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## Action

### Ways Forward: Technical, Political, or Both?

The pathways to an open knowledge society must navigate between the two extremes of chaos or anarchy, and order or control. These dystopic extremes attract different characteristic forms. At the “chaos” end of the spectrum are clustered libertarian and anarchic solutions. This is where you’ll find the “global technofix,” which follows the Silicon Valley model of innovation. At the “control” end of the spectrum are clustered authoritarian, “command-and-control,” and rule-governed solutions, which governments themselves will tend toward. In other words, the two extremes are both dystopic, each in its own way. Total chaos or total control are equally destructive, without securing a “poised system,” as Stuart Kauffman (1991) put it, that can self-regulate as well as adapt to difference, newness, and change.

The urge to openness is itself a by-product of the technological fix culture. It became a buzzword of the 2010s, prompting professional skeptic Evgeny Morozov (2013a) to call a halt: “‘Openness’ has become a dangerously vague term, with lots of sex appeal but barely any analytical content. Certified as ‘open,’ the most heinous and suspicious ideas suddenly become acceptable.”

Morozov distinguishes between different kinds of openness—for example, Karl Popper’s “open society,” which is a political argument for the free flow of ideas in a democratic polity, and “open-source” computation, which is an engineering fix for the greater efficiency of technical innovation. Apply the engineering fix to the political problem and “a victory for ‘openness’ might also signify defeat for democratic politics, ambitious policy reform and much else,” he wrote in the *New York Times*. Conversely, “ambitious policy reform” without “openness” to accountability can result in suboptimal outcomes, when political agendas are driven by backroom policy advisers and lobbyists (Morozov (2013a). Even elective democratic politics can weaponize “openness” when the concept is captured by populists and authoritarians (see Worthy and Heide 2019).

### **Technofix**

One way to ensure open knowledge is the technofix: leave knowledge production, management, and distribution to Silicon Valley and its venture capitalist–driven entrepreneurial endeavors in protocol making, company start-ups, infrastructure building, and app development. This method certainly produces technological “solutionism” (Morozov 2013b), and has populated and nourished the global commercial internet since the 1990s. Advocates for distributed ledger, or blockchain technologies, as the next generation of the internet argue that it will provide an information platform that is fast, instantly global, and free of central control at a structural level. There are early indications that this is a direction in which policy trends are heading (e.g., Novak 2019; Hughes et al. 2019; Organization for Economic Cooperation and Development 2019).

There is certainly cause for optimism here, as the latter is also the model of Wikipedia and open-source software, in both of which a globally distributed group of people has been able to organize and technofix production around a protocol for developing a common pool resource. But in many ways, Wikipedia and open-source

software, while mostly well-governed organizational forms, can also illustrate the deeper problems of anarchy and lurking dystopia endemic to the technofix model.

The problem with the technofix to the open knowledge problem is that while conforming to the “better-faster-cheaper” model of tech progress, on some of the margins it tends toward the anarchy end of the spectrum, risking problems of loss of control. Without public oversight and control, therefore, issues of access injustice, privacy violations, and arbitrary and dangerous interventions become inevitable. Open knowledge constructed in institutions such as these risks disappearing into the “dark web” beyond moderators and oversight, and becoming uncensorable and uncontrollable.

The private provision of public infrastructure comes with costs too, such as for consumers, when “private” comes to mean “what the market we control will bear” rather than “what competitive provision may cost” (e.g., health care in the United States and private schools everywhere). As a result of these developments, there are also costs imposed on the disruption to established business models. This potentially applies to the accrued benefits of settled ways of doing things, for institutions such as libraries, publishers, and funders that have thus far adapted to a settled regime of public funding of closed knowledge production.

Another problem with technofix is the culture that it supports, where computational and engineering skills outcompete social and human skills. Not only does this lead to “solutions” skewed in favor of tech corporations, but it permits and encourages a working environment where sexual, ethnic, and social diversity are actively harassed (Cook 2020):

Silicon Valley consistently embeds its values—as White and upwardly mobile—into the architecture of its products, many of which have come under fire as racist, and extend into its business and hiring practices. By ignoring issues of race (and, likewise, issues of class, gender and sexual identity) by gesturing to them as

being old economy problems, they circumvent any meaningful interventions that work toward dismantling of barriers based on them, and reinscribe longstanding discriminatory practices. (Noble and Roberts 2019, 16)

### **Political Fix**

The other way to solve the problem of open knowledge is through politics, which can tend toward dystopia in a different way. Proposed solutions tend to use political mechanisms to force collective action, adding oversight and enforcement to aspects of the business process, such as funding shares, intellectual property transfer agreements, access, and censorship prospects. This is the control end of the spectrum. It has the advantage of using elective and representative mechanisms, but “politics as usual”—a sclerotic social institution—also needs to reform its own knowledge systems and sources. Informed civic leadership is as important as community participation in order to maintain deliberative independence from business and other pressures, update public policy on taxation, energy (climate justice), regulation, and welfare (post-COVID-19), and adapt policy to changing technological, global, digital, and creative realities (Bernhard et al. 2020).

While “politics” remains confined to narrow specialist professionals (and vulnerable to putsch by determined ideological groups), there is little chance of recasting represented populations from consumer-spectators to citizen-cocreators. If the aim of politics remains self-interest (and winner takes all), it is hard to build a broad-based “innovation commons” (Potts 2019). But if the goal of politics is to broaden the base of knowledgeable cooperation for regenerative communal sustainability (Keane 2018), then citizenship becomes a serious matter of “open” self-organization for the transformation of both productive and social systems.

The dystopic aspects here include the use of political power and force (rather than voluntary action) to create an outcome. And because this is a negotiated process whose outcome depends on who is at the table, some will be left out, creating new divides and the

potential exclusion of those who are not part of the political process. This tendency is already visible in various attempts made and measures taken by a variety of national governments in order to enforce national control and borders on the internet, resulting in reduced access by national research communities to open information.

The institutional political process inevitably draws in the same actors, and will tend toward replicating and reinforcing the patterns of past decisions, as it works through the same channels and mechanisms of power. Even with the best intentions and brightest political agents, the process will be slow and conservative (but see Thunberg 2019).

### **Toward an Inclusive Institutionalization of Open Knowledge**

Eutopia in the space of OKIs is not a rejection of the technofix or political control agenda but instead an attempt to find and embed the best aspects of both, and shed the worst aspects of the existing systems. This is a work of synthesis, integration, and system evolution, not one of invention or destruction.

We seek a good solution that will put structure into our technical undertakings, and recognizes the critical need for inclusive (diverse) and participatory (structured process) governance systems. So we need negotiated protocols. The technofix is needed for the efficiencies and new affordances it brings. But political control via knowledge-rich institutional processes is also needed to create a fair and representative system.

An open knowledge system, in the “narrow range for eutopia” vision, has complex institutional characteristics and practical outcomes that mix the best aspects of the technofix and negotiated political settlement. We will recognize a poised OKI by its characteristics and properties, which will vary according to context and situation as well as purpose.

An open knowledge system will open more knowledge for more people than a closed one. That offers a powerful productive potential

as well as highly desirable outcomes in relation to the diversity and inclusion that are baked into the open approach. An open knowledge system naturally produces different forms and sources of knowledge. These qualities of abundance and social justice need to be set against the other key aspect of an open knowledge system as a complex institutional space and site for “staged conflict” (Hartley 2018).

To build such a knowledge institution with complex dynamic properties requires the mixing of technology and protocol-driven infrastructure with consensus-driven negotiations (see Poppe, Leininger, and Wolff 2019). The end result, ideally, will be poised in adaptive tension between the opposing poles of too much chaos and too much order.

OKIs facilitate participation rather than adopting top-down, controlling, and exclusive approaches. This coordination process seeks to establish productive and collaborative linkages with a variety of actors and stakeholders, and between the grass roots and initiatives in the realm of external regulators.

Inclusive coordination not only provides platforms for dialogue among participants but imagines permeability among types of knowledge participants too. That is, an OKI takes for granted that a knowledge “consumer” is also a user and advocate, and a beneficiary is a maker. Where all such roles are valued (i.e., where citizens are not reduced to consumers), open possibilities for the simultaneous and sequential embodiment in various roles can be maintained. Furthermore, it must be recognized that the system of knowledge production comprises many competing value systems. For example, an institution may be subject to certain regulatory frameworks that might not apply to a knowledge maker. In turn, the knowledge maker may be responding to disciplinary pressures that are external to the institution. Coordination requires awareness of and attention to these competing priority and value systems. Subsidiarity only works if difference is “owned” by those who meet and work across otherwise conflicted boundaries.

There are strong parallels here with what Kathleen Fitzpatrick describes as “generous thinking” in her book of that name. Fitzpatrick (2019, 209) makes the distinction between “caring about”—a performative statement of values—and “caring for,” an active commitment to an ethical stance of care for people and communities. Her rich conceptualization of “generosity” can be seen as a parallel process to our goal of articulating what we mean by “openness.” The differences between approaches lies in Fitzpatrick’s focus on the agency of the moral individual to act, and our focus on the institution. As Fitzpatrick (2020) observes, “And I also know that however much I may want to keep the institution running, the institution is not thinking the same about me. Our institutions will not, cannot, love us back. However much we sacrifice for them, they cannot, will not, sacrifice for us.”

Where Fitzpatrick asserts that the institution itself cannot care “for,” we would argue that it must. The culture, standards, systems, and economies of the institution as well as the university must guide its members toward both individual generosity and institutional openness. This is necessarily the work of the privileged. A truly open institution must not just be working to address Tressie McMillan Cottom’s criticism, as quoted by Fitzpatrick (2020): “I don’t think these institutions can support us or love us. And I honor the many people who work to make them more humane. But you, alone, can not do that. And you cannot do it, ever, by killing yourself.” Those with the capacity and power must actively and continuously work to institutionalize a culture and system in which addressing those issues is seen as valuable and important work, both by encouraging the privileged to do this work, and also by *institutionally* valuing the contributions and criticisms that only those with the experience of bias and exclusion can bring.

Sensitive coordination will always maintain a precarious balance between empowerment and control. As noted earlier, actors within a knowledge system are subject to differing pressures and

regulation. To attend to these pressures, coordination must ensure maximum flexibility while meeting the needs of accountability bodies and regulatory agencies. Coordination of an open system, furthermore, requires certain sensitivities to potential countercurrents. Given that systems may evolve to a closed state, effective mechanisms must be in place to incentivize and reward openness.

## Ways to Proceed

Our goal is a university that engages deeply with the mission of an OKI by drawing on the values, structures, and activities of open knowledge, and including them into its organizational and community story. Such an open institution provides a platform for distributed innovation and maximal impact.

Within this broad framework, there is also the need for monitoring and self-regulation at the institutional level for a university to decide how to assess its own progress. Although established frameworks for measuring the effectiveness of universities in traditional terms are a reality, OKIs have the courage and ability to contribute to change in the ways that universities are positioned and understood, internally and externally.

In turn, this suggests that OKIs will need to be supported by guidance and best practice protocols. This support might take the form of possible models, best practice, and cautionary tales of common mistakes, alongside advice on how other organizations have decided to represent their own progress.

We intend this book to be a first step in the development of a framework to guide action and illustrate pathways forward.



## Leading the Way

In a complex evolutionary pathway toward OKIs, leadership matters. Some must go first. Leaders can be individuals, groups, and organizations. They can emerge in all kinds of contexts:

- *The government*, apart from being the regulator, can support the transition in many ways as a leader. Open access can be included systematically as a requirement for government-funded research. Public universities may pay special attention to increasing the inclusiveness of their staff and student body, and be rewarded accordingly. In the polarity between technofix and political fix, governments can take an active role in mediating and moderating negotiations between business and universities in creating common knowledge pools.
- *Professional associations* play an essential role in leading the process of overhauling the dominant system of journal rankings, peer review procedures, and performance evaluation of academics. They can actively support and honor cross-disciplinary research initiatives via the creation of new venues for publishing innovative research.
- *Scientific and scholarly publishers* can create innovative ways to combine commercial interests with maximizing open access, and may actively pursue cooperation with other concerned parties such as professional associations.
- *Universities* can overhaul their systems of selecting and evaluating faculty and staff, thereby changing the incentives for teachers and researchers. They can reward all kinds of common knowledge pools that transcend the boundaries of established approaches such as community projects.
- *Researchers* can take the lead as open knowledge entrepreneurs, taking the risk in exploring new common knowledge pools. Senior researchers may actively support new open-access

journals by redirecting their submissions away from the incumbents.

- *Teachers* can develop new curricula in keeping with the more open nature of knowledge and growing diversity of university populations.
- *Students* can be presented with real options within and between universities, including those that model open knowledge initiatives, and students can organize activism for openness.
- *Funders* can include open knowledge criteria in their project selection and evaluation procedures. They can identify emerging common knowledge pools, moving away from narrow criteria of excellence, for example, by widening the peer and expert review system to include other concerned parties.
- *Professions* can actively cooperate with universities in creating programs that integrate knowledge users in their design and implementation. They can support research initiatives that bridge research and application.
- *Communities* can actively support spatial integration between universities and localities. They can approach universities with cultural and other community projects, acting as local knowledge entrepreneurs.
- *International organizations* can develop blueprints for open knowledge initiatives. They can lend active support to developing countries in building new OKIs and act as mediators across national policies.
- *Standards setters* can actively support the increasing openness of standards globally.

Amid all this opportunity, there is a place for all.

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# Open Knowledge Institutions

## Reinventing Universities

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