



United Nations Office of the High Commissioner for
Human Rights

APC submission to the thematic report on the relationship between technical standard- setting processes and human rights

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Introduction

The Association for Progressive Communications (APC) is an international network organisation dedicated to empowering and supporting people working for peace, human rights, development and protection of the environment, through the strategic use of information and communication technologies (ICTs). APC has 62 organisational members and 29 associates active in 74 countries, mostly in the global South. We work to build a world in which all people have easy, equal and affordable access to the creative potential of ICTs to improve their lives and create more democratic and egalitarian societies.

APC welcomes the opportunity to contribute to the thematic report of the Office of the High Commissioner for Human Rights (OHCHR) “to discuss the relationship between human rights and technical standard-setting processes for new and emerging digital technologies”, as requested under operative paragraph 3 of the Human Rights Council Resolution 47/23.

We present below inputs collated from the experiences of staff and members. Responses are organised according to the guiding questions proposed by the OHCHR.

Responses to proposed guiding questions

How do technical standards for new and emerging digital technologies impact the enjoyment of human rights; what are related risks and opportunities?

Technical standards – whether the work resulting from the standardisation efforts of a specific standards development organisation (SDO) or the *ad hoc* result of *de facto* adoption – are key to the internet and its architecture, capabilities, interoperability and use. Standards, whether developed before coding or as a result of coding, determine the capabilities that people rely on.

Technical standards affect human rights by providing capabilities that either enable or constrain what can be done with a protocol or an application. Within limits, they can serve the human rights needs of people or can be used to violate those rights. While the standards are not completely determinative on the ways an application can be used or abused, they are critical to what is possible to facilitate with them.

Whether an application protects privacy is, in many cases, the result of provisions made in the protocol definitions: what information do they collect, do they retain information, do they encrypt or save in cleartext? Can a user get access through a language they understand or a script they can read? That is a result of a standard that requires that capability. Can remote users access information about their nation and civic responsibilities? These and many similar features can be enabled or disabled by the standard or the methods of the application. The standards that are created and deployed determine to what degree the rights to freedom of expression and association and privacy are available and possible on the internet.

The standards themselves are just the start. Standards can emphasise a certain functionality – a functionality that assists in or contributes to preserving rights. Once the standards have been written, those who implement them can either implement faithfully or implement allowing for the ability to work around any protections or capabilities. Beyond implementation, the method in which applications are deployed can change the balance of whether human rights are protected or threatened. Often the policy aspects of system deployment make the final determination of whether a technology is supportive or deleterious of people's human rights. Considerations and analysis are required at

each stage in the life cycle of an ICT product, protocol or internet architecture to support human rights. Work at only one stage can be undone at another. Likewise, on occasion, a lack at one stage can be remediated at another, though this is more difficult and sometimes only partial.

What are examples that best illustrate the relationship between technical standards for new and emerging digital technologies and human rights?

In the period after Snowden, the Internet Engineering Task force (IETF) – the preeminent producer of standards for the internet core – decided that, while they could not definitively protect users from surveillance on the internet, they could make it more difficult and even prohibitively expensive. In the days before their decision to harden the network, the main security methodology had been “hard shell with soft centre”, meaning that while it was hard to break into a piece of software, once broken everything became accessible. As an organisation, they made a decision that every layer and every internal would have its own degree of security.

In terms of new technology, such as quantum computing for machine learning and what is being termed artificial intelligence, although it involves more advanced expert systems and language systems, much of the conversation has started centring on ethical dimensions (for example, during the work of the IGF Dynamic Coalitions). In terms of quantum computing, as it is being discussed in the Internet Research Task Force (IRTF), it can be expected that it will come up for human rights discussion once it gets to a point of sufficient maturity. At this point, much could be gained by involvement with discussions occurring in academia and research centres.

What are the duties and responsibilities of standard-setting organizations and their stakeholders in effectively integrating human rights considerations in technical standard-setting processes for new and emerging digital technologies?

The first requirement is to build awareness. People have to learn how to communicate the needs for human rights in a language that can be understood by both technologists and human rights experts. This can be a challenging task and is one that should not be underestimated. If academics, human rights experts, human rights defenders and

technologists cannot communicate, the work can be daunting and frustrating.

Beyond language, one of the important attributes of those working on any project is that everyone understands the Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework. It would be helpful, though, if a version of those Guiding Principles were produced for the technological age with advice and examples that resonated with the technological perspective. Perhaps that can be one of the outcomes of the study currently being envisaged. Getting a modern technological firm to use the current set of guidelines to motivate the principles on technological development takes a good degree of interpretation, exegesis and translation, even if the corporation that the technology is situated within has experience in the use of the Guiding Principles for corporate governance. In terms of artificial intelligence, it seems that a good practice would be to get an appropriate version of the Guiding Principles instantiated in the core of any intelligent or expert system dealing with people and society.

Which standard-setting processes and organizations are particularly relevant for safeguarding and promoting human rights in the context of new and emerging digital technologies?

The Human Rights Protocol Considerations Research Group (HRPC), part of the IRTF, a sister organisation to the IETF, the SDO that has created most of the protocols that make up the core of the internet, has been working for nearly a decade to create a set of considerations for protocol designers to use when establishing new standards. They have created a set of considerations: questions a designer should answer, for example, when dealing with [freedom of expression in the standards](#). They are currently working to finalise another [set of considerations for use to deal with freedom of association](#).

From <https://datatracker.ietf.org/doc/charter-irtf-hrpc>:

This research group aims to explore the relations between Internet architecture and human rights. It also aims to provide guidance to future protocol development and decision making where protocols impact or are informed

by policies that serve the public interest and protect human rights.

Research question

How are human rights and public interest policy considered in the development of the Internet?

The Human Rights and Policy Considerations Research Group is chartered to research of protocol development that is responsible towards and mindful of the human rights of others [[RFC3271](#)] and whether standards and protocols can enable, strengthen or threaten human rights, as defined in the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR).

Furthermore HRPC researches how protocols can influence policy concerns that intersect with human rights, and vice versa. This research group is a discursive resource for the community to ensure the development process fully recognizes these potential public policy impacts, addresses those impacts adequately, and builds evidence and guidance for policy makers on technical solutions and the necessary design tradeoffs that should be made. The Global Data Protection Regulation [GDPR], principles of necessity and proportionality of surveillance, are examples of policy developments that have led to rich areas of work for the IETF through the [PEARG](#) and more such regulatory actions are expected as the digital age progresses.

What are common obstacles to effectively integrating human rights considerations in technical standard-setting processes for new and emerging digital technologies?

The first obstacle, as mentioned above, is that human rights advocates and engineers do not have a common language, so communication is difficult. HRPC has begun work on ways to bridge that gap with the publication of [RFC8280](#).

A second obstacle is that technical people normally take into account mainly (or only) technical considerations when designing standards, i.e. how can this process be optimised, become more efficient or evolved. Developing code that supports or enables human rights considerations takes funding to create, uses extra memory and bandwidth, and adds to operational expense. Code that considers human rights is more expensive and often profit-making enterprises do not see the advantages for their bottom line in creating such code.

How accessible are standard-setting processes and processes for new and emerging digital technologies for a broad range of stakeholders, in particular for civil society organizations and human rights experts? By which metrics is "access" measured in this context?

Many of the SDOs are open, at least to some degree. Some, like the IETF, are completely open to any stakeholder, to the extent where they can be thought of as an any stakeholder organisation. The main issue with these organisations is not simply participation, but meaningful participation. Some of them seem opaque to newcomers because of process, methods, language and technical scope. It takes time, study and mentoring to become adept at standards making. For the most part, these organisations are becoming aware and are trying to change their culture to be more inviting to the newcomer, and there are always experienced members who will help the newcomer. In terms of human rights experts, as mentioned above, a common language often needs to be developed, and in some cases is being developed. It should be noted that technical experts who get interested in human rights and try to bring concerns to human rights organisations are often faced with similar accessibility issues, if they are allowed to participate at all.

What are the challenges faced by various stakeholders in their meaningful and sustainable participation in technical standard-setting processes for new and emerging digital technologies?

The biggest hurdle is understanding the technology. Technology is such that, while not anything is possible, much is. Knowledge of the technology is necessary for knowing what is possible. Once one understands the base possibilities, one can layer on the normative aspects dictated by human rights.

The entire burden should not fall on the shoulder of the human rights experts. The technologist needs to learn to communicate in language that rights defenders and academic specialists can understand. Technologists also need to think outside of pure technical considerations.

In which ways do these challenges differ depending on the standard-setting organization concerned?

Each organisation is different. Most of this submission discusses the organisations that put up the fewest material barriers, those where anyone can participate and is allowed at the table. As is often the case in (inter)governmental organisations, some do put up barriers to participation, such as expensive membership in the organisation or the payment of large fees. But for core protocols, finance is generally not the barrier.

What are good practices, mechanisms or models for effective integration of human rights considerations in technical standard-setting processes? Are there particular challenges in their implementation or adoption? What additional measures should be developed and implemented?

One of the more developed programmes for integrating newcomers, whether human rights experts or others, is a program at ICANN, the Internet Corporation for Assigned Names and Numbers. While not properly speaking a SDO, its role is in making policy on how technology developed by the IETF is deployed. As indicated above, while the technology sets the possibilities, and the implementation materialises the potentials for supporting human rights or the obverse, it is deployment that actualises the human rights aspects. ICANN develops the policies that govern the deployment of much technology. Over the last few years it has been building on the HRPC work in developing a Human Rights Impact Analysis of these deployment policies and is creating a set of courseware to educate the technologists and policy makers in human rights and its relevance to the domain name system (DNS).