

The Human Rights Case for Open Science

You're writing a grant application, and you want to make a strong case for open science! You've seen colleagues use language from human rights treaties to support their arguments for open work in the past: but what does that actually mean? Does international human rights law really say that science should be open? In this article, **Laura Carter**, PhD candidate in the [Human Rights Centre at the University of Essex](#) and member of the [Open Heroines](#) collective, explains that yes, it does, and yes, you can use human rights to argue for open science.

In a recent conversation, [Malvika Sharan](#), who is a Co-Lead Investigator on [The Turing Way](#) and an open science advocate, asked me a question about Article 27(1) of the Universal Declaration of Human Rights, on science:

Article 27.

(1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

Malvika mentioned that Art.27(1) is used by people talking about the benefits of open science. In particular, she has seen it used in funding applications for open work, by researchers who are keen to show that open science helps more people to access the benefits of science.

She looked up the article in the [UDHR](#), to find that Article 27 actually has two parts.

(2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

Art.27(2) doesn't look nearly as promising for open science (and it doesn't get quoted in grant applications). Malvika, then, was curious about the legitimacy of quoting the first part.

"Doesn't the second part – Art.27(2) – contradict it?" she asked. "What happens if the two come into conflict with each other? If you have to make a choice between protecting interests and sharing the benefits, which one comes out on top?"

It's a good question! Grant applicants are using part (1) when they apply for funding for open science: but what's to stop funders from using part (2) to justify *not* funding open work?

This is where I come in. As a PhD candidate in Human Rights Research Methods – and before that, a researcher and policy advisor at human rights NGO [Amnesty International](#) for almost a decade – I may not have a string of successful open science grant applications behind me, but I do have a lot of experience reading and interpreting human rights instruments.

To find out the answer to Malvika's question, we have to start by knowing a bit more about the Universal Declaration of Human Rights (UDHR).

The Universal Declaration of Human Rights: a foundational document

The UDHR is a pretty great document. It's the [world's most translated document](#) (into 538 languages as of 2022) and it's considered the [foundational document](#) for modern international human rights law.

But it's not, in itself, enforceable; there are no courts or committees that decide whether rights in the UDHR are being upheld or not, or impose consequences for violating them. So the UDHR, while being [pretty influential](#), doesn't tell us any more than is in the text itself.

The International Covenant of Civil and Political Rights: a binding treaty

The provisions of the non-binding UDHR, however, were incorporated into two **binding treaties**: the [International Covenant on Civil and Political Rights](#) (ICCPR) and the [International Covenant on Economic, Social and Cultural Rights](#) (ICESCR). These are **law**; States that have ratified them have committed to upholding and implementing all their provisions. ([This map](#) will tell you if your country is a 'State Party' to different treaties. In other words, if they have ratified or acceded to those treaties). States also have to report every four or five years on how well they are implementing the treaties.

So we can check the ICCPR and ICESCR to see how they incorporate Article 27 of the UDHR. The word 'science' only shows up once: in Article 15 of the ICESCR.

Article 15

(1) The States Parties to the present Covenant recognize the right of everyone:

(a) To take part in cultural life;

(b) To enjoy the benefits of scientific progress and its applications;

(c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

(2) The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for the conservation, the development and the diffusion of science and culture.

(3) The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity.

(4) The States Parties to the present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and co-operation in the scientific and cultural fields.

So it looks like part (1) of the UDHR's Article 27 became parts 1(a) and 1(b) of Article 15 of the ICESCR, and part (2) became part 1(c). But the ICESCR adds more sections as well, which give a bit more detail. Part (2) recognises that science and culture need **support** to develop and be shared; part (3) recognises the need for **scientific freedom**; and part (4) recognises the importance of **international co-operation**.

This is pretty promising for open science: Article 15 of the ICESCR goes into a little more detail and talks about creating conditions for science to develop: this seems to indicate more support for **sharing the benefits** than for protecting individual property rights. But it's not clear which would come out on top in a conflict. And the ICESCR was written in the 1960s. A lot of scientific progress has been made since then!

The Committee on Economic, Social and Cultural Rights: the interpreters of the treaty

The treaty itself hasn't changed since it was written. But because the world changes, the treaty is **interpreted and reinterpreted**. One of the key ways this happens is through the [United Nations Committee on Economic, Social and Cultural Rights](#) (CESCR), whose role it is to write **General Comments(GCs)**, which are detailed interpretations of specific articles in treaties. (The CESCR also reviews the periodic reports made by States on how they are implementing the ICESCR. The UN is fond of acronyms.)

These GCs (the UN also likes initialisms) are all [online](#), so we can see if there are any on Article 15. There are **two**, as it turns out:

- [General Comment No. 17](#) The right of everyone to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he or she is the author (from 2006).
- [General Comment No. 25](#) (2020) on science and economic, social and cultural rights (article 15 (1) (b), (2), (3) and (4) of the International Covenant on Economic, Social and Cultural Rights)

General Comment 25: science and human rights

GC 25 is more recent. In general, more recent interpretations build on and refer to older ones, so we can look at GC 25 and refer back to GC 17 if we need to. Indeed, paragraph 12 of GC 25 refers back to their analysis of intellectual property in GC 17 and points the reader to Section V of GC 25 for a specific discussion of the tension between intellectual property rights and the right to enjoy the benefits of scientific progress.

Great! This is looking at what Malvika originally asked. Looking at the headings of Section V, we can narrow down our search to one part: part C, on **private scientific research and intellectual property**.

Intellectual property: a social function

So here is where we find the answer to Malvika's questions. In paragraphs 58-62 of [GC 25](#), the Committee talks about how intellectual property can incentivise – but also **harm** – innovation and research. They point to the risks of **distorted priorities** – or even conflicts of interest – if research is done by commercial companies with an economic interest in the findings, and they criticise **restrictions on sharing information** that result in, among other things, high prices for medicines and excessive journal fees.

When it comes down to it, the Committee recognises that while intellectual property rights might benefit science in some ways, States need to take steps to put these into practice in ways that remove or mitigate the risks of harm. “Ultimately,” the Committee writes in paragraph 62, “intellectual property is a social product, and has a social function.”

So the answer to Malvika's question is, roughly, that part (1) of Article 27 of the UDHR counts for more than part (2).

This is good news for open science – and for all the people who use Article 27(1) to support their arguments for open science. But now that we've tracked down this General Comment, is there more in it that's useful?

What else does human rights say about science?

The interesting thing about General Comments is that they are written to be read by a broad audience. They are written in quite a formal style (they are after all interpretations of legal texts) but they don't assume a lot of knowledge – especially not legal knowledge – and they spell out in quite a lot of detail what they are talking about. So we can have a look at the rest of General Comment 25 to see if there's anything else there that we might want to know about.

(And while this post refers to English versions of texts, all UN documents are translated into at least all the UN languages: English, French, Spanish, Arabic, Russian and Chinese. If you prefer, you can look up all these documents in one of those languages.)

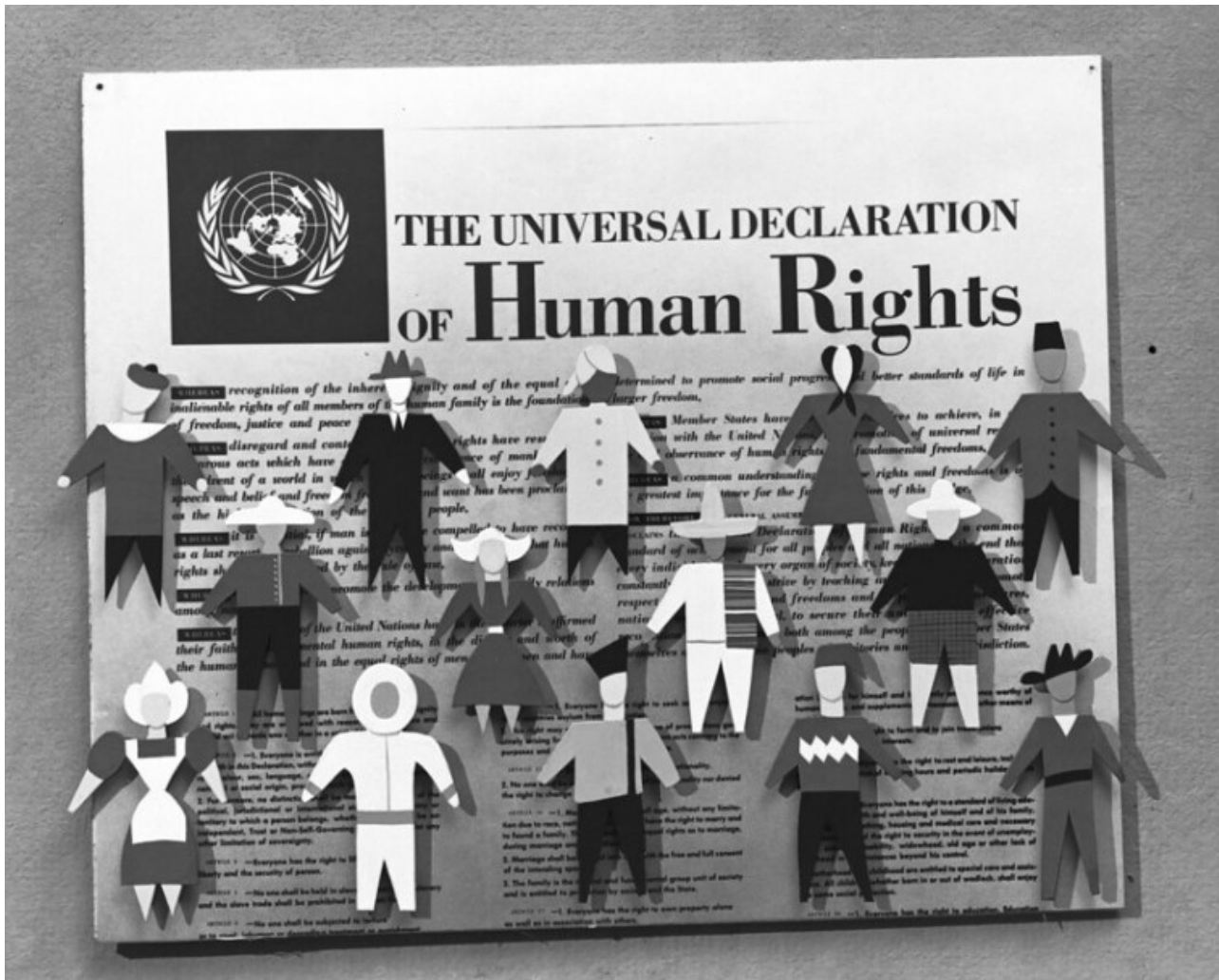


Image Credit: United Nations Photo, Photo #329493, Universal Declaration of Human Rights, via Flickr, (CC BY-NC-ND 2.0)

For example, the CESCR talks in paragraphs 8 and 9 of GC 25 about what it means by the ‘**benefits**’ of science. They include the **material benefits** of scientific research like vaccinations, but also the **skills and knowledge** developed through doing science, and the role of science in forming **citizens** who are well-informed, critical and participate in society. In other words, the benefits of science aren’t only for people who call themselves ‘scientists’ or who work in scientific institutions. The GC specifically points out ‘**citizen science**’ as an example of ordinary people participating in scientific progress (paragraph 10), and states that there is an obligation to facilitate citizen participation in science.

I’ve already mentioned above that the CESCR takes a dim view of excessive journal fees (paragraph 61), particularly because of the impact on scientists in **developing countries**. In paragraph 79, the GC states that developed countries have an **obligation** to support science in developing countries: including through funding, training, and collaboration.

In GC 25, the CESCR also points out that some people have experienced **systemic** discrimination when it comes to science participation. It particularly focuses on **women**, **people with disabilities**, **people living in poverty**, and **indigenous peoples**. In paragraphs 28-40, the GC goes into detail about how these groups have historically been included, why it’s important that they be able to participate, and what measures should be taken to make sure that they can participate.

The human rights case for open science

In fact, GC 25 goes even further. In paragraph 16, it specifically supports open science; “States should promote open science and open source publication of research.”

And the CESCR states that open science is not only the responsibility of government. In paragraph 49, the GC states that “open science cannot be achieved by the State alone. It is a common endeavour to which all other stakeholders should contribute, nationally and internationally, including scientists, universities, publishers, scientific associations, funding agencies, libraries, the media and non-governmental institutions.”

In other words, the international human rights system **wants you to do – and fund, and publish, and read – open science.**

If you're a **researcher** wanting to do more open science: here's the human rights framework that agrees with you. Go forth and use Article 27(1) of the Universal Declaration of Human Rights when you're applying for funding, or when you're discussing open science with your colleagues.

And if you're a **science funder**, and you want the work you fund to benefit human rights? Fund more open science work: and fund more citizen scientists, and more scientists from historically excluded groups, to do that open science. If you're having trouble convincing your colleagues, you can cite GenII Comment 25 to help make your case.

It's on all of us in science to make sure that everyone can benefit from scientific progress: and the UN's human rights experts think that **open science** is a good way to do that.

Thanks to Malvika Sharan, for asking the original question; to Malvika, [Yo Yehudi](#) and [Ismael Kherroubi Garcia](#) for exploring human rights texts with me; and to [Arielle Bennett](#) for her pertinent questions and feedback!

This blog originally appeared on the [Open Heroines Blog](#). Open Heroines is a global intersectional community for women and non-binary people working in the Open+ spaces, including Open Data, Open Government and Civic Tech. Check out their [Twitter page](#) and [website](#) to learn more about the organisation.

The content generated on this blog is for information purposes only. This Article gives the views and opinions of the authors and does not reflect the views and opinions of the Impact of Social Science blog (the blog), nor of the London School of Economics and Political Science. Please review our [comments policy](#) if you have any concerns on posting a comment below.

Image Credit: United Nations Photo, [Photo #329493, Universal Declaration of Human Rights](#), via Flickr, ([CC BY-NC-ND 2.0](#))
