Open Scientist Handbook • OSH

Building a gift economy: the dance of open science culture

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Culture gives your gift the meanings it needs

“I am not saying science is a community that treats ideas as contributions; I am saying it becomes one to the degree that ideas move as gifts” (Hyde 2009).

“The specificity of [demand] sharing... is rather that it also constitutes sharing in, granting access to the flows of objects, their intrinsic goods, and their intrinsic value” (Widlök 2013).”

“That is the fundamental nature of gifts: they move, and their value increases with their passage. The fields made a gift of berries to us and we made a gift of them to our father. The more something is shared, the greater its value becomes. This is hard to grasp for societies steeped in notions of private property, where others are, by definition, excluded from sharing” (Kimmerer 2013).

So, you will want to change the culture of your organization to enable “demand sharing” (See: [Demand Sharing](#)). This is something the Handbook encourages, and, after reading this section, you will understand why. The goal of this culture change is to build an internal economy for the scholarly resources you are now assembling. This economy will do two somewhat intertwined things: optimize the value of these

resources and support their use through practices that respect and enable fierce equality across the global “republic of science” and beyond.

The argument here is that the current, scarcity-based market economy that has penetrated inside the academy does neither of these things well enough, and sometimes not at all. Instead, it promotes hyper-rivalrous games to capture funding and prestige, while it marginalizes and silences the long-tail of science talent across the globe. What the market economy does do really well is capture external motivations that appear to power efficient use. Instead, these motivations infest the academy with unavoidable conflicts of interest and perverse incentives.

This form of economy ends up externalizing much of the value of research goods. These become properties held outside of the academy—from which they were born; this happens today, every time you gift Elsevier or Wiley the copyright to your research article. While this arrangement frees the academy from investing in the repositories that could hold these goods internally, and in recognition schemes to highlight great work and show gratitude to science teams doing this work, the cost is significant and ongoing: the academy needs to pay over and over again to access its own resources.

Slow is smooth and smooth is fast: with enough culture you can go slow enough to accelerate science

“What peer producers are doing—for now mostly in the sphere of ‘immaterial’ production of knowledge, software, and design—is to create an abundance of easily reproduced information and actionable knowledge; that which cannot be directly translated into market value, because it is not at all scarce—on the contrary—it is over-abundant” ([Bauwens](#) 2012; Accessed 10/2018) .

The cultural practices that support demand sharing are not simple at all. Not nearly as simple as the market transactions we do every day. They require active, culturally coded, shared intentions. Think of them as a learned, shared cultural “choreography.” Every member of the group knows how to dance with the group. These practices are durable enough to have sustained hunter-gatherer groups across the planet for tens of thousands of years, sophisticated enough to enable entire small societies to manage almost all of their internal transactions, and logical and transparent enough so that children do learn and follow them. Peer-to-peer production uses these same cultural practices to build the infrastructure of the internet.

“Almost everyone [in the social sciences] continues to assume that in its fundamental nature, social life is based on the principle of reciprocity, and therefore that all human interaction can best be understood as a kind of exchange...

...Exchange is all about equivalence. It’s a back-and-forth process involving two sides in which each side gives as good as it gets” (Graeber 2011).

Reciprocity and gift economies unpacked

Let’s look closer at socio/anthropological notions of a “gift economy” and “reciprocity,” and more recent work in economic history and economic anthropology for new insights to the “sharing economy.” In anthropology, reciprocity is a topic that has launched a thousand dissertations, that has informed entire schools of theory and argument, and that has been the wellspring of anthropology’s connection to economics since Marcel Mauss’s book, *The Gift*, was published in French in 1925.

The Handbook assumes your goal here, or one of them, is to avoid needing to become an anthropologist in order to be a culture-change agent. Here are the basics of gift economies and reciprocity you might call upon without further study. Let’s start with the conclusion: demand-sharing is a form of reciprocity that requires active, intentional cultural practices to deliver an optimal return for the academy. Demand sharing is a practical/theoretical upgrade on the notion of the academy as a “gift economy.” It describes a relationship in practice between scientists and science, between scholars and the academy.

Start with reciprocity

At its core this is a durable obligation to interact with others. So, this behavior is culturally coded. Inside the community, exchanges get made that motivate future exchanges. Importantly, these obligations are never designed to achieve a final closure. Reciprocity in life and in the academy is a feature of infinite play. Reciprocity colonizes your future by enrolling you in longitudinal practices of giving and getting. When your child finishes college, you do not present them with a bill for all of the

expenses they cost you growing up. If you do, you are planning to never see them again.

Market transactions (and also theft) avoid this type of ongoing obligation. So does charity, mostly. When you sell your old car to a stranger for cash, you have every hope that you will never see them again. When a thief breaks into your office and takes a computer, you do not expect them to give you something back in the future. When you give some food to a homeless person on the street, you don't expect to get something material back from them later on.

Reciprocity takes more work (cultural and emotional) to maintain than direct market exchanges. It takes a shared understanding of the implied obligations for reciprocity to succeed as an economic logic. For this reason, reciprocity works best inside a community. Transactions between different communities involve more rule-making, and less cultural coding. Considering the academy as a community, or a collection of like-

minded communities, some form of reciprocity is an economic logic that fits very well, once the cultural practices for this become normative.

In some cases, the implied obligations of reciprocity can negatively color the relationships between individuals: “When favors come with strings attached or implied, the interaction can leave a bad taste, feeling more like a transaction than part of a meaningful relationship. Do you really care about helping me, or are you just trying to create quid pro quo so that you can ask for a favor?” (Grant 2013).

Reciprocity can be generalized or more specific, and both forms can be active in the same culture. “Generalised reciprocity is characterised by Marshall Sahlins as being marked by a weak obligation to reciprocate and an indifference to the time, quality or quantity of the return. It is typically the behaviour found between such closely related people as parents and children or siblings, where asking for things is widely acceptable...” (Peterson 1993). Generalized reciprocity brings in a key feature of demand-sharing: the right to ask for what you need. You can say that demand-sharing

is a certain specific type of generalized reciprocity, highly coded to be efficient and sufficient across an entire group (not just a family). So, what about gift economies?

Giftling on the Playa. Photo Credit: Bill Dimmick on Flickr CC

“Gifts in Burning Man culture are offered unconditionally. In the case of individuals who contribute to our community, such gifts are relatively easy to accept, and it is only common courtesy to recognize these givers and their contributions. ...This is an application of the Principle of Radical Inclusion” ([Harvey](#); Accessed June 17, 2020).

“These remarks on the scientific community are intended finally to illustrate the general point that a circulation of gifts can produce and maintain a coherent community, or, inversely, that the conversion of gifts to commodities can fragment or destroy such a group. To convert an idea into a commodity means, broadly speaking, to establish a boundary of some sort so that the idea cannot move from person to person without a toll or fee. Its benefit or usefulness must then be reckoned and paid for before it is allowed to cross the boundary” (Hyde 2009).

“‘The important lesson I learned from Adam [Rifkin, a Silicon Valley entrepreneur] is that you can be a genuinely kind-hearted person and still get ahead in the world’ [quoting Stephanie, a LinkedIn recruiter]. Every time Rifkin generously shares his expertise or connections, he’s investing in encouraging the people in his network to act like givers. When Rifkin does ask people for help, he’s usually asking for assistance in helping someone else. This increases the odds that the people in his vast network will seek to add value rather than trade value, opening the door for him and others to gain benefits from people they’ve never helped—or even met. By creating a norm of adding value, Rifkin transforms giving from a zero-sum loss to a win-win gain” (Grant 2013).

Understanding gift economies

Gift economies span from indigenous peoples to science cohorts, with Burning Man in the mix, somewhere. Speaking of indigenous gifting, Kimmerer notes; “The essence of the gift is that it creates a set of relationships. The currency of a gift economy is, at its

root, reciprocity. In Western thinking, private land is understood to be a ‘bundle of rights,’ whereas in a gift economy property has a ‘bundle of responsibilities’ attached” (Kimmerer 2013). A great way to dive into the academy gift economy is to read Lewis Hyde’s (2009) book, *The gift: Creativity and the artist in the modern world*. In his book, *Give and Take*, Grant (2013) explores giving as a socially valuable practice for 21st Century commerce. Both Hyde and Grant use gifting to illustrate the value of “openness.” For Hyde, openness produces scholarly objects that grow in value as they are shared without regard to direct compensation. For Grant, openness creates weak ties across vast networks where generosity is also generative for creativity and innovation.

A gift economy uses gifting as its primary, and/or its celebrated form of exchange. There are no *purely* gift economies; people create exchanges for complex reasons that might not fit in this description, even when they use gifting for most exchanges (Graeber 2001). At Burning Man, where you can find someone to gift you any recreational drug you might desire, you can always *purchase* coffee at Center Camp. Gift economies co-exist with other forms, such as market economies. Hyde (2009) calls this a “mixed” economy.

In a non-gift economy, gifts can still be reciprocal, even if the return gift is only an expected “thank you.” Families may send out holiday cards and keep careful track of the cards they receive in return. They trim their card list accordingly. Birthday gifts or dinner invitations to friends open up expectations of similar goods coming back. Edge cases are also available. Oprah Winfrey added to her fame by giving away [cars](#) (accessed 06/20/2020) on her television show. Philanthropy channels donations to a range of causes where the return is not a gift, but some resolution of a deficit or a wrong. In what way is gifting essential to the academy?

The idea here is simply to catch the central meaning of what a “gift” is within a scholarly community. Hyde points back to Warren Hagstrom’s work on *The Scientific Community* (1965): “Hagstrom writes that ‘in science, the acceptance by scientific journals of contributed manuscripts establishes the donor’s status as a scientist—indeed, status as a scientist can be achieved *only* by such gift-giving—and it assures him of prestige within the scientific community’” (Hyde 2009). However, this exchange of status for the gift of a research article was, and never is that simple. The bundle of responsibilities in this exchange includes (not exclusively) assurances of research integrity, access to data (optimally), and continuing conversations about the research

results. The community gets to demand what it needs to realize the value of this gift for science.

Demand sharing is different

Demand sharing is focused on a relationship between individuals and the group. Whereas a gift economy can be focused on how particular transactions are handled between individuals across their lifetimes, demand sharing is grounded on belonging to a group and knowing when and how to offer and to ask for goods from the group. You could say this is a certain form of gift economy, with added group-sanctioned cultural practices. Social distancing during a pandemic is a type of demand sharing. In this case, the group benefits when each individual participates, and the individual benefits when the whole group acts in concert.

Demand sharing resembles “tolerated scrounging” (Widlok 2013). There is no score to keep, as in monitored reciprocity, and no specific value attached to the goods, as in a market. In place of these are cultural practices and norms that work to preserve the process of sharing, guarantee sharing to all individual members, and protect the integrity of the shared resource pool through active governance. This is precisely what “commoning” in the academy supports.

On the open science expedition, nobody gets left behind

Demand sharing is the economy for the commons

Demand sharing practices require active cultural intention to remain clear and durable. You cannot put demand sharing on autopilot. Rules are less useful here than strategies (See: [Making statements about open science](#)). One non-hunter-gatherer example of demand sharing is what is called “expedition behavior.” “Expedition behavior involves putting the group’s goals and mission first, and showing the same amount of concern for others as you do for yourself. Jeff Ashby, a NASA space shuttle

commander who has flown more than four hundred orbits around Earth, says that ‘expedition behavior — being selfless, generous, and putting the team ahead of yourself — is what helps us succeed in space more than anything else.’” (Grant 2011).

Expedition behavior also demands that the group leave no expedition member behind.

Demand sharing begins with a recognition of the legitimate demands from *others*. It is other-focused. Instead of serial, disengaged market transactions that have no consequent advantage for the group, demand sharing requires and rewards engagement with others. Consideration of others, and consequent consideration by others, creates social closeness: it is a holding close of others into a sharing society.

Demand sharing has been “operationalized” in smaller societies for millennia. Demand sharing practices are local and as complex as their locale requires. “...sharing is in itself a complex phenomenon, more complex than usually imagined by those who are not participating in the economy of sharing on a daily basis” (Widlok 2016).

Responding to the specific demands of research arenas, science also groups its activities into smaller societies of researchers that share their own province of infinite play—their own precinct of phenomena, theories, and methods. Within and among these groups, demand sharing practices will become as complex as required to fulfill the needs of the group to discover, access, and mine their shared resources.

“A basic goal of provisioning is to reintegrate economic behaviors with the rest of one’s life, including social well-being, ecological relationships, and ethical concerns” (Helfrich and Bollier 2019).

Investing in, provisioning from, and sustaining scholarly commons for infinite play

The main kind of “demands” in a demand-sharing academy are demands that new research be shared with colleagues in a manner that promotes rapid reuse and further knowledge generation. You can consider these as “investment demands.” These demands provide a valuable return for each individual scholar and team, which only need to add their work into a shared repository in order to get culturally-supported access to the entire corpus. You add your “carrot” (or onion, or whatever) to the shared research soup bowl, and you get a whole meal back. Only this bowl is never empty, as its ingredients are digital and anti-rivalrous. So, you get a shared abundance of meals. These are “provisioning demands.” You get your fill of the latest data and research findings from across the planet.

A second group of demands center around science play (See: [Open Science and infinite play](#)). Within a culture of demand sharing, scientists and teams can demand that their institutions support science across its horizons, and through time within and beyond the lives of individual scientists. This means reaffirming those freedoms that allow science to advance at its own pace and without external influence, and provisioning science teaching and research as a public good (Newfield 2016). These new demands might include a durable, guaranteed minimum income for all researchers, say, and more university funds for new projects and science infrastructure. Freed from the enormous friction of self-interested finite games where stealing ideas and the fear of “getting scooped” guide a lack of sharing (Hyde 2009), the academy can focus on stewarding its resources and mining new knowledge from these.

The third group of demands are governance and stewardship responsibilities and activities that require individuals as commoners to work to maintain pooled resources and effective governance strategies across time. This governance “overhead” is inherently problematic when the pooled resources are open to all to use. One solution to this problem is to localize the resources (Neylon 2017) and task those who use them a lot to step up and be more active in their stewardship. This is one functional reason why scholarly commons (plural) will need to be localized for governance, and globalized for impact. The immediate issue this solution creates is the need for robust interoperability among the commons, including some sharing of cultural norms for mutual use of combined resources.

The last demands are really the first ones in the careers of scientists: the demands that students make on their teachers and schools to provision their learning path. If “tolerated scrounging” describes how scientists gather their research goods, teaching the next generation of scroungers means more than opening up scientific content access and understanding. Open-science teaching includes inculcating cultural knowhow about the norms and practices of commoning in scholarly commons.

Bibliography: Open Scientist Handbook References