Governance of the Open Provenance Model

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Introduction   The Open Provenance Model (OPM) was originally crafted by the five authors in a meeting held in Salt Lake City in August 2007. OPM v1.00 [1] was released to the community in December 2007. The first OPM workshop in June 2008 involved some twenty participants discussing issues related this specification, and led to a revised specification, referred to as OPM v1.01 [2].

From the outset, the original authors' intent has been to define a data model that is open from an inter-operability viewpoint but also with respect to the community of its contributors, reviewers and users. The early public release of v1.00, the first OPM workshop and the revised specification v1.01 are testimony of the community focus that is intended for OPM. So far, our approach to discuss changes and agree on revisions has been adhoc. The purpose of this document is to outline a governance model for OPM.

An Open Source Approach for OPM specifications   We feel that it is too early to engage in a full standardization process for OPM under the auspice of a formal standardization body, since many research issues related to provenance still need to be investigated. Some structured process is required however to manage changes to OPM and maintain a coherent vision. It must remain lightweight to promote community participation.

The open source community provides us with a good collaborative model in this context. An open source project typically has a set of committers, who work with the community to make relevant changes and accept outside input. Someone who is interested and active enough, can be made a committer as well.

In our case, *OPM editors* will act as committers to the OPM specification(s). The five original authors will initally act as OPM editors. It is anticipated that new community participants will become editors over time.

We all recognize that a splintered community is bad since it does not help address the problem of inter-operability. So we try to keep branching from happening by a process that is open and consensus driven.

Process for changes to OPM specifications   Ahead of a revision of the OPM specification, the following sequence of steps will be adopted. All steps will be advertised

on the mailing list provenance-challenge@ipaw.info and on the twiki.

1. *Call for change proposals*. A call for change proposals will be posted by an OPM editor inviting members of the community to submit change proposals to the twiki. To help readers understand the context of the proposal, submitters should include the following headings 'background', 'problem addressed', 'proposed solution', 'rationale for the solution'. After this period, the set of topics proposed for changes will be closed.

2. *Proposal review period*. During the review period, members of the community will be invited to review change proposals and comment on them on the twiki. Comments may include revised or counter- proposals. It is recognised that some issues cannot be solved in a short period of time. A proposal can therefore be to create a working group to design a solution for a problem identified by the community.

3. *Vote*. Any members registered on the twiki will be eligible for voting and will be given one vote for each issue put to the ballot. A proposed change will be adopted if it obtains a majority of votes and if the majority of OPM editors agree upon it. We note however that in good faith, we will strive to make decisions by consensus, and therefore proposals should drafted in that spirit. We may even consider straw polls to gauge trends.

4. *Document editing*. The editor(s) will produce a revised version of the document and post it on the twiki.

5. *Final review*. Community will provide feedback on the document before its finalization.

Authorship. Document editor(s) will be identified as such in the authorship. Active participants at workshops, change proposal submitters, reviewers will become co-author of the revised document.

OPM Profiles Profiles, i.e. specializations of OPM, with specific focus or for specific application domains are encouraged. Authors should feel free to submit such profiles by posting them on the OPM twiki. To gain community endorsement, such profiles should go through the same revision process.

References

[1] Luc Moreau, Juliana Freire, Joe Futrelle, Robert E. McGrath, Jim Myers, and Patrick Paulson. The open provenance model (v1.00). Technical report, University of Southampton, December 2007.

[2] Luc Moreau (Editor), Beth Plale, Simon Miles, Carole Goble, Paolo Missier, Roger Barga, Yogesh Simmhan, Joe Futrelle, Robert McGrath, Jim Myers, Patrick Paulson, Shawn Bowers, Bertram Ludaescher, Natalia Kwasnikowska, Jan Van den Bussche, Tommy Ellkvist, Juliana Freire, and Paul Groth. The open provenance model (v1.01). Technical report, University of Southampton, July 2008.