

## Institutional repository success is dependent upon mandates

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The Institutional Repository (IR) movement is an outgrowth of two movements that preceded it :

- (1) the [Open Archives Initiative](#) (OAI), which designed the OAI Protocol for Metadata Harvesting in order to make all (what eventually came to be called) "Institutional Repositories" *interoperable* – so their distributed local contents could be treated as if they were all in one global repository
- (2) the [Open Access](#) (OA) movement, which defined the primary target contents of IRs (refereed research journal articles) and the fundamental reason for depositing them (to make research freely accessible to all would-be users online, so as to maximize research uptake, usage and impact)

There are, of course, many other kinds of things one may wish to deposit in IRs (unrefereed drafts, courseware, data, multimedia, software, etc.), but if IRs are to be successful in what was and still ought to be their main *raison d'être*, then they need to capture their target contents: their own institutional refereed research journal article output. The measure of that success is accordingly *the proportion of their annual journal article output being deposited*.

The global baseline value for this deposit rate is about 15% according to various estimates, such as [Bjork et al \(2008\)](#). Hence that is the figure to beat for IRs, which can only be counted as successes if they are approaching 100% rather than languishing at the global baseline.

Thanks to large international, pandisciplinary surveys conducted by [Alma Swan and associates](#), we know what authors say: They say they are favorable to Open Access, but most will not self-archive until and unless their institutions and/or their funders mandate that they do so. But if self-archiving is indeed mandated, 95% of authors report that they will comply -- over 80% of them saying they will do so *willingly*, rather than reluctantly.

Does actual behavior conform to the self-predictions in these surveys? Although their number is growing rapidly, IRs are indeed near empty, languishing at or below the 15% rate for OA's primary target content: refereed journal articles. There are exceptions, however, namely, *the IRs of those institutions that have adopted a deposit mandate* (currently about [30 institutions](#)).

[Arthur Sale](#) compared the deposit rates of three comparable Australian universities, (a) one with only an IR, (b) one with an IR plus encouragement and help in depositing, provided by library staff, and (c) one with an IR, encouragement/help

*plus a self-archiving mandate.* Their deposit rates were, respectively, 15%, 30%, and close to 100% (within 2 years of adoption of the mandate).

Arthur Sale's findings, confirming in Australia what the surveyed researchers had repeatedly said in their own self-reports worldwide, in all disciplines, are also being confirmed globally: For two years, NIH merely encouraged self-archiving of the articles whose research it funds, and elicited a deposit rate below the global baseline (< 4%); but now that NIH has [mandated deposit](#), the deposit rate is already over 60% and rapidly climbing toward 100%. (About 30 other research funders have likewise mandated OA self-archiving.)

Why does deposit have to be mandated in order to achieve a 100% deposit rate, despite the many demonstrated benefits of OA self-archiving – foremost among them being a significant increase in research [usage and impact](#)? There are at least [34 reasons](#), all of them groundless and easily shown to be so, but they are nevertheless sufficient to keep authors' fingers in a state of [Zeno's Paralysis](#) instead of doing the [few keystrokes](#) it takes to deposit each article. A green light in the form of a mandate from their institutions and/or funders, plus a little encouragement and assistance, however, quickly dispels all traces of Zeno's Paralysis.

The two foremost reasons for Zeno's Paralysis are (i) ergonomic and (ii) legal worries. (i) Authors are afraid that self-archiving might prove time-consuming (but once a mandate gets their fingers moving, they discover it takes less than 10 minutes to deposit a paper – a minute fraction of the keystrokes it took to write it (let alone conduct the research on which it was based). (ii) Authors are also concerned that if they self-archived they might either be breaking the law or putting publication in their journal of choice at risk. (This, despite the fact that [95% of journals](#) have already given their green light to some form of immediate Open Access self-archiving, 63% for the final refereed, accepted draft; moreover, a deposit mandate only requires [immediate deposit](#) in the IR; it is not even mandatory to make the deposit openly accessible immediately).

So the ergonomic and legal worries are all groundless. If the author's institution stipulates that for annual performance review, the the official procedure for providing one's refereed journal articles for evaluation is to deposit them in the IR, that immediately makes the <10 minutes worth of keystrokes well worthwhile ergonomically – especially because making the articles OA is also likely to increase their citation impact, which is another factor taken into account in the performance review itself.

For the minority of articles published in journals that have not yet given their green light to making them OA immediately: those can be deposited as Closed Access, so that only their metadata are accessible webwide. The IRs have a semi-automatic ["email eprint request" Button](#) that allows any would-be user worldwide who reaches a Closed Access article to put their email addresses in a box and click to request an eprint for individual research use; the author gets an immediate email with a URL they can click to authorize the immediate fulfillment of the eprint

request. This “Almost-OA” is good enough to tide the research community over during any period of access embargo by the publisher. (And once immediate-deposit mandates become universal, publisher embargoes will soon die a natural and well-deserved death under the mounting pressure from the global research community for OA and its immediate, full benefits, rather than just Almost-OA.)

None of this is possible without universal IR deposit mandates, however. Without them, IRs will continue to languish near-empty, as most them are now. Hence **Institutional repository success is dependent upon mandates.**

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## Appendix

The other use to which IRs can be put is the archiving and long-term preservation of all forms of institutional digital output. I am assuming that digital preservation is not the subject of this debate for the following three closely related reasons :

- (i)** First, authors’ final drafts of refereed journal articles are merely *supplementary copies*, deposited in the OA IR in order to provide free immediate access for those potential users whose institutions cannot afford subscription access to the publisher’s proprietary version. It is the publisher’s and subscribing libraries’ proprietary version that has the primary need of digital preservation burden, not the author’s supplementary OA copy (although of course OA IRs preserve their contents for long-term accessibility too).
- (ii)** Second, whereas total annual institutional *journal article output* is a concrete, specific target, total institutional *digital output* is not: It can include anything from texts to software to multimedia to digital data of all kinds, much of it not even known to the institution, as faculty are generating digital output of all kinds every day. Hence the goal of preserving institutional digital output is a nebulous one, depending on what digital output faculty might generate, and what portion of it they might choose to deposit for preservation. In contrast, published journal article output is a designated target for IR deposit, can be counted, and the proportion of it that is deposited in the IR serves as the objective measure of the IR’s success (as an OA IR).
- (iii)** Third, all deposit mandates to date, from institutions (such as Harvard, Stanford, Southampton and Liège) as well as funders (such as NIH, CIHR, RCUK and ESF), have pertained only to journal articles. It can be – and has been – mandated (i.e., required) that journal article output must be deposited, but it is not at all clear how deposit mandates could be applied open-endedly to all manner of institutional digital output, not knowing what it is, nor whether its creators would wish to deposit it in their IR for digital preservation. Hence, apart from OA IRs and OA deposit mandates, it is not at all clear what counts as success, nor how success could depend on mandates. (And I do take the intended meaning of “mandates” in the proposition under debate -- “Institutional repository success is dependent upon mandates” -- to be “requirements” rather than the vagues sense of “mission” or

“prerogative,” otherwise I would have no idea how to construe the proposition at all.)