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Transhumanism:
from Julian Huxley to UNESCO
What Objective for International Action?

"Science and technology have overtaken nature, power, poetry, philosophy and religion. That's the heart of the matter. They have turned our lives upside down"

Jean d'Ormesson

SUMMARY

Julian Huxley, founder and the first Director-General of UNESCO, is at the heart of contemporary debates on the nature and objectives of the concept of transhumanism, which he first used in the early 1950s. Therefore, the analysis of his idea of transhumanism - a tool to improve the quality of life and the condition of man - should lead us to question his heritage in terms of philosophy that inspires UNESCO's action as it seeks to build a comprehensive approach to artificial intelligence that takes into account, among other things, the values and principles of universal ethics and aims to derive the best from the use of this technology.
This title where the British biologist, the elder brother of the famous science fiction writer, Aldous Huxley, author of the Brave New World[1], coexists with the United Nations Organization in charge of Education of Science and Culture is obvious for those who know the history of this international organization or who like radio games: Julian Huxley was appointed as the first Director-General of UNESCO in 1946. But, beyond this evidence, there is a deeper link that highlights the history of the renewal of the idea of transhumanism (I) and questions about the role that UNESCO has, among the other international organizations (II).

Keywords: Julian Huxley, UNESCO, transhumanism, ethics of artificial intelligence.

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1 Huxley, Aldous (1932), *Brave New World*, London; Chatto & Windus.

I The renewal of the idea of transhumanism

The question posed by "trans-humanism" is only an extension of that of human perfectibility[2]. For part of Western philosophy, perfectibility is, indeed, in the very nature of man as the element that distinguishes him from other living species. But what perfectibility is it? Its sources show that we have conceived it so far as social perfectibility. However, the twentieth century, because of the excesses of the idea of progress but also of political systems that wanted to be "scientific", led us to a disenchantment. Conversely, the techno-scientific revolution would give a man a new assurance, allowing him to break with history and rebuild his destiny from the idea of improvement. If the question of human perfectibility is a heritage from ancient philosophical sources, which is at the base of the Enlightenment revolution[3], the twentieth century offered the opportunity to bring up the idea and the very term of transhumanism. It is in this context that Julian Huxley made an important contribution to the nascent UNESCO philosophy.

A) Julian Huxley and transhumanism in the twentieth century

The authors generally trace the origin of transhumanism back to the 1980s in the United States. The transhumanist movement would thus be permeated by a liberal and individualistic philosophy, which would explain its difficulty in acclimatizing itself in other countries[4]. However, a search for the origins of the word transhumanist[5] reveals a somewhat different story in which Julian Huxley played a significant role.

1) Julian Huxley and the origins of the word transhumanist

It is indeed to this scientist that the invention of the transhumanist word is attributed. The transhumanist philosopher Nick Bostrom wrote: "The word "transhumanism" appears to have been used by Aldous Huxley's brother, Julian Huxley, a distinguished biologist (who was also the first director-general of UNESCO and a founder of the World Wildlife Fund) in "Religion Without Revelation (1927)"[6].

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2 Byk, Christian (2017), Le droit et l'idée de perfectibilité humaine, *Revue de la Recherche Juridique*, 2017(4), p. 1379.

3 Lotterie, Florence (1998), Les Lumières contre le progrès? La naissance de l'idée de perfectibilité, *Dix-Huitième Siècle*, 30 (1998), 383-396.

4 Intelligence artificielle et transhumanisme (2016), *Le transhumanisme en France*, *Mémoire par Manon DEBOISE*, https://iatranshumanisme.com/2016/04/03/le-transhumanisme-en-france/.

5 Dard, Olivier and Moatti, Alexandre (2016), Aux origines du mot transhumanisme, *Futuribles,* 413 (juillet-août).

6 Bostrom, Nick (2005), A history of transhumanist thought, *Journal of Evolution and Technology,* 14 (1), 1–25.

In fact, neither the attribution nor the date is correct. The word would be due to Jean Coutrot (1895-1941), a French polytechnician and champion of the rational organization of work[7]; it appeared for the first time in May 1939 during the Pontigny Conference organized by Coutrot[8]. As for the year in which Huxley, whose brother, Aldous, was a friend of Coutrot, employed it, it was during a lecture given in 1951 but published only in 1957, in which he emphasized that "If it so wishes, the human species can transcend itself – not by one way in one person and another in another, but in its totality, as humanity. We need a new name for this new conviction. Perhaps the word "transhumanism" will be appropriate: man will remain man but transcend himself by realizing the possibilities of his human nature and to their advantage"[9].

This is undoubtedly what makes Gilbert Hottois say that "what characterizes transhumanism is the reference to ethics ... Its priority is the improvement of the human, not its transformation ... even its liquidation. Transhumanist morality is not in itself original: it comes from utilitarian philosophy and is deeply related with the Enlightenment ... Transhumanism tries to articulate morality, technoscience and Evolution"[10]. The transhumanism advocated by J. Huxley remains, in any case, a collective project for humanity, offering to make the best of science and technology, not to exceed the human species, but to improve its condition.

2) Julian Huxley and transhumanism as a social project

Julian Huxley[11] was an evolutionist – his grandfather was a biologist approving Darwin's evolution theory – and even a eugenicist[12]. However, as a socialist, he believed that scientific progress must lead to the improvement of the human condition. This attachment to the idea that scientific progress must give birth to a new man is also that of his time and is not devoid of a certain ambiguity. In this sense, transhumanism is a utopia based on the overcoming of the human condition. The 1930s are in Europe those of the quest for a new man. It is then a question

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7   Dard, Olivier and Coutrot, Jean (1999), *De l'Ingénieur au Prophète*, http://chsp.sciences-po.fr/en/fond-archive/coutrot-jean.

8   Ibid., p. 6.

9   Huxley, Julian (1957), *The Transhumanism, New Bottles for New Wines*, London; Chatto and Windus.

10   Hottois, Gilbert (2017), *Philosophie et idéologies trans/posthumanistes*, Paris; Vrin., p. 291. ; Hottois, Gilbert (2014), *Le transhumanisme est-il un humanisme?* Liege; Académie royale de Belgique, livre numérique. For a critical analysis of the opinion of G.Hottois: Anna Falcone, *"Le transhumanisme est-il un humanisme?" Réponse à G. Hottois*, https://xxiemesiecle.wordpress.com/tribunes-et-recensions/le-transhumanisme-est-il-un-humanisme-reponse-a-gilbert-hottois/.

11   Waters, C. Kenneth and Helden, A. Van, eds., (1992), *Julian Huxley: biologist and statesman of science*, Houston TX: Rice.

12   Julian Huxley thought that eugenics could improve the human condition. He was the chair of the British Eugenics Society (1959-1962).

of "regenerating" the human being, and this objective is an appeal to a political dimension but also a social-economic, scientific, and cultural one[13]. It is in this context that the thought of Julian Huxley, who, unlike Teilhard de Chardin, claimed to be in favour of transhumanism, that is, "a religion (of man) without revelation"[14] was developing and maturing.

a) The "new man" or how to apply science to improve the quality of life and the human condition

It is in his book "Religion without revelation" that Julian Huxley expressed the goal of his approach: to demonstrate that "the conflict between science and religion is purely fortuitous and temporary because science is fundamentally a tool for questioning and experiencing nature" (while) religion consists essentially of a disposition of mind. Henceforth, "science will always be science even if its materialist (in the narrow sense of the term) or mechanistic views are abandoned, and religion can always be religion even if it retains nothing of any Christian belief"[15]. He continued saying that: "the moment seems to be approaching where man can and will have to build a new common vision, a new home for his spirit, new from the foundations and on the basis of a scientific humanism"[16] . In this perspective, he intended his book to two groups: men in whom "temperament or circumstances make their head the most powerful seat of a spirit completely outside the churches and those who are looking for the "breath of the spirit of truth, which in the hands of science transforms the World"[17]. He exhorted them to an alliance between science and religion, which will be the "only stage we need and belongs to those who combine respect for science and intellectual truth with love for what is better in the spirit of religion"[18]. Calling for theology to be shelved, it also incited us to "liberate the concept of God from the chains of the personality" because "religion as all human activities is always an unfinished work"[19].

13 Clair, Jean (2008), *La fabrique de l'homme nouveau*, Paris; Gallimard.

14 Schlegel, Jean-Louis (2017), Le transhumanisme et Teilhard de Chardin, même combat? *Esprit, mars-avril*, pp. 68–75.

15 Huxley, Julian (1927), Religion without revelation, New York and London; Harper and Brothers Publishers.

16 Ibid., p. 8.

17 Ibid., p. 9.

18 Ibid., p. 9.

19 Ibid., p. 10.

b) An ambiguous but pragmatic alliance

J. Huxley's idea of transhumanism fits into the neighbourhood of other schools of thought. Thus, as historians, Olivier Dard and Alexandre Moatti noted, "the border between a transhumanism with a Christian purpose (that of Teilhard) and the transhumanism of a "religion (of man) without revelation"(that of Huxley) is not so easily traceable"[20]. Indeed, "even if he does not take part in Coutrot's Entretiens de Pontigny, (the) shadow (of Teilhard) hovers there and he is constantly there "evoked and invoked"[21]. In addition, "Coutrot declared himself" deeply marked by the incredible coincidence of the parallels of this text and ours " while " otherwise Julian Huxley prefaced the English translation (published in 1959) of the reference work of Teilhard, "The Human Phenomenon" (1955)[22].

This convergence is also nourished by the vagueness, or even the ambiguity, which surrounds the definition of the notion of transhumanism. Thus, Julian Huxley always made the link between the project he was carrying and some form of eugenics. From 1939, he participated in the drafting of the Manifesto of geneticists[23], which advocated a politically "left eugenics", the improvement of social conditions being presented as the condition for the success of a eugenic policy.

His thought remained favourable to eugenics but, in general, he was wary of dogmas.

Regarding eugenics, the finding of continuity in J. Huxley's thinking is obvious. While he played an important role in the founding of UNESCO, he reaffirmed his commitment to a eugenic policy: "Biological inequality is obviously the foundation of the affirmation of all eugenics. [...] The inequality of mere difference is desirable, and the preservation of human variety should be one of the two main goals of eugenics. But the inequality of level or degree is undesirable, and the second essential goal of eugenics should be the elevation of the average level of all desirable qualities."[24]

He was probably aware of the very negative character of the concept of eugenics after World War II because he then used the word transhumanism to describe the point of view that man could improve himself through science and technology, including the rise of genetics[25].

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20   Dard, O. and Moatti, A. (2016), p. 8.

21   Dard, O. and Coutrot, J. (1999), p. 371–376.

22   Teilhard de Chardin, Pierre (1959), *The Phenomenon of Man*, New York, Evanston, London; Harper and Row, introduction by Sir Julian Huxley.

23   Darwin, Leonard (1940), The geneticists' manifesto, *Eugen Rev*, 31 (4), 229–230.

24   Huxley, Julian (1946), *UNESCO, its aim and philosophy*, https://unesdoc.unesco.org/ark:/48223/pf0000068197.

25   Weindling, Paul (2012), Julian Huxley and the Continuity of Eugenics in Twentieth-century Britain, *J Mod Eur Hist.*, 10(4), 480–499.; see also: http://julianhuxleyeugenics.blogspot.com/p/huxley-and-eugenics.html.

But he also understood that this "scientific progressivism" must not become a dogma, especially when it comes to founding a new international organization in the concern that the combined action of education, science and technology culture opens the way for international cooperation for peace and justice. He wrote: "UNESCO cannot rely either exclusively on an essentially sectarian philosophy or on a too narrow philosophical conception - whether it be existentialism, the doctrine of vital impulse, rationalism or spiritualism, economic determinism or a cyclical theory of human history"[26].

What best characterizes the strongly asserted will of Julian Huxley that others had before him (see the example of Auguste Comte[27]), to replace the traditional religions by systems of traditional beliefs and without God is the quest for unity of the belief system he called of his will[28]. Is this why his thought contributed to the philosophy of an organization such as UNESCO dedicated to science but also to culture and education?

B) Julian Huxley and the Foundations of UNESCO Philosophy

Even before the Second World War, J. Huxley had invested in scientific disclosure and supported the idea that an alliance between science and man would enable the latest to be the promoter of progress. His book, "The Science of Life," published between 1929 and 1931[29] and co-authored with H.G Wells and his son, is considered "the first modern textbook of biology"[30] (30) and "the best popular introduction to the biological sciences"[31]. Like many of his scientific colleagues and friends, he thought of the world as a global world in which culture and science were at the service of peace and justice because, as the preamble of UNESCO Constitution expressed, "since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed"[32]. Much more than this previous involvement that put

26 Huxley, Julian (1946), https://unesdoc.unesco.org/ark:/48223/pf0000068197, p. 7.

27 Comte, Auguste (1869), *Cours de philosophie positive*, 6 vol., Paris; J.B. Baillère; Pickering, Mary (2011), Le positivisme philosophique: Auguste Comte, *Revue interdisciplinaire d'études juridiques*, 2011/2 (67), 49–67. https://www.cairn.info/revue-interdisciplinaire-d-etudes-juridiques-2011-2-page-49.html

28 Phillips, Paul T. (2007), One World, One Faith: The Quest for Unity in Julian Huxley's Religion of Evolutionary Humanism, *Journal of the History of Ideas*, 68 (4), 613–633.

29 Wells, H. G., Huxley, Julian and Wells, G.P. (1929), *The Science of Life*, The Waverley Publishing Company Ltd.

30 Smith, David (1986), *C. H.G. Wells: Desperately Mortal*, New Haven and London; Yale University Press, p. 263.

31 Mackenzie, Norman and Mackenzie, Jeanne (1973), *H.G. Wells: A Biography*, New York; Simon and Schuster, 357.

32 UNESCO, Constitution of the United Nations Educational, Scientific and Cultural Organization, https://unesdoc.unesco.org/ark:/48223/pf0000226924.page=6

him in a state of mind of "world citizen" in accordance with the UNESCO project, his function as secretary of the committee responsible for drafting the Constitution of UNESCO, then first Director-General of the new organization, allowed him to directly influence the philosophy and action of the latter as shown by:

1) Writing the text "UNESCO: its aims and philosophy"

The appointment of J. Huxley as secretary of the Drafting Committee of UNESCO's Constitutive Act is the result of two of his essential qualities: his ability to give authoritative simplifications to difficult problems at all levels but above all, his astonishing rapidity in producing writings in support of his remarks and analysis[33]. It was thanks to this facility that Huxley's enterprise to clarify his ideas about what the new organization should be, led him to write the booklet entitled "UNESCO: Its Purposes and Philosophy", which was presented to the committee as an official working document[34].

a) A world and scientific humanism

The humanism that must inspire UNESCO's action is based on four characters; it is:

– universal

Not being able to rest on "the religions that compete in the world" or on "a too limited philosophical conception" nor on the belief in "the truth"[35], "its philosophical conception should therefore be… a kind of humanism. But this humanism should moreover be a universal humanism, that is to say, that it should strive to unite all the peoples of the world, and treat all the peoples and all the individuals of the same people as equal, with respect to human dignity, mutual respect and the possibility of receiving instruction"[36].

– scientific

"It must also be a scientific humanism, since the applications of science provide most of its material foundations for human culture, and the practice and knowledge of science must be closely related to those of other human activities."[37]

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33 Armytage, Walter Harry Green (1989), The First Director-General of UNESCO, in: Keynes, W. Milo and Harrison, G. Ainsworth, eds. *Evolutionary Studies, A centenary celebration of the life of J. Huxley*, Palgrave Macmillan, London 1989, 186–193.

34 Huxley, J. (1946).

35 Ibid., p. 7.

36 Ibid., p. 8.

37 Ibid., p. 8.

– monist

"This humanism cannot, however, be materialistic, but must embrace the spiritual and intellectual as well as the material aspects of existence; it must strive to achieve this on the basis of a truly monistic philosophical basis seeking the unity of all these aspects."[38]

– evolutionary

"Finally, it must be an evolutionary humanism ... (because) the theory (of evolution) shows us not only the place of man in nature and its relationship with the rest of the phenomenal universe ... but it also allows us to demonstrate the existence of progress in the cosmos. Finally, it shows us that it is only up to man to make further progress in evolution, and it offers us valuable lessons on the paths he must avoid and those he must follow if he wants to achieve this progress."

And he concluded: "the evolutionist point of view provides the link between the natural sciences and human history ... it shows us the biological roots of human values but also ... it allows to find at these values some foundations and certain external criteria"[39].

"It seems, therefore, that the general philosophy of UNESCO must be a universal scientific humanism unifying the different aspects of human life and inspired by evolution."[40].

2) The action of J. Huxley as first Director-General of UNESCO (1946 -1948)

He had a prospective vision and was able to create a link between exact sciences and social sciences

a) The prospective vision

"To carry out its task, it is not enough for an organization such as UNESCO to have well-defined goals and objectives. Its action presupposes a philosophy, a working hypothesis that tends to explain the aims and ends of human existence"[41]. In this respect, "the evolutionist point of view is indispensable, in that it enables us to choose, in the chaos of today's opposing tendencies, the principles, activities and methods which UNESCO must highlight and support"[42].

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38   Ibid., p. 8.
39   Ibid., p. 8-9.
40   Ibid., p. 8-9.
41   Ibid., p. 9.
42   Ibid., p. 9.

b) The link between exact sciences and social sciences

For Huxley, "evolutionary humanism" must put an end to the chasm separating exact and natural sciences from the social sciences and humanities. To this end, he emphasized the importance of understanding scientific facts and ideas in the light of history[43]. In this perspective, he has deployed, within the scientific community, his efforts to link work carried out in a variety of disciplines, including genetics, and revive the theory of evolution, which he established and updated[44]. It has thus helped to unify biology but also science in general[45]. It may be said that for J. Huxley, "the progress of biology is important only to the extent that it validates its faith in the progress of humanity"[46]. This is, in fact, his social and political vision to believe that pure science is not capable of constructing the changing world alone, but that the moral and ethical dimension, which is necessary to it, can only be provided by Man who is "the sole arbiter of his destiny". However, Huxley was not a supporter of individualistic "laissez-faire" but advocated a welfare state based on "scientific humanism".[47] What legacy had this vision left to international organizations and, in particular, UNESCO to carry out their mission in the XXIst century that has fully entered into a new revolution, that of technoscience and transhumanism?

II Transhumanism in the light of the missions of international organizations

If the transhumanist movement reborn since the 1980s has aroused the emergence of many actors at the international level[48] to promote the various currents but also to develop and produce the artefacts and tools of the future life, the intergovernmental organizations, hardly seem to be aware of the transhumanist phenomenon and the transversality of the questions it poses, which makes it difficult to perceive an emerging project inspired notably by the transhumanist philosophy of Julian Huxley. As it stands, it is the OECD which, in economic and industrial terms, has made the most progress on these questions. We may hope that the launching in 2019 by

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43   Huxley, Julian (1961), *Evolution in action*, New York; New American Library, 119.

44   Huxley, Julian (1942), *The evolution: The Modern Synthesis*, New York and London: Harper and Brothers Publisher.

45   Smith, Roger (2003), Biology and Value sin Interwar Britain: C.S. Sherrington, J.Huxley and the vision of Progress, *Past and Present,* 178, p.213.

46   Greene, John C. (1990), The Interaction of Science and World View in Sir Julian Huxley's Evolutionary Biology, *Journal of the History of Biology*, 23, p. 51.

47   Huxley, Julian (1934), If I were a dictator, *Harper's Magazine*, Oct.1934; Phillips, P. T. (2007).

48   Hottois, G. (2017), p. 291.; Hottois, G. (2014).; Intelligence artificielle et transhumanisme (2016).

UNESCO of its project on Artificial Intelligence should allow addressing this issue in a more open and multidisciplinary way.

A) OECD and the industrial approach of AI

OECD promotes a wide reflection on the new industrial policies brought about by the development of the bioeconomy and the digital economy. However, it does not rule out the need to include elements in these policies to strengthen confidence in Artificial Intelligence by ensuring respect for Human Rights and democratic values[49].

1) Promoting innovative and adapted industrial policies

a) Politics of life in itself and redefinition of capitalism

As pointed out by some socio-political analysts,[50] "in the neoliberal era of biomedicine and biotechnology, biopolitics is indeed changing. It now undertakes to manage and maximize life in itself"[51]. Nicolas Le Devedec concludes that "this policy of life in itself is to re-register itself in the context of a deep redefinition of capitalism linked to the advent of the economic and political paradigm that is the bio economy"[52]. The OECD's report on the bio economy[53], which defines it as "a system in which biotechnology will provide a substantial share of economic output" is, for these authors, an illustration of what "erases always a bit more the political and historical horizon of the Enlightenment"[54]. It is, indeed, the next revolution of production that is coming.

b) The next revolution of production

Taking note of the fourth industrial revolution arising from the use of digital, the OECD report on "the next industrial revolution"[55] analyses the diversity of implications

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49 OECD (2017), *The Next Production Revolution: Implications for Governments and Business*, https://www.oecd.org/innovation/the-next-production-revolution-9789264271036-en.html.

50 Le Dévédec, Nicolas (2016), L'homme augmenté, la biomédecine et la nécessité de (re)penser la vie, in: *Sociologies, Dossiers, Sociétés en mouvement, sociologie en changement*, http://journals.openedition.org/sociologies/5259.

51 Rose, Nikolas (2007), *The Politics of Life Itself, Biomedecine, Power and Subjectivity in the Twenty-First-Century*, Princeton; Princeton University Press.

52 Le Dévédec, N. (2016).; read also: C. Lafontaine, Le Corps-marché. La marchandisation de la vie à l'ère de la bioéconomie, Paris, Éditions du Seuil. 2014.

53 OECD (2009), *The Bioeconomy to 2030: Designing a Policy Agenda*.

54 Le Dévédec, N. (2016), para. 15.

55 OECD (2017), *The Next Production Revolution: Implications for Governments and Business*. https://www.oecd.org/innovation/the-next-production-revolution-9789264271036-en.htm

in economic terms but also beyond, highlighting the profound transformation that this implies for our societies and public policies. Emerging technologies are the focus of the report, but cross-cutting themes that question public policy are also addressed as public adherence, the influence of foresight (we will come back to this later), and education systems. Highlighting the advantages and challenges of digital production, the OECD allows us to confront the approach of the United States and that of China.

Thus, this report makes us aware that the transformations to which this new technological revolution leads will be global. That is why we regret - but this is the mission of the OECD - that the report focuses essentially on the new economic growth that is expected. It is nevertheless lucid, conceding that some of the issues raised merit further examination: the likely widening of inequalities, the fragility of the system with regard to chain vulnerabilities and the need to better evaluate the effectiveness of public policies[56].

"The quest for an improved human with enhanced physical, intellectual, sexual, emotional capacities fits in perfectly with this global phenomenon of biologization and bio medicalization of culture and identities that underlie the bio economy. Raising considerable ethical, social and political stakes, this new biomedical and bio political continent, of which transhumanism is one of the symptoms, is pushing the human sciences and sociology to revise their subject in depth", concluded N. Le Dévédec[57]. It is therefore not clear that the measures that the OECD has put in place to ensure the confidence of citizens and guarantee Human Rights respond to this criticism that calls into question the very transformations of the capitalist economy into a bio economy exploiting all forms of life.

2) Assure trust in AI

The OECD is well aware of the potential for conflict over technological innovation, with the report devoting a whole chapter to the issue of "public buy-in", for which it recalls that "it plays a large part in the influence that innovation exerts on society". He points out that "research in the social sciences shows that this resistance is more due to valuable conflicts, concerns about the distribution of benefits... and a lack of confidence in governance institutions". Nevertheless, the report believes[58] that good practices and participatory communication are likely to instil this confidence. It is in

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56 Ibid., pp. 66–67.
57 Le Dévédec, N. (2016), para. 17.
58 OECD (2017), p. 30.

this logic that we must understand the adoption by the OECD of recommendations to the actors concerned.

a) The Digital Risk Management Recommendation[59]

Recalling the role played by the OECD since the 1980s in "promoting policies and instruments for innovation and confidence in the digital economy", this text, adopted in 2015, presents as "the culmination of a multi-stakeholder process initiated in 2012 by the OECD Working Group on Security and Privacy in the Digital Economy (GTSVPEN) to revise the Council Recommendation on the Guidelines for Security of Information Systems and Networks: Towards a Safety Culture ("Security Guidelines"), which dates back to 2002"[60]. Aimed at governments as well as public and private organizations, the Recommendation focuses on "two key messages". The first expresses the idea that "digital risk should be treated as an economic risk and therefore part of the overarching frameworks of risk management and decision-making". As for the second, it insists on the fact that "dynamic management of the digital security risk can bring it back to an acceptable level in view of the expected economic benefits of the activities at stake". Clearly, this means that "digital security measures (cannot) harm… the economic and social activity they are supposed to protect."[61]

It is therefore essentially a text aimed at establishing trust in digital technology now intertwined with the economy and the functioning of our societies and, in this respect, the OECD chooses, in the continuity of its philosophy of action, "a flexible and responsive approach" involving economic and civil society actors in order to "take full advantage of the expected economic and social benefits (while) protecting individuals against digital security threats "[62]. The text sets out four general principles for good risk management[63] and four operational principles[64]. It also provides rules of good practice for the elaboration of national strategies[65]. An accompanying

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59   OECD (2015), *Digital Security Risk Management for Economic and Social Prosperity OECD Recommendation and Companion Document Published on October 01, 2015.* https://www.oecd.org/publications/digital-security-risk-management-for-economic-and-social-prosperity-9789264245471-en.html.

60   OECD (2002), *Guidelines for the Security of Information Systems and Networks: Towards a Culture of Security OECD.*

61   OECD (2015), p. 4.

62 OECD (2019), *Recommendation of the Council on Artificial Intelligence, OECD/LEGAL/0449*, https://legalinstruments.oecd.org/api/print?ids=648&lang=fr.

63   awareness, skills and empowerment, accountability, human rights, cooperation.

64   risk assessment and treatment cycle, security measures, innovation, preparedness and continuity.

65   OECD (2015), pp.14–18.

document "examines the applicability... of the eight principles... then explains each of these principles"[66].

b) The 2019 Recommendation on artificial intelligence[67]

This recommendation, which is the first international standard on artificial intelligence, "complements existing OECD standards in areas such as privacy protection, digital security risk management and responsible business conduct, deals with issues specific to AI and aims to define a standard that can be implemented and flexible enough to stand the test of time in a rapidly changing field"[68].

– It highlights **five principles that lay the groundwork for a responsible approach to AI**: inclusive growth, sustainable development and well-being, human-centered values and equity, transparency and accountability, robustness, safety and security and responsibility.

– The text also sets out **five recommendations for national policies and international cooperation**: investing in AI research and development, fostering a digital ecosystem for AI, a supportive policy framework for AI, building human capacity and preparing for the transformation of the labour market and fostering international cooperation for trustworthy AI.

Both of these documents, while calling for a holistic approach to questions, nonetheless have the essential aim of fostering the development of an economy, or even a social organization, based on these new technologies of development. It is only in the search for a necessary trust with all the actors involved that proportionate measures are recommended, following a flexible approach. If we limit ourselves to the objectives put forward, is it really so far from the thought of Julian Huxley to make the best of science and technology so that man continues to progress and move the world in the future? What then can be the role of UNESCO?

B) UNESCO and the societal and ethical dimension

UNESCO's action brings, through an ethical and multi-sectoral dimension involving States in a universal normative process, a complementary approach to the OECD analysis and opens the way not only to increased cooperation between States but also

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66   Companion Document to the Recommendation on Digital Security Risk Management for Economic and Social Prosperity, OECD Recommendation and Companion Document, pp. 17-69.
https://read.oecd-ilibrary.org/science-and-technology/digital-security-risk-management-for-economic-and-social-prosperity_9789264245471-en#.

67   OECD (2019), *https://legalinstruments.oecd.org/api/print?ids=648&lang=fr.*

68   Ibid, p. 3.

at the beginning of a normative and ethical approach to the issues involved. Will then this ethical approach allow it to respond to the need to think of the human person other than in an economic logic of improvement, which is the most commonly criticized in the place that the digital and the policies that the OECD develops in this sense[69],[70]?

1) The ethical and multisector dimension of UNESCO's action

UNESCO's project, as shown in the concept note of the world conference held on 4 March 2019 at UNESCO headquarters, is eminently ambitious. Its goal is to make AI the tool for the common good of the achievement of the Sustainable Development Goals[71], and for this, the AI must develop in a way that is profitable for humanity by respecting the norms and standards of the world and being anchored in peace and development[72]. The first stage of this project aims to "bring together stakeholders from the public and private sectors, the technical community, the media, the academic world, civil society and international organizations" to create a "dialogue to focus ... on the role of AI in addressing inequalities in access to knowledge, research and the diversity of cultural expressions, and to ensure that AI does not widen the technological divide between and within countries".[73] Based on its transdisciplinary vocation and 25 years of experience in the field of bioethics and the ethics of science[74], UNESCO committed itself from late 2018 to a series of events aimed at mobilizing the actors of the IA in the different disciplines and geographical areas concerned:

69 Read more at: https://www.actuia.com/news/recommendation-oc-intelligence-intelligence/.

70 Le Dévédec, Nicolas (2016).; Penser une sociopolitique de la vie, para.18–23.

71 UNESCO (2018), *Audrey Azoulay: Making the most of artificial intelligence*, https://en.unesco.org/courier/2018-3/audrey-azoulay-making-most-artificial-intelligence.

72 17 Goals to Transform Our World: https://www.un.org/sustainabledevelopment/sustainable-development-goals/

73 Audrey Azoulay, "Artificial intelligence can be a great opportunity to accelerate the achievement of sustainable development goals. But any technological revolution leads to new imbalances that we must anticipate." https://en.unesco.org/artificial-intelligence

74 «In response to the major transformations of our societies due to AI, UNESCO - as a global laboratory of ideas, standard setter, policy advisor and capacity builder - will play a leading role in facilitating international cooperation and shaping its future. UNESCO's mandate calls inherently for a human-centred approach to AI; to shift the conversation to include AI's role in addressing current inequalities regarding access to knowledge, research and the diversity of cultural expressions and to ensure AI does not widen the technological divides within and between countries. The promise of "AI for all" must be that everyone can take advantage of the technological revolution under way and access its fruits, notably in terms of innovation and knowledge". https://en.unesco.org/artificial-intelligence/principles-ai-towards-humanistic-approach

the impact on the society[75], AI and Africa[76], education[77], the "blockchain"[78]. Other events and reflective work[79] will follow in order to further publicize the issue of AI and make stakeholders aware of the need for a normative approach of universal scope. Indeed, as the Director-General reminded us, "Research in the field of AI is moving at a very high speed, while the legal, social and ethical environments that should frame it evolve very slowly." Hence the question she put forth: "How far can the autonomy of a machine and its power of decision go?". Acknowledging that "no international ethical framework, applying to all developments and applications of AI, exists at present," she expressed the view that "it is our responsibility to lead a universal and enlightened debate - not a technical but ethical debate - in order to enter the new era with our eyes wide open, without sacrificing the values that are ours and allow, if the Member States so wish, to lead to a common foundation of ethical principles"[80].

2) Engaging actors in a normative approach of universal scope

To this end, UNESCO can rely on the reflection of two groups of independent experts and on its political will to define a timetable to achieve this objective.

a) The preparatory work

It is a substantial part of the activities of the World Commission on the Ethics of Scientific and Technological Knowledge (COMEST) and the International Bioethics Committee (IBC).

1 ° In its 2017 report on metadata and health[81], **the IBC** noted that "in the era of big data, it is increasingly difficult to imagine that data protection can only be regulated by consent or anonymization, without any other guarantee (see chapter on autonomy)". It came to the conclusion that "it is imperative to create and implement

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75 Audrey Azoulay; Le Dévédec, N. (2016).

76 Roundtable on "Artificial Intelligence: Reflection on its complexity and impact on our society", UNESCO Paris, France, 11 September 2018. http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/international-bioethics-committee/ibc-sessions/ibc-igbc-comest-sessions-paris-2018/roundtable-artificial-intelligence/

77 Concept note, FORUM ON ARTIFICIAL INTELLIGENCE IN AFRICA, Mohammed VI Polytechnic University, Benguérir, Morocco12-13 December 2018. https://fr.unesco.org/sites/default/files/public_concept_note_eng.pdf

78 Blockchain: practices and perspectives, Paris, 17 May 2019, https://en.unesco.org/events/blockchain-practices-and-perspectives

79 Read The UNESCO Courier, 2018/3, https://en.unesco.org/courier/2018-3

80 UNESCO (2018), https://unesdoc.unesco.org/ark:/48223/pf0000248724; Le Dévédec, N. (2016).

81 UNESCO (2018), https://unesdoc.unesco.org/ark:/48223/pf0000248724.

a comprehensive multi-level governance structure that allow responsible use of the data"[82]. In this respect, the report highlighted the fact that "the transparency of algorithms ... is an essential element in this context"[83].

2 ° Among **its recommendations[84]**, the IBC suggested "UNESCO to develop a convention on the protection of privacy, including a framework for new approaches to the ownership and retention of personal health data, which should also address the processing of personal data and the digital presence of a person after their physical death. This convention may be based on the draft resolution of the Human Rights Council titled "the right to privacy in the digital age" (A / HRC / 34 / L.7 / Rev.1)"[85].

However, the 2015 IBC report on the update of its reflection on the human genome and human rights[86] showed a certain ambiguity in the positions of the committee insofar as it also stressed the necessity to encourage the use of genetic data in the field of health. Thus, the report wrote in its recommendations that "it would be a very big challenge for all existing biobanks to be included in an international register with clear rules for access and sharing, especially for cross-border and industrial access since they are numerous and of different statuses. However, this type of registry should be implemented. The rules governing data confidentiality and ethical review should also be harmonized"[87].

3 ° In its report 2017 on the ethics of robotics[88], the "COMEST" proposed to develop recommendations taking into account the distinction (between deterministic machines and cognitive robots). At a first level, that of deterministic machines that can be assigned responsibility for behaviour, the Commission's recommendations focussed on the legal tools needed to regulate their use. At a second level, that of cognitive machines whose behaviour is not predictable at 100% and is therefore largely stochastic, the recommendations considered, in addition to the adoption of legal tools, the development of codes of practice and ethical guidelines for producers and users. With regard to stochastic machines used in a context where the risk of damage exists (autonomous car, for example), it will be necessary to examine the degree of autonomy which can reasonably be granted to these machines and the modalities of maintenance of a significant level of human control."[89]. Finally, the

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82   Ibid., para. 106.

83   Ibid., para. 107.

84   Ibid., para. 112-118.

85   Ibid., para. 116 b.

86   https://unesdoc.unesco.org/ark:/48223/pf0000233258

87   Ibid., para. 80.

88   UNESCO (2017), *Report of comest on robotics ethics*, https://unescoblob.blob.core.windows.net/pdf/UploadCKEditor/REPORT%20OF%20COMEST%20ON%20ROBOTICS%20ETHICS%2014.09.17.pdf

89   Ibid., para. 216.

report came up with a list of very diverse recommendations[90]. In addition, COMEST is continuing its work in the field of AI with a study on the Internet of Things issue. It is probably by progressing through a calendar that the text in preparation will find its coherence.

2) The timetable and process of developing a normative text of universal principles

Firm in its intentions, the approach is nevertheless cautious in its modalities.

a) The normative process

It is an essential element of this work of anticipation, which consists not in restraining the developments of artificial intelligence but in inscribing them in a logic of common ethical values. This is what the Director-General of UNESCO said when she stated that "it is our responsibility to lead a universal and enlightened debate, in order to enter this new era with our eyes wide open, without sacrificing our values, and lead to a common foundation of ethical principles"[91].

If, for UNESCO, "it is certainly premature to want to regulate [artificial intelligence] at the global level, it is (however) more than time to define a foundation of ethical principles that would frame this disruption"[92]. And during the spring 2019 executive council, Mrs A. Azoulay reminded that "éthique à la carte", according to the regions of the world, cannot be satisfactory and UNESCO must not fail to fulfil its mission, mission which must be carried out in consultation with the other agencies and forums, which each participate in their area of jurisdiction"[93]. To this end, since 2018, the Organization has established intersector coordination to provide the secretariat with a multidisciplinary approach to issues related to AI.

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90   Ibid., para. 238-266: Recommendation on the Development of the Codes of Ethics for Robotics and Roboticists, Recommendation on Value Sensitive Design, Recommendation on Experimentation, Recommendation on Public Discussion, Recommendation on Retraining and Retooling of the Workforce, Recommendations related to Transportation and Autonomous Vehicles, Recommendations on Armed Military Robotic Systems ("Armed Drones"), Recommendations on Autonomous Weapons, Recommendations on Surveillance and Policing, Recommendation relating to Private and Commercial Use of Drones, Recommendation on Gender Equality, Recommendations on Environmental Impact Assessment, Recommendations on the Internet of Things.

91   UNESCO (2018, pp. 36–39.

92   Audrey Azoulay, UNESCO World Conference on Artificial Intelligence, Paris, 4 March 2019, Opening Declaration.

93   UNESCO (2019*), Discours de la Directrice générale de l'UNESCO Audrey Azoulay, à l'occasion de l'ouverture de la 206e session du Conseil exécutif, UNESCO, 8 avril 2019*, p. 13, https://unesdoc.unesco.org/ark:/48223/pf00003 67599?posInSet=1&queryId=N-c28b1b62-5fee-400e-8f02-bc0229b8dc09

As a second step, the November 2019 General Conference approved during the project of elaborating a universal Recommendation on AI. Following this approval[94], the Director-General established in February 2020 a group of experts from different disciplines and regions of the world in order to continue the work of COMEST with the mandate to prepare a draft text to be discussed among others by the Member States. It is therefore potentially at the 41st session of the General Conference scheduled for November 2021 that a final draft may be examined. In order to fulfil its mission within this short time, UNESCO will have to maintain an approach as consensual as possible and be in the capacity of making both the States and the actors of the digital economy recognize the need for such a normative text.

b) An approach in search of consensus

The difficulty in carrying out this project lies in the need to stay the course because, as Mr Fabrizio Hochschild Drummond, Assistant Secretary-General for strategic coordination in the United Nations Secretary-General's Cabinet, pointed out at the UNESCO Symposium on 4 March 2019, "the current preference for soft international agreements, which marks the erasure of cooperation in favour of competition, makes non-binding instruments much more attractive. But we cannot count on the good conduct of all. If we let the invisible hand of the market operate freely, we will obtain useful applications, but our privacy will be exposed, and inequalities will increase, which will contribute to the polarization of our societies"[95]. While the OECD has supported the UNESCO project[96], the fact remains that, due to its large number of the Member States, its intersector vocation and its reference to an ethic and universal values, UNESCO will have more difficulty on those sensitive issues, than WHO in the field of epidemic emergencies, in adopting clear and coherent common positions. Perhaps, in order to consolidate the credit given to UNESCO's action, will it be possible to compare Julian Huxley's philosophy with that of the Director-General's definition of artificial intelligence: "Artificial intelligence can be a tremendous opportunity to accelerate the achievement of sustainable development goals, but any technological revolution leads to new imbalances that need to be anticipated"[97].

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94   40th session of the General Conference, November 2019.

95   UP' Magazine (2019), *IA : Appel à une gouvernance fondée sur les droits de l'être humain*, http://up-magazine. info/index.php/actualites/actus-bref/8474-ia-appel-a-une-gouvernance-fondee-sur-les-droits-de-l-etre-humain.

96   Ibid.: Angel Gurría, Secretary-General of the Organization for Economic Co-operation and Development (OECD), stressed the importance of cooperation to ensure that AI becomes a driver for inclusive and sustainable growth. "We are not entitled to the error, because if AI fuels optimism, it is also a source of anxiety and ethical concerns." Gurría further emphasized the need to work with UNESCO in a concerted effort to "make AI less artificial and smarter".

97   UNESCO (2018).

Conclusion

The observation that can be made from this analysis is that the concept of transhumanism remains unclear. This is true both for its European origins in the 1930s and, more recently, for the transhumanist international movement, as shown by the Transhumanist Declaration[98].

It is undoubtedly, as Dard and Moatti pointed out, that "the precise definition of terms has never been a characteristic of utopias - from Saint-Simon to those of the new man of the 1930s".[99] But, it is also because all the stake holders in AI require a great margin of action in the adoption of public policies. At a time when some want to ban the use of artificial intelligence technologies, others only aim to regulate or even encourage them. For our part, we prefer anticipating at a global level an unpredictable future rather than letting people believe that each Nation could develop its own policy to safeguard what is no more the present in which we live. Although international organisations, such as UNESCO, may appear irrelevant to tackle this task, we nevertheless consider that the history of UNESCO shows that it can raise consciousness and initiate a real contribution to a global policy in the field of AI. We will only preserve the idea of humanity and humanism if we give it the capacity to adapt to a changing world.

NB: This text, which reflects only the opinion of his author, cannot engage either the IGBC or UNESCO. The author declares, moreover, that he has no other link of interest on the questions of transhumanism and AI than those stemming from its membership in the IGBC (UNESCO) and the French National Commission for UNESCO.

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98   The Transhumanist Declaration was originally crafted in 1998 by an international group of authors: Doug Baily, Anders Sandberg, Gustavo Alves, Max More, Holger Wagner, Natasha Vita-More, Eugene Leitl, Bernie Staring, David Pearce, Bill Fantegrossi, den Otter, Ralf Fletcher, Kathryn Aegis, Tom Morrow, Alexander Chislenko, Lee Daniel Crocker, Darren Reynolds, Keith Elis, Thom Quinn, Mikhail Sverdlov, Arjen Kamphuis, Shane Spaulding, and Nick Bostrom. This Transhumanist Declaration has been modified over the years, https://humanityplus.org/philosophy/transhumanist-declaration/

99   Dard, O. and Moatti, A. (2016), p. 9.

UNESCO (2019), *Discours de la Directrice générale de l'UNESCO Audrey Azoulay, à l'occasion de l'ouverture de la 206e session du Conseil exécutif, UNESCO, 8 avril 2019*, p.13, https://unesdoc.unesco.org/ark:/48223/pf0000367599?posInSet=1&queryId=N-c28b1b62-5fee-400e-8f02-bc0229b8dc09.

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Transhumanizam:
od Juliana Huxleyja do UNESCO-a.
Koji je cilj međunarodne akcije?

SAŽETAK

Julian Huxley, osnivač i prvi generalni direktor UNESCO-a, u središtu je suvremenih rasprava o prirodi i ciljevima koncepta transhumanizma, koji je prvi put upotrijebio početkom pedesetih godina prošlog stoljeća. Analiza njegove ideje o transhumanizmu - alatu za poboljšanje kvalitete života i stanja čovjeka - trebala bi nas, stoga, dovesti do toga da njegovu baštinu propitkujemo u smislu filozofije koja nadahnjuje UNESCO-vo djelovanje jer želi izgraditi cjelovit pristup umjetnoj inteligenciji koji uzima u obzir, između ostalog, vrijednosti i principe univerzalne etike i teži upotrijebiti najbolje od te tehnologije. Naslov ovog rada, u kojem britanski biolog, stariji brat slavnog pisca znanstvene fantastike Aldousa Huxleyja, autora romana "Hrabri novi svijet", koegzistira s organizacijom Ujedinjenih naroda za obrazovanje znanost i kulturu, razumljiv je za one koji znaju povijest ove međunarodne organizacije ili one koji vole radijske igre: Julian Huxley imenovan je prvim generalnim direktorom UNESCO-a 1946. godine. No, osim ovih činjenica postoji i dublja poveznica koja ističe povijest obnove ideje transhumanizma (I) i propituje ulogu UNESCO-a među ostalim međunarodnim organizacijama (II).

Ključne riječi: Julian Huxley, UNESCO, transhumanizam, etika umjetne inteligencije.