

Open Access and sustainable development

- Without open access (OA), sustainable development is not possible
- But Open access is only a necessary condition, not a sufficient one
- One forgotten issue is the research agenda : who defines scientific problems ?
- Why are there neglected agricultural problems, neglected diseases, etc. ?
- Building an autonomous research capacity is not just inserting oneself in work programmes defined elsewhere

Open Access and sustainable development

- Let us distinguish “globalized” science from “universal” science
- Global science is organized around a centre; its results are valid anywhere; it is practised by anyone willing to fit within the main trends defined at the centre;
- “Global” science acts like a “field” that affects the choice of research problems;
- In “globalized science”, the “field” of science works through competition for scientific authority (a mixture of visibility and prestige);
- It is a competition based on journals (the impact factor is the quantitative metric used for that purpose). Then, the competition between journals mediates the competition between researchers.

Open Access and sustainable development

- Universal science is
 - Multipolar
 - Incorporates a variety of regional fields (including the global one, where it is appropriate)
 - Seeks more autonomy in establishing research programmes
 - Generates more diversity in scientific research
 - Offers a richer base for conceptualizing and theorizing in science

Open Access and sustainable development

- Because scientific fields operate through competition for authority:
 - It is **important** to avoid just **one kind** of authority;
 - It is **important** to remember that **competition** only identifies **champions**; **it does not manage research communities well**;
 - **Competition** breeds **excellence** (i.e. **the quest to be the best**) rather than **quality**: **scientific fields must also incorporate quality**;
 - It is **important** to remember that, in **competition**, the **real winners** are **those who organize, manage, and control it** – **namely those who organize the competition among journals**.

Open Access and sustainable development

- If incentives exist to publish in “**prestigious, international, journals**”, bad consequences ensue:
 - Each journal has an **editorial orientation** that must be **obeyed**;
 - **Rare resources** in emerging countries are then **diverted** to problems corresponding to the editorial line;
 - If particularly **successful**, scientists may even be **invited** to move to central countries: **brain drain**;
 - Conclusion? **Foreign aid in reverse**: the **poor** assist the **rich**;
 - Consequence: Ebola, known for 40 years was neglected until it began to threaten rich countries themselves... **More than 10,000 dead!**

Open Access and sustainable development

- How to build an OA-based strategy for building universal science?
- The goal is to build research capacity on autonomously defined sets of problems. This means
 - Reinforcing research communities corresponding to selected problems;
 - Collecting the information relevant for the selected problems
 - Some articles (but not much) will undoubtedly come from “prestigious, international, journals”
 - Many articles will come from regional and national journals
 - Institutional repositories, particularly networked repositories, will play a crucial role;

Open Access and sustainable development

- To move away from the journal “yoke”, “reformed” repositories will take the first role;
- Imagine repositories networked across nations facing similar problems;
- Imagine foregrounding the information relating to these problems;
- Imagine helping researchers to navigate the repositories, including tools (e.g. metadata, link structures, etc.) to find quality materials derived from articles themselves, **and not journals' reputation**;
- Imagine repositories taking on some of the functions of journals.

Open Access and sustainable development

- Networked repositories could help build international, South-South research communities;
- A multi-polar science structure would begin to emerge;
- A way to link neglected problems with the careers of the scientists in the South would emerge.

Open Access and sustainable development

- Within such a strategy, FAO can help build article (not journal) collections and support research on neglected categories of problems;
- Within such a strategy, COAR and IFLA can help network repositories in the emerging and developing countries, using protocols such as those of OpenAIRE that will ensure interoperability

Open Access and sustainable development

- Furthermore, publishing platforms on the SciELO or Redalyc model can complement the repository networks and ultimately merge with them;
- New forms of evaluation, including new metrics, can foreground quality, and limit competitive excellence to those precise cases where it may be appropriate

Open Access and sustainable development

- **Conclusion:** a **healthy** form of “**universal science**” (as opposed to “**globalized science**”) that does not systematically **neglect** broad swaths of **problems** can be built if:
 - **Open Access** is used
 - Attention is devoted to the **choice of problems**;
 - **Repositories are networked** and used in **creative ways**, including involvement in the monitoring of **quality**;
 - Journals are not used as **substitutes** for **quality evaluation**;
 - “Prestigious international journals” are not used to “**discipline**” research communities everywhere.