Smart Information Systems and The Environment

AI advancements could harm the environment and the introduction of new technologies brings with it irreversible ecological consequences. An important fact worth mentioning is that electronic waste is expected to reach 52.2 million tons in 2021. Moreover, the UN Environment Program (UNEP) reported in 2015 that 60 to 90 percent of the world's electronic waste is illegally dumped and that in 2014, an estimated 42 million tons of e-waste were generated.

The UN Commission on Human Rights, in resolution 2003/71 recognizes that the protection of the environment and sustainable development can contribute to human well-being and potentially to the enjoyment of human rights, as well as that environmental damage can have potentially negative effects on the enjoyment of some human rights.

THE IMPACT OF SIS ON THE ENVIRONMENT

SHERPA, recognizing the impact SIS can have on the environment, dedicated a chapter on SIS and the environment.

Based on this chapter, this briefing provides:

a) current European and international legal instruments related to the recognition and protection of the environment, and

b) lessons learned.

ENVIRONMENT AND THE LAW – THE THIRD GENERATION RIGHTS

Beyond the well known first generation rights (civil and political) and second generation rights (economic, social and cultural rights), a new category of rights ('third generation rights') have been proposed, as a consequence of a deeper understanding of the different types of obstacles that may stand in the way of realising the first and second generation rights. In fact, in much of the world, conditions such as extreme poverty, war, ecological and natural disasters have meant that there has been only very limited progress in respect of human rights.

According to the Council of Europe, the idea that forms the basis of the third generation rights is that of solidarity; and the rights embrace collective rights of society or peoples, amongst them the right to a healthy environment.

The third generation rights are only under development and not yet integrated into the international or European human rights system as are first generation and second generation. Thus, one of the main challenges with the issue of SIS and the Environment is that the right to a healthy environment is still in the making.

HUMAN RIGHTS ISSUES

On an international level, some important soft law instruments coming from the UN, which provide principles about the environment, are:

· The Declaration of the United Nations Conference on the Human Environment (or Stockholm Declaration),

> Principle 18 stipulates that 'Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind'.

The UNESCO Universal Declaration on Bioethics and Human Rights,

· the Millennium Development Goal number 7,

· Six out of the 17 Sustainable Development Goals which apply directly to the environment and humans' influence over it;

· The Rio Declaration on Environment And Development.

Among the hard law instruments that stipulate about the environment are:

· Article 37 of the EU Charter of Fundamental Rights

> it stipulates that a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.

· The United Nations Framework Convention On Climate Change

> it suggests, among others, to promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies.

LESSONS LEARNED

The opportunity for AI to be harnessed to benefit humankind and its environment is substantial. The intelligence and productivity gains that AI will deliver can unlock new solutions to society's most pressing environmental challenges: climate change, biodiversity, ocean health, water management, air pollution, and resilience, among others.

The World Economic Forum, in its publication 'Fourth Industrial Revolution for the Earth Series, Harnessing Artificial Intelligence for the Earth', lists some recommendations, categorized by stakeholder groups, to speed up innovation, minimize environmental risks and maximize environmental benefits from the application of AI.