

Debian's Democracy

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1 Introduction

The Debian project is likely the largest and longest-lived online deliberative body. Debian is an organization of slightly more than a thousand volunteers who collaborate over the Internet to package roughly eighteen thousand separate open source software projects into a single freely distributed complete operating system (Debian 2007). Over the past decade, an intricate and documented set of democratic rules has been created to govern Debian.

2 History

During the early years of Debian, the only official authority came from Ian Murdock, who founded Debian in 1994. When he stepped down as Debian Project Leader, he simply appointed a successor (Murdock 1996). The developers occasionally used ad hoc means to draft statements and take votes. While many developers supported the dictatorship, there were vocal and persistent calls for democracy (Perens 1997a).

Between 1995 and 1998, membership was doubling each year (Brief 2007), and discussion of a constitution began. Ian Jackson, who became project leader in late 1997 (Perens 1997b), led the drafting and revising of the constitution over the Debian email mailing list (Jackson 1998). The constitution was ratified at the end of 1998, according to the procedure described in the constitution itself and received unanimous support of the eighty-six developers who voted (Debian 1999).

3 Membership

For many years, eligible voters were simply those who had recently maintained a package, a task for which anyone could volunteer. The constitution does not address the question of membership.

As Debian grew, an account manager was created to verify and oversee new members. The project growth was unchecked and many developers felt that the new members were just creating new projects, not working on old bugs, and the overall quality was suffering. New applicants complained that the wait to become a member was too long (O'Mahony 2004). Some members anticipated this problem of controlling membership (Jackson 1998), but no solution was found and the issue simmered for many years (O'Mahony 2004).

In October 1999, the situation finally culminated with the project leader halting all new applications until a new membership process could be created. Six months later, a new membership committee began processing applications under its own guidelines. A complicated bureaucratic application process was designed to make sure that applicants were skilled, philosophically agreeable, and dedicated (O'Mahony 2004).

The interview, verification, and assessment process takes months and is subject to long delays. Nearly all applications which are pursued diligently result in successful completion, but many have complained that the process takes too long and often applicants give up (Byfield 2005).

4 Political Structure

In addition to authority over their own work, members—called 'developers' by the constitution—can propose, sponsor, and vote on general resolutions. Members have immense power by way of general resolution. They may overrule or even remove the project leader, amend the constitution, and rule on any technical or non-technical issue. Members may also run for project leader and vote in the yearly elections (Debian 2008a). The project leader must make urgent decisions and is the public and internal figurehead of the organization (Debian 2008a).

The technical committee acts as a last resort arbiter of technical disagreements between developers. With help from the leader, the technical committee appoints members and usually serves for several years (Debian 2008a). Prior to 2007, the committee was only occasionally asked to resolve a problem and handed down an average of one or two decisions per year (Debian 2008c). The lack of referrals to the committee indicate to some that the members lack confidence in it, but others explain this by saying that

disputes are resolved well by other means (Robinson 2005). The committee handed down several formal decisions in 2007 (Debian 2008c), but some, including Ian Jackson, remain frustrated (Jackson 2008).

The project secretary oversees votes and handles constitutional disputes. The leader and incumbent secretary appoint the next secretary annually (Debian 2008a).

Many important decisions are made outside the constitutional structure, such as changes to the *Debian Policy Manual*, a detailed compendium of software requirements. Revisions are discussed on a mailing list until consensus is reached, but only a few policy maintainers can change the document (Debian 2004). How policy is shaped was the subject of controversy in the early years of the constitution (Srivastava 1999). In principle, a deadlocked policy dispute could be referred to the technical committee, but this has never happened (Debian 2008c).

5 Deliberation

The Debian Constitution prescribes the ‘Standard Resolution Procedure’ as a generic way to decide questions by proposal, discussion, amendment, and voting—all through email. The procedure is used for many processes within the constitution and establishes principles that are used informally as well.

Any member may formally propose a resolution which then becomes subject to discussion and amendment.¹ If the original resolution author accepts a proposed amendment, the resolution is immediately changed and the discussion period continues. If the original author rejects the amendment, it remains as a separate option and will be voted on as an alternate to the original. Amendments may not be amended (Debian 2008a).

Once a minimum discussion period (usually two weeks) has elapsed, the resolution’s author or the author of any amendment may call for a vote. The original resolution, a default or ‘further discussion’ option, and all amendments are presented on a single ballot. Voters are instructed to rank the options and return their ballots in a fixed time (usually two weeks). A quorum requirement must be met for the counting to proceed (Debian 2008a). The counting method used to determine a winner from all the voters’ ballots is a variant of Condorcet Voting with Schwartz Sequential Dropping.² In most situations, there is one option that beats all other options in pairwise matchups, and so there is a clear winner (Voss 2005).

¹ Sometimes sponsors or seconds or required.

² For a complete discussion of the intricacies of the Debian voting protocol, see ‘The Debian Voting System’ by Jochen Voss (2005).

Sometimes an election under the standard resolution procedure is simply managed by a secretary or chair. For elections in which all developers participate, custom software for automated balloting is used.

Email

Most discussion, and all deliberations using the standard resolution procedure, occurs on dedicated email lists. The *debian-devel* list hosts technical and political discussion and sees between 50 and 100 emails each day. The *debian-vote* list is used for formal action. The technical committee and many large undertakings have their own mailing lists (Debian 2008b).

Chat

Technical questions and politics are also discussed over Internet Relay Chat (IRC). A proposal by general resolution to give IRC legitimacy and subject it to control failed to gain support (Debian 2001). An official, moderated debate for the project leader elections has been conducted over IRC in most years since 2001 with much participation.

6 Conclusions

Because Debian has been actively and successfully engaged in online deliberation for a decade, a careful study of Debian's governance is useful in developing tools and standards for online democratic decision making.

The Debian experience confirms established lessons about both democracy and online interaction. The importance of defined procedures and member empowerment shine clear. Asynchronous text-based communication is not an obstacle to deliberation. Rather it offers new convenience. The Debian Constitution offers hope and a specific structure for taking democratic deliberation to new effectiveness and participation.

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