**DEPARTMENT OF SCIENCE AND TECHNOLOGY – PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (DOST-PCIEERD)**

**Response to the HRC Advisory Committee Questionnaire on new and emerging digital technologies and human rights [[1]](#endnote-1)**

**Core questions (for all stakeholders)**

1. *In what ways do new and emerging digital technologies help to protect and promote human rights? How can the positive benefits of these technologies be realized?*

Emerging digital technologies like artificial intelligence, internet of things, block chain, cloud computing, and personalized medicine, have a great responsibility to ensure not only that these technologies are safe but also to ensure that these technologies respect people´s rights.

Emerging technologies such as smart phone applications with data privacy to data encryption, some see the emergence of these technologies as potentially impactful, scalable and cost-effective ways to better understand where and how a variety of products could be useful. Particularly in global supply chains that are complex, diverse and fragmented, these technologies can provide real-time information to employers, their customers, and other stakeholders about what workers are experiencing. Ultimately, the hope is that these technologies can provide action-oriented information to facilitate workers´ access to remedy, where needed.

Here are some ways that these technologies help to protect and promote human rights:

1. Data and privacy
2. Worker and workers rights
3. Online learning / education
4. Big data and open data sharing
5. Block chain for transparency in institutions, establishments and supply chain

Artificial intelligence and data science could help solve some of the following issues:

* Harassment and threats of violence online – how can we track, quantify and address online harassment and violence against women and minority groups, while respecting privacy and freedom of speech
* Turning noise to signal: helping human rights researchers discover evidence of abuses
* Understanding public sentiment reliably and efficiently to more effectively mobilize people to advocate for their rights, and campaign against human rights abuses where they´re happening
* How refugees and migrants can be effectively protected from associated harms from racists?
* Tracking pollution and environmental damage, and alerting people to health risks.
1. *What are some of the key human rights challenges arising from new and emerging digital technologies? How can these risks be mitigated? Do new and emerging digital technologies create unique and unprecedented challenges or are there earlier precedents that help us understand the issue area?*

Disruptive technologies also bring with them new and previously unforeseen human rights risks as diverse as non-discrimination, privacy, women and child rights, freedom of expression, access to public services, and the right to work.

Yes, new and emerging digital technologies create various issues and challenges but it also helps us understand and address those.

1. *Is the existing international human rights framework adequate to safeguard human rights in an era of rapid technological innovation? Why or why not? If not, what types of reforms are needed?*

The existing human rights framework may be adequate to safeguard human rights. However, education and information awareness, promotion, deployment, and enforcement of laws and policies need to be enhanced or improved.

1. *In your opinion, are there any gaps or overlaps in existing efforts to respond to the issue of new and emerging digital technologies? Are some human rights or technologies being overlooked?*

Adequate management and implementation of the human rights framework and related-policies need to be harmonized and coordinated among governments, academic, private and public sectors to ensure that all possible gaps are addressed, and that human rights and technologies are not overlooked.

1. *As opposed to focusing on a selected few technologies, do you think a holistic and inclusive approach will help reduce any gaps in the existing system for addressing human rights challenges from new and emerging digital technology?*

Yes, a holistic and inclusive approach will help identify/reduce any gaps in the existing system.

1. *What should be the role of the private sector in mitigating the risks of new and emerging digital technologies to human rights? What about the roles of other key stakeholders?*

Public-Private collaboration to advance human rights is crucial in mitigating the risk of new and emerging technologies to human rights. Socio-civic groups could also contribute since they are more knowledgeable of what is happening on the ground.

**Specific questions for UN Agencies *(It is noted that the Philippine line agency, the DOST-PCIEERD, provided appropriate responses in this regard)***

1. *Please describe the relevant work that your organization has done on the issue of new and emerging digital technologies and human rights. What have been the key accomplishments?*

Inclusiveness / Bridging digital divides

* DOST funds research and development (R&D) projects to ensure that universities in different parts of the country have good internet connection and access to information
* DOST funds peer-referred journal subscription (e.g. Elsevier) to ensure sharing of this reference facility to higher education and science institutions nationwide who cannot afford to subscribe on their own.

Enjoyment of the rights of persons with disabilities

* DOST-PCIEERD supported Start-ups for persons with disabilities (PWDs)
* Grants-in-aid funding of an Artificial Intelligence (AI) program supports R&D applications for PWD

Advancement of the rights of persons with disabilities

* Each government agency is mandated to earmark and use 5 % of its annual budget for gender and development mainstreaming activities and promotion
* Applicants of DOST grant-in-aid including research on emerging technologies has to pass the prescribed score for gender and development (GAD) component, as one of its requirements.
1. *What challenges have your organization encountered when approaching this issue area? What lessons were learned in the process?*

Use of emerging technologies for human rights must be further explored and prioritized in order for our agency to develop ways of promoting it to our stakeholders.

1. *How does your organization use new and emerging digital technologies to protect and promote human rights?*

In-house development and use of information management systems with data privacy/security are being practiced to organize and share data or information in a cohesive, organized and timely manner among its employees. Human resource management information system, for example, can provide real-time and basic information that they need to know about their employment or needed to know by their employer.

Ultimately, the hope is that these technologies can provide action-oriented information to facilitate workers’ access to information and data, where needed.

1. *What have been the greatest challenges when using new and emerging technologies? Have these technologies been effective?*

Readiness and absorptive capacities of stakeholders in the use of emerging technologies for industry 4.0 and even in human rights is a great challenge. These can be addressed with sufficient education and support for its adoption/implementation.

1. *Has your organization collaborated with other organizations on the issue of new and emerging digital technologies and human rights? Did the organization face any challenges in working with other organizations?*

DOST-PCIEERD has been collaborating with the Philippines’ Department of Information and Communications Technology (DICT), the National Privacy Commission (NPC), and the Philippine Commission on Women on the use of emerging technologies for their key services and function.

**Specific questions for States**

1. *What measures, if any, (legislative, administrative, institutional, or other) have been put in place in your country to deal with human rights risks arising from new and emerging digital technologies? Are these measures still in the process of being implemented? If not, why are they no longer in progress?*

The NPC, an independent body created under Republic Act No. 10173 or the Data Privacy Act of 2012, is mandated to administer and implement the provisions of the Act, and to monitor and ensure compliance of the country with international standards set for data protection on cyber security and privacy act.

The Philippines Data Privacy Act (RA 10173) also outlines the rights of the data subject. They have the rights to be informed, object, access, rectification, erasure or blocking, lodging a complaint, damages and data portability.

1. *How are new and emerging digital technologies affecting the protection and promotion of human rights in your country? What unique challenges or advantages does your country have in responding to the issue? What are the lessons or best practices that can be shared?*

We lack documentation of unique challenges, advantages, lessons or best practices. Hence, we cannot provide inputs on this at the moment.

1. *In your country, which government agency has an initiative in the decision-making of new and emerging digital technologies policies? Does your country have a special agency that exclusively deals with the issues of new and emerging digital technologies? (for example: The Disruption Council in Denmark, The Presidential 4th Industrial Revolution Committee in Korea) If so, how much does the agency take the human rights issues into account in its agenda?*

Among others, the following government institutions addresses human rights issues as one of its foremost goal in its agenda:

1. Department of Science and Technology and its sectoral council:

*Philippine Council for Industry, Energy, and Emerging Technology Research and Development* – one of its mandates is to formulate policies and policy recommendations on emerging technologies including digital technologies, information and communications technology – artificial intelligence, IoT, data science, robotics, blockchain technology.

1. Department of Information and Communications Technology
2. Department of Trade and Industry – Emerging Technology Division
3. Commission on Human Rights (CHR) is an independent National Human Rights Institution (NHRI) created under the 1987 Philippine Constitution that provides services covering human rights protection, promotion, policy advisory, formulation and issuance, specialized/thematic programs, cooperation and partnership.

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1. \*The term *new and emerging technologies* broadly refers to innovations that are transforming the boundaries between virtual, physical and biological spaces. They include new technologies and techniques of datafication, data distribution, and automated decision-making, such as artificial intelligence, the Internet of Things, block chain, cloud computing, and personalized medicine, among others. [↑](#endnote-ref-1)