



# A UNIFIED APPROACH TO OPEN

Is it possible to create a unified approach to different open solutions like open access, open data, and open source? Why should we consider this, what benefits might this approach have, and what would the framework of this solution look like?

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**FIGURE 1: FUNDERS  
WITH OPEN ACCESS  
PUBLISHING POLICIES**



Source: Motter 2020.

**T**he need for effective knowledge sharing has never been clearer and more urgent than today. A vast global community has been responding to this need for many years—including researchers, government funders, policy agencies, private foundations, commercial publishers, universities, and libraries. Much progress has been made, both in research and in knowledge sharing, but a great deal of work remains.

Enter the open access, open data, open science, open source/code, open government, and open education movements. These movements have each made significant contributions to the evolution of our knowledge sharing practices. Each movement is entirely separate, however, with different outputs, goals, tools, measures, methods, actors and stakeholders. These movements also lack coordination on common goals, which has resulted today in a lack of leadership on broad and globally workable open solutions, a lack of support for open infrastructure and other open needs, and slow acceptance and adoption of open policies—even conflicting policies.

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there is increasing pressure from funders and governments to use open lessons and tools to improve science; and open educational resources are expanding, building upon best practices from other open fields. Publishers, funders and tenure committees are all trying to figure out the right ways to encourage and embrace open in new generations of policies. In our enthusiasm, there is also a concerted push in some quarters to create global one-size-fits-all open policies that make open the standard way of doing business in research.

The question, then, isn't whether open solutions will continue to emerge, grow and evolve, but whether these policies are working as well as they can, and if not, what a different open policy approach might look like? Open policies today are mostly similar in name only due to the many differences of each movement, as mentioned earlier (with regard to histories, motives, philosophies, structures, goals, stakeholders, rules, and policies). These policies are also handcuffed by a wide array of researcher concerns, regional inequities, other unintended consequences, and limited scalability.

So, while open movements are creating huge and diverse changes in the information landscape, and many of these changes are good, there are significant oversights and consequences. Critically, we also aren't capitalizing on the full potential of open. Open advocates end up speaking past each other—our definitions and goals aren't the same, our one-size-fits-all reform efforts don't resonate or work with most of the world, and we don't see our common ground needs and perspectives, just the details of our policies and ideologies.

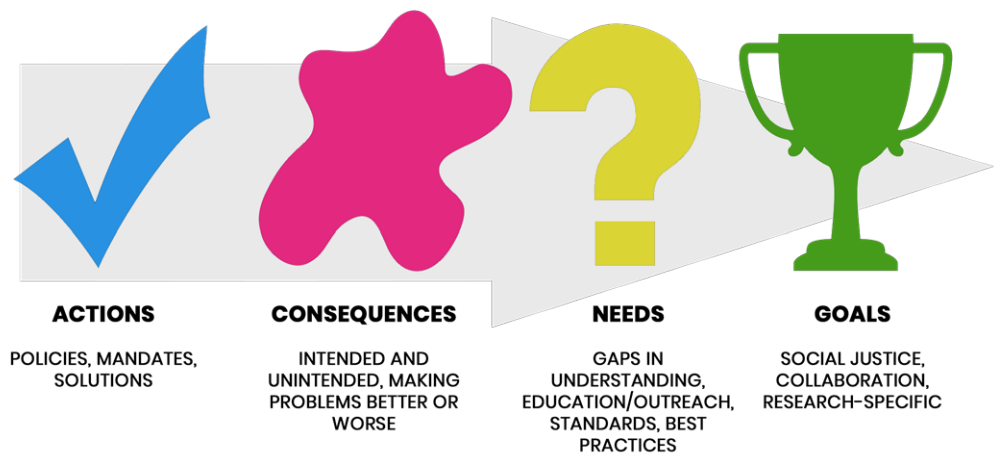
Fortunately, we may be at a stage in the evolution of these solutions where we can begin to knit them together more effectively. What might this unified approach look like?

## WORK THAT NEEDS TO BE DONE

Whether we're working for unified open solutions or just a better approach to open policies, there are eight general rules that should apply to our efforts:

1. **Think first.** Our approaches to some open solutions (open access in particular) have been powered by ideology. We have designed these solutions first, then tried selling them to researchers, downplaying unintended consequences, and ignoring the need for a more complete understanding of the open space. Reversing this process is important.

FIGURE 3: OUR CURRENT APPROACH TO OPEN



Source: OSI 2021a.

2. **Ask the right questions.** Instead of honing in on narrow policy questions like what kind of licensing is best, we need to step back and ask broader questions like what does good data look like? In what settings? Are we trying to make everything available to everyone, or some things available to some? Is our goal to help communities of practice succeed, make research more transparent, give patients better access to information, improve access to knowledge around the globe, or all of the above in all circumstances? Do we simplify and incentivize systems for sharing, or do we mandate sharing? What open outcomes are welcome and acceptable (and why)?
3. **Be guided by facts and evidence.** It's critical to listen to and build on researcher needs, and also learn from what's actually happening in the open space. Some of the most successful open models currently being used by researchers don't fit our narrative of what open is "supposed" to look like. We can't assume we know all there is to know about open, and then work backward, pounding square peg solutions into the round holes of

researcher needs and concerns. Only facts and evidence will lead us to the solutions that will begin to unlock the real potential of open.

4. **Be wary of ideology.** This is the flip side of the “value evidence” rule. Ideological pressure in the open access space is seeping into other open solutions spaces. This pressure is driven by a false depiction that there is only one “true” kind of open, rather than a spectrum of outcomes. This pressure risks creating suboptimal open solutions that researchers resist, or unintended consequences (like APC policies that have escalated publishing costs beyond the reach of most authors), instead of solutions that are robust, diverse, flexible, and sustainable.
5. **Work together.** There are no “let’s let someone else decide” options. Open access, open science, open data, and other movements all have different perspectives and priorities. An open science led effort makes no sense for humanities researchers; an open access led effort makes no sense for open data. There are no one-size-fits-all answers, and the impacts of our policies will vary by field, region, type of open, and more.
6. **Set realistic expectations.** We need to be wary of claims that open solutions are a panacea for all that ails research. They aren’t. There are many connected issues that need to be worked on in parallel, such as peer review, impact factors, embargoes, and the myriad issues connected to research reliability and replicability.
7. **Be realistic about public need.** The idea that we can open all information for public use is an intriguing vision worth pursuing. But we need to be led by evidence, because the cost of developing these solutions is high and not always practical, and the evidence doesn’t support that public uptake is strong across all types of research information.
8. **Respect diversity.** We can no sooner pick the “right” answers from the diversity of perspectives and outcomes in this space than pick the right colors from the rainbow. Each perspective and outcome is important, and each contributes to the greater whole. Trying to impose a rigid ideological order on this landscape will at best be ineffective, and at worst will fracture the global solution space instead of unite it. Instead, we need a

common-sense, collaborative, evidence-driven open solutions approach that unites the disparate elements in this space—an approach that listens to all stakeholders, embraces diversity, and nurtures growth and innovation.

With regard to this last point, for example, supporting open science has nothing to do with picking definitions and establishing policy guidelines as some agencies are currently trying to do. Instead, we can help open science by developing a better understanding of researcher needs, a better understanding of global barriers to access, new journal-free ways to share and collaborate, better connections between research and the public, better global support for data-intensive research, improved data standards efforts, improved data warehousing resources, improved interdisciplinary integration, and improved efforts to bolster science integrity, reliability and replicability.

Guiding these eight specific rules for constructing better open solutions are three general philosophies that constitute our central, unifying approach to developing a unified open solutions policy framework:

#### 1. Open is not a goal:

- Open is a means, not an end. It is a way to solve problems and improve benefits.
- Open is not an ideal. No open model is ever universally and completely open.
- Open has consequences. If we truly want open solutions to succeed, we cannot ignore the inequities or unintended consequences they can cause.
- Open evolves. It is not a static state that can be defined once and for all time. As open evolves, it creates other realities we need to face.
- Openness requires collaboration—we must work together to create real solutions. Then and only then can we unlock the vast potential of open to improve science and society.

#### 2. Researchers are key:

- Researchers care about open insofar as it can help improve the quality, reach and impact of their work. Open solutions efforts need to keep this focus in mind—that open reforms need to benefit research.

- Researcher voices have been underrepresented in open efforts to date. Our open efforts to date have mostly involved requiring the research community to follow open rules they didn't create. This dynamic needs to change.
- Researchers have a wide variety of motives for using open solutions. By portraying the open movement as one where everyone shares the same motives, we ignore those who are not so motivated, or who are more concerned about the real or potential negative consequences of current approaches to open.

### 3. A goals-based approach works best:

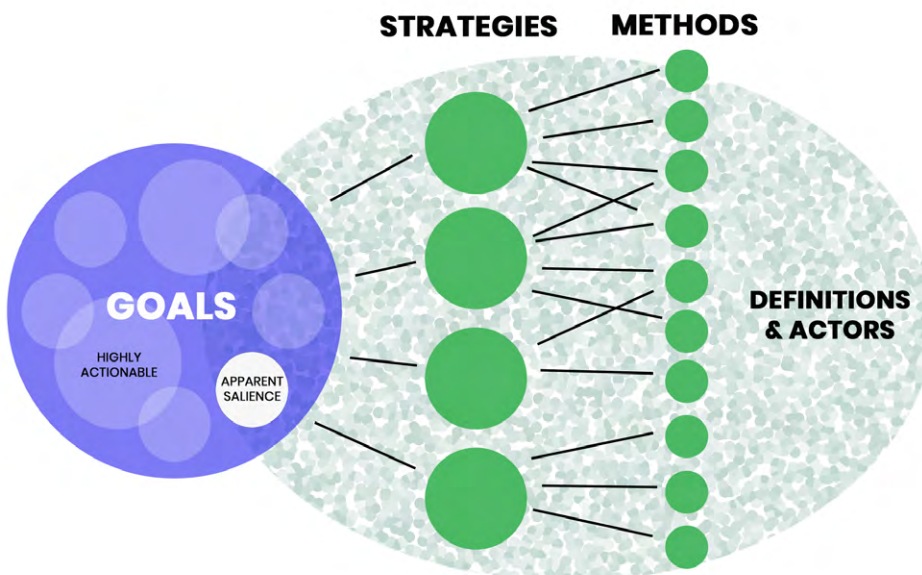
- A goals-based approach has the potential to unify all the disparate strategies and methods in the open solutions space by identifying the long-term changes our broad community desires for open, and then working backward, together, to map out the actions and policies we need to create this change.
- By focusing on our common goals, we can work together in a way that maximizes cooperation and minimizes conflict over the many differences in this space.
- We know the goals-based (Theory of Change) approach works. It is already widely used in business, governments, and the United Nations.

By focusing on our common goals instead of trying to reconcile our vastly diverse needs, ideologies, methods, and so forth, we can focus the power and potential of open on grand challenges like vaccines and climate change; we can prove the best paths to open through experience and iteration instead of theory; we can let each open solution continue to evolve and serve the needs of its community (because coders don't care about OA publishing, for example); we can work together to improve research and the research communication landscape; we can find connection points between different solutions; we can identify and build infrastructure that can help all open; and we can build a global framework—buttressed by education, support, tools, incentives, and more—for making all information available and accessible to the extent possible.

Adopting a goal-centric approach does not mean creating one definition for open, or one set of open policies, or reaching global agreement on what we should do and how. Instead, it means embracing the diversity of the open space, working together more effectively on common goals, and letting the best ideas and solutions win on their merits.

It also means that instead of just collecting open artifacts like we now do, and remaining stuck in the mindset that open is something a single group owns and can define and legislate, a goal-centric approach means working together in common cause to solve real problems with all kinds of open, letting the free competition of ideas

FIGURE 4: THE GOAL-BASED MODEL FOR OPEN SOLUTIONS



In this model, goals beget strategies, which beget methods. It's important to note that some subgoals may be more "actionable" than others because they share common elements and beliefs (for example, improving science). Locating and building upon these more actionable subgoals is important. Other subgoals, however, may only appear more salient because of the degree to which they are linked to strategies and methods (for instance, having more stakeholder or policy connections). The "apparent salience" of these subgoals doesn't necessarily make them more actionable—that is, they may represent fertile ground but not necessarily common ground. Also, this apparent salience can blind us to what our larger common ground goals look like.

Source: OSI 2021a.

decide which approaches work best, and then helping the community of open users take ownership of these ideas and continuously improve research with open. Creating this framework is just the beginning of a generations-long process, not the finish line.

## CONCLUSION

Our future has never been more dependent on research. The challenges of transforming research into the Open Age are significant, but so are the potential benefits. We can unify and empower the constellation of different open movements, and at the same time reap the full potential of open, by setting broad common goals, working together to meet researcher needs, and setting aside our ideological preconceptions about what “open” should look like. Working together, we can create a future for science and society that is beyond parallel—truly, an Open Renaissance that will usher in a new era of discovery for science, and benefit for all of society.

## ORGANIZATIONS AND EFFORTS FOCUSING ON THIS ISSUE

UNESCO and OSI are the only organizations working on the policy aspects of this idea at the moment (the intellectual foundations of this idea have been explored by Davies, Smith, Hampson and others; see the references section). OSI’s Open Solutions paper discusses this idea in more detail, and also includes a draft Open Solutions policy statement for UNESCO. Feedback is welcome.

## REFERENCES & RESOURCES

This brief summarizes an extensively researched and referenced document written by OSI, which itself draws on years of extensive research. Rather than providing in-text citations after every sentence (which would be warranted in journal paper), readers are encouraged to review the source file (OSI 2021a) for references and additional detail and context.

### OSI briefs and reports

The following OSI briefs and reports provide additional information on this topic.

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