FOSS Foundations

Commonalities, Deficiencies, and Recommendations

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Preface

Background

FOSS foundations are organizations (typically non-profit) that support open source projects in a number of ways.

Aim

This research studied FOSS foundations in order to better understand their role in contributing to the success and sustainability of open source projects. The aim is to better understand the operations and challenges FOSS foundations face and to find areas of improvement and collaboration.

Topics

This report covers topics such as:

- Role and activities of foundations
- Challenges faced and gaps in the service offerings
- Operational aspects, including reasons for starting an org and choice of jurisdiction
- Trends, such as the "foundation in a foundation" model
- Recommendations for different stakeholders

Target audience

This report is targeted at those who are interested in better understanding the nature, role and operations of FOSS foundations; in particular, it's aimed at those involved in running and those considering to create a FOSS foundation as well as those supporting such foundations (grant bodies, corporations, etc).

Credits

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FOSS foundations

Classification

FOSS foundations play an increasingly important role in supporting open source projects, contributing to their success and sustainability. Like open source projects, FOSS foundations come in all shapes and forms.

A paper by Javier Luis Cánovas Izquierdo and Jordi Cabot classifies organizations according to three orthogonal dimensions:

- Geographical scope: local or global focus
- Coverage: focus on a specific project or domain, or a broader focus, possibly serving as an umbrella organization
- Transparency: the degree of transparency in governance (e.g. by-laws) and operations

This research has taken organizations along all of these dimensions into account. Organizations like FOSSASIA and the Free Software Foundation Europe have a fairly specific (albeit still fairly broad) geographical scope whereas organizations like the Eclipse Foundation that aspire to serve a global community.

The Krita Foundation serves the development of the Krita project. The Software Freedom Law Center offers legal support to open source projects and Linux Professional Institute creates global certification standards for open source professionals. KDE e.V. and the Python Software Foundation serve their respective communities, but their scope is expanding over time as those communities grow and expand. Several organizations have been established to serve as umbrella organizations to host a wide range or projects. This includes trade associations like the Linux Foundation and the Open Infrastructure Foundation and charities like Software Freedom Conservancy and Software in the Public Interest, Inc.

In terms of transparency, there's a continuum of how much information is publicly available. Many organizations publish board minutes and by-laws on their web site, possibly even mailing list discussions of the organizations, whereas others take a more closed approach.

Expanding role of foundations

Historically, many foundations were created to provide services to one or more projects. This can include asset management (holding money, trademarks, and domain names), organizing conferences, and other services.

As the open source ecosystem is changing, FOSS foundations are meeting important new needs. In particular, there is a growing trend towards companies collaborating through open source in order to solve common problems. This can reduce cost, lead to higher quality software, and more rapid development. Some FOSS foundations play an important role in this kind of open collaboration by providing a neutral venue where development can take place on a level playing field.

Open source projects controlled by a single vendor often don't attract a diverse community because of an imbalance of control. By moving projects to a neutral foundation, as for example Google has done with Kubernetes by moving development to the Cloud Native Computing Foundation (CNCF), they signal that contributions from anyone are welcome on an equal footing. Foundations have governance structures in place to ensure open collaboration.

FOSS foundations also provide stability for such open collaboration. Mike Milinkovich, the Executive Director of the Eclipse Foundation, has observed: "We are institutionally mandated to resist those who try to redefine what openness means in our communities." He expands, "I really believe that open source foundations are an absolutely integral part of protecting the definition of open collaboration, enabling open innovation, and making that sustainable for the long term."

FOSS foundations also offer a number of mechanisms to avoid and resolve conflicts, as a paper by Florian Weikert, Dirk Riehle and Ann Barcomb has highlighted.

Diversity of organizations

One interesting insight from this research is the sheer diversity of organizations in many different aspects. The previously mentioned classification of organizations according to geographical scope, coverage, and transparency doesn't fully do justice to the great variability observed on many dimensions. Some examples:

- Some trade organizations (which serve member interests) operate in a different way to charities (which serve the public)
- Some organizations rely on paid staff (some having teams of a substantial size) whereas others rely on volunteer labor
- Some organizations outsource bookkeeping while others struggle by the lack of free software tooling for accounting
- Many organizations suffer from a lack of funding whereas one organization said that they don't "solicit money from individuals since corporation giving is enough".

Limitation on technical influence

While foundations operate in many different ways, one point came up repeatedly: a split between the governance of the organization and that of the project.

Several organizations make it clear that they do not dominate or influence the technical direction of the project. They are there to support the community, but technical stewardship remains with the project.

For example, the Linux Foundation describes a clear separation of funding and participation as one of the five key principles for open collaboration: "Additionally, any organization's developer participation in an open source project hosted by the Linux Foundation is entirely independent of their financial support. While an organization may support a community financially, they cannot steer technical direction without contributing to the codebase like everyone else."

Similarly, the Open Infrastructure Foundation does not require any organization to pay in order to successfully join their communities. Thierry Carrez, VP of Engineering, expands: "Technical governance of our projects is disconnected from Foundation governance: one individual may be a leader in our projects without their employer being a Foundation member. This ensures the project is open to everyone, including individuals, maximizing participation and adoption."

Activities

FOSS foundations carry out a wide range of activities in order to support open source projects.

Here is a non-exhaustive list of activities that foundations commonly perform:

- Advocacy
 - Create awareness of free software
 - Promote software
- Support development
 - Create documentation
 - Ensure resources are available
 - Provide open source guidance
 - Offer mentorship
 - Support contributors through travel stipends
 - Offer grant for development and other activities
 - Arrange visas and work permits
- Community
 - Build and exchange best practices
 - Ensure compliance with FOSS principles and adherence to quality standards
 - Enforcement of community norms (e.g. Code of Conduct)
 - Offer an incubation process
- Collaboration
 - Offer neutral, level playing field
 - Enable an open collaboration between peers

- Connect developers, users, companies, academia, and others
- Offer mechanisms to deal with conflicts of interests
- Build bridges with other organizations
- Liaison with standards organizations
- Build commercial ecosystem
 - Create commercialization opportunity in the market
 - Reference products and solutions
- Events
 - Offer event organization
 - Organize sprints and hackathons
- Asset stewardship
 - Handle assets (money, hardware, domains, trademarks)
 - Accept copyright assignment or contributor license agreements
 - Handle decision making authority granted in wills
- Legal
 - Sign contracts
 - Review legal agreements
 - Provide sound legal infrastructure
 - Offer liability protection and other insurance
- Fundraising

Sustainability

All of the activities listed in the previous section contribute to the sustainability of projects in some ways. This section highlights a number of activities that explicitly promote the sustainability of projects:

- Provide resources that projects rely on
- Offer mentorship
 - Incubation of new processes
 - Exchange of best practices
 - Outreach activities
- Create more awareness of projects (e.g. using brand as leverage)
- Demonstrate that FOSS in a particular space is a credible alternative
- Enable open collaboration of diverse participants
- Promote healthy ecosystem around projects
- Organize development sprints and similar development efforts
- Apply for grants

Explicit restrictions

Several organizations have limited their activities explicitly, partly to focus on specific activities and partly for philosophical reasons.

- We don't influence the technical direction of the project
- We don't employ staff to write software (but there's some contracting), or, we don't fund any technical development at all
 - In some cases, this is for philosophical reasons (the organization should provide infrastructure but stay out of development)
 - In other cases, it's because there's no need (companies employee developers to work on software)
- We avoid activities already done by a similar organization
- We don't provide support
- We don't have a global focus we focus on a particular region
- We don't compete with members (e.g. by providing training or consulting)
- We don't support closed software or open core
- We don't allow single-vendor projects
- We don't require any organization to pay in order to successfully join our communities

Gaps

There are also some gaps (areas where an organization would like to be more active, but isn't, usually due to resource constraints):

- Marketing and recruiting of projects
- Full-time employees
- Infrastructure to reduce dependence on proprietary platforms like GitHub
- Grant writing services
- Shared community managers for all projects
- Contributor mentorship program
- Project incubation

Challenges

Organizations face a number of challenges, including:

- Scaling and growth
 - Setting priorities
 - Deciding who to help and how
 - Hiring full-time staff (bureaucracy, oversight, etc)
 - Increasingly difficult to reach a quorum as membership grows
- Funding

- Lack of funding in general
- Ensuring an ongoing and reliable funding stream
- Grants can be highly unpredictable
- Nonprofit-style grants can be inflexible bureaucratic
- Restricted funding can be a problem: unglamorous work doesn't get funded
- Donation fatigue
- Budget of non-profit much smaller than corporations
- Getting mainstream press attention
- Overhead costs of running the organization are high
- Spending the money: community is reluctant to spend funds
- Making grants available to individuals in some parts of the world (banking regulations, etc)
- It's difficult to keep up with changing requirements in the community
- Continually shifting value proposition landscape, complicating the alignment of revenues to services
- Ongoing education about the importance of active engagement in open source communities, not just consumption
- Volunteer burnout
- Volunteer availability
- Non-US directors and officers and regulations often limit access to some bank accounts to US only persons

Removing constraints

If there were no constraints, organizations would like to:

- Accept more projects
- Expand the service portfolio
- Hire staff
- Create a long term financial plan
- Establish an endowment
- Be active in more geographical areas
- Invest in less glamorous but essential activities
- Create better software to manage foundations (e.g. dashboard)

Awareness

Several organizations mentioned a lack of awareness of the work they do and the challenges they face on a daily basis.

Some expressed a wish for better data to communicate the scope and volume of work being done in order to relay the impact of both their work and the projects they serve.

Some expressed that users of open source do not fully understand the importance of donating (or the mechanism by which they can contribute).

Summary

- Foundations are very diverse in terms of their focus, operations, and other aspects
- Foundations provide important services to open source projects
- Some foundations act as a neutral venue where open collaboration can take place
- Foundations provide stability and longevity
- Foundations reduce undue influence of one player
- Foundations support the sustainability of projects in a number of ways
- Organizations restrict their activities in order to focus or for philosophical reasons
- There are several gaps which are not addressed due to resource constraints
- There is a range of challenges organizations face, including
 - Awareness
 - Scaling and growth
 - Funding

Incorporation

Reasons for creating an incorporated organization

There are a number of reasons why an incorporated organization is needed:

- An organization can provide better neutrality and a level playing field
- An organization provides more trust and stability than an individual
- Asset ownership (money, domain names, trademarks, hardware, etc) that's not tied to a particular person
- The corporation offers some liability protection
- The charitable mission ensures accountability
- Fiscal sponsorship can be offered to projects without formal organization
- Certain actors (e.g. governments and public bodies) prefer dealing with an organization
- Effective fundraising is possible (e.g. some don't want to donate to individuals)
- More funding sources can be accessed (e.g. grants from public bodies)
- Tax deductible donations are only possible with a non-profit structure
- Full-time staff can be hired to provide services
- An organization can sign contracts
- An organization provides more institutional memory and consistency
- Collaboration frameworks for international organizations can be established by signing Memorandums of Understanding (MoU)

Jurisdiction and legal structure

Historically, the most common reason given why a particular jurisdiction was chosen was that there was a person in a particular state or country who was willing to do the work. Unlike open source projects, which can easily be started online, incorporating an organization may involve in-person interaction. For example, some banks require business accounts to be opened in person and need a face-to-face meeting to add account signatories. Also, some U.S. banks require a Social Security Number (SSN) for account signatories, which can be a problem for organizations incorporated in the U.S. but with an international board.

More recently, there seems to be more effort to evaluate different jurisdictions before incorporation (especially for larger organizations that have the resources for such an investigation), although the practice of incorporating where a member willing to do the work is based is still common (especially for smaller organizations). A large number of FOSS foundations are incorporated in the U.S. The most common forms are:

- 501(c)(3) charity: for the public benefit
- 501(c)(6) trade organization: for the benefit of members

Some organizations have not applied for tax exempt status due to the paperwork required. For several years, the IRS approved few applications from FOSS related non-profits (see e.g. this article on the problems Yorba faced), but there was a policy shift a few years ago and this appears to no longer be an issue.

While a large number of organizations are based in the U.S., there are many organizations in other countries, including Canada, Belgium, the Netherlands, and Germany. There are many different non-profit forms. One question, given the international nature of most boards, is whether paperwork can be submitted in English. Asked about their location, some organizations cited a more "neutral" or "less political" jurisdiction (compared to the U.S.) as their rationale.

It's notable that the Eclipse Foundation moved from a U.S. trade association to a Belgian nonprofit corporation (AISBL, "association without lucrative purpose") recently. They emphasize their global open source focus, an embrace of open source in Europe, and the fact that they were already the biggest open source organization in Europe "in terms of staff, projects, developers, and members" (with more than 170 members and more than 900 committers based in Europe).

The legal structure comes with certain obligations and restrictions, such as:

- Paperwork
- Audit requirements
- Restrictions on political activity and lobbying

While paperwork has been described as problematic (by smaller organizations), the restrictions are often seen as favorable: they lead to more transparency and give the public confidence that the organization focuses on its mission. In fact, one reason that The Document Foundation chose a German "Stiftung" is that this type makes certain elements of their rules unalienable, therefore allowing long-term stability.

Several organizations mentioned some problems that are inherent with having to be based in a specific jurisdiction while essentially serving a world-wide community. For example, accepting donations from different regions isn't as seamless as it should be (for example, bank transfers within the Eurozone are free but organizations based in the U.S. typically don't have a bank account in Europe). The question of tax deductibility of donations is hard to answer when donors are based in another jurisdiction.

Starting a new organization

What should someone planning to start a new organization consider? The most frequent answer by far was some version of "don't do it": consider joining an existing organization instead. Take considerable time to evaluate existing organizations and to ask what are you unable to receive from an existing organization. Most people greatly underestimate the work of running an organization.

If a new organization makes sense (after carefully looking at all other options), the following points should be considered:

- Consult existing organizations
- Seek professional advice for tax and legal
- Examine carefully if you are ready for the administrative burden that comes from running an organization
- Have enough people in the country where you want to set up an organization
- Recruit a dedicated board with a wide variety of experience
- Know that fundraising is hard
- Don't try to overbuild it, but allow to grow in the future
- Grow with caution: sustainability is difficult
- Consider conflicts of interest in all decision making bodies and figure out how to resolve such conflicts before they happen. You can't do that when the conflict is already.

Consolidation and the "foundation in a foundation" model

As mentioned in the previous section, running an organization is a lot of work. It's therefore no surprise that there is some degree of consolidation in the FOSS foundation space. For example, the X.Org Foundation decided to abandon its own legal structure and instead join Software in the Public Interest, Inc. (SPI), an umbrella organization. The Gentoo Foundation is also evaluating whether it would be more beneficial to join another organization.

What's interesting is that the X.Org Foundation, as well as the Open Bioinformatics Foundation (OBF), which is also part of SPI, retain their own governance structure (including a board), despite not having their own incorporated structure. This is essentially a "foundation in a foundation" model whereby one foundation provides the legal umbrella and a range of services to other foundations.

There may be other reasons to join another existing apart from the reduction of administrative work. The Node.js Foundation and the JS Foundation merged to form the OpenJS Foundation because they both worked toward a similar goal (promoting the growth of JavaScript ecosystem).

Organizations may also benefit from alignment in order to increase their reach. FINOS joined the Linux Foundation in 2020 partly for this reason, and partly to benefit from Linux Foundation's "support program offerings including but not limited to training, certification and events management".

The Linux Foundation is interesting because it is the dominant player of the "foundation in a foundation" model. They describe it as the "foundation as a service" model for open collaboration. This approach has been highly successful and they have added many high profile projects and organizations, including Kubernetes and Let's Encrypt. We live in a time where software as a service has become a common paradigm. Why not foundations as a service? Stripe's Atlas offers the creation of a company with the click of some buttons. Should the same be possible for a FOSS foundation?

The Linux Foundation is moving in this direction. Their LFX initiative is creating a wide range of tools that are beneficial for open source projects and organizations: "Monitor the health of your projects and communities, maintain operations, and grow your ecosystem with tools built for contributors." Tools include developer dashboards (such as security), but also the management of CLAs (Contributor License Agreements), crowdfunding, and mentorship.

Open Collective is another initiative that has made it easy to raise and spends funds in a transparent way. The platform is available for open source projects through the Open Source Collective. They describe themselves as "an API between the world of distributed collaboration and the world of accounting and invoices". Developers can stay focused on their project while the organization will "take care of all the accounting, taxes, invoices, and admin". Open Source Collective can also hold trademarks for projects, but the scope of services is limited compared to some other umbrella organizations.

This direction is very interesting. This research has shown that several of the smaller foundations suffer from paperwork, accounting and other administrative tasks; while tooling won't remove the need for the work, it has a huge potential in making it significantly easier. It will be interesting to see if this tooling can be used by other organizations. Some components of Linux Foundation's LFX will be released as open source in the future, but it remains to be seen if that can be used by other organizations easily.

Finally, while there is consolidation, new FOSS foundations are being created on a regular basis, reflecting the growth of the open source ecosystem. This can either be completely new organizations, such as the Zig Software Foundation with the mission to advance the Zig programming language. It can also be due to projects leaving an umbrella organization in order to run their own foundation. An example of the latter is the Clojurists Together Foundation, which was created in part to make it easier for "for-profit companies to join together to fund and influence important open source work".

Projects with several organizations

This research also revealed that a number of organizations have multiple legal entities; furthermore, there are some cases where several organizations serve one project.

The best example for this is the Mozilla Foundation with its subsidiary, the for-profit Mozilla Corporation. In addition to the Eclipse Foundation, there is Eclipse Foundation Europe GmbH, a German incorporated for-profit subsidiary. The Document Foundation is discussing the creation of a for-profit subsidiary. These are examples of foundations with subsidiaries.

Additionally, there are projects with multiple organizations. For example, the PostgreSQL project uses Software in the Public Interest, Inc. to accept donations. At the same time, PostgreSQL Community Association of Canada exists to hold assets for the PostgreSQL project, such as domain names and trademarks. There are also a number of organizations in

different countries, mainly for PostgreSQL events (including PostgreSQL Brasil, PostgreSQL Europe, PostgreSQL.US).

Similarly to PostgreSQL, the Debian project uses a number of organizations across the world to provide services and to hold assets for the project. Trademarks are held by Software in the Public Interest, Inc., which also accepts donations, while donors in Europe may prefer to give to Debian France or debian.ch.

Finally, there appears to be a small trend toward complementary organizations being created to serve the same project. Haskell.org has existed for many years to provide infrastructure to the Haskell project. Despite the existence of this organization, the Haskell Foundation was recently established (partly by the people involved in Haskell.org) to "broadening the adoption of Haskell". Similarly, the R Foundation has been the organizational home of the R project for many years. Additionally, the R Consortium was launched as a Linux Foundation project in part to allow corporate members.

This research didn't investigate this aspect in more detail, but it would be interesting to better understand the reasons for the creation of additional organizations and their relationship (full subsidiary, friendly cooperation, etc).

The importance of non-profit status

Another question that came up during this research is the importance of non-profit status. While the majority of FOSS foundations operate as recognized non-profits in their jurisdiction, there are some that are not recognized non-profit organizations. This can either be because they don't have the resources to apply for non-profit or tax exempt status, because they don't see the benefits of doing so, or because there's no suitable non-profit structure in the country or region of focus.

During this research, several organizations have highlighted advantages of operating as a non-profit, including:

- Signaling to donors that certain criteria set out by the government have been met
- Increased transparency (public reporting requirements)
- Tax exempt status
- Tax deductibility of donations
- Access to grants which are limited to 501(c)(3) organizations

However, overheads can be considerable, especially for smaller organizations. There is also limited flexibility as governments may restrict certain activities.

I haven't been able to identify factors that might determine when non-profit status is important or not, but it's an interesting question. A related question is whether tax deductibility matters to donors. This is an area of great complexity since donations are usually only recognized to charities in the same country as the donor, which is incompatible with the global nature of open source. Tax deductibility is sometimes listed as an incentive for donors, but to what degree does it actually influence donor behavior?

Summary

- There are a number of good reasons why an organizational structure is needed or beneficial
- Many foundations are based in the U.S.
 - Charities serve the public benefit
 - Trade associate serve members
- There are several foundations outside the U.S. with no clear preference for a specific country
- Often the choice of jurisdiction is determined by someone local willing to do the work
- Smaller organizations see paperwork and overhead as problematic
- Running an organization is a lot of work and projects should evaluate joining an existing organization instead of creating their own
- The "foundation as a service" model is becoming more prevalent
- How can tooling be improved to support operations?
- Some projects employ the services of multiple organizations
- Non-profit status offers certain benefits, but comes with restrictions

Miscellaneous topics

Corporate giving

Some reasons as to why corporation give to FOSS foundations:

- In order to support the mission
- The company relies on software as critical part of their infrastructure
- Contribute to sustainability of the project
- Contribute to a healthy ecosystem
- Collaborate in the open with other organizations
- Improve visibility in and engage with the community (e.g. through conference sponsorship and participation)
- Recruit from the community
- Demonstrate leadership (in order to gain access to new customers, recruits, and business partners)
- Sponsoring is an efficient way to give back to the community

Contribution can be in the form of time and money.

Code contributions are common, but an understanding of the importance of the work of foundations is less so. Corporations often don't want to invest in important but unglamorous tasks.

Best practices

Organizations shared some best practices, including:

- Know when to reach out to paid professionals
- Pro-bono attorneys are nice but you may get better service with paid legal help
- Have a transition plan for key leadership
- Have written policies and expectations
- Create onboarding information for new directors
- Work on setting up teams for key roles
- Regularly talk about goals and visions is important; as is talking about feelings.
- In-person meetings are important. Investing in team building activities will greatly contribute to mutual trust, working together and as such, raising effectiveness.
- Use retrospectives to learn and improve over time
- Keep good records

Collaboration with other foundations

The FOSS Foundations community was mentioned several times as a good way to share experiences and interact with people working in a similar space. The community also organizes meetings at conferences from time to time, including events such as FOSDEM, LibrePlanet, and the Community Leadership Summit (CLS).

There is some informal, direct cooperation among similar organizations in order to exchange best practices and discuss problems. This includes organizations with a similar scope (e.g. umbrella organizations serving volunteer projects) or in the same jurisdiction (e.g. to share practical information about tax filings or to discuss recommendations for paid help). Some umbrella organizations refer applicants to others organizations where they might be a better fit.

A large majority of respondents thought that there was not sufficient sharing of know-how between organizations.

Impact of COVID-19

In general, organizations are used to working remotely and there hasn't been a huge impact on their operations. However, several mention the lack of in-person meeting as unfortunate, as these help with motivation and communication. The mental toll of lockdown was also mentioned, as was a loss of staff productivity due to disruption to routines.

With regards to the impact on funding, several organizations reported that their funding has been affected considerably. Corporate giving and grantmaking were down. Also, conferences are a huge source of revenue for many organizations and this took a hit. Some organizations also incurred cancellation costs for conferences. At least one organization had to lay off several staff members due to reduced funding. However, there was also an organization that actually saw a spike from individual donors (possibly due to the software being used more as people moved to working from home).

The problem of relying on too few funding sources (especially corporate sponsorship) was seen due to the pandemic.

In addition to the impact of funding, several organizations reported that the cancellations of conferences and meetings made it to harder to get the message out. Also, some organizations aim to connect people and build trust, and this is easier in the hallway track at in-person conferences.

Organizations were prompted by the pandemic to improve several aspects of their operations. While many conferences were canceled, many organizations were able to switch to online conferences at a pace that wasn't imaginable before and several did so using FOSS solutions. One respondent highlighted that online meetings resulted in more community members from more geographies being able to participate. Online access and timezones can be a problem, though. Some organizations which offer travel grants have made them more flexible, so that grants can be used to attend online meetings (purchase better Internet access and telecommunications equipment for contributors in regions where this can be problematic, such as Asia and Africa). In general, online conferences and meetings are not seen as a full substitute for in-person meetings because they are less effective and don't support the social component (building trust, getting to know each other, etc) as much. However, they might be complementary as they allow for a bigger reach.

Questions and discussion points

- Software
 - What software can be developed to make operations easier?
 - What common needs are there that could be solved for everyone?
 - Possible areas:
 - * Accounting
 - * Asset management (e.g. trademark expiration)
 - Is foundation-as-a-service possible?
- Importance of non-profit structured
 - Does the administrative burden outweigh the advantages?
 - What factors influence the decision?
- Multiple organizations
 - Under which circumstances does it make sense to have multiple organizations?
 - What is their relationship?
- Awareness
 - The work of foundations is poorly understood in general
 - How to convert pure consumers (corporations, governments, etc) to active contributors?
 - Glamorous activities are prioritized, but less glamorous activities are neglected

Recommendations

Organizations

- Create contingency and risk mitigation plans
 - Loss of key personnel
 - Reduction of funding
 - Changes to the marketplace and community
- Diversify funding
 - High reliance on corporate sponsorship
 - High reliance on conference revenue
- Make online meetings accessible
 - Host sessions in different timezones
 - Offer funding for bandwidth and webcams
 - Find ways to combine in-person and online conferences
- Create internal documentation
 - Establish onboarding information for new directors
 - Find ways to preserve institutional memory
- Create awareness
 - Talk more openly about important work done by foundations, even if perceived as "unglamorous"
 - Share best practices, either openly or directly with other organizations
 - Discuss challenges with other organizations

Foundations community

- Share insights on online meetings: what works, what doesn't
- Share information about legal structures in different countries
- Share information on banks
- Share best practices for donations
 - International donations
 - Tax deductibility for donors
- Share best practices on operations

- Lots of best practice on running an open source project; little on running a foundation
- Investment decisions
- Organize meetings
 - Hold regular meetings at developer conferences
 - Write minutes to capture and share insights

Grant bodies

- Make applications easy
 - Most FOSS foundations don't have full-time grant writers
 - Grants are often too bureaucratic for FOSS foundations
- Provide funding opportunities for essential but less "glamorous" work
- Make dependable long-term investments that organizations can rely upon
- Create more opportunities for grant bodies and FOSS foundations to interact
- Connect FOSS foundations which similar problems with each other

Companies, governments, anyone reliant on open source

- Invest in technologies upon which you rely
- Consider contributions in a number of ways
 - Let employees actively contribute (and not just developers!)
 - Offer knowledge and know-how
 - Give money (ideally with few restrictions)
- Try to be consistent and dependable (as much as budget decisions allow)

Appendix

Methodology

This research followed a grounded theory approach in which data collection and analysis takes place at the same time.

Information from a number of different sources were taken into accounting, including FOSS foundation websites, academic publications, articles in the trade press, recordings of conference talks, and more.

A questionnaire was sent to a diverse sample of foundations. It was completed by 27 foundations.

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Related work

I published "Growing Open Source Projects with a Stable Foundation", a primer on non-technical issues that many open source face. The primer gives an overview of common issues and considutions and explains how FOSS foundations can help open source projects grow and succeed.