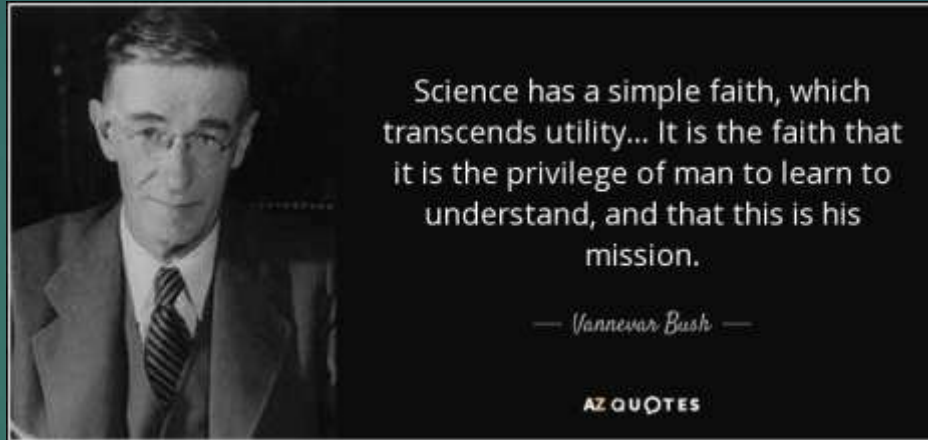


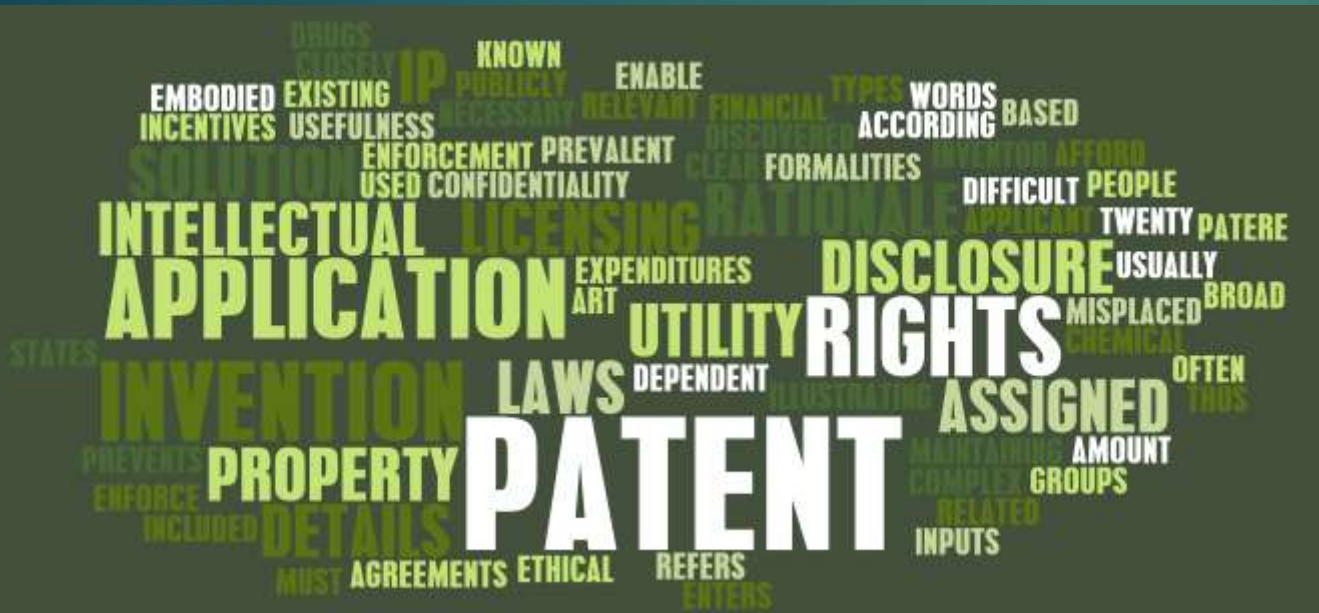
# The Right to Science

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BASED ON WORK OF JESSICA WYNDHAM  
AND INTERPRETATIONS FROM UNESCO



Abridged  
Version

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# What is the “right to science”?

Article 15 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) **requires** states to:

1. recognize the right of everyone to enjoy the benefits of scientific progress and its applications
2. conserve, develop, and diffuse science
3. respect the freedom indispensable for scientific research, and
4. recognize the benefits of international contacts and co-operation in the scientific field.

Yvonne Donders further proposed four “contents” for the Right to Science:

- 1) scientific freedom; 2) **the right to be protected from possible harmful effects of science**; 3) the right to access (including participation); and 4) international cooperation.

# The right to science is more than access to knowledge

## Fruits of science

- ▶ Economic development and trade
  - ▶ Innovation
  - ▶ Local adaptation
  - ▶ Linkage (forward and reverse)
  - ▶ Access to humanitarian relief without dependency (e.g. vaccines, medicines)
  - ▶ Basic science as a basic resource
- ▶ Absence means missing out on experience

## Governance of science

- ▶ Country's own social and legal system is the start
- ▶ Who prioritizes problems to be studied in a society with restricted resources
- ▶ How information is shared among scientists
- ▶ How is information shared with all people, in a form that can be used

# The “right to science” is fundamentally a *legal* concept.

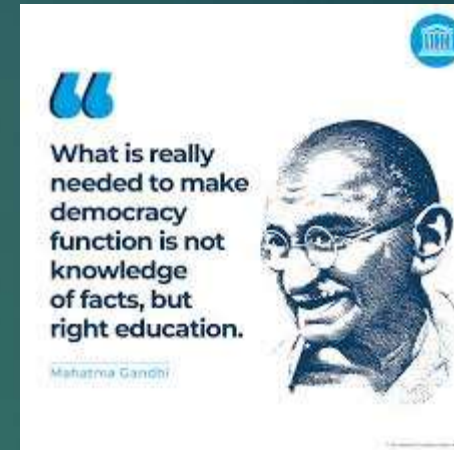
- ▶ Universal Declaration of Human Rights (1948): (1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. (2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.
- ▶ Scientific freedom and human rights are *natural* rights that are codified in a legal framework grounded in the United Nations International Bill of Rights, which consists of three related documents or covenants.
- ▶ Three constituent “rights to science”:
  - ▶ 1) the right to participate in science
  - ▶ 2) the right to benefit from science
  - ▶ 3) the right to benefit from a person’s own contribution or invention.

The UNESCO logo is a stylized black silhouette of a classical building with a pediment and four columns. The word "UNESCO" is written in a bold, sans-serif font across the front of the building. A solid red rectangle is positioned in the top right corner of the slide.

Debates on this topic  
get very bureaucratic  
and legalistic.

# The right to participate in science

- ▶ Less well understood than right to benefit.
- ▶ Implied in the right to participate in science are:
  - ▶ Right not to be excluded from science education or knowledge derived from science
  - ▶ Right to learn from experience **how** science works.
  - ▶ Right to have problems relevant to local society and culture studied in context and with **appropriate and adaptive solutions**
- ▶ In other words, right to have someone in a society or culture able to understand what is going on in the material world and to interpret it for their own people.
- ▶ Amartya Sen: **Development as freedom.**



Science as a cultural experience and way of knowing.

# Who would oppose such a right?

- ▶ Right to science is not widely acknowledged, nor institutionalized.
- ▶ Controversy over validity of concept in international law:
  - ▶ Normative concept
  - ▶ Legal basis is Article of Universal Declaration of Human Rights
- ▶ Opposed in principle, and rather reflexively, by those concerned with patent and intellectual property protection.
- ▶ Parties afraid that recognition of right will result in bureaucratic nightmare. This is not helped by bureaucratic tone or proponents.



Pharma has been the test case so far.

Environmental technology may be the critical case.



# Further thoughts: critical science

- ▶ Critical science = using the methods of science to evaluate and correct *harms* that may arise from the application of science and technology.
- ▶ Ravetz:
  - ▶ The “benefits” of science are not limited to creating new value and achieving equity in distribution.
  - ▶ They also accrue from preventing and solving problems and monitoring science and technology when there is a potential for doing harm.
  - ▶ This is only possible using the means of science itself.
- ▶ Doctrine of “critical science” helps to make science and technology self-correcting in the same way that replication makes science self-correcting.
- ▶ Without scientists studying the effect of science and technology, the rest of the society is denied the benefit of early warning.



Jerome Ravetz