal Regime. In: Climate Refugees in South Asia. International Law and the Global South (Perspectives from the Rest of the World). Springer, Singapore; https://doi.org/10.1007/978-981-13-3137-4_4 (last acceded 1/6/2020)*

⁽⁴⁾ Cerone, J.P. *Legal constraints on the international community's responses to gross violations of human rights and humanitarian law in Kosovo, east Timor, and Chechnya. Hum Rights Rev* 2, 19–53 (2001). <https://doi.org/10.1007/s12142-001-1031-5> (last acceded 1/6/2020)

⁽⁵⁾ (2009) *Law of Armed Conflicts / International Humanitarian Law. In: Max Planck Institute for Comparative Public Law and International Law.*

Looking at the definition of international human rights law, we find some have defined it as "a set of written or customary legal rules applicable to persons of international human rights law within the international community, especially in peacetime."⁽¹⁾ Given this definition, we find it contains several elements: a set of written or customary legal rules applicable to persons of international human rights law ⁽²⁾ Within the international community in peacetime.

*World Court Digest (Formerly Fontes Iuris Gentium), vol 4. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-540-87467-6_18 (last acceded 1/6/2020) ; Kuijt E.E. (2016) *Legal Challenges in the Provision of Humanitarian Assistance: The Case of Non-international Armed Conflicts*. In: Gill T., Geiß R., Krieger H., McCormack T., Paulussen C., Dorsey J. (eds) *Yearbook of International Humanitarian Law Volume 17, 2014. Yearbook of International Humanitarian Law, vol 17. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-091-6_9 (last acceded 1/6/2020)**

- ⁽¹⁾ Lamour M. (2015) *Are Human Rights Law Rules "Special"? Study on Interactions Between Human Rights Law Rules and Other International Law Rules*. In: Weiß N., Thouvenin JM. (eds) *The Influence of Human Rights on International Law*. Springer, Cham; https://doi.org/10.1007/978-3-319-12021-8_3 (last acceded 1/6/2020)
- ⁽²⁾ Decaux E. (2018) *The Impact of Individuals and Other Non-State Actors on Contemporary International Law*. In: Pisillo Mazzeschi R., De Sena P. (eds) *Global Justice, Human Rights and the Modernization of International Law*. Springer, Cham; https://doi.org/10.1007/978-3-319-90227-2_1 (last acceded 1/6/2020)

Comparing the previous definitions of two branches of public international law, we find several elements on which the rest of the branches of public international law must be contains⁽¹⁾; It is a set of written or customary legal rules⁽²⁾ Applied to the persons of that branch of public international law⁽³⁾ Within the international community⁽⁴⁾ On a specific topic.⁽⁵⁾

And by landing these elements on a future definition of international public law for artificial intelligence, we find that the

⁽¹⁾ *Id - Supranote No. 2*

⁽²⁾ *Statute of the international court of Justice - Article 38 “ 1. The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply: international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; international custom, as evidence of a general practice accepted as law; the general principles of law recognized by civilized nations; subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law. 2. This provision shall not prejudice the power of the Court to decide a case ex aequo et bono, if the parties agree thereto.” Available at [https://www.icj-cij.org/en/statute#CHAPTER_II\(last acceded 1/6/2020\)](https://www.icj-cij.org/en/statute#CHAPTER_II(last%20acceded%201/6/2020))*

⁽³⁾ *Id - supranote No. 2*

⁽⁴⁾ *Id - supranote No. 7*

⁽⁵⁾ *Gross L. (1984) The Development of International Law through the United Nations. In: Essays on International Law and Organization. Springer, Dordrecht; https://doi.org/10.1007/978-94-017-7048-4_6 (last acceded 1/6/2020)*

definition of international law of artificial intelligence is summarized in "that branch of public international law that is embodied in a set of international written or customary legal rules related to artificial intelligence and its uses that apply to people of international law of artificial intelligence Within the international community, whether at peacetime or war."⁽¹⁾

It is noted in this definition that it includes the previous elements extracted from the definitions of international humanitarian law and international human rights law, but they have changed them in the subject of the branch itself, which is artificial intelligence.⁽²⁾ And it applies at peacetime and war.⁽³⁾ Looking at

⁽¹⁾ Ernst C. (2020) *Artificial Intelligence and Autonomy: Self-Determination in the Age of Automated Systems*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_3 (last acceded 1/6/2020)

⁽²⁾ Djeflal C. (2020) *Artificial Intelligence and Public Governance: Normative Guidelines for Artificial Intelligence in Government and Public Administration*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_12 (last acceded 1/6/2020)

⁽³⁾ Froehlich A., Seffinga V., Qiu R. (2020) *The Development of the Mandates of the Committee on the Peaceful Uses of Outer Space (COPUOS) and the Conference on Disarmament (CD) and the Collaboration Between the Forums*. In: Froehlich A., Seffinga V. (eds) *The United Nations and Space Security. Studies in Space Policy*, vol 21.

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these elements in some detail makes us understand the subject of artificial intelligence more clearly on an international scale.

1- A set of written or customary international legal rules.

It goes without saying that the main sources of public international law are international treaties ⁽¹⁾ and international custom ⁽²⁾ ; but what is new here is the recognition of some individual practices of some developed countries in acquiring technology for artificial intelligence ⁽³⁾ in their mind as more reference in regulating that new branch of Public international law; for example, we mention: German law for the protection of personal data⁽⁴⁾ ; the general regulation for data protection ⁽⁵⁾ ; and

Springer, Cham; https://doi.org/10.1007/978-3-030-06025-1_3 (last acceded 1/6/2020)

⁽¹⁾ *Id* - supranote No. 17

⁽²⁾ *Id* - supranote No. 18

⁽³⁾ Molnár-Gábor F. (2020) *Artificial Intelligence in Healthcare: Doctors, Patients and Liabilities*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_15 (last acceded 1/6/2020)

⁽⁴⁾ *Id*

⁽⁵⁾ Kindt E.J. (2013) *Biometric Data, Data Protection and the Right to Privacy*. In: *Privacy and Data Protection Issues of Biometric Applications*. Law, Governance and Technology Series, vol 12. Springer, Dordrecht; https://doi.org/10.1007/978-94-007-7522-0_3 (last acceded

some laws related specifically to the regulation of artificial intelligence. ⁽¹⁾

Whether the international treaty is bilateral, regional, or global in that new branch of public international law, it has not yet registered a global or regional agreement with regard to artificial intelligence in the United Nations Secretariat, as required by Article 102 of the Charter of the United Nations. ⁽²⁾ The overwhelming majority are some individual practices of some countries, which are considered non-binding (indicative) reference in relation to the uses

1/6/2020); Mitrou L. (2017) *The General Data Protection Regulation: A Law for the Digital Age?*. In: Synodinou TE., Jogleux P., Markou C., Prastitou T. (eds) *EU Internet Law*. Springer, Cham; https://doi.org/10.1007/978-3-319-64955-9_2 (last acceded 1/6/2020)

⁽¹⁾ *Id*; see also <https://www.alumniportal-deutschland.org/en/science-research/news-from-science/ai-made-in-germany/> (last acceded 1/6/2020)

⁽²⁾ Article 102 of UN charter “ Every treaty and every international agreement entered into by any Member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.” Available at <https://www.un.org/en/sections/un-charter/chapter-xvi/index.html>(last acceded 1/6/2020)

of artificial intelligence, including of course the directives issued by the European Council of the European Union.⁽¹⁾

2- Related to artificial intelligence and its uses.

The distinction of that new branch of public international law should be related to artificial intelligence or one of its uses, which opens the door in this definition to everything related to artificial intelligence as long as multiple subjects of public international law are affected⁽²⁾ and whether it addresses public international law people from countries or International organizations⁽³⁾ ; or directly touching the natural individuals⁽⁴⁾ ; and

⁽¹⁾ Pesapane, F., Volonté, C., Codari, M. et al. *Artificial intelligence as a medical device in radiology: ethical and regulatory issues in Europe and the United States. Insights Imaging* 9, 745–753 (2018). <https://doi.org/10.1007/s13244-018-0645-y> (last acceded 1/6/2020)

⁽²⁾ Jabri S. (2020) *Artificial Intelligence and Healthcare: Products and Procedures*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_14 (last acceded 1/6/2020)

⁽³⁾ Stefanelli M. (1999) *Artificial Intelligence for Building Learning Health Care Organizations*. In: Horn W., Shahar Y., Lindberg G., Andreassen S., Wyatt J. (eds) *Artificial Intelligence in Medicine. AIMDM 1999. Lecture Notes in Computer Science*, vol 1620. Springer, Berlin, Heidelberg; https://doi.org/10.1007/3-540-48720-4_2 (last acceded 1/6/2020)

⁽⁴⁾ Grossi, E. *How artificial intelligence tools can be used to assess individual patient risk in cardiovascular disease: problems with the current methods*. *BMC Cardiovasc Disord* 6, 20 (2006).

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given the novelty of this new branch of public international law, we must develop the Egyptian perception of the individual state of the Egyptian legal regulation of artificial intelligence and its uses; The initiative was from President / Abdel Fattah El-sisi, President of the Arab Republic of Egypt, under his direction to establish the Supreme Council for Artificial Intelligence. And in which a decree of the Prime Minister No. 2889 of 2019 was issued ⁽¹⁾

3- That applies to the subjects of the international law of artificial intelligence.

The subjects of international law of artificial intelligence mean these addressees of its provisions, whether when drafting the rules of this law in the form of international treaties or international

https://doi.org/10.1186/1471-2261-6-20 (last acceded 1/6/2020); van de Gevel A.J.W., Noussair C.N. (2013) The Nexus Between Artificial Intelligence and Economics. In: The Nexus between Artificial Intelligence and Economics. Springer Briefs in Economics. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-642-33648-5_1(last acceded 1/6/2020); Sliz P. (2019) Process Maturity of Organizations Using Artificial Intelligence Technology – Preliminary Research. In: Di Ciccio C. et al. (eds) Business Process Management: Blockchain and Central and Eastern Europe Forum. BPM 2019. Lecture Notes in Business Information Processing, vol 361. Springer, Cham ; https://doi.org/10.1007/978-3-030-30429-4_13 (last acceded 1/6/2020)

⁽¹⁾ Prime Minister Decision No. 2889 of 2019 available at <https://www.cc.gov.eg/i/l/393826.pdf> (last acceded 1/6/2020)

custom⁽¹⁾ or individual practices followed by other countries despite not being obligatory because they are benefit to maximizing the advantages of the uses of artificial intelligence.⁽²⁾

4- Within the international community.

This phrase is intended to include all international relations involved in one of its stages⁽³⁾ the use of artificial intelligence within the international community, regardless of the type of use of artificial intelligence⁽⁴⁾ and where it is used⁽⁵⁾; then this includes the territory of the State party in drafting the rules of this new law,

⁽¹⁾ *Id*

⁽²⁾ *Id*

⁽³⁾ Schemmel J. (2020) *Artificial Intelligence and the Financial Markets: Business as Usual?*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_11 (last acceded 1/6/2020)

⁽⁴⁾ Castelli, M., Sormani, R., Trujillo, L. et al. *Predicting per capita violent crimes in urban areas: an artificial intelligence approach*. *J Ambient Intell Human Comput* 8, 29–36 (2017). <https://doi.org/10.1007/s12652-015-0334-3> (last acceded 1/6/2020)

⁽⁵⁾ Nissan E., Asaro C., Dragoni A.F., Farook D.Y., Shimony S.E. (2014) *A Quarter of Century in Artificial Intelligence and Law: Projects, Personal Trajectories, a Subjective Perspective*. In: Dershowitz N., Nissan E. (eds) *Language, Culture, Computation. Computing of the Humanities, Law, and Narratives. Lecture Notes in Computer Science, vol 8002*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-642-45324-3_16 (last acceded 1/6/2020)

or The uses of this artificial intelligence outside its region⁽¹⁾ ; for example the use of artificial intelligence from outer space⁽²⁾; we are now in urgent need of an international agreement regulating the work of artificial intelligence, especially outside airspace; I mean here to add a new convention to the conventions of international law of outer space.⁽³⁾

5- Peace and war.

We should be aware that international human rights law applies during peace and during war ⁽⁴⁾; but international humanitarian law applies to relations between parties involved in

⁽¹⁾ *Baum, S.D. On the promotion of safe and socially beneficial artificial intelligence. AI & Soc 32, 543–551 (2017). <https://doi.org/10.1007/s00146-016-0677-0>(last acceded 1/6/2020); Bruzzone A.G., Massei M., Di Matteo R., Kutej L. (2019) *Introducing Intelligence and Autonomy into Industrial Robots to Address Operations into Dangerous Area*. In: Mazal J. (eds) *Modelling and Simulation for Autonomous Systems. MESAS 2018. Lecture Notes in Computer Science, vol 11472*. Springer, Cham; https://doi.org/10.1007/978-3-030-14984-0_32 (last acceded 1/6/2020)*

⁽²⁾ *Id -supranote No. 48*

⁽³⁾ *See more about these conventions at*

<https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html>(last acceded 1/6/2020)

⁽⁴⁾ *Schmitt M.N. (2011) *Green War: An Assessment of the Environmental Law of International Armed Conflict*. In: *Essays on Law and War at the Fault Lines*. T. M. C. Asser Press; https://doi.org/10.1007/978-90-6704-740-1_8 (last acceded 1/6/2020)*

armed conflict, whether international or non-international. ⁽¹⁾ From here we set out in our definition of international law of artificial intelligence as It must be applied at peacetime and war because it will interfere in all civil uses⁽²⁾ and these are related to international human rights law; military uses⁽³⁾ and these are related to international humanitarian law. With this swift treatment of the

⁽¹⁾ Zhu D. (2018) *Crimes Against Humanity and War Crimes. In: China and the International Criminal Court. Governing China in the 21st Century.* Palgrave, Singapore;

https://doi.org/10.1007/978-981-10-7374-8_6 (last acceded 1/6/2020); Jinks D., Maogoto J.N., Solomon S. (2014) *Introducing International Humanitarian Law to Judicial and Quasi-Judicial Bodies. In: Jinks D., Maogoto J., Solomon S. (eds) Applying International Humanitarian Law in Judicial and Quasi-Judicial Bodies.* T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-008-4_1 (last acceded 1/6/2020)

⁽²⁾ Harandizadeh, H., Toufigh, V. *Application of Developed New Artificial Intelligence Approaches in Civil Engineering for Ultimate Pile Bearing Capacity Prediction in Soil Based on Experimental Datasets.* Iran J Sci Technol Trans Civ Eng (2020). <https://doi.org/10.1007/s40996-019-00332-5> (last acceded 1/6/2020)

⁽³⁾ Kreutzer R.T., Sirrenberg M. (2020) *Fields of Application of Artificial Intelligence—Security Sector and Military Sector. In: Understanding Artificial Intelligence. Management for Professionals.* Springer, Cham; https://doi.org/10.1007/978-3-030-25271-7_9 (last acceded 1/6/2020) ; Crogan P. (2019) *Visions of Swarming Robots: Artificial Intelligence and Stupidity in the Military-Industrial Projection of the Future of Warfare.* In: Heffernan T. (eds) *Cyborg Futures. Social and Cultural Studies of Robots and AI.* Palgrave Macmillan, Cham; https://doi.org/10.1007/978-3-030-21836-2_5 (last acceded 1/6/2020)

international legal definition of artificial intelligence we are able to look into the impact of uses of artificial intelligence on the rules of public international law. Here we are exposed to several effects, including but not limited to.

III The impact of the uses of artificial intelligence on the rules of public international law.

Given the complexity and multiplicity of relationships that AI can enter into its regulation at the international level, we will address the impact of the uses of artificial intelligence on the rules of public international law related to the conclusion of international treaties; international and non-international armed conflicts especially international humanitarian law; and finally the impact of the use of artificial intelligence on rules International Medical Law.

1- The effect of the uses of artificial intelligence on the conclusion of international treaties.

International treaties go through several stages to conclude them, including the stage of negotiations ⁽¹⁾ , editing ⁽¹⁾ , signature⁽²⁾

⁽¹⁾ *Sen B. (1965) Treaty Making. In: A Diplomat's Handbook of International Law and Practice. Springer, Dordrecht; https://doi.org/10.1007/978-94-011-8792-3_17 (last acceded 1/6/2020); Hoffmeister F. (2018) Article 7. In: Dörr O., Schmalenbach K. (eds) Vienna Convention on the Law of Treaties. Springer, Berlin, Heidelberg;*

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, and ratification ⁽³⁾ ; then registration and publication of the international treaty ⁽⁴⁾ ; and if we assume that there is an use of artificial intelligence in the stage of international negotiations; And carrying the credential ⁽⁵⁾ just a robot working with one of the pre-programmed artificial intelligence algorithms about concluding treaties in the name of the country that delegated it ⁽⁶⁾ , then we

https://doi.org/10.1007/978-3-662-55160-8_9 (last acceded 1/6/2020)

⁽¹⁾ Hoffmeister F. (2018) Article 9. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_11 (last acceded 1/6/2020) ;

Hoffmeister F. (2018) Article 10. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_12 (last acceded 1/6/2020)

⁽²⁾ Hoffmeister F. (2018) Article 12. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_14 (last acceded 1/6/2020)

⁽³⁾ Hoffmeister F. (2018) Article 14. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_16 (last acceded 1/6/2020)

⁽⁴⁾ Tichy H., Bittner P. (2018) Article 80. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_84 (last acceded 1/6/2020)

⁽⁵⁾ Id - supranote No. 56

⁽⁶⁾ Srivastava A.K. (2009) *An Application of Artificial Intelligence to the Implementation of Electronic Commerce*. In: Allen T., Ellis R., Petridis M. (eds) *Applications and Innovations in Intelligent Systems XVI*. SGAI 2008. Springer, London; <https://doi.org/10.1007/978-1-84882-215->

assume several questions that may be answered by the Vienna Convention on the Law of Treaties concluded between states in 1969; Negotiations man who carrying a document of the authorization ⁽¹⁾ ; and that it does not exceed the limits of the authorization granted to it unless the state in which it was authorized has approved what exceeded its limits during negotiation ⁽²⁾ ; The limits of his mandate, but he concluded an agreement not in the interest of his country. ⁽³⁾

3_19(last acceded 1/6/2020) ; Jrad Z., Krief F., Dehni L., Bennani Y. (2006) *Artificial Intelligence Techniques in the Dynamic Negotiation of QoS: A User Interface for the Internet New Generation*. In: Gaïti D. et al. (eds) *Autonomic Networking. AN 2006. Lecture Notes in Computer Science, vol 4195*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/11880905_13 (last acceded 1/6/2020)

⁽¹⁾ *Id - supranote No. 56*

⁽²⁾ *Hoffmeister F. (2018) Article 8*. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_10 (last acceded 1/6/2020)

⁽³⁾ *Andrade F., Novais P., Machado J., Neves J. (2007) Intelligent Contracting: Software Agents, Corporate Bodies and Virtual Organizations*. In: Camarinha-Matos L.M., Afsarmanesh H., Novais P., Analide C. (eds) *Establishing the Foundation of Collaborative Networks. PRO-VE 2007. IFIP — The International Federation for Information Processing, vol 243*. Springer, Boston, MA; https://doi.org/10.1007/978-0-387-73798-0_22 (last acceded 1/6/2020)

This agreement needs a new text that regulates the hypothesis of using artificial intelligence in drafting and negotiating international treaties, meaning referring to the state⁽¹⁾ as long as the conclusion of the international treaty with this algorithm originating from the negotiator working on artificial intelligence. Therefore, we propose that the text of approval of the international treaty be amended, subject to referring to the country, especially if it is concluded by an artificial intelligence negotiator.

2- The impact of the uses of artificial intelligence on the rules of international humanitarian law.

International humanitarian law is concerned with protecting civilians⁽²⁾ and civilian objects⁽³⁾ during armed conflict, whether

⁽¹⁾ Hoffmeister F. (2018) Article 12. In: Dörr O., Schmalenbach K. (eds) *Vienna Convention on the Law of Treaties*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-662-55160-8_14 (last acceded 1/6/2020)

⁽²⁾ Mackintosh K. (2011) *Beyond the Red Cross: The Protection of Independent Humanitarian Organizations and Their Staff in International Humanitarian Law*. In: Heintze HJ., Zwitter A. (eds) *International Law and Humanitarian Assistance*. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-642-16455-2_3 (last acceded 1/6/2020)

⁽³⁾ Sommaro E. (2016) *The Status of Foreign Fighters under International Humanitarian Law*. In: de Guttry A., Capone F., Paulussen C. (eds) *Foreign Fighters under International Law and Beyond*. T.M.C. Asser

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international or non-international, so that they are not subjected to military strikes from the parties to the conflict. The use of artificial intelligence, especially plans without a pilot , or what has become known as the "Drones" ⁽¹⁾ has a great impact on the accuracy of targeting civilian targets, making the responsibility of countries that possess artificial intelligence and its technologies almost absolute responsibility ⁽²⁾ coinciding with their ability to define military targets and fighters accurately.⁽³⁾ Perhaps the most striking

Press, The Hague; https://doi.org/10.1007/978-94-6265-099-2_9 (last acceded 1/6/2020)

⁽¹⁾Ravich T. (2016) *A Comparative Global Analysis of Drone Laws: Best Practices and Policies*. In: Custers B. (eds) *The Future of Drone Use. Information Technology and Law Series*, vol 27. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-132-6_16 (last acceded 1/6/2020)

⁽²⁾Simmler, M., Markwalder, N. *Guilty Robots? – Rethinking the Nature of Culpability and Legal Personhood in an Age of Artificial Intelligence*. *Crim Law Forum* 30, 1–31 (2019). <https://doi.org/10.1007/s10609-018-9360-0>(last acceded 1/6/2020); Simmler, M. *The Importance of Placing Blame: Criminal Law and the Stabilization of Norms*. *Crim Law Forum* (2020). <https://doi.org/10.1007/s10609-020-09390-1> (last acceded 1/6/2020)

⁽³⁾de Swarte, T., Boufous, O. & Escalle, P. *Artificial intelligence, ethics and human values: the cases of military drones and companion robots*. *Artif Life Robotics* 24, 291–296 (2019). <https://doi.org/10.1007/s10015-019-00525-1>(last acceded 1/6/2020); Osinga F.P.B., Roorda M.P. (2016) *From Douhet to Drones, Air Warfare, and the Evolution of Targeting*. In: Duchaine P., Schmitt M., Osinga F. (eds) *Targeting: The Challenges of*

example of this is the targeting of Qassem Soleimani ⁽¹⁾ with a drone as a hostile target for the United States of America, which claimed responsibility at the hands of its president that he had used the Drones to hit the target accurately. ⁽²⁾

Modern Warfare. T.M.C. Asser Press, The Hague; https://doi.org/10.1007/978-94-6265-072-5_3(last acceded 1/6/2020) ; Schulzke M. (2017) *Evaluating Drones with Jus ad bellum.* In: *The Morality of Drone Warfare and the Politics of Regulation.* New Security Challenges. Palgrave Macmillan, London; https://doi.org/10.1057/978-1-137-53380-7_4(last acceded 1/6/2020); Strawser B.J. (2014) *Arguing in Good Faith about Drones.* In: *Opposing Perspectives on the Drone Debate.* Palgrave Macmillan, New York; https://doi.org/10.1057/9781137432636_12(last acceded 1/6/2020); Lamentowicz W. (2017) *Legal and Moral Dilemmas of Targeted Killing by Drones.* In: Zacher L. (eds) *Technology, Society and Sustainability.* Springer, Cham; https://doi.org/10.1007/978-3-319-47164-8_12(last acceded 1/6/2020); Rae J.D. (2014) *Targeted Killing and the Legality of Drone Warfare.* In: *Analyzing the Drone Debates: Targeted Killing, Remote Warfare, and Military Technology.* Palgrave Pivot, New York; https://doi.org/10.1057/9781137381576_3 (last acceded 1/6/2020)

⁽¹⁾ Seliktar O., Rezaei F. (2020) *Rescuing the Assad Regime and Turning Syria into a Client State.* In: *Iran, Revolution, and Proxy Wars.* Middle East Today. Palgrave Macmillan, Cham; https://doi.org/10.1007/978-3-030-29418-2_6(last acceded 1/6/2020); see also <https://www.bbc.com/news/world-middle-east-50979463>(last acceded 1/6/2020)

⁽²⁾ See <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-killing-qasem-soleimani/> (last acceded 1/6/2020)

3- The impact of the uses of artificial intelligence on the rules of international medical law.

The legal status of the insured individual is affected in insurance programs that are based on artificial intelligence techniques, as soon as he wears a hand watch in the hand that depends on artificial intelligence technology and changes as a result of his commitment to health habits appropriate to his condition daily clauses of his contract with the insurance company⁽¹⁾ such as the application of *Validity* ⁽²⁾ ; as well as the possibility of using Robots and applications operating in artificial intelligence to predict the patient's condition and healthy future.⁽³⁾ Provided that

⁽¹⁾Hoffmann-Riem W. (2020) *Artificial Intelligence as a Challenge for Law and Regulation*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_1(last acceded 1/6/2020); Buchholtz G. (2020) *Artificial Intelligence and Legal Tech: Challenges to the Rule of Law*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_8(last acceded 1/6/2020); Jabri S. (2020) *Artificial Intelligence and Healthcare: Products and Procedures*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_14 (last acceded 1/6/2020)

⁽²⁾ *Id*

⁽³⁾Vänni K.J., Salin S.E. (2017) *A Need for Service Robots Among Health Care Professionals in Hospitals and Housing Services*. In: Kheddar A. et al.

dealing with several criteria, including transparency⁽¹⁾, accountability⁽²⁾, equality⁽¹⁾, non-discrimination ⁽²⁾ and data

al. (eds) *Social Robotics. ICSR 2017. Lecture Notes in Computer Science*, vol 10652. Springer, Cham; https://doi.org/10.1007/978-3-319-70022-9_18(last acceded 1/6/2020); Buckmann, O., Krömker, M. & Berger, U. *An Application Platform for the Development and Experimental Validation of Mobile Robots for Health Care Purposes. Journal of Intelligent and Robotic Systems* 22, 331–350 (1998). <https://doi.org/10.1023/A:1007945702881> (last acceded 1/6/2020); Chita-Tegmark, M., Scheutz, M. *Assistive Robots for the Social Management of Health: A Framework for Robot Design and Human–Robot Interaction Research. Int J of Soc Robotics* (2020). <https://doi.org/10.1007/s12369-020-00634-z>(last acceded 1/6/2020) ; Kreutzer R.T., Sirrenberg M. (2020) *Fields of Application of Artificial Intelligence—Health Care, Education and Human Resource Management. In: Understanding Artificial Intelligence. Management for Professionals. Springer, Cham ;* https://doi.org/10.1007/978-3-030-25271-7_6 (last acceded 1/6/2020) ; Peyrou B., Vignaux JJ., André A. (2019) *Artificial Intelligence and Health Care. In: André A. (eds) Digital Medicine. Health Informatics. Springer, Cham; https://doi.org/10.1007/978-3-319-98216-8_3* (last acceded 1/6/2020)

⁽¹⁾ de Fine Licht, K., de Fine Licht, J. *Artificial intelligence, transparency, and public decision-making. AI & Soc* (2020). <https://doi.org/10.1007/s00146-020-00960-w>(last acceded 1/6/2020) ; Wischmeyer T. (2020) *Artificial Intelligence and Transparency: Opening the Black Box. In: Wischmeyer T., Rademacher T. (eds) Regulating Artificial Intelligence. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_4* (last acceded 1/6/2020)

⁽²⁾Shi Y. (2020) *The Impact of Artificial Intelligence on the Accounting Industry. In: Xu Z., Choo KK., Dehghantanha A., Parizi R., Hammoudeh M. (eds) Cyber Security Intelligence and Analytics. CSIA 2019. Advances*

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- (¹) Završnik, A. *Criminal justice, artificial intelligence systems, and human rights*. *ERA Forum* **20**, 567–583 (2020). <https://doi.org/10.1007/s12027-020-00602-0>(last acceded 1/6/2020); Hermstrüwer Y. (2020) *Artificial Intelligence and Administrative Decisions Under Uncertainty*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_9 (last acceded 1/6/2020); Araujo, T., Helberger, N., Kruijemeier, S. et al. *In AI we trust? Perceptions about automated decision-making by artificial intelligence*. *AI & Soc* (2020). <https://doi.org/10.1007/s00146-019-00931-w> (last acceded 1/6/2020)
- (²)Tischbirek A. (2020) *Artificial Intelligence and Discrimination: Discriminating Against Discriminatory Systems*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_5 (last acceded 1/6/2020); Covelo de Abreu J. (2019) *The Role of Artificial Intelligence in the European e-Justice Paradigm – Suiting Effective Judicial Protection Demands*. In: Moura Oliveira P., Novais P., Reis L. (eds) *Progress in Artificial Intelligence*. EPIA 2019. Lecture Notes in Computer Science, vol 11804. Springer, Cham; https://doi.org/10.1007/978-3-030-30241-2_26(last acceded 1/6/2020); Beil, M., Proft, I., van Heerden, D. et al. *Ethical considerations about artificial intelligence for prognostication in*

protection⁽¹⁾ , and their use also in cases of epidemics rather than human dealing in areas of the epidemic or the spread of malicious viruses ⁽²⁾ ; especially biologically developed ⁽¹⁾ or treatment In

intensive care. ICMx 7, 70 (2019). <https://doi.org/10.1186/s40635-019-0286-6>. (last acceded 1/6/2020)

- ⁽¹⁾ Marsch N. (2020) *Artificial Intelligence and the Fundamental Right to Data Protection: Opening the Door for Technological Innovation and Innovative Protection*. In: Wischmeyer T., Rademacher T. (eds) *Regulating Artificial Intelligence*. Springer, Cham; https://doi.org/10.1007/978-3-030-32361-5_2(last acceded 1/6/2020); Wrigley S. (2018) *Taming Artificial Intelligence: “Bots,” the GDPR and Regulatory Approaches*. In: Corrales M., Fenwick M., Forgó N. (eds) *Robotics, AI and the Future of Law. Perspectives in Law, Business and Innovation*. Springer, Singapore; https://doi.org/10.1007/978-981-13-2874-9_8(last acceded 1/6/2020); Ishii, K. *Comparative legal study on privacy and personal data protection for robots equipped with artificial intelligence: looking at functional and technological aspects*. *AI & Soc* 34, 509–533 (2019). <https://doi.org/10.1007/s00146-017-0758-8>(last acceded 1/6/2020); Ivanova Y. (2019) *Re-using Personal Data for Statistical and Research Purposes in the Context of Big Data and Artificial Intelligence*. In: Naldi M., Italiano G., Rannenber K., Medina M., Bourka A. (eds) *Privacy Technologies and Policy. APF 2019. Lecture Notes in Computer Science, vol 11498*. Springer, Cham; https://doi.org/10.1007/978-3-030-21752-5_8 (last acceded 1/6/2020)
- ⁽²⁾ Bruzzone A.G., Massei M., Di Matteo R., Kutej L. (2019) *Introducing Intelligence and Autonomy into Industrial Robots to Address Operations into Dangerous Area*. In: Mazal J. (eds) *Modelling and Simulation for Autonomous Systems. MESAS 2018. Lecture Notes in Computer Science, vol 11472*. Springer, Cham; https://doi.org/10.1007/978-3-030-14984-0_32 (last acceded 1/6/2020)

specialized laboratories with the aim of using them to produce serums or drugs for certain treatments ⁽²⁾ or used in biological wars that can end the human race. ⁽³⁾

IV Conclusions

International Law of Artificial Intelligence means "This branch of public international law that is embodied in a set of international written or customary legal rules related to artificial intelligence which addressing to the subjects of international law of

⁽¹⁾ *Id*

⁽²⁾ *Id*

⁽³⁾ Wilson C. (2020) *Artificial Intelligence and Warfare*. In: Martellini M., Trapp R. (eds) *21st Century Prometheus*. Springer, Cham; https://doi.org/10.1007/978-3-030-28285-1_7(last acceded 1/6/2020); Clark J. (2014) *Light Scattering and Particle Charge Techniques for the Detection of Biological Warfare Agents*. In: Jonsson P., Olofsson G., Tjärnhage T. (eds) *Bioaerosol Detection Technologies. Integrated Analytical Systems*. Springer, New York, NY; https://doi.org/10.1007/978-1-4419-5582-1_6(last acceded 1/6/2020) ; Valdivia-Granda W.A. (2019) *Big Data and Artificial Intelligence for Biodefense: A Genomic-Based Approach for Averting Technological Surprise*. In: Singh S., Kuhn J. (eds) *Defense Against Biological Attacks*. Springer, Cham; https://doi.org/10.1007/978-3-030-03053-7_16(last acceded 1/6/2020) ; Lele A. (2019) *Artificial Intelligence (AI)*. In: *Disruptive Technologies for the Militaries and Security. Smart Innovation, Systems and Technologies*, vol 132. Springer, Singapore; https://doi.org/10.1007/978-981-13-3384-2_8 (last acceded 1/6/2020)

artificial intelligence within the international community in peacetime and war."

- We recommend the Egyptian government to develop an ethical code of framework for the uses of artificial intelligence.
- We recommend the Egyptian Foreign Ministry to submit a draft of international treaty regulating the uses of artificial intelligence in outer space.
- The international community should be invited to establish an intergovernmental organization of artificial intelligence and its applications.
- Countries that use artificial intelligence in armed conflict bear the ultimate responsibility for damage to civilian objects or civilians.
- When using artificial intelligence applications in medical aspects, whether at the domestic level or the international, the countries commitments to the standards of transparency, accountability, equality, non-discrimination and data protection.

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https://doi.org/10.1007/978-94-011-9508-9_4

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