## [Book title]

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Version 1.0

### Also in the series

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### Preface:

### [on editing an open book]

Bryan Behrenshausen

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## Introduction:

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## Part 1: Cultures

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Mike Walker

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# Organizational learning: A new perspective on DevOps

Gene Kim

In the DevOps community, we talk a lot about automated deployments, doing multiple deployments per day, and the need for culture. I want to share with you something that isn't talked about nearly as widely, but I think is just as important: the benefits of organizational learning.

Let's take a moment to visualize what an organization that has fully adopted DevOps principles and practices might look like.

We are able to accommodate a high rate of change that allows us to satisfy our organization and out-experiment our competition. Our changes have short lead times, and we can make changes and deploy code at any time of the day (as opposed to only on Friday at midnight), without organization-paralyzing fear that it will cause massive chaos and disruption.

Furthermore, our code and environments are safe to change (and we can recover from mistakes quickly), ideally without even impacting the customer. We have created a high-trust environment where we can rely on our team members throughout the entire value stream, knowing that we are all working together to help the organization win.

When bad things happen—which entropy and Murphy's Law ensure—we have sufficient monitoring in place to quickly

find out what is going wrong, restore service, and resume normal operations. Because we have a culture of relentless improvement, we will figure out how to prevent it from happening again in the future, or if we can't, at least enable quicker detection and recovery.

And because we know that more important than daily work is the *improvement* of daily work, we are constantly learning as an organization, and turning local discoveries into global improvements.

In his book, *The Fifth Discipline*, Peter Senge explains that "knowledge exists at the edges, not at the center," and that we need organizational learning because it enables helping our customers, ensures quality, creates competitive advantage and an energized and committed workforce, and it uncovers the truth.

Therefore we must create a culture that rewards learning, which often comes from failure. Moreover, we must ensure that what we learn becomes embedded into our institutional memory so that future occurrences are prevented.

### Encourage and celebrate learnings

No amount of command and control management can direct workers to fix each strand, one by one. Instead, we must create the organizational culture and norms so that everyone finds and fixes broken strands, all the time, as part of our daily work.

Our goal should be to maximize our organizational learnings from any accident, gain the best understanding of how the accident occurred, and empower everyone to create the most effective countermeasure to prevent it from happening again, or enable quicker detection and recovery. In addition, we must foster a culture where the entire organization learns from it, so

that any local improvements can be turned into global improvements.

Intuit has a famous monthly ritual where the CEO of the company gives a ceremonial life preserver to the person who made the largest mistake. The recipient signs the life preserver, then tells the entire company what happened and what they can learn from it

### Make it easier to use standards than not

Standards, encompassing the sum of our organizational knowledge, should be easier to use than to not. One of the best places to put this knowledge is into a centralized source code repository that is shared throughout the organization, allowing the ability to quickly propagate knowledge. Some other characteristics of successful standards include:

- Shared source code repository and thorough documentation that can be searched and widely reused
- Internal discussion groups for each library and service (e.g. "github-users" or "puppet-users"); often people having questions will get responses from other users faster than from the developers
- Widely broadcasted, blameless postmortem reports

Justin Arbuckle, former chief architect of GE Capital once said, "The best architecture document is one that is implemented in code, in a shared source code repository, that anyone can pull from."

## Enable the organization to discover its way to greatness

By valuing learning, we create an organization where we no longer expect leaders to plan our way to greatness. Instead, leaders help foster and develop routines, test them in practice, recognize which don't work, and reinforce those that do. Leaders do this by reinforcing the value of learning and ensure that obstacles are removed so that whatever got in our way yesterday and today won't get in our way tomorrow.

## What does organizational learning look like in a real DevOps journey?

I recently had a chance to hear about it from Jim Stoneham, CEO of Opsmatic. In 2009, he was the general manager of the Yahoo! Communities business unit, which Flickr became a part of. Stoneham shared:

"The amount of our organizational learning went through the roof as we increased our deployment frequency at Yahoo! Answers from once every six weeks to multiple times per week. Suddenly, we were able to able to try things out and experiment in ways we hadn't been able to do before. Our team became very much in tune with the numbers: we'd would look at them as a team on a daily and weekly basis, and use that to inform feature conversations and plans.

Instead of engineers talking about the product once every six weeks, we'd be talking about it daily. This was exactly the learning that we needed to win in the marketplace—and it changed more than our feature velocity. We transformed from a team of employees to a team of owners. When you move at that speed, and are looking at the numbers and the results daily, your investment level radically changes. This just can't happen in teams that re-

lease quarterly, and it's difficult even with monthly cycles."

I love how Jim Stoneham talks about the benefits about DevOps that sound very different than how we often talk about it as Dev or Ops. It's this capability of creating organizational learning that enables us to win in the marketplace.

Gene Kim is a multiple award winning CTO, and researcher. He was founder and CTO of Tripwire for 13 years, and is an author of both The Phoenix Project and The DevOps Handbook.

# Innovation requires new approaches to feedback and failure

Jim Whitehurst

rganizational culture" is something plenty of people are puzzling over today, and with good reason. More and more leaders are realizing that the culture permeating and guiding their organizations will determine whether they succeed or fail.

The term "organizational culture" refers to an alignment between two forces inside an organization: values and behaviors. Aligning those forces productively is one of the most difficult and important tasks facing leaders today.

Customers and partners routinely tell me they want to create a "culture of innovation" in their organizations. By this, they usually mean that they want to create contexts where certain actions—those that generate new and unforeseen sources of value capable of fueling growth—are not only expected but also commonplace.

I certainly understand why. Today, a culture of innovation is a strong indicator of an organization's ability to weather the kinds of constant disruption nearly every industry seems to be experiencing. But creating one is easier said than done.

Here's how I'd recommend an organization approach that challenge.

#### A new method

One method for creating a culture of innovation involves focusing on how your organization treats both *feedback* and *failure*.

In innovative organizations, feedback is continual and frank—in other words, it's open. Dialogue about ideas associates raise must be ongoing, constructive, and, above all, honest.

To foster innovative environments, leaders must model the kinds of feedback behaviors they want to see in their teammates and associates. They need to be open to even the most difficult conversations.

Innovation is one product of creativity. Despite the way we tend to think about it on most days, creativity is *very difficult*; it's the product of intense collaboration and sharing. Actually, Ed Catmull and Amy Wallace discuss creativity this way in their book *Creativity, Inc.* Innovative teams and organizations, they say, must have some way to simply separate the wheat from the chaff—to simply call a bad idea a bad idea—and move forward. Creating a culture of respectful, frank disagreement is key to this. The opposite of this kind of culture is one where feedback is a rarity—or, worse, where it's only positive (as I wrote in *The Open Organization*, it's possible for organizations to be "terminally nice").

One of the things people receive feedback about is their failures. But cultures of innovation take a specific approach to failure: They celebrate it.

Without question, being innovative involves taking calculated risks. People in innovative organizations must feel like they can try something novel and unexpected without fear of intense, negative blowback—otherwise, they'll never attempt anything new.

Traditionally, we've treated failure as a sign of personal failing: Someone faced with a tough choice didn't make the "right" decisions, so we need to punish the behavior that led to a certain outcome.

But in cultures of innovation, where everyone is expected to experiment, how can anyone possibly know what the "right" and "wrong" decisions will be if the problem is so new that few people have any concrete experience with it?

Instead, I like to think about failure the way Jeff Bezos once described it in a letter to Amazon shareholders<sup>3</sup>. He said:

Most large organizations embrace the idea of invention, but are not willing to suffer the string of failed experiments necessary to get there . . . Given a ten percent chance of a 100 times payoff, you should take that bet every time. But you're still going to be wrong nine times out of ten. We all know that if you swing for the fences, you're going to strike out a lot, but you're also going to hit some home runs.

The trick to making this approach to failure an organization's *default* approach is changing the way we think about evaluation.

Traditional management is management by objective. It examines *outcomes* to see if they've aligned with expectations someone set out *before* undertaking a task. If these don't align, then someone, somewhere, has failed—and that's a bad thing.

In innovative cultures, however, we need to balance that approach with one that actually rewards failure. Leaders must be able to encourage certain *motivations*, which are a key source of innovation. They're not as overt or quantifiable as out-

<sup>3</sup> https://www.sec.gov/Archives/edgar/data/1018724/00011931251653 0910/d168744dex991.htm

comes, however, which is why traditional management theory struggles to account for them.

How can leaders assess people who might have failed, but who've demonstrated exciting new ideas and approaches along the way? And how can they encourage others to actually emulate those people?

If you can get there, you'll know you have a culture that rewards risk-taking.

#### A focus on structure

This approach to creating a culture of innovation isn't a foolproof and complete plan for changing the way your organization functions today. I don't think such a comprehensive plan actually exists (if it does, please let me know!).

But I do believe that focusing on the organizational structures that govern approaches to feedback and failure is a promising way to begin—much better, anyway, than simply telling people to "be more innovative."

Jim Whitehurst is President and Chief Executive Officer of Red Hat, the world's leading provider of open source enterprise IT products and services.

### Chapter discussion and review

- "Organizational culture" is an important topic to IT leaders today. What does the term mean to you?
- How does your team currently handle feedback and address failure? How might you be able to change your approach to these issues?
- What do you think are your team's or organization's largest impediments to creating cultures of innovation?
- Jim writes: "How can leaders assess people who might have failed, but who've demonstrated exciting new ideas and approaches along the way? And how can they encourage others to actually emulate those people?" Can you think of strategies for doing this on your team or in your organization?

## Transparency, failure, and other things I've learned to enjoy

Nick Hall<sup>4</sup>

W e've all heard statements that begin with phrases like these":

- "Full disclosure . . . "
- "I'll admit . . ."
- "I'll be honest...<sup>5</sup>"

They preface a moment of clarity, bringing everyone to a place of common ground through complete and utter transparency. They promise listeners a window into what's really going on.

And they're not always comfortable 67.

This discomfort isn't the result of some aversion to honesty; it's just that the full story is rarely convenient or glamorous. When someone starts with one of those phrases, we react immediately: *This conversation is taking a different path* 

<sup>4</sup> Abbreviated "NH" in the footnotes. Edited by Bryan Behrenshausen ("BB" in the footnotes, natch).

<sup>5</sup> Love the idea of jumping right in with these all-too-common turns of phrase. In fact, I think we can work them into the narrative strategically and stylistically.—BB

<sup>6</sup> Would be good to have an editors note or something with how many edits/revisions/changes/whatever went into the final form of this.— NH

<sup>7</sup> We can totally do that.—BB

than I anticipated. When the tide turns from truisms to this other thing, we have to be prepared for anything, and if that other thing is complete transparency, these conversations have a way of exposing things that we might not be so proud of. They can shine a light on our vulnerabilities. And even if the light isn't focused on us, our self-reflection can still bring those vulnerabilities to the surface.

It might not be comfortable, but it can be incredibly rewarding.

I'm going to explain that positive outcome—how transparency and failures can work hand-in-hand, and how coming from a place of discomfort, vulnerability, and disappointment can be a good thing, not only for us individually, but for our projects and our teams<sup>89</sup>.

Consider this chapter one of my projects.

### The transformative power of transparency

One key benefit of transparency is its transformative power  $^{1011}$ .

- 8 Readers would benefit from a clear and concise encapsulation of your chapter's argument right here. What are you going to argue, prove, or teach? Bonus points if you can tie that work to the previous statement and explain (earlier) why those statements actually serve to make people uncomfortable, rather than the other way around.—BB
- 9 I expanded a bit here, referenced those earlier remarks, and added a transition that I think ties to the next section as well as the close of the article--which hopefully will allow us to keep that idea on how this article was shaped over time and incorporate that if it still works.—NH
- 10 Another editorial option would be to actually begin the chapter here, which the reflexive approach of speaking to the chapter itself, as that's how you've currently ended the piece.—BB
- 11 I kept the opening you have, but I think we highlighted the chapter itself a bit more with some of the changes.—NH

Undoubtedly, by the time you read this chapter, it will be in much better shape than it was when I originally typed it. If the final product is lacking, rest assured you are still faring better than you would have otherwise. And that is because of the tireless work and patience of an editor tweaking, cutting, revising, suggesting—perhaps providing some "tough love" now and again.

As someone who has not been writing like this for some time (full disclosure: I once worked as a newspaper reporter), I am not only expecting it, but also looking forward to it. To edit and be edited wears down those barriers we erect to shield ourselves from criticism, not unlike the way a coarse rock tossed across a river becomes smooth over time. It doesn't injure you (at least, not in the long run), but it does mold you. Failures are just part of the process; you will see them called out, and you will make fewer mistakes as you go along. The process improves not only the deliverable, but also the people (or person) responsible for it. And if I continued to write—and our paths crossed as writer and reader months down the road—I'd imagine we would both see the progress, the positive transformation over time, formed by cycles of iterations, project after project.

It's a cycle that is built on failure and transparency. Thus, one way to think about failure is to consider it the ultimate form of development.

### Failing to develop, developing failure

I was discussing all of this with one of my mentors recently. She mentioned a development exercise she'd undertaken, which involved self-assessing and soliciting feedback from others. The goal was to identify areas for professional improvement  $^{12}$ .

The results, in her case, were not particularly useful. They didn't really give her any clear area for improvement. And she said that made her uncomfortable.

I'll be honest: I could see why. I suggested that "either you're perfect, or they're delusional," and we both laughed. Those probably aren't the only two options, if we're being fair, but we agreed on the point: Everyone can improve. But the only way you can improve is to be open and honest about those areas of weakness, to be transparent when you make mistakes, and to continue to work on refining those areas.

The value of transparency—especially in an atmosphere where people can be honest and open about failures—is absolutely vital to truly growing and improving. Anything else leads to stagnation (and sometimes delusional behavior). It's something that we've all seen.

An inability or unwillingness to be open and honest about our own personal shortcomings (or those of others) is damaging to ourselves and to everyone we work and live with. A person who cannot acknowledge their own mistakes or failures does not see the opportunities for growth. And if they see their mistakes but refuse to take ownership of of those mistakes, the situation could be even worse. They *could* identify opportunities for improvement, but *they might not care*. This kind of attitude leads to a culture lacking in accountability and engagement—one that emphasizes appearance over substance, talk over action, and the comfortable *status quo* over the uncomfortable change.

<sup>12</sup> I'd like to see you elaborate this section somewhat, to really make the takeaway more concrete for readers. How can it function as a better bridge for the sections that come before and after it? How can it connect them?—BB

Like we said earlier: It might not be comfortable, but it can be incredibly rewarding.

And what does that look like?

You may have heard the term "growth mindset," which Carol Dweck coined. It's the result of transparency and openness around failure. One short summary would be: Someone possesses a growth mindset when they believe that they can improve if they put forth the effort, dedicate themselves to improvement, and respond to feedback from others. Doing this requires that others provide constructive, open feedback; it also requires a willingness to thoughtfully accept that feedback and act on it.

According to Dweck, that mindset can permeate an entire culture of teams, even organizations. Those negative qualities we mentioned above—the unwillingness to be open and honest about shortcomings, lack of accountability, lack of engagement, and sometimes complete indifference—turn those on their head.

Transparency is the key to personal growth and development, and it is critical for cultivating a culture where people are interested in improving together.

That leads us our next point about the great interpersonal value in transparency and openness around failure  $^{13}$ .

### The strength in weakness

So there's value in growth and development—actual, concrete improvement never fully realized without a culture of transparency and a willingness to be open and honest about failure. There's also value in *the failure itself*, especially when you

<sup>13</sup> I added quite a bit to this section, and I think the transition from the previous section and the transition out of this section make the connections more clear. Let me know what you think!—NH

yourself are failing and are willing to take ownership of those failures and speak openly and freely about them.

In other words, then, failure has both *personal* and *interpersonal* value.

Failure is personally valuable when it spurs you to overcome hardship and become better in the process (think of all those iterations of that old adage: "What doesn't kill you makes you stronger").

That's all well and good, but failure's interpersonal value might be even more substantial.

Failure, specifically when combined with that culture of transparency, can be incredibly motivating and engaging for others who witness it.

It's not that failure causes onlookers to think: "Wow, I better step up my game because that person really screwed up!" Instead, failure creates an *actual connection*—a bond, a sense of trust and commitment between team members.

When someone tries, fails, owns, and vocalizes their failure to their peers—well, *I'll admit*, that can be very powerful.

Showing vulnerability not only requires strength from the person who's become vulnerable; it also encourages others to become stronger in supporting them, and encourages more of that behavior in the future. Eventually, repeat displays of vulnerability can potentially form the backbone of a strong team.

In *The Five Dysfunctions of a Team*, Patrick Leoncini highlights the importance of this willingness to show vulnerability. Leoncini arranges his five dysfunctions in a triangle. From top to bottom, they are: *inattention to results, avoidance of accountability, lack of commitment, fear of conflict, and absence of trust* (the foundation that gives rise to all other forms of dysfunction). Key to developing trust is showing vulnerability, and here lead-

ers are crucial for displaying the behaviors they expect from their team members.

It makes sense: By creating that trust and mutual support, you'll see how the dysfunctions can begin to right themselves. <sup>14</sup> By showing vulnerability, you erase the myth of perfection. You show your team that you are, in fact, a mere mortal, and you create a healthy environment where people can fail and then trust that they won't be ostracized, singled out, or considered weak or incapable. From your example, they'll learn to trust that you will similarly be as open the next time things don't go as planned. The more your team sees it, the more willing they will be to show it.

It's easy to see how transparency and trust go hand-in-hand. Soon you'll be able to tackle other forms of dysfunction—when people can trust one another, they're more willing to engage in healthy conflict, because they're not afraid to speak their minds. When they're more willing to engage in healthy conflict, they feel like their opinions have value and they can have their say in the direction of their team, and they become more committed and engaged. When they are more committed and engaged, they invest themselves more heavily in their work and take ownership of it, accepting accountability for the good and the bad. And engaged, accountable teams are deeply committed to the results of their actions and their work.

It sounds easier than it is in practice, but that foundation of trust—built on transparency—is the first step<sup>15</sup>.

<sup>14</sup> Can you perhaps expand this just a bit? Elaborate? It's an important point; drive it home.—BB

<sup>15</sup> Alright, I sort of walked up the triangle starting with trust. I think this works to illustrate how that foundation relies on transparency and how important it is to a healthy team.—NH

#### Embracing a culture of failure

Alright. Recap: We've seen the value of direct, concrete improvements that emerge from growth and development, all of which is dependent on a transparent culture. We've also seen the forms of *personal* and *interpersonal* value we gain from the mutual trust and support arising from the vulnerability we demonstrate by maintaining a transparent culture.

What else is there to say about the value that comes from a culture where you can be transparent and open about failing?

Let me be clear: It can be fun.

Certainly it isn't *always* fun. But embracing the inevitability of things that do not go as we expected can be rather valuable.

For example, I was recently in a class where one participant, a manager with a moderately large group of direct reports, was explaining how he embraces failures as a leader. The manager acknowledged that he's rarely the person with the most knowledge of any team function—just like anyone else in a leadership role who works with a diverse group of people embodying their own skillsets, interests, and strengths. That's the whole point of recruiting and developing a team of specialists.

Whenever team tensions were high—when people were stressed, and the job just became a bit too much—this manager would take the opportunity to get his hands dirty and pitch in wherever he could.

Sometimes that would mean he'd fail spectacularly. But he also found that it boosted morale. It was disarming, it lowered stress, and it lightened the mood. To his team, it communicated that he supported them, that he was willing to work as hard as he needed to in any number of areas to help the job get done, and that he was willing to look foolish in the process.

I thought it was a great idea. It produced a strong connection among the team members and encouraged others to do the same, to fill in as needed, to embrace their collective strengths and weaknesses, and to have some fun with it.

#### Getting there from here

Cultivating a transparent culture is no easy task. But I hope I've shown you the value of doing doing it: the development and growth opportunities at the individual and group level, the interpersonal connections and group trust that can come from vulnerability and honesty, and the positive and productive work atmosphere that results from a willingness to try new things and not be afraid to fall on your face every now and again.

So what are some useful takeaways and tips to get *there* from *here*—wherever *here* is?

- Communicate all failures as an opportunity for growth. Whether you're in a leadership position or are working through your own or a peer's failure, use failure as a chance to help others develop a new skill, shore up a weakness, or maybe re-align talents in another area, if that's more appropriate.
- Lean on those with an editor's mindset. Use those
  more open and willing to communicate their failures as
  a mentor and potential keeper of the culture within your
  group. Showing vulnerability has a way of connecting
  others, and they can help pave the way for that behavior.
- Take on tasks that are outside of your comfort zone. Assist others when necessary, and encourage others to branch out and explore different functions in the team (even if it's not familiar to them). It's a way of politely nudging people into the unknown, but by providing

support, it can be a great way to facilitate experimentation in a safe environment.

• Don't be afraid to have the discussion. Failure and accountability go hand-in-hand. Having difficult discussions about accountability and becoming transparent about failures are fundamental to a successful team. When you have that discussion, come from a place of support and don't be afraid to make yourself an example. Walk through the intent, the result, and the impact, and then brainstorm and iterate. How and why did something go wrong? How do we adjust for next time? Should there even be a next time? Ultimately, keep things in the greater context. Chances are the failure was not in a life or death matter, so perspective is important. You can always take corrective steps, and there are always ways to get back on the right path. This is true no matter what your role.

Start small, and start with yourself. Cultures do not develop overnight, and some atmospheres are more forgiving of failures than others. But all atmospheres are made better by transparency and open discussion about failures.

As are all chapters<sup>16</sup>.

Nick Hall is a project manager in Global Partner and Technical Enablement at Red Hat, where he focuses on team processes and standards. He manages the go-to-market process for course development and release for both internal and external enablement programs and assists with project management, communications, and reporting for the Red Hat Online Partner Enablement Network (OPEN) program.

<sup>16</sup> This document received approximately 240 total edits.—BB

## Why a Buffer developer open sourced his code

Jordan Morgan

I f you look for the official definition of open source, you'll likely stumble upon this outline<sup>17</sup> from the board members of the Open Source Initiative. If you skim through it, you're sure to find some idea or concept that you feel very aligned with. At its heart, openness (and open source) is about free distribution—putting your work out there for others to use.

It's really about helping others and giving back.

When we started to think about open source and how we could implement it at Buffer, the fit seemed not only natural, but crucial to how we operate. In fact, it seemed that in a lot of ways we'd be doing ourselves a disservice if we didn't start to look more seriously at it.

But what I didn't quite realize at the time were all the effects that open source would have on me.

Open source has positively impacted me as a developer, as an employee at Buffer, and even as a person. Those are the things I'd love to share with you here—to show you how we stumbled upon open source at Buffer.

#### Acting on your values

At Buffer, we're known just as much for the way we operate as much as our product. We believe that making your values and culture wildly transparent gives you an extra sense of responsibility to act on them. As someone who works at Buffer, I often wonder how I can be a good steward of what we're all about. How can I promote our ideas, failures, successes and experience in a way that helps other people?

As a company, we value transparency and put a premium on it. We think it helps us operate, and we hope that other people can look at our data and derive real, lasting value from it. That's why you can find all of our salaries<sup>18</sup> in a public Google Docs spreadsheet, open up a Trello board and see our product roadmap, or even go to a realtime dashboard showing all of our revenues.

After thinking about this one day, I came to realize that I wasn't fully taking advantage of perhaps the biggest opportunity Buffer was affording me to give back: our own code. I spend hours every day writing it, testing it, and thinking about it to make sure the work I do solves real problems for people, and generally makes their life easier or better.

So why wasn't I sharing it?

#### From the top down

I think values like this tend to flow from the top of organizations. Sharing the code you write daily for a company might be difficult if that company didn't feel the same way about the code! To that end, our CEO, Joel Gascoigne, seemed to sense this opportunity, and was also passionate about it. I remember

<sup>18</sup> https://opensource.com/open-organization/16/3/social-startup-buffer-transparency-reigns

reading an email thread he started a month or two ago, where he raised some strong points in favor of using open source at Buffer.

Here is some of what Joel had mentioned:

"I'd love to share something that's been on my mind for several years at Buffer. As you all know, one of our values is to Show Gratitude. Since the very beginning, we've been super fortunate to be building Buffer in a time where open source is a big part of the world of software development.

There's no way that we'd be as big as we are today without open source. In fact, we probably wouldn't even be here at all. The internet is very much built on the generosity of those who lead and contribute to open source. We are quite literally standing on the shoulders of giants, and in many ways, what we've done ourselves is minute in comparison to the incredible technologies we're lucky enough to rely on and make use of.

I believe that contributing more towards open source as a company is a key part of our future, and almost a duty we have. With our value of transparency, I think it's something people likely expect and should expect from us."

Once I read that, I felt reaffirmed. Getting involved with the open source community felt exactly like the right thing to do for Buffer.

Buffer's CTO, Sunil Sadasivan, is also a passionate open source champion. Sunil has the best "big picture" of engineering at Buffer, and was quick to help us get open source initiatives moving at Buffer.

Recognizing the power of open source, Sunil helped us facilitate many important things—from a Slack channel specifically for open discussions, to an open calendar for suggestions, and a habit of leaving comments on our open source documents. Sunil was on board and helping us push forward.

When the CTO takes time to provide a larger vision for open thinking in a company, developers like me can more easily act on it. It's a symbiotic relationship, and it takes several of us to execute on the vision we have for open source. And seeing our leadership promoting our open source efforts really was amazing.

Committing to open source was a gut check for all of us. We knew we could be doing better here! Our values tend to promote personal growth, gratitude, and openness. By the same token, the open source community also advocates a lot of the same ideas

It felt like a perfect fit for our workplace and culture.

#### Personal growth

At that point, I started to think about how I could help. With so much code and opportunity, I realized the challenge really lied within finding the right things to share. I came to the realization that, first and foremost, open source code should help someone. So what is most helpful?

We could, of course, open source the entirety of Buffer. That would certainly hold true to our values, but it also may not be the most beneficial move for the community. It seemed like the right choice to get started with the open source movement at Buffer would be to release some focused and individualized components.

As an iOS developer at Buffer, I'm most familiar with our iOS codebase. It's what I know best, so I started there. Around this time, I'd been working on a modular component to view images easily within our app. It was easy to use and solved a real problem that developers on the platform that developers often face. It felt like the perfect place to start.

Eventually it was. But first, I experienced an open source reality check: This was code that I wrote, and I didn't write it thinking that the world would one day examine it. Imposter syndrome and doubt quickly crept in. I started asking myself:

- What if this isn't any good?
- What if there are some mistakes?
- What if people think I didn't write the best parts (it was based on an existing open source project)
- What if I missed important shortcuts, like using the right APIs?

In only a matter of hours, I experienced some important growth as an engineer. And that growth stemmed directly from two things:

- Working at a company who believed in us to share our code, and that it was the right thing to do
- Open sourcing that code to the world

Sometimes, developing with only your team is easiest. They know you, and they are likely quite familiar with your coding tendencies. There's much comfort there (as well there should be). Contrast that with coding for potentially thousands of people, and your mental state can quickly change from comfort to doubt.

I think this experience is an important one for software engineers to encounter. It made me realize that I had an incredible learning opportunity in front of me. As the old adage goes: "Nobody bats 1.000." There were bound to be mistakes or rough edges, and that was completely okay. So, I shared the code<sup>19</sup>.

#### Showing gratitude

That experience directly correlates with the second benefit I derived from open thinking: gratitude. When I posted the open source project I previously mentioned, community reception was very positive. Other developers mentioned some tweaks, made some edits to our README file—and most of all, they were just thankful we released it!

This was such an important reminder of how much developing is a community driven task. No single developer has all the answers. There are experts, but I've constantly seen those experts point to the fact that the community helped them get where they are.

Open source helps other developers work and accomplish great things, but inherently it's also an act of knowledge transfer. I remember when Apple made Swift open source. It was an exciting day for me. I was elated to look through Apple's code and learn from the industry experts on the language. I picked things up that I may not have otherwise, and learned a lot of what best practices were.

In short, I was very grateful for that!

#### Beginning a journey

With open source at Buffer, we are very much in our infancy. We're still asking some questions to help put us on the right path, things like "What is the most helpful code to open source?" "How do we tell people about it?" and "How do we develop with an open source mindset?"

<sup>19</sup> https://github.com/bufferapp/buffer-ios-image-viewer

Throughout the process, though, we've constantly been reminded that the internet is actually a very sharing and generous place. As Joel said, we are only where we are today at Buffer because of the brilliant code of other developers who were kind enough to share their hard work with the world. And what an amazing bar they've set.

All I can think about is how I want us to be like that. We want to learn from those people who are doing it so much better than us, and we'll strive to hit that high bar. We want to give back and help solve problems, too. We want to save other people time. We want to share all of our work in the open.

That's what lead us to open source, and it's already had an incredible impact on the way we think about work and culture. I'm excited to see where it takes us next.

Jordan Morgan is an iOS developer at Buffer. He is from Ozark and also founded Dreaming In Binary. He is focused on helping the community, creating things that inspire others, doing talks over iOS, and constantly being a student of any form of software engineering.

#### Chapter discussion and review

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#### Accountability by design

Gordon Haff

F ailure. Now that's a word with a negative vibe. Among engineering and construction projects, it conjures up the Titanic sinking, the Tacoma Narrows bridge twisting in the wind, or the space shuttle Challenger exploding. These were all failures of engineering design or management.

Most failures in the pure software realm don't lead to the same visceral imagery as the above, but they can have wide-spread financial and human costs all the same. Think of the failed Healthcare.gov launch, the Target data breach, or really any number of multi-million dollar projects that basically didn't work in the end. In 2012, the US Air Force scrapped an ERP project<sup>20</sup> after racking up \$1 billion in costs.

In cases like these, playing the blame game is customary. Even when most of those involved don't literally go down with the ship—as in the case of the Titanic—people get fired, careers get curtailed, and the Internet has a field day with both the individuals and the organizations.

But how do we square that with the frequent admonition to embrace failure in your DevOps culture<sup>21</sup>? If we should embrace failure, how can we punish it?

<sup>20</sup> http://www.computerworld.com/article/2493041/it-careers/air-force-scraps-massive-erp-project-after-racking-up--1b-in-costs.html

<sup>21</sup> https://www.veracode.com/blog/secure-development/why-you-should-embrace-failure-your-development-culture

#### Failing well

Not all failure is created equal. Understanding different types of failure and structuring the environment and processes to minimize the bad kinds is the key to success. The key is to "fail well," as Megan McArdle writes in *The Up Side of Down*.

In that book, Megan describes the Marshmallow Challenge, an experiment originally concocted by Peter Skillman, the former VP of design at Palm. In this challenge, groups receive 20 sticks of spaghetti, one yard of tape, one yard of string, and one marshmallow. Their objective is to build a structure that gets the marshmallow off the ground, as high as possible.

Skillman conducted his experiment with all sorts of participants from business school students to engineers to kindergarteners. The business school students did worst. I'm a former business school student, and this does not surprise me. According to Skillman, they spent too much time arguing about who was going to be the CEO of Spaghetti, Inc. The engineers did well, but also did not come out on top. As someone who also has an engineering degree and has participated in similar exercises, I suspect that *they* spent too much time arguing over the optimal structural design approach to take.

By contrast, the kindergartners didn't sit around talking about the problem. They just started building to determine what works and what doesn't. And they did the best.

Setting up a system and environment that allows and encourages such experiments enables successful failure in agile software development. It doesn't mean that no one is accountable for failures. In fact, it makes accountability easier because "being accountable" needn't equate to "having caused some disaster." In this respect, it changes the nature of accountability.

#### Designing for accountability

We should consider five principles when we think about such a system: scope, approach, workflow, incentives, and culture

**Scope.** The right scope is about constraining the impact of failure and stopping the cascading of additional failures. This is central to encouraging experimentation because it minimizes the effect of a failure. (And, if you don't have failures, you're not experimenting.) In general, you want to decouple activities and decisions from each other. From a DevOps perspective, this means making deployments incremental, frequent, and routine events—in part by deploying small, autonomous, and bounded context services (i.e. microservices or similar patterns).

**Approach.** The right approach is about continuously experimenting, iterating, and improving. This is the philosophy that DevOps and agile development bring from the Toyota Production System's kaizen (continuous improvement), and other manufacturing antecedents. The most effective processes have continuous communication—think scrums and kanban—and allow for collaboration that can identify failures before they happen. At the same time, when failures *do* occur, the process allows for feedback to continuously improve and cultivate ongoing learning.

**Workflow.** The right workflow repeatedly automates for consistency and thereby reduces the number of failures attributable to inevitable casual mistakes like a mistyped command. This allows for a greater focus on design errors and other systematic causes of failure. In DevOps, much of this takes the form of a Continuous Integration/Continuous Delivery (CI/CD) workflow that uses monitoring, feedback loops, and automated test suites to catch failures as early in the process as possible.

Incentives. The right incentives align rewards and behavior with desirable outcomes. Incentives (such as advancement, money, recognition) need to reward trust, cooperation, and innovation. The key is that individuals have control over their own success. This is probably a good place to point out that failure is not always a positive outcome. Especially when failure is the result of repeatedly not following established processes and design rules, actions still have consequences.

**Culture.** The right culture is, at least in part, about building organizations and systems that allow for failing well—and thereby make accountability within that framework a positive attribute rather than part of a blame game. This requires transparency. It also requires an understanding that even good decisions can have bad outcomes. A technology doesn't develop as expected. The market shifts. An architectural approach turns out not to scale. Stuff happens. Innovation is inherently risky. Cut your losses and move on, avoiding the sunk cost fallacy<sup>22</sup>.

Properly dealing with accountability and failure in agile IT does require appropriate architectures, tools, and processes to be in place. Low-impact experimentation on a fragile monolithic application will be difficult and it will be hard to avoid costly failures and subsequent blame. However, the culture of an organization still plays an outsized role. Legendary management consultant Peter Drucker once famously said that "Culture eats strategy for breakfast." Culture has a similar appetite for many aspects of the software development process.

<sup>22</sup> https://pdfs.semanticscholar.org/e456/4b88ca2349962a707b76be4c 75076ad6bd43.pdf

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#### Chapter discussion and review

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# How new communication technologies are affecting peer-to-peer engagement

Ron McFarland

B oth *The Open Organization* and *The Open Organization*Field Guide discuss ways new communication technologies are changing the nature of both work and management. I've seen these changes firsthand during my nearly three decades working for Japanese corporations. Over time, I've been able to classify and characterize some of the impacts these technologies—particularly new telecommunication technologies and social media—are having on daily life in many organizations. Simply put: They're effecting the way peer-to-peer decision-making practices function in organizations today.

#### Four approaches to communication technology

In Japan, I see companies that heavily promote today's communication technologies, as well as some that avoid them. Imagine four types of companies currently making use of today's communication technologies as they compete with other firms. These technologies are key, because they influence the environment in which certain peer-to-peer communities must work, and this, in turn, affects members' enthusiasm, desire, and engagement—so *investment* and *utilization* are critical considerations. In fact, we can actually chart the four types of technology-

adopters according to those two variables: investment and utilization.

Some companies are underinvested in new communication technologies, considering their needs and the relatively lower costs of these technologies today. And what they do have. they're not using to capacity. I call these companies communication technology "slow movers" (low investment/low utilization). Others buy whatever is available at any cost, but don't fully put what they've purchased to full use. I call these communication technology "fashion followers" (high investment/low utilization). Still other companies invest in the very minimum amount of communication technology, but what they do have they use to full capacity. I call these communication technology "conservative investors" (low investment/high utilization). Lastly, there are some companies that invest heavily in communication technology and work very hard to put it to full use. I call these communication technology "communication superstars" (high investment/high utilization).

These "communication superstars" have the ideal environment for peer-to-peer, front-line discussions and decision-making. But in Japan, particularly among smaller companies, I'd say more than 70 percent are "slow movers" or "conservative investors." If companies would pay more attention to investing in communication technology, and simultaneously increase their efforts at training staff to use the technology at its full potential, then peer-to-peer, front-line employees could explode with creativity. These technologies affect four aspects of information today: volume, speed, quality, and distribution.

#### Increased capacity for decision-making (volume)

In "communication superstar" environments, communication technologies can actually increase in the amount of

information that can be made available quickly. Gone are the days in which only researchers or professors have access to indepth information. Now, front-line people can obtain volumes of information if they know what they are looking for. With more and greater in-depth information in communication superstar company environments, front-line people working there can have more educated discussions and can make the type of decisions that only top management (supported by consultants and researchers) could have made in the past.

### Faster pace of decision-making and execution (speed)

New technologies in these "communication superstar" companies are leading to quicker information acquisition, feedback, and flow between the front-line members in the organizations, even if they are very widely disbursed. Using the metaphor of adjusting the temperature of water coming out of a faucet, I would describe the effect this way: If you move the handle but the temperature changes very slowly, then finding the temperature you want becomes difficult, because the pace of change is very slow, and differences between settings are difficult to determine. But if you move the handle and water temperature change is more immediate, you'll find that getting the correct temperature is much easier; you're moving quicker and making more rapid adjustments.

The same logic applies to peer-to-peer discussions and feedback. I have a five-minute-to-twenty-four-hour goal when replying to my worldwide customers. That means that if I receive an email from a customer (something that arrives on my desktop computer at home, my desktop computer in the office, or on my mobile phone), I like to reply within five minutes. This really surprises customers, as they're probably still sitting in front of their

computer! In the worst case, I try to reply within 24 hours. This gives me a competitive advantage when attempting to get customers to work with me. Front-line, peer-to-peer communities in these "communication superstar" companies can have that same competitive advantage in making quality decisions and executing them faster. The capacity for speedier replies allows us to make more adjustments quicker. It keeps both employees and customers involved, motivated and engaged. Information arriving too slowly can cause people to "turn off" and direct their attention elsewhere. This weakens the passion, dedication and engagement of the project.

#### Toward wiser decisions (quality)

Information not only travels more quickly when the business communication channels are adequate, but it's also subjected to more scrutiny. People can share second opinions and gather additional empirical data using these technologies. Furthermore, new communication technologies allow employees and managers to deliver data in new ways. With my years in sales training around the world, I've learned that using multiple visual aids, infographics, and so forth have greatly enhanced communication when English language barriers could have impeded it. All this can lead to high levels of peer-to-peer, front-line engagement, as up-to-date status reports can be quickly distributed and easily understood, making everyone more responsive.

#### Maximal reach (distribution)

Not long ago, teammates had to be physically close to one another and know each other well in order to communicate successfully. That's no longer the case, as communication channels can be developed with people literally all over the world. Good communication is the outcome of developing a trusting relationship. For me, building trust with people I've never met face-to-face has taken a bit longer, but I've done it with today's technology.

Let me explain. Good communication starts with an initial contact, whether meeting someone in person or virtually (via social media or some tele-communication format). Over some period of time and through several exchanges, a relationship starts to develop, and a level of trust is reached. People evaluate one another's character and integrity, and they also judge each other's competence and skills. With this deepening of trust over time, greater communication can evolve. At that point, open and in-depth discussions on very difficult, complex, and sometime uncomfortable topics can take place. With the ability to communicate at that level, peer-to-peer discussions and decisions can be made. With today's communication technology, greater information exchange can be made among a group of widely disbursed members. I currently have approximately 20 customers around the world. Some I have never met in person; most I have just met in person once. Being stationed in Japan can make regular get-togethers with Europeans and Americans rather difficult. Fortunately, with today's communication technology, I can find solutions for many problems without physically getting together, as I have built a trusting relationship with them.

#### Concluding comments

With all the benefits of this "communication superstar" working environment, in open organizations that promote peer-to-peer discussions, decision-making and management, I recommend the other three groups to move in that direction. The "slow movers" more than likely have managerial barriers to

open information exchange. They should be convinced of the benefits of a more opened organization and the value of greater information exchange. If they don't improve their communication environment, they may lose their competitive advantage. The "fashion followers" should more carefully study their communication needs and time their investments with their incompany training capacities. The "conservative investors" should study their communication bottlenecks and find the technologies that are available to eliminate them. That's the path to super-stardom.

Ron McFarland has been working in Japan for 40 years, and he's spent more than 30 of them in international sales, sales management training, and expanding sales worldwide. For the last 14 years, Ron has established distributors in the United States and throughout Europe for a Tokyo-headquartered, Japanese hardware cutting tool manufacturer. He's worked in or been to more than 80 countries.

#### Chapter discussion and review

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### What engineers and marketers can learn from each other

Jackie Yeaney

A fter many years of practicing marketing in the B2B tech world, I think I've heard just about every misconception that engineers seem to have about marketers. Here are some of the more common:

- "Marketing is a waste of money that we should be putting into actual product development."
- "Those marketers just throw stuff against the wall and hope it sticks. Where's the discipline?"
- · "Does anyone actually read this stuff?"
- "The best thing a marketer can tell me is how to unsubscribe, unfollow, and unfriend."

And here's my personal favorite:

"Marketing is all fluff."

That last one is simply incorrect—but more than that, It's actually a major impediment to innovation in our organizations today.

Let me explain why.

#### Seeing my own reflection

I think these comments from engineers bother me so much because I see a bit of my former self in them.

You see, I was once as geeky as they come—and was proud of it. I hold a Bachelor's in electrical engineering from Rensselaer Polytechnic Institute, and began my professional career as an officer in the US Air Force during Desert Storm. There, I was in charge of developing and deploying a near real-time intelligence system that correlated several sources of data to create a picture of the battlefield.

After I left the Air Force, I planned to pursue a doctorate from MIT. But my Colonel convinced me to take a look at their business school. "Are you really going to be in a lab?" he asked me. "Are you going to teach at a university? Jackie, you are gifted at orchestrating complex activities. I think you really need to look at MIT Sloan."

So I took his advice, believing I could still enroll in a few tech courses at MIT. Taking a marketing course, however, would certainly have been a step too far—a total waste of time. I continued to bring my analytical skills to bear on any problem put in front of me.

Soon after, I became a management consultant at The Boston Consulting Group. Throughout my six years there, I consistently heard the same feedback: "Jackie, you're not visionary enough. You're not thinking outside the box. You assume your analysis is going to point you to the answer."

And of course, I agreed with them—because that's the way the world works, isn't it? What I realize now (and wish I'd discovered out far earlier) is that by taking this approach I was missing something pivotal: the open mind, the art, the emotion—the human and creative elements.

All this became much more apparent when I joined Delta Air Lines soon after September 11, 2001, and was asked to help lead consumer marketing. Marketing *definitely* wasn't my thing, but I was willing to help however they needed me to.

But suddenly, my rulebook for achieving familiar results was turned upside down. Thousands of people (both inside and outside the airline) were involved in this problem. Emotions were running high. I was facing problems that required different kinds of solutions, answers I couldn't reach simply by crunching numbers.

That's when I learned—and quickly, because we had much work to do if we were going to pull Delta back up to where it deserved to be—that marketing can be as much a strategic, problem-oriented and user-centered function as engineering is, even if these two camps don't immediately recognize it.

#### Two cultures

That "great divide" between engineering and marketing is deep indeed—so entrenched that it resembles what C.P. Snow once called the "two cultures" problem<sup>23</sup>. Scientifically minded engineers and artistically minded marketers tend to speak different languages, and they're acculturated to believe they value divergent things.

But the fact is that they're more similar than they might think. A recent study<sup>24</sup> from the University of Washington (cosponsored by Microsoft, Google, and the National Science Foundation) identified "what makes a great software engineer," and (not surprisingly) the list of characteristics sounds like it could apply to great marketers, too. For example, the authors list traits like:

- Passion
- Open-mindedness

<sup>23</sup> https://en.wikipedia.org/wiki/The\_Two\_Cultures#Implications\_and\_influence

<sup>24</sup> https://faculty.washington.edu/ajko/papers/Li2015GreatEngineers.pd f

- Curiosity
- Cultivation of craft
- Ability to handle complexity

And these are just a few! Of course, not every characteristic on the list applies to marketers—but the Venn diagram connecting these "two cultures" is tighter than I believe most of us think. *Both* are striving to solve complex user and/or customer challenges. They just take a different approach to doing it.

Reading this list got me thinking: What if these two personalities understood each other just a little bit more? Would there be power in that?

You bet. I've seen it firsthand at Red Hat, where I'm surrounded by people I'd have quickly dismissed as "crazy creatives" during my early days. And I'd be willing to bet that a marketer has (at one time or another) looked at an engineer and thought, "Look at this data nerd. Can't see the forest beyond the trees."

I now understand the power of having both perspectives in the same room. And in reality, engineers and marketers are both working at the intersection of customers, creativity, and analytics. And if they could just learn to recognize the ways their personalities compliment each other, we could see tremendously positive results—results far more surprising and innovative than we'd see if we kept them isolated from one another.

#### Listening to the crazies (and the nerds)

Case in point: The Open Organization.

In my role at Red Hat I spent much of my day thinking about how to extend and amplify our brand—but never in a million years would I have thought to do it by asking our CEO to write a book. That idea came from a cross-functional team of those "crazy creatives," a group of people I rely on to help me imagine new and innovative solutions to branding challenges.

When I heard the idea, I recognized it right away as a quintessentially Red Hat approach to our work: something that would be valuable to a community of practitioners, and something that helps spread the message of openness just a little farther. By prioritizing these two goals above all others, we'd reinforce Red Hat's position as a positive force in the open source world, a trusted expert ready to help customers navigate the turbulence of digital disruption.

Here's the clincher: *That's exactly the same spirit guiding Red Hat engineers tackling problems of code*. The group of Red Hatters urging me to help make *The Open Organization* a reality demonstrated one of the very same motivations as the programmers that make up our internal and external communities: a desire to share.

In the end, bringing *The Open Organization* to life required help from across the spectrum of skills—both the intensely analytic and the beautifully artistic. Everyone pitched in. The project only cemented my belief that engineers and marketers are more alike than different.

But it also reinforced something else: The realization that openness shows no bias, no preference for a culture of engineering or a culture of marketing. The idea of a more open world can inspire them both equally, and the passion it ignites ripples across the artificial boundaries we draw around our groups.

That hardly sounds like fluff to me.

Jackie Yeaney is Chief Marketing Officer at Ellucian. When she wrote this chapter, she was Executive Vice President of Marketing and Strategy for Red Hat.

#### Chapter discussion and review

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### Part 2: Skills

#### [Introduction: This is the title of it]

Jason Yee

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# How to strengthen your agile heartbeat with powerful retrospectives

Matt Thompson

I f you work in an open organization for any length of time, you're likely to hear someone mention "sprints" or "heartbeats" at some point. Understanding these terms is simple: Take a big goal, then break it into small pieces that help you get there.

The practice derives from agile development and its various (funnily-named) flavors like "Scrum" and "Kanban," but the underlying logic is simple: Break big jobs into small time-bound sprints, then design a process and ritual for unpacking:

- · what you accomplished in the last sprint
- · what you learned from it
- what you're going to tackle in the next one

## From "sprints" to "heartbeats," finding a healthy cadence

Many of us have found that replacing the word "sprint" with "heartbeat" is helpful for explaining the value to new colleagues. It implies a steady, *healthy* cadence or rhythm—as opposed to endless "sprinting" or panting against a series of arbitrary deadlines.

Heartbeats can create a great sense of purpose, and ebb and flow in your team. They can be set to any length—a week,

two weeks, a month. It's really just about bringing people together in a regular, predictable cycle, with a ritual and set of dance steps to ensure everyone's on the same page, headed in the right direction, and learning and accomplishing important things together. (As opposed to the "make it up as you go along" / gazillion emails and meetings / Bataan Death March of Multi-Tasking that gobbles up most projects by default.)

#### "Too busy to think"

A big reason people love working in heartbeats is that it makes work more *mindful*. It invites or even *forces* regular moments to step back, reflect, adjust your goals, and share real insights with colleagues that don't typically fit in the hurly burly of email and status updates. That process is generally called a "retrospective"—and lately I'm finding it to be the single most valuable parts of the process. Done right, it can help you work smarter instead of harder.

But: Retrospectives are also often the most neglected or easy part of the process to skip over—especially for time-starved teams already suffering from Too Many Meetings Syndrome. Here's why great retrospectives are one meeting you don't want to skip.

#### A regular ritual for reflection

A retrospective at the end of each heartbeat helps you unpack what you've accomplished and learned together, and where you might want to improve together in the next cycle. They can be dead simple; at the end of your heartbeat, just ask each team member to share:

- 1. What went well in the last heartbeat?
- 2. What could have gone better?
- 3. What do we want to improve in the next heartbeat?

#### Good retrospectives generate surprises

I find that when I'm part of a great retrospective, I leave the meeting feeling *surprised*. I leave knowing something I didn't know going in. I've had my perspective shifted in some way—particularly around what our *priorities* should be in the next heartbeat, or a key learning someone shares that helps me spot a new opportunity.

In particular, retrospectives can help to:

- Re-prioritize stuff that seemed urgent a week or month
  ago but doesn't anymore. That's great! Let's consciously
  de-prioritize or set it aside. By the same token: Little
  things that didn't seem important suddenly reveal themselves as highly leveraged in the week or month ahead,
  little keys or springboards that emerge out of the
  haystack.
- Punt! What can we push out to the next heartbeat, so that we can narrow our focus in this one? Retrospectives make you more conscious of *time* and the value of *phas*ing. Not everything needs to be done all at once; it's liberating to push stuff out. If it's not on this train, it'll go on the next one.
- Do less work! Yes, I said it: Great retrospectives should help you do less work. Less work means faster, better work. Eliminate the clutter and distractions that grow like weeds around your team's feet; it's amazing how good that feels—and your teammates will love you for it.
- Unpack learning. You're learning great stuff as you go
  that you didn't know when you started the project. Retrospectives are a chance to share and write this stuff
  down. Without a regular ritual or invitation to do so, this
  usually slides to the bottom of everyone's to do list. But

these are valuable diamonds and nuggets you don't want to slip away.

- **Pull up.** Good retrospectives invite altitude adjustment. Go back to your original strategy / roadmap and remind yourself what you said was important. The stuff that actually *matters*, as opposed to just being "busy." How are we doing? How has our thinking changed? How do we re-connect our big picture goals to day-to-day tasks?
- Re-energize. Feel proud. Most of us walk around feeling guilty and stressed about how "behind" we are.
   Retrospectives remind the team that, no matter how imperfectly, you really are accomplishing and learning a lot together. You're not just hamsters on a treadmill.
- Continuously improve. Get better at getting better.
   Small improvements add up to powerful change over time, like compound interest. You don't have to move mountains; just feel the trust and momentum that builds after your team makes an agreement and actually sticks to it.

#### Bland retrospectives become boring status updates

On the flip side, *bad* retrospectives or heartbeat meetings start to feel like a waste of time. They become rote, and more like status updates, as opposed to really stepping back and doing some fresh thinking together. This becomes a vicious cycle; there's less and less value, so people start to question their purpose. Eventually someone says: "Should we just cancel these? We have too many meetings already."

Some common pitfalls:

 Not enough time. Everyone hates meetings, so it's easy to make heartbeat meetings too short to do real retrospectives. Or to just skip the retrospective piece altogether. But, this should be the *one hour* every week or month you invest to save *dozens* or *hundreds* of misspent hours going forward!

- Not enough trust. People are afraid to say what they
  really think in front of colleagues or leaders. Or it becomes a defensive exercise to prove that everyone is
  "busy." Busy is the new bored.
- Bad or no strategy. When the strategy is bad or the goals are unclear, retrospectives can just end up exposing that fact over and over again. In a healthy project, that's good! It surfaces something you can fix. In an unhealthy one, it just repeatedly pokes the elephant in the room.
- Agile without agile. Every organization says it wants to be "agile" nowadays, but most don't mean it. You can't "do agile" without retrospectives, or some ritual for reprioritizing. It's like doing archery without the arrows.
- Hopeless over-capacity. Many organizations have no shared view of the work they've committed to doing. Consequently, they're hopelessly over-committed. They're drowning in work they'll never really get done, and have no meaningful way to prioritize. Working in heartbeats and doing real retrospectives can help; but only if they start to whittle down workloads. Otherwise, they just remind everyone how screwed you all are—and that's not fun.

Matt Thompson is a 2017 Mozilla Fellow and an agile trainer for non-profit organizations.

## The benefits of tracking issues publicly

Chad Whitacre

A public issue tracker is a vital communication tool for an open organization, because there's no better way to be transparent and inclusive than to conduct your work in public channels. So let's explore some best practices for using an issue tracker in an open organization.

Before we start, though, let's define what we mean by "issue tracker." Simply put, an issue tracker is *a shared to-do list*. Think of scribbling a quick list of errands to run: buy bread, mail package, drop off library books. As you drive around town, it feels good to cross each item off your list. Now scale that up to the work you have to do in your organization, and add in a healthy dose of software-enabled collaboration. You've got an issue tracker!

Whether you use GitHub, or another option, such as Bitbucket, GitLab, or Trello, an issue tracker is the right tool for the task of coordinating with your colleagues. It is also crucial for converting outsiders *into* colleagues, one of the hallmarks of an open organization. How does that work? I'm glad you asked!

#### Best practices for using an issue tracker

The following best practices for using a public issue tracker to convert outsiders into colleagues are based on our experience at Gratipay over the past five years. We help companies and others pay for open source, and we love collabo-

rating with our community using our issue trackers. Here's what we've learned.

- **0. Prioritize privacy.** It may seem like an odd place to start, talking about privacy in a post about public issue trackers. But we must remember that openness is not an end in itself<sup>25</sup>, and that any genuine and true openness is only ever built on a solid foundation of safety and consent. Never post information publicly that customers or other third parties have given you privately, unless you explicitly ask them and they explicitly agree to it. Adopt a policy and train your people. Here is Gratipay's policy for reference<sup>26</sup>. Okay! Now that we're clear on that, let's proceed.
- 1. Default to deciding in public. If you make decisions in private, you're losing out on the benefits of running an open organization, such as surfacing diverse ideas, recruiting motivated talent, and realizing greater accountability. Even if your full-time employees are the only ones using your public issue tracker at first, do it anyway. Avoid the temptation to treat your public issue tracker as a second-class citizen. If you have a conversation in the office, post a summary on the public issue tracker, and give your community time to respond before finalizing the decision. This is the first step towards using your issue tracker to unlock the power of open for your organization: if it's not in the issue tracker, it didn't happen!
- 2. Cross-link to other tools. It's no secret that many of us love IRC and Slack. Or perhaps your organization already uses Trello, but you'd like to start using GitHub as well. No problem! It's easy to drop a link to a Trello card in a GitHub is-

<sup>25</sup> https://opensource.com/open-organization/16/9/openness-means-towhat-end

<sup>26</sup> http://inside.gratipay.com/howto/seek-consent

sue, and vice versa. Cross-linking ensures that an outsider who stumbles upon one or the other will be able to discover the additional context they need to fully understand the issue. For chat services, you may need to configure public logging in order to maintain the connection (privacy note: when you do so, be sure to advertise the fact in your channel description). That said, you should treat conversations in private Slack or other private channels just as if they were face-to-face conversations in the office. In other words, be sure to summarize the conversation on the public issue tracker. See above: whether offline or online, if it's not in the issue tracker, it didn't happen!

- 3. Drive conversations to your tracker. Social media is great for getting lots of feedback quickly, and especially for discovering problems, but it's not the place to solve them. Issue trackers make room for deeper conversations and root-cause analysis. More importantly, they are optimized for getting stuff done rather than for infinite scrolling. Clicking that "Close" button when an issue is resolved feels really good! Now that you have a public issue tracker as your primary venue for work, you can start inviting outsiders that engage with you on social media to pursue the conversation further in the tracker. Something as simple as, "Thanks for the feedback! Sounds similar to (link to public issue)?" can go a long way towards communicating to outsiders that your organization has nothing to hide, and welcomes their engagement.
- **4. Set up a "meta" tracker.** Starting out, it's natural that your issue tracker will be focused on your *product*. When you're ready to take open to the next level, consider setting up an issue tracker about your *organization* itself. At Gratipay, we're willing to discuss just about any aspect of our organization, from our budget to our legal structure to our name, in a public issue tracker we call "Inside Gratipay." Yes, this can get a little chaotic

at times—renaming the organization was a particularly fierce bikeshed!—but for us the benefits in terms of community engagement are worth it.

- **5. Use your meta tracker for onboarding.** Once you have a meta issue tracker, a new onboarding process suggests itself: invite potential colleagues to create their own onboarding ticket. If they've never used your particular issue tracker before. it will be a great chance for them to learn. Registering an account and filing an issue should be pretty easy (if it's not, consider switching tools!). This will create an early success event for your new colleague, as well as the beginnings of a sense of shared ownership and having a place within the organization. There are no dumb questions, of course, but this is especially true in someone's onboarding ticket. This is your new colleague's place to ask any and all guestions as they familiarize themselves with how your organization works. Of course, you'll want to make sure that you respond guickly to their guestions, to keep them engaged and help them integrate into your organization. This is also a great way to document the access permissions to various systems that you end up granting to this person. Crucially, this can start to happen before they're even hired<sup>27</sup>.
- 6. Radar projects. Most issue trackers include some way to organize and prioritize tasks. GitHub, for example, has milestones and projects. These are generally intended to align work priorities across members of your organization. At Gratipay, we've found it helpful to also use these tools to allow collaborators to own and organize their individual work priorities. We've found this to offer a different value than assigning issues to particular individuals (another facility issue trackers generally

<sup>27</sup> https://opensource.com/open-organization/16/5/employees-let-them-hire-themselves

provide). I may care about an issue that someone else is actively working on, or I may be potentially interested in starting something but happy to let someone else claim it first. Having my own project space to organize my view of the organization's work is a powerful way to communicate with my colleagues about "what's on my radar."

7. Use bots to automate tasks. Eventually, you may find that certain tasks keep popping up again and again. That's a sign that automation can streamline your workflow. At Gratipay, we built a bot to help us with certain recurring tasks<sup>28</sup>. Admittedly, this is a somewhat advanced use case. If you reach this point, you will be far along in using a public issue tracker to open up your organization!

Those are some of the practices that we've found most helpful at Gratipay in using our issue tracker to "engage participative communities both inside and out," as Jim Whitehurst puts it. That said, we are always learning. Leave a comment if you've got an experience of your own to share!

Chad Whitacre is the founder of Gratipay, an open organization with a mission to cultivate an economy of gratitude, generosity, and love. Gratipay offers pay-what-you-want payments and takewhat-you-want payouts for open organizations.

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## When innovation trumps procedure

Allison Matlack

T raditionally, IT has been intensely process-oriented. I imagine that's because IT organizations are usually tasked with saving the world on a budget that's only big enough for them to keep the lights on and the water running. When your team bears that kind of weighty responsibility for organizational success or failure, following tried-and-true procedures is important. Doing things "the right way"—strictly according to defined processes—can be critical.

But as the industry trends toward DevOps—where IT is increasingly responsible for generating new business value, not just keeping those proverbial lights on—it's becoming increasingly important for IT organizations to reexamine their approach to stakeholder and change management if they want to keep up. Doing things right now has to be balanced not only with doing things fast, but also with doing the right things—whatever the right things may be as the organization moves forward.

So it's time for some serious reflection: Is your organization more focused on *doing things right* for the sake of process and consistency, *doing things fast* to meet arbitrary deadlines, or on *doing the right thing* for the customer? And what's the right balance of each of those things for you?

### Defining your 'why'

At a recent conference, where I was talking about some of the positive effects of scaled agile methodology on cross-team relationships and collaboration, someone asked me how to convince others to pay more attention to doing the right thing and less attention on the processes that defined how to do things right. He told me his team had upset others in the company by experimenting with aspects of agile methodology and starting to talk directly to their customers—that is, they released more frequently (doing things fast) and used feedback loops to iterate on the product so they could deliver what the customer wanted more quickly (doing the right thing). The rest of the company, he said, was more concerned about filling out forms than on delivering what the customer wanted when they wanted it (doing things right). The company had expressed no interest in changing that process, and leadership felt this team's speed was making the rest of the company look bad. The agile team, on the other hand, grew increasingly frustrated by processes that seemed to be in place for the sake of process.

I'm sure there's another side to this story, where someone has a good reason for every form and process. But this story made me think of the message Simon Sinek shares in his 2011 book, *Start With Why*: Before concentrating on *what* you do and *how* you do it, you should figure out *why* you're doing it in the first place. What's your goal? What's your purpose? The *how* and the *what* will fall into place as soon as you define your *why*.

In this example are two competing goals. The majority of the company is "doing things right" because that's the way they've always done it, and they'll achieve consistency, stability (less risk), and conservation of the top-down hierarchy. Becoming more agile and focusing on "doing the right thing"—even if it runs against those entrenched processes—might introduce risk

and shake up the status quo, but the results include improving development efficiency and delighting the client.

Which do you think will lead to increased business and customer loyalty? Which defines *why* the company is in business and inspires people? (Hint: It's not filling out forms.)

#### Leading by example

Once you define your why, figuring out how to do the right thing for your customers becomes easier. In our example here, the group focused on delighting the client has the right idea. Building brand loyalty and market mindshare are difficult if you're not willing to take some risks and be open to doing things differently. The world is moving too fast for us to spend months planning and years implementing; no one is going to wait for us. We have to iterate quickly and be prepared to change directions a few times along the way if we can hope to continually deliver what our customers want when they want it.

I would encourage the frustrated team in this scenario to document the business value they've seen as a result of implementing an agile methodology (increased revenue is a great motivator for everyone's boss's boss's boss). They can connect what they're doing to that overall reason *why* the company is in business. They could perform a retrospective to identify exactly which processes slowed them down or made delivering what the customer wanted more difficult, then work with other departments to find ways of streamlining the path to delivery. Or, if all that fails, they could try to reduce their dependencies on other teams to minimize the disruption.

Change can be uncomfortable. It can take a long time. But oftentimes, small teams like these can make the biggest impacts, leading by example. As the team learns more about why certain processes are in place and how to work more efficiently

with the procedures they have to follow, hopefully the rest of the organization will begin to see the value of focusing on doing the right thing rather than just doing things right. And as the organization begins to identify which processes are necessary and which can be changed to leave room for more flexibility, both the customer and the organization win.

Allison Matlack has been a member of the Red Hat Customer Portal team since 2011. She's been an Open Organization Ambassador since 2016, helping others find ways to put open principles into practice.

## Making open source fashionable

Lauri Apple

In March 2015, the leadership of Berlin-based Zalando gathered the company's entire tech team in a hip underground techno club (it's Berlin, after all) and announced a new way of working—something called "Radical Agility." Inspired by Daniel Pink's *Drive*, Brian Robertson's Holacracy system and the agile movement, Radical Agility emphasizes *Drive's* call for autonomy, mastery and purpose as the pillars of the company's tech strategy and culture. With this new framework, Zalando could more effectively evolve from e-tailer to online fashion platform; from top-down command-and-control to agile; from stagnant/uncool Java monolith to scalable and technically challenging microservices architecture that supports a polyglot approach to development.

As you might expect from such a substantial cultural transition, Radical Agility deeply transformed Zalando's open source development efforts. Until that point, our GitHub activity had been minimal: a few projects geared around PostgreSQL, a monitoring and alerting solution that had emerged during one of the company's annual Hack Weeks, and a few Python projects created by a prolific dev on the cloud team summed up the company's offerings. Radical Agility gave engineers the freedom and encouragement to choose and use the technologies—including open source—they felt were necessary and optimal to get the job done, or build their own software if none existed. The

adoption of technical Rules of Play<sup>29</sup> encouraging microservices, RESTful APIs, and use of cloud technologies like AWS freed them up to experiment. Many of our engineers felt this was the first time in their careers someone trusted them to make their own decisions.

Through the rest of 2015, dozens of new, informal technical guilds formed around specific programming languages, types of development, methodologies, AWS use, web dev, and other topics. Along with our head of platform/infrastructure engineering, I created a new Open Source Guild and, along with about 20 regular engineers showing up for our biweekly meetings, we crafted the first drafts of our "how to open source<sup>30</sup>" guidelines. These guidelines were pretty rudimentary in hindsight, but they covered the basics: which license to use (MIT), versioning, creating maintainers files, etc. We shared these guidelines with the rest of the organization and kept them as a living document, always subject to change as we learned more.

Meanwhile, the number of projects published on github.com/zalando soared into the hundreds. The enthusiasm our team showed for open source led the Guild to next develop a set of Open Source First principles to institutionalize this openness. These principles encourage our engineers to share their code instead of hide it inside private repos, as well as "take ownership," "be safe," "provide documentation," and "ask for help." The message reinforced the pillars of Radical Agility by encouraging mastery, team autonomy and end-to-end delivery of projects, and solid craftsmanship.

Naturally, transforming a culture takes a lot more than creating and publishing guidelines and principles. And getting

<sup>29</sup> https://github.com/zalando/zalando-rules-of-play

<sup>30</sup> https://github.com/zalando/zalando-howto-open-source

everyone up to speed can take some time when you're working with a rapidly growing, distributed organization undergoing a major organizational transformation. Pre-Radical Agility, many Zalando engineering teams had been working in a context in which they were expected to execute functional tasks, do whatever their lead/manager said, or both. This kind of culture might be good for delivery speed, but it doesn't encourage engineers to engage with the product they're building or solve problems independently. And our projects on GitHub reflected this. Members of the Open Source Guild who had cultivated a product mindset started to complain that the work we were sharing with the world often wasn't usable to anyone beyond our own walls.

A guick scan of our GitHub repos showed that guality varied. Some projects were out-of-the-box useful and had audiences of users or external contributors, but our overall output showed that we didn't reflect a coherent definition of what "open source" meant to our team. We already had used GitHub APIs and the talent of our monthly onboarding groups to generate a real-time metrics dashboard showing us which of our projects were most popular, and a few other data points. But a deeper dive revealed that many engineers published repos without READMEs, didn't invite contributions, and didn't clarify the "why" behind their work. Many projects were tightly dependent upon our own unique systems. And with so many projects to track, transparency and insight into what we were doing as a tech org—and why—was lacking. Despite growing our dev team exponentially (3x since Radical Agility's big reveal), our GitHub activity, now scattered across many different teams across the organization, still had no official overseer.

In January 2016, I became Zalando's open source evangelist and set about guiding our technology team toward a coherent, open source effective strategy. With 300+ projects

and always more on the way, where to begin? Among my first few tasks were to publish our how-to on GitHub and start raising internal awareness. A few weeks into the job, I went to FOSDEM and met other, more experienced Open Source Evangelists like Brandon Keepers of GitHub and Duane O'Brien of PayPal. These pros gave me some valuable feedback on how to encourage engineers to deliver maximum value in their open source efforts.

To understand what we were publishing on GitHub in a holistic way, I dug in and checked out each one of those 300+ projects on our GitHub repo. This review process took a few months, and revealed that we were releasing a lot of work that wasn't truly open source—i.e. out-of-the-box useful to the community at-large. With some guidance, we could turn that around. But doing that would take many one-on-one discussions with project creators. Luckily, I was in the perfect position to do this sort of communication, and set to work.

My process went like this:

- · Check out a given repo on our GitHub org
- Assess the README for clarity of project purpose (what it did and how, why it did those things), setup/install directions, and other need-to-knows
- Ensure the project was actively maintained and included a maintainers file
- See if there was a contributing guidelines file, or any invitation for contributors at all
- Look for other Zalando dependencies
- Follow up with the project's maintainers and ask them what their goals were for their project, if they planned to add anything missing like README instructions or contributor guidelines, then begin helping them

Some projects we weren't maintaining or using at all—so I deleted those after getting the okay from the project creators (and, if need be, surveying the team to make sure we could delete without breaking anything). More often, we had released something useful only to ourselves; in those cases, the next step was either to pull back the repo and publish on GitHub Enterprise, or... or... or what? We definitely needed to reduce the signal-to-noise ratio on our GitHub org. We wanted to ensure that the strongest work rose to the top of our projects dash-board, and was most easily discoverable. However, the creators of many such projects really wanted their code to remain public.

The goal was to come up with a way for us to both respect their wish while making it more possible, as one veteran Zalando engineer put it, "to find the cool stuff."

The solution: create a new GitHub organization called the Incubator for storing those "coding in the open" projects, and use only the main Zalando GitHub org for "the cool stuff." After assuring our engineers that transferring GitHub repos from one org was possible and low-risk, I reached out to project creators and maintainers and worked with them to transfer their work. To help clarify why, we added a new section to our "how-to" explaining the difference between the main org and the Incubator, as well as which repos were appropriate only for GitHub Enterprise.

When GitHub notifications informed me that new projects had just come online, I'd check them out to see how out-of-the-box useful and polished they were. If the README wasn't clear that something was dependent on our own systems, or if there was no clear purpose detailed yet, I'd follow up immediately with the project creators to ask about their project vision. From 300+ projects on our main GitHub org, we're now down to 149 projects. Now, more than ever, the collection of projects we

highlight to the public emphasizes usability, good documentation, clarity of purpose, and "the cool stuff."

After refining our guidelines and processes, publishing them on GitHub, and sharing them in one-on-ones with any engineer who didn't know them, it took just a few months for our engineering team to adapt without any additional intervention required. Continuously clarifying the guidelines based on user feedback—i.e., developers' questions or points of confusion—helped with iteration, to ensure the guidelines were as clear as possible. And taking any opportunity to answer a question with "go to our guidelines for your answer!"—in HipChat forums, in one-on-ones, and in meetings—reinforced the message. I also integrated key parts of the how-to into my monthly open source presentation to our new hires, so that they would be aware of our processes and know where to find answers to their questions.

Over the past few months, the focus of my open source evangelism has shifted from grassroots awareness-raising and transferring repos around, to collaborating with project creators on promoting their great projects. The engineers behind Zappr, a GitHub integration that enhances workflow and enables teams to enforce repo requirements, evolved their project from a hack into an official GitHub integration. Patroni (a high-availability solution for PostgreSQL), and Connexion (API First Python Flask framework) have also developed into strong projects with external contributors, tech-media coverage, and community support. The devs do most of the hard work; I primarily show them where the doors of opportunity are open, and guide them across the threshold if they need any help.

The Guild's continued work has increased awareness of the ways we deliver open source products that the community can use. Guild members are key to driving and shaping the open source culture inside our 100+ delivery teams in a democratic, practical way. We discuss projects, community management, licensing, industry trends, and other relevant topics on a biweekly basis, with a rolling agenda of topics the engineers propose. Colleagues who aren't located in our Berlin tech HQ join via Google Hangout. We pitch any changes to our how-to guidelines there, then document via Google Docs and share with Guild members at large (who now represent about 20 percent of our whole tech organization). We collect comments and challenge each other. Then, after about a week's worth of review and deliberation, we incorporate the new changes into the how-to. This way, our open-source culture remains grassroots and organic—that is, "Radically Agile."

Lauri Apple develops and evangelizes Zalando's open source efforts. She's also a producer/agile project manager for the company's core search engineering team and co-leads Zalando's InnerSource initiative. She's based in Berlin.

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#### Chapter discussion and review

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## **Appendix**

## The Open Organization Definition

#### Preamble

Openness is becoming increasingly central to the ways groups and teams of all sizes are working together to achieve shared goals. And today, the most forward-thinking organizations—whatever their missions—are embracing openness as a necessary orientation toward success. They've seen that openness can lead to:

- Greater agility, as members are more capable of working toward goals in unison and with shared vision;
- Faster innovation, as ideas from both inside and outside the organization receive more equitable consideration and rapid experimentation, and;
- Increased engagement, as members clearly see connections between their particular activities and an organization's overarching values, mission, and spirit.

But openness is fluid. Openness is multifaceted. Openness is contested.

While every organization is different—and therefore every example of an open organization is unique—we believe these five characteristics serve as the basic conditions for openness in most contexts:

- Transparency
- Inclusivity
- Adaptability
- Collaboration
- Community

#### Characteristics of an open organization

Open organizations take many shapes. Their sizes, compositions, and missions vary. But the following five characteristics are the hallmarks of any open organization.

In practice, every open organization likely exemplifies each one of these characteristics differently, and to a greater or lesser extent. Moreover, some organizations that don't consider themselves open organizations might nevertheless embrace a few of them. But truly open organizations embody them all—and they connect them in powerful and productive ways.

That fact makes explaining any one of the characteristics difficult without reference to the others.

#### Transparency

In open organizations, transparency reigns. As much as possible (and advisable) under applicable laws, open organizations work to make their data and other materials easily accessible to both internal and external participants; they are open for any member to review them when necessary (see also *inclusivity*). Decisions are transparent to the extent that everyone affected by them understands the processes and arguments that led to them; they are open to assessment (see also *collaboration*). Work is transparent to the extent that anyone can monitor and assess a project's progress throughout its development; it is open to observation and potential revision if necessary (see also adaptability).

#### Inclusivity

Open organizations are inclusive. They not only welcome diverse points of view but also implement specific mechanisms for inviting multiple perspectives into dialog wherever and whenever possible. Interested parties and newcomers can begin assisting the organization without seeking express permission from each of its stakeholders (see also *collaboration*). Rules and protocols for participation are clear (see also *transparency*) and operate according to vetted and common standards.

#### Adaptability

Open organizations are flexible and resilient organizations. Organizational policies and technical apparatuses ensure that both positive and negative feedback loops have a genuine and material effect on organizational operation; participants can control and potentially alter the conditions under which they work. They report frequently and thoroughly on the outcomes of their endeavors (see also *transparency*) and suggest adjustments to collective action based on assessments of these outcomes. In this way, open organizations are fundamentally oriented toward continuous engagement and learning.

#### Collaboration

Open organizations are communal. Shared values and purpose guide participation in open organizations, and these values —more so than arbitrary geographical locations or hierarchical positions—help determine the organization's boundaries and conditions of participation. Core values are clear, but also subject to continual revision and critique, and are instrumental in defining conditions for an organization's success or failure (see also *adaptability*).

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