**The Bangalore Commitment:**
**"Self-Archive Unto Others as You Would Have Others Self-Archive Unto You"**

**SUMMARY:** There is no need for developing countries to wait for the developed countries to mandate Open Access (OA) self-archiving: They have more to gain because currently both their access and their impact is disproportionately low, relative to their actual and potential research productivity and influence. Lately there have been many abstract avowals of support for the *Principle* of OA, but what the world needs now is concrete commitments to its *Practice*. Under the guidance of India's tireless OA advocate, Subbiah Arunachalam, there will be a two day workshop on research publication and OA at the Indian Institute of Science in Bangalore on November 2-3, at which the three most research-active developing countries – India, China and Brazil – will frame the "Bangalore Commitment": a commitment to mandate OA self-archiving in their own respective countries and thereby set an example for emulation by the rest of the world.

Most of the 2.5 million articles published yearly in our planet's 24,000 research journals are inaccessible to a large portion of their potential users worldwide, but especially in the developing world. One might think that the reason for this is that no research institution can afford to subscribe to all 24,000 journals and that most can only afford a fraction of them -- and this is true, but it is not the whole story, nor the main part of it: For even if all those journals were sold at cost -- not a penny of profit -- they would still remain unaffordable for many of the research institutions worldwide. The only way to make all those articles accessible to all their potential users is to provide "Open Access" to them on the Web, so anyone can access and use them, anywhere in the world, at any time, for free.

One could have said the same of food, medicine, and all other human essentials, of course, but one cannot eat digital food or cure diseases with strings of 0's and 1's. Nor, alas, are all the producers of digital products -- let alone of physical food or medicine -- interested in giving away their products for free. So what makes research different (if it is different) and why is it urgent for all of its potential users to have access to it?

Research is the source from which future improvements in the quality, quantity and availability of food, medicine, technology, and all other potential benefits to mankind will come, if it is to come at all. And researchers -- unlike the producers of commercial products -- *give their findings away*: Unlike writers or journalists, researchers do not seek or get fees or royalties for their articles. They give them to their journals for free, and they even mail (and these days email) free copies to any potential user who writes to ask for one.

Why do researchers give their articles away for free? Partly for the same reason they are researchers rather than businessmen: They want to make a contribution to knowledge, to research progress. Partly also because that is the nature of the reward structure of science and scholarship: Research is funded, and researchers are employed and paid, on the strength of their "research impact." This used to mean how much they publish, but these days it also means how much their publications are read, used, and built upon, to generate further research and applications, to the benefit of the tax-paying society that funds their research and their institutions.

And now we can see why researchers give away their articles and why it is so important that all their potential users should be able to access and use them: Because all access-barriers are barriers to research progress and its benefits (as well as to the advancement of researchers' careers and productivity): If you cannot access a research finding, you cannot use, apply or build upon it.

Researchers are not businessmen, but they are not always very practical either. The reason publications need to be counted and rewarded by their employers and funders -- "publish or perish" -- is that otherwise many researchers would just put their findings in a desk drawer and move on to do the next piece of research. (That is part of the price that humanity must pay for nurturing a sector that is curiosity-driven rather than profit-driven.) So, since researchers do need to fund their research and to feed themselves and family, their publications are counted and then rewarded proportionately. But counting publications is not enough: It has to be determined whether the research was important enough to have been worth doing and publishing in the first place; its "research impact" has to be measured: What was its uptake, usage, influence? How many pieces of further research and applications did it generate? Although the measure is crude, and far richer measures are under development, *citation counts* -- the number of times an article is cited by other articles -- are an indicator of research impact.

So, along with publications, citations are counted, in paying researchers and funding their research. And [recent studies](#) have shown that the citation counts of articles that are freely available on the web (Open Access) are 25%-250% higher than the citation counts of articles that are only available to those researchers whose institutions can afford a subscription to the journal in which it was published.

One would think, in view of these findings, and of the fact that researchers give away their articles anyway, that researchers would all be making their published articles Open Access by now -- by "self-archiving" them in their own institution's online repositories, free for all. [Ninety-four percent](#) of journals already endorse self-archiving by their authors.  Yet in fact only about 15% of researchers are self-archiving their publications spontaneously today. Perhaps that is about the same percentage of researchers that would be publishing at all, if it were not for the "publish or perish" mandate. So it is obvious what the natural solution is, for research and researchers

worldwide, in the online era: the existing publish-or-perish mandate has to be extended to make it into a "publish and self-archive" mandate.

International surveys have shown that 95% of researchers would comply with a self-archiving mandate. This has since been confirmed by seven research institutions worldwide (two in Australia, two in Switzerland [one of them CERN], one in Portugal, one in the UK and one in India [National Institution of Technology, Rourkela]) that have already mandated self-archiving: their self-archiving rates are indeed rapidly climbing from the 15% baseline towards 100%.

But those are spontaneous institutional mandates, and there are only seven of them so far. There are also a few systematic national mandates: four of the eight UK research funding councils and the Wellcome Trust have now mandated self-archiving. And there are several other national proposals to mandate self-archiving, by the European Commission, a Canadian research council (CIHR) and all of the major US funding agencies (FRPAA).

There is no need, however, for developing countries to wait for the developed countries to mandate self-archiving. Developing countries have even more to gain -- for the impact of their own research on the research of others and for their own access to the research of others – because currently both their access and their impact is disproportionately low, relative to their actual and potential research productivity and influence.

In the past few years there have been many abstract avowals of support for the *Principle* of Open Access (e.g., the Bethesda and Berlin and Valparaiso and Goettingen and Scottish and Buenos Aires and Messina and Vienna and Salvador and WSIS and Riyadh Declarations), but these have all merely declared that providing Open Access is a "good thing" and "should be done" -- without saying exactly *what* should be done, and without committing themselves to *doing* it!

This is rather as if there were a global warming problem, and region after region kept making pious pronouncements to the effect that "something should be done about the global warming problem" instead of affirming that they have actually implemented a concrete emission policy locally, and are now inviting others to do likewise.

What the whole world needs now is concrete commitments to the *Practice* of Open Access. Under the guidance of India's tireless Open Access advocate, Subbiah Arunachalam, there will be a two day workshop on research publication and Open Access at the Indian Institute of Science in Bangalore on November 2-3, at which representatives from the three most research-active developing countries – India, China and Brazil – will confer in order to frame the "Bangalore Commitment": a commitment to mandate Open Access self-archiving in their own respective countries and thereby set an example for emulation by the rest of the world: "*Self-archive unto*

*others as you would have others self-archive unto you*"

Stevan Harnad