The Green and Gold Roads to Open Access

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Abstract
The primary target of the worldwide Open Access (OA) initiative is the 2.5 million articles published every year in the planet’s 25,000 peer-reviewed research journals across all scholarly and scientific fields. Without exception, every one of these articles is an author give-away that is written, not for royalty income, but solely to be used, applied and built upon by other researchers. The optimal and inevitable solution for this give-away research is that it should be made freely accessible to all its would-be users online and not only to those whose institutions can afford subscription access to the journal in which it happens to be published. Yet this optimal and inevitable solution, already fully within the reach of the global research community for at least two decades now, has been taking a remarkably long time to be grasped because of widespread misconceptions. The solution is for the world’s research institutions and funders to (1) extend their existing “publish or perish” mandates so as to (2) require their employees and fundees to maximize the usage and impact of the research they are employed and funded to conduct and publish by (3) self-archiving their final drafts in their OA Institutional Repositories immediately upon acceptance for publication in order to (4) make their findings freely accessible to all their potential users webwide. OA metrics can then be used to measure and reward research progress and impact; and multiple layers of links, tags, commentary and discussion can be built upon and integrated with the primary research.

Plans by universities and research funders to pay the costs of publishing in OA journals (“Gold OA”) are premature. Funds are short; 80% of journals (including virtually all the top journals) are still subscription-based, tying up the potential funds to pay for Gold OA; the asking price for Gold OA is still high; and there is concern that paying to publish may inflate acceptance rates and lower quality standards. What is needed first is for all universities and funders to mandate OA self-archiving (of authors’ final peer-reviewed drafts, immediately upon acceptance for publication) (“Green OA”). That will provide immediate OA. Then, if and when universal Green OA should go on to make subscriptions unsustainable (because users are satisfied with just the Green OA versions) that will in turn induce journals to cut costs (print edition, online edition, access-provision, archiving), downsize to just providing the service of peer review, and convert to the Gold OA cost-recovery model; meanwhile, the subscription cancellations will have released the funds to pay these residual service costs. The natural way to charge for the service of peer review then will be on a “no-fault basis,” with the author’s institution or funder paying for each round of refereeing, regardless of outcome (acceptance, revision/re-refereeing, or rejection). This will minimize cost while protecting against inflated acceptance rates and decline in quality standards.

Among the many important implications of Houghton et al’s (2009) timely and illuminating JISC analysis of the costs and benefits of providing OA to peer-reviewed scholarly and scientific journal articles one stands out as particularly compelling: It would yield a forty-fold benefit/cost ratio if the world’s peer-reviewed research were all self-archived by its authors so as to make it OA. This 40-fold benefit/cost ratio of providing Green OA is an order of magnitude greater than all the other potential combinations of alternatives to the status quo analyzed and compared by Houghton et al. This outcome is all the more significant in light of the fact that self-archiving already rests entirely in the hands of the research community (researchers, their institutions and their funders), whereas OA publishing depends on the publishing community.