

How academic institutions neglect their duty

Björn Brembs 

Published October 5, 2020

Citation

Brembs, B. (2020, October 5). How academic institutions neglect their duty. *Bjoern.brembs.blog*.
<https://doi.org/10.59350/y12sz-4rc13>

Keywords

Science Politics, Infrastructure, Mandates, Policies

Copyright

Copyright © Björn Brembs 2020. Distributed under the terms of the [Creative Commons Attribution 4.0 International License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

[Think, check, submit](#): who hasn't heard of this mantra to help researchers navigate the jungle of commercial publishers? Who isn't under obligation to publish in certain venues, be it because [employers](#) ask for a particular set of journals for hiring, tenure or promotion, or because of [funders' open access mandates](#)? Researchers today are stuck between a rock of confusing publishing options and a hard place of often mutually exclusive policy requirements and ethical considerations when all they want is to publish a scholarly article. Seasoned researchers may have developed heuristics from experience to cope with the complexity, but early-career researchers need [guidance](#) and [support](#).

In addition to the constraints on publishing the text summaries of their work, researchers are also facing an increasingly complex ecosystem of domain-specific and domain general databases to make their research data FAIR – findable, accessible, interoperable and re-usable. In part, this is connected to the situation in article publishing, as [some journals require](#) data deposition upon publication. For a number of years now, [funders have](#) also begun to ask for data management plans upon submission of grant proposals and their good scientific practice guidelines require researchers to archive and make their data accessible for at least ten years. Many of these guidelines need to be ratified by academic institutions if they want to remain eligible for receiving funds from funding agencies. Researchers now face similarly complex constraints on their research data needs as on article publishing. Consequently, as with article publishing, [courses](#), [webinars](#) and [workshops](#) are springing up to educate researchers on all the many different options and constraints they face in data management and sharing.

In many cases, data sharing is futile without providing at least some code or software to make the data accessible. In other cases, the code is the scholarship that is being published in the scholarly article. In all of these cases, code sharing is as mandatory as data or text publication. In addition to such practical necessities, there are also [mandates](#) and [policies requiring](#) archiving of all research works, including code. As in articles and data, research now also face the question of where to publish their code: in one of the commercial tools such as [BitBucket](#) or [GitHub](#) or in one of the many [GitLab](#) instances that are mushrooming everywhere now or in some other venue?

Imagine if there were a similar balkanization of providers and mutually exclusive policies for other services such as, say, email. Researchers would have to identify an email provider that is either compliant with all institutions and funders (unlikely), or use different providers and addresses for different institutions and funders. Imagine an analogously balkanized situation in professional email correspondence as the current messenger market with [WhatsApp](#), [GroupMe](#), [Signal](#), [Slack](#), [Mattermost](#), [RocketChat](#), etc. all being isolated and non-interoperable. Imagine institutions where researchers would have to dodge similar slings and arrows just to provide their laboratories with electricity, water or gas? Imagine institutions leaving their researchers alone to fend for their own HVAC, furniture, sewage or recyclables? How much research would the researchers at such institutions still be able to do?

There is a reason academic institutions are providing a basic infrastructure for housing, electricity, HVAC, water, etc. for their researchers. Academic institutions have a mission of

research and teaching that is best accomplished by allowing its members to focus on the mission, rather than its corollaries. Today, what could be a more basic digital infrastructure than one that takes care of the primary research products – text, data and code? *Clearly, such an infrastructure must be considered more basic and mission-driven than email.* With this understanding it becomes obvious that the current wild-west situation for our primary research products constitutes a clear dereliction of duty by our academic institutions. Institutions need to provide their researchers with a [technologically adequate](#), affordable infrastructure that a) automates the tasks around text, data and code sharing, b) ensures compliance with the various policies and c) protects the privacy of researchers and their human research subjects/patients. The implementation of such an infrastructure has been overdue for nearly 30 years now.

As the technology for such an infrastructure is available off the shelf and institutions are spending multiple amounts of what would be required on legacy publishers, there remain only [social obstacles](#) as to why academic institutions keep neglecting their researchers. Given that institutions have now failed for about 30 years to overcome these obstacles, it is straightforward to propose that [mandates and policies](#) be put in place to force institutions (and not researchers!) to change their ways and implement such a basic infrastructure.