GOSCON
GOVERNMENT OPEN SOURCE CONFERENCE

PUBLIC SECTOR COMMUNITIES BRIEF

"Community Source" Project Governance

The Sakai Project as a Potential Reference Model for Public Sector Community Source Development

Introduction

Collaborative development models are of intense interest to the software industry as well as the field of information technology, and no sector has a greater interest in the benefits of such models than that of public institutions.

We're pleased to share key concepts from our recent interview with Indiana University CIO Dr. Bradford Wheeler. Dr. Wheeler continues to play a pivotal role in one of the most successful large-scale collaborative software development efforts amongst universities, the Sakai Project. We thank him for his generosity in sharing lessons learned and permission to share that knowledge with others.

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Sakai Project Governance Model Q&A

How does Sakai differ from other open source projects?

Sakai began with a different approach to traditional open source. The Open Source Portfolio Initiative (OSPI) launched in January 2003, and was a community of individuals and organizations collaborating on the development of the leading non-proprietary, open source electronic portfolio software available. The OSPI followed a pure, traditional open source model, built with lightweight community governance. They learned that the "if we build it they will come" model proved false.

Sakai is different in that it is a community source project; the investors are the institutions. It is managed under a more corporate model with structured release cycles which institutions that invest in the project expect.

How was the current governance model of Sakai developed?
The development of Sakai involved 3 chapters, or phases:

Chapter 1: an existing system already doing something good was used as a jumping off point.

Chapter 2: the project was "de-localized" and taken to a small community of partners. The product was improved and distributed under an open source license. Memorandums of Intent were created to state agreement between institutions. The funding was provided by a third party grant. Institutions did not have agreements for funding with each other; instead for example they had an agreement with the Mellon foundation for a grant.

Chapter 3: the project is opened up to a full community, and the intellectual property is given to an independent foundation. [See "Intellectual Property FAQ" on page 2.]). It is important to figure out Chapter 3 early in Chapter 2.

At what point did you create the foundation?
The foundation was created 90 days before the end of Chapter 2. Start this early as it requires much communication to arrive at a point of agreement.

Describe the structure of the foundation.
The foundation is representative of all partners in the project. The independent foundation is not a vendor--it is the institutions that build on and improve the code.

The foundation is comprised of roughly 24 workgroups that make decisions and work on the code. The workgroups are led by a governing board of directors. The people doing the work make the majority of the decisions. The foundation has its own bylaws.

All institutions in the foundation must be equal. Developing institutions cannot take a front seat to commercial partners.

There are generally no community wide votes for Sakai functionality. There are votes for functionality within workgroups or across small groups of workgroups.

How do the various groups collaborate?
Collaboration happens primarily via listservs and wikis. Collaboration capabilities are key between universities.

Sakai has a conference every six months. The foundation plans the conference. Attendance started at 150+ and is now more than 550+. The first conference was primarily for developers. The third conference had 9 parallel tracks for all disciplines in the Sakai foundation. The conferences are self supporting. The conference cost is around $50-$60K, paid for by the foundation from registration fees of all combined attendees.

How is the intellectual property handled?
The intellectual property for the project was given to the foundation and the source code was made available to the public through a BSD license. *It is essential that the intellectual property is given to an independent foundation; neutral territory makes it easer it fund and manage.* This makes it easy for corporate entities like IBM to contribute (i.e. Stanford won't contribute to MIT but they will to an independent foundation).

The Educational Community License was developed for contributors to the project. Subsequent participants must agree to abide by the ECL and not change any part of it.

Professional legal and corporate help was procured to check every piece of code to make sure it was properly under license protection. Anything redistributed by the Sakai foundation must be licensed this way.

How is the board directors structured and run?
Members of the foundation vote on the board of directors. There should be about 3 to 12 members on the board. A third of those seats should be elected directly from the community for 2-3 year terms. There should be at least once commercial institution member on the board. If you are a substantial contributor or investor in the project, you are allowed an automatic appointment to the board of directors. The appointment of the board was not too formalized.

How do you handle disagreements and/or conflicts?
First and foremost there needs to be strong leadership on the project. Conflicts and concerns should be addressed with the people involved directly in the disagreement and a solution should be enforced by the project manager quickly and assertively.

Re-visiting problems that have already been satisfactorily addressed will slow down the project and spawn additional conflicts. Re-visiting problems in particular needs to be addressed quickly and assertively. Explain that it is impossible to implement seven different solutions at the same time. Different institutions implement solutions in different ways and the important thing is to maintain consensus and consistency.

During the second phase of the Sakai project it was sometimes necessary to reassign people or eject them from the project if they were unable to get on board with a consensus.

Face to face meetings are essential in resolving conflicts, especially in Chapter 2.. It is too easy to become unduly confrontational via electronic communication. A significant amount of the project budget was assigned to facilitating these face to face meetings. Relationship building is key to success.

Enforcing email etiquette is also important. For example, it is not ok to cc a lot of people on a disagreement that should be handled discretely and only between the individuals concerned.

It is important to understand that different institutions do things differently and that is OK. They don't all have to do it the same way.

What were some of the biggest lessons you learned?
Strong leadership is a must. Without it, open source projects flounder and push back release dates indefinitely. Strong and assertive project managers can help to push the project along and meet the scheduled release dates that the commercial institutions and corporate investors demand.

It's necessary to have real project management, with a blend of openness and good project management discipline.

The second phase of the Sakai project is a foreign concept to most open source projects. The idea of the limited second phase distribution must be taught to enlisted partners and its significance cannot be emphasized enough. It is important to keep the "open-ness" restricted to only a handful of institutions during the first few months of the projects development.

You need a strong functional council with disciplined organization. Subject matter experts help run a good project. The more voices making functionality proposals, the more confusing and diluted the process becomes.

Don't let detractors pull the whole community down. Sometimes they are right, sometimes they are wrong. Occasionally they just need to be put in their place.

The board of directors should provide strategic leadership and steer functionality decisions. They should not, however, become meddlesome in small workgroup policies and practices. It is best to delegate and lead instead of micromanage and intrude.

The Sakai project was date driven. Functionality was traded off to meet target dates. It's important to keep community confidence that product will be delivered on time, and is essential in keeping the community engaged and supportive of the project.

Developers should be full-time, professional developers, not students. All roles including source code development, documentation, release packaging, architectural decisions, executive leadership, and conference coordination are essential and should be filled by professional staff.

If someone was starting a new project today, what secrets should they know to successfully drive that project forward?
Developing enterprise-scale systems is really difficult…Developing them with others is really, really, really difficult.

Use an existing application, design, or source code for the project. Do not start from scratch.

Use date-driven development. It breeds healthy discipline.

Board members must face delivery "back home." Executive leadership must have their jobs on the line to perform. They have to be motivated by more than just wanting to "do good." Dual accountability to the project and the community is essential

Create a strong board of directors and governance model. Can be lightweight but should be able to make decisions for the project.

Engage in post-project community development up front. Build the foundation no later than one third of the way into the life of the project. You have to build a community of partners early so that when you reach the end of phase two, phase three is already running.

Effective collaboration is a valuable organizational capability.

Implement a NGA (Non-Gag Agreement). Everyone is obligated to tell two people everything you hear at development meetings. There is no benefit by being secretive.

Most importantly, use what works for you. Draw from the best of the best and adapt for your own foundation.

Online Resources

The Sakai Project: www.sakaiproject.org

Government Open Source Conference (GOSCON): www.goscon.org

Dr. Bradford Wheeler's GOSCON 2006 presentation entitled "16M Later...A Model to Pool Investments for Directed Open Source Projects" can be found at the conference web site.

Oregon State University Open Source Lab: www.osuosl.org