Open Scientist Handbook • OSH

Performing Open Science Culture

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“Open Science, perhaps more properly termed Open Scholarship in English, represents a culture change in the way stakeholders in the research, education and knowledge exchange communities create, store, share and deliver the outputs of their activity. For universities and other stakeholders to embrace Open Science principles, policies and practices, there needs to be a culture change in these organisations if this transition is to be successfully negotiated” (LERU 2018. *Open Science and its Role in Universities: a Roadmap for Cultural Change*. [Advice Paper 24](#), May: Accessed, June 12, 2019).

Celebrate open science culture change and values: and then take these personally

“[Y]ou get what you celebrate in a free culture,” Dean Kamen.

“...intelligent failures, as the term implies, must be celebrated so as to encourage more of them” (Edmonson 2019).

“...frustrations can be vented; accomplishments and people spontaneously celebrated. In these moments, more is at play than simple information exchange” (Laloux 2014).

“You need to not only understand your values, but celebrate them...” (Bacon 2009).

In much of the literature on organizational culture, the advice is to “celebrate” values and norms. The term “celebrate” is used as its meaning suggests: first, to acknowledge with a social gathering, and second, to affirm through some shared event.

Acknowledgement and affirmation require generosity. In the academy, the term has been mostly used adjectivally as an attribution: “She is a celebrated biologist;” or “Her celebrated work on X explores...”

Here, however, celebrations are active and verbal. However, balloons and song are not required. Conversations and smiles are just fine. The events can be planned or spontaneous. Large group, or small team. Day long or a momentary. Celebrations are times when you do cultural practices together, with the message that these are really what open scientists *do*. The important thing here are the *three aspects* that are happening at the same time in any real celebration.

Celebrations of culture in your workspace: three important aspects

1. There is a shared *social* activity.

It might be as simple as reflecting on an intentional culture practice that you are doing together. In the photograph above, participants are designing posters that show innovative projects they hope will acquire some micro-fundings. At the same time they are sharing in the open, transparent funding effort where they will know the results the next day. (See [ESIP Funding Friday web page](#)).

Everyone can participate as they wish. Time and resources may be spent to hold these events. Regular and irregular events break the routine of the workplace. Within the event any number of values and accomplishments can be mentioned, or the event can itself celebrate the value of being a community. Alternately, celebrations may be as simple as someone making a positive comment about someone or some activity, and everyone else nodding and smiling. Occasions where time and resources are spent are investments by the organization to its employee community.

2. This social activity requires and rewards a *shared* positive emotional tone among all who participate.

You do not need to be the most enthusiastic person in the room, but you are expected to actually want to celebrate. Lending your sincere emotional support to the activity is a gift you give to your community. This shared emotional space also opens up the social frame for interpersonal conversations that can build trust, and improve teamwork. Even most introverts can find something to smile about.

3. This activity is meant to be shared *within a community*.

Going out dancing on your own in a night club after work may be your way of “celebrating life,” but here you belong with your team. And that sense of belonging is shared. In fact, these occasions for celebrating are times when “fitting in” ups its game

to signal actual belonging. You get to be who you are. The rewards of belonging are gifts from the community to its members. This part of celebrate requires that you've spent some time creating community in your workplace. This usually means that you share building community as a value. Every time you celebrate something/someone you are also celebrating your community. Every sincere smile in the celebration is a gift from the community to its members.

Celebrations demonstrate generosity

Celebrating starts with a clear intention: generosity. Even when there is no material sharing, generosity of spirit is present. Lacking this, no event can be called a celebration, even though it may look like one (balloons, songs, whatever). Celebrations are good barometers for the health of your institutional culture. On any one day, you might not be feeling very generous. That is fine, you can still participate with a modicum of generosity. Not feeling generous at all? Something might be wrong with your workplace.

What failed celebrations signal

You may have had the painful experience of an office party where nobody is feeling generous; where everyone knows that the event is for show only; and where there is no shift in the shared emotional mood that would allow for free conversation. In a culture turned toxic, you can no longer actually celebrate; in fact, genuine generosity will seem out of place.

[The ratio of people to cake is too big...](#)

When celebrations fail, it's time to reexamine your culture. This means that celebrating your values (and each other) is also a litmus test on how well your governance is working to help you build a community—another reason to celebrate regularly. Putting up your values on a sign by the front door is not the same as celebrating these. This goes for your academic department or lab as much as it does for a Silicon Valley start-up.

Celebrate Real Change to bring back the Cynics

When celebrations succeed, they enliven conversations and diversify the work day. Putting constructive fun into your open science culture change effort is a win for everyone. Academics around you—and, confess, probably you too—have once been or are still somewhat cynical about open science changing the academy. Academics get a lot of mileage from their shared cynicism, it seems. Cynics believe change is

impossible. “You’ll never incentivize academics to be generous when their career is on the line,” they say, and wait for some response they can dismiss.

When you promote incremental changes to academy behaviors, through articulating new norms and pushing for open practices, you demonstrate that change is possible, opening up the door to bigger changes, and allowing cynics to slough off their old beliefs. Shared celebrations of new practices give former cynics an experience of change (however small) and the emotional support to engage in conversations, rather than postured challenges. Some cynics become the most committed change agents when they see change happening around them.

Going Glocal

This Handbook is designed to be used locally, and to reflect open science notions that are potentially global in scope. There are no precincts on Earth external to science. At the same time, it is just wrong to propose a single set of principles or a pre-imagined vision that locales must follow. Access to scholarly resources over the internet improves their global reach. Local or national infrastructures sustain these resources, and hundreds of academy organizations generate and steward them.

These organizations are imbedded into local education/research cultures that are the actual sites for culture change. Like a giant shoe store, the academy has a broad range of styles and sizes of organizational culture. It holds a vast inventory of different cultural attributes. And yet, to push this analogy is bit, these are still all shoes. The republic of science shares a common knowledge pool, and a collective goal. Your task, as an open-science culture-change agent is to work locally to support this planetary endeavor: science. This means that celebrating the norms of global science also opens up occasions where you can share how this is best articulated in your locale. The smallest locale you have is yourself.

Taking culture change personally

The task ahead: change the culture in your university; in your professional association; in your laboratory; in your department; in your life. Yes, in your life. The changes you want to make include changes that make your institution more responsive to your needs as a scientist, and as a full person showing up to commit your life (some part of it) to the pursuit of scientific knowledge.

Even as individuals can be culture-change agents, cultural practices—particularly shared principles and norms—can, and will change individuals. Acting fiercely

egalitarian means becoming fiercely egalitarian. This will have impacts on personal relationship too. Marcus and Conner (2014) call this the “culture cycle.”

“To summarize once more how the culture cycle works: Our I’s (or selves) both produce and are produced by cultures out-in-the-world, including the customs and artifacts that give shape to our daily *interactions*, which themselves foster and follow from cultural *institutions*, which in turn reflect and support our cultures’ big *ideas*’, including ideas about what a person is and should be. Because our I’s are embedded in cultures, we cannot survive without them. In this way we are like fish in water.

Also like fish in water, we evolved an that we don’t notice culture. Indeed...culture is powerful precisely because it is usually invisible to the untrained eye. We are born into culturally saturated worlds, and seldom do we see or discuss how other worlds are arranged. Only when we travel to new places or, say, read a book about cultural psychology do we begin to understand how much culture shapes our selves and appreciate how many different forms cultures can take.”

While organizational culture may, and probably should stop short of claiming the “big ideas” of life, there are ideals, norms, and values that are big enough to share within an academy organization; like the norms of great science, and the need for practical wisdom in personal relationships. Much of the change you are looking at is in no way radical, or even novel. These changes may simply be a realignment of the behaviors of those around you (and your own) to how you’ve already imagined science should operate. In fact, the changes you make might just reduce the feelings of dissonance you have about doing science. Open science is really just asking you to be congruent with the “implicit, collective understandings about how scientific research should be done” (Anderson, et al 2007).

You still have some work to do. To succeed in changing your organizational culture you also need to work on your own person. You will need to develop resistance against those toxic aspects of current academy culture that feed bad science and bad behaviors. To change culture, you need to take science—the whole enchilada of research and teaching— *personally*.

“Taking it personally means changing the culture by owning our experiences and holding ourselves and others accountable (Brown 2007).”

To become a culture-change agent, you will need to celebrate the values of open science in your everyday work activities and in active conversations with others. In the

process, you will want to become “authentic” with these values. While you can certainly hold additional values and cultural notions from other aspects of your life (home, religion, politics), you will be much happier when you arrive at a congruence between the open-science values you maintain on the job, and those you hold elsewhere.

Bibliography: Open Scientist Handbook References