Open Research Funders Group

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Open Policies 101

What is an "open" policy? Open policies promote the unfettered distribution and sharing of research outputs. These policies typically encompass both research articles that summarize the results of scientific and scholarly investigation (commonly known as "open access") and the factual information from which research findings are derived, including datasets, software, and code ("open data").

Why are research funders adopting open policies?

The open sharing of research outputs benefits society by getting more information quickly and widely into the hands of researchers, practitioners, patients, students, and policy makers. This accelerates the pace of discovery, reduces information-sharing gaps, and encourages innovation. Ensuring that open sharing includes data and code has the additional benefit of promoting research reproducibility. This helps validate new findings and suggest ways to strengthen experiments for follow-on research. Research funders are adopting open policies because these policies align with their missions. Many funders have bold strategic goals, trying to tackle society's most challenging problems. Open policies lower knowledge barriers and make it easier for interested parties to pursue promising investigative directions. These policies lessen the likelihood that multiple research teams will be pursuing duplicative investigations in siloed environments. They decrease the potential for data miscalculation, misinterpretation, manipulation, and fraud by opening raw results up to the broader community. Getting more research outputs into the hands of more researchers with fewer barriers makes it easier for more scientists and scholars to do their jobs. This, in turn, makes it more likely that funders will attain their goals.

What basic elements might a funder policy include?

A well-considered funder policy will explicitly contemplate how and when a funder expects its grant recipients to share research articles resulting from funding, as well as the underlying data, code, and software needed for independent verification of research results. Further, such a policy will detail expectations for how these materials can be reused, how costs associated with policy compliance will be borne, and the extent to which the funder will monitor policy compliance.

It is critical to note that funder policies need not adhere to a rigid ideology in order to be considered "truly open". Funders can take a range of approaches to each of these issues. What matters most is affirming a commitment to the open sharing of research outputs and underscoring this commitment's consistency with organizational values.

What are some of the common misconceptions about open policies? *Open policies are a challenge to reconcile with privacy concerns.* Different disciplines have different data privacy considerations. These concerns are most common in subjects such as biomedicine; projects that involve human subjects may appear to fundamentally conflict with data sharing policies. However, many funding bodies, including the National Institutes of Health and the National Science Foundation, have adopted recommendations for de-identifying study participants. These procedures are commonly understood and accepted within the research community. Many funders allow grant applicants to apply for a waiver in the event that de-identification is either prohibitively expensive or renders the data meaningless. Such exceptions provide a mechanism for truly private data to be safeguarded while simultaneously placing the onus on the grant

applicant to explain why his/her data cannot be openly shared.

Open policies are an annoyance that have little relevance to the real world. Policies that promote the open sharing of research outputs are changing the world. Philanthropic organizations fund research to advance human thought, to fuel breakthroughs, and to improve the way we interact with each other and our world. When that research is shared quickly and openly, it gets discussed, tested, validated, and built upon. Open policies maximize return on investment by ensuring that the work a funder supports reaches the widest possible audience, with as few barriers to access and reuse as possible.

Foundation Leadership

Open sharing is not important enough to be an organizational priority. The open sharing of research outputs is one of the most cost-effective ways to pursue a philanthropic organization's mission. Funders invest heavily in research in order to accelerate the pace of discovery, encourage innovation, enrich education, and improve the public good. These goals are not best met by locking research findings behind paywalls that severely restrict access. Having funded the most expensive component of the research life cycle (the research itself), the incremental expense and effort required to ensure open sharing of the findings is modest by comparison. If you run a foundation committed to tackling a complex set of issues, ask yourself - Do I want more or fewer people to have access to the work we are funding? Do I want more or fewer researchers to be able to validate and build upon these findings? Do I want more or fewer practitioners and policy makers to be able to incorporate this work into their own activities? Do I want this access to happen more quickly or less quickly? The bottom line is that when a philanthropy commits to the open sharing of the research it funds, the audience for that work blossoms exponentially.

I am concerned about pushback from grant applicants. There is no evidence to suggest, drawing from the hundreds of funding bodies that have adopted open policies, that the quantity or quality of grant applicants has been adversely affected by these additional requirements. Every organization already places certain conditions on the projects it funds. Examples include periodic reporting, acknowledgement of funding support on public outputs, and budget tracking.

The implementation of an open policy is an incremental addition to these terms and conditions that establishes from the outset your organization's expectations on how grantees should share research outputs. Many federal agencies and universities are adopting similar policies, which means that prospective grant applicants are becoming increasingly familiar with these types of requirements.

I am concerned about pushback from foundation trustees. A core priority of board trustees is holding the organization accountable as good stewards of its research investments. Open policies have a direct impact on this concern by ensuring wide and equitable dissemination of the work the foundation supports.

> *"There is a much better return on investment with open research. Closed research is of limited value to humanity. When knowledge belongs to all, greater things happen."*
> – DR ROSS MOUNCE, DIRECTOR OF OPEN ACCESS PROGRAMMES AT ARCADIA FUND

I am concerned about pushback from foundation staff. There are a range of activities that funders can take to oversee open policies. At the low-touch end of the spectrum, funders can require grant recipients to document how they intend to comply. Depending on internal resources, some funders spot-check these plans, while other simply rely on the honor system. Other organizations take a more engaged approach, requiring proof of compliance from grant recipients and checking this against internal expectations and guidelines. Funders without open policies may view administration and compliance as daunting tasks. However, each organization can make its own appropriate determination about the resources they are able to devote to these activities. Organizations like the Open Research Funders Group (ORFG) can provide support and insight into best practices and available resources. The ORFG can also work with you to determine which parts of your organization (e.g., legal, finance, operations) should be engaged in policy formulation and oversight, as well as how to engage them productively.

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