

2010 Year-end Letter to Stakeholders

Open Source Research Group

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1. Year-end Summary

The Open Source Research (OSR) Group was founded in Sept 2009, so it has been 16 months since inception. We hope to be writing a year-end summary every year, available to anyone interested. FAU is the university, CS is the computer science department, "we" is the group, and "I" is Dirk Riehle.

- **Hiring:** During 2010 I succeeded in hiring three top-notch Ph.D. students; this fills the initial positions available to us. The three are actively working on their dissertations now. A first funding proposal for another Ph.D. student was submitted to the DFG during 2010, more are to follow.
- **Funding:** Following the initial outside funding (gifts) through Novell/SUSE and Red Hat, as facilitated by the OSBF, I was able to acquire sponsoring from BaCaTeC, Google, and the University, mostly for travel. 2011 will have to be the year of increased grant applications.
- **Research:** I published several papers in reputable journals, but those represent follow-up work from before the OSR Group was founded. You can find them on <http://dirkriehle.com>. First submissions of original OSR Group work to journals and conferences are now in the making.

More about research results can be found on our website or in the appended Mini Symposium proposal.

In addition, we performed the usual services on journal and conference committee review boards.

- **Teaching:** As a newcomer, the OSR Group has no predefined place in the FAU computer science curriculum. Thus we have to make do with existing generic slots, and we are specializing on lab courses ("Praktika"). Two classes stand out: The AMOS Project and Nailing your Thesis.
 - The AMOS Project is a semester-long lab course intended to teach students teamwork and industrial strength software development. No such class existed before. The 2010 AMOS Project developed Mydosis, the software and service for a Wikipedia of dosage information for pediatricians, filling an important need.

We were able to attract a highly competent group of student developers who developed the first Mydosis release, staying with the project even after the lab course finished. We are now seeking funding with the goal of creating a startup for Mydosis.

For an AMOS Project I actively seek industry partners and the 2011 AMOS Project is likely to work with public (governmental) open data, mobile devices, and web services.

- Nailing your Thesis is a semester-long hands-on lecture + exercises + self-study in which we lead students in performing research work and writing a computer science paper that will be submitted to a conference. No such "performing scientific work" class currently existed at FAU's CS department.

We are teaching as part of the Applied Software Engineering teaching and research alliance. It is noteworthy that during 2010 I brought in two additional industry lecturers as well as five industry guest speakers to help keep things real. I intend to build on this for the SS 2011.

More about teaching can be learned from our website or through the appended Mini Symposium proposal.

- **Press:** During the first few months after the OSR Group was officially established, we counted 13 press mentionings (before we stopped counting), involving noteworthy places like the Financial Times (Germany), the Handelsblatt, Nürnberger Nachrichten as well as a host of smaller more specialized outlets.
- **Industry:** During 2010 I presented 22 industry and general-interest talks (non-research-paper talks) for outreach purposes. One every second week! I have been actively consulting and am now in the process of engaging with two major industry organizations in the area for joint projects.
- **University:** I sit on a couple of internal committees; what's noteworthy is that I led the CS department's first effort after 10 years to nominate a FAU dissertation for the GI dissertation prize. The intent was to help FAU's CS department gain added research visibility. We intend to keep leading this effort.
- **Public service:** I joined the scientific expert advisory committee of one of Germany's political foundations for the Enquete Commission "Internet und Digitale Gesellschaft". I hope to bring our expertise to the table, in particular for the upcoming work topic "Wirtschaft und Arbeit" (business and labor).

These rather short snippets may not be able to convey the breadth and depth of what we are doing! So please don't hesitate to ask.

One way of making things more concrete is by looking at the agenda options for a possible Mini Symposium (or just selected talks) on the following page. We are happy to show-case our work to sponsors and interest parties, so please take us up on it. Student talks are subject to availability.

That said, for the Open Source Research Group at the Friedrich-Alexander University of Erlangen-Nürnberg¹, I'm wishing everyone a happy and successful 2011!

Dirk Riehle, 2011-01-02

¹ Officially, the English name uses "Nürnberg", not Nuremberg.

2. Mini Symposium Agenda Options

1 Software

1.1 Better Mailing Listsⁱ

Enhanced mailing list software that supports specialized open source collaboration practices to make software development more effective.

Presenter: Ke Chang

Status: Diplomarbeit, in work

1.2 Reengineering Wikitextⁱⁱ

Reports about a new Mediawiki parser intended to help fix what's broken in the Wikipedia infrastructure.

Shows what's possible with a structured representation.

Presenter: Hannes Dohrn

Status: Dissertation, in work

1.3 The Mydosis Open Data Portalⁱⁱⁱ

Reports about the 2010 AMOS Open Source Project, the Mydosis Wikipedia for dosage information for pediatricians.

Presenter: Markus Stipp

Status: Project, mature, on-going

2 Process

2.1 Using Open Source in Products^{iv}

Discusses open source governance best practices of closed source software firms using open source in their products.

Presenter: Martin Helmreich

Status: Diplomarbeit, mature

2.2 Firm-Internal Open Source^v

Describes how software firms can improve their processes by adopting open source best practices for internal software development.

Presenter: Dirk Riehle

Status: On-going research, mature

2.3 Firm-Internal Software Forges^{vi}

Reports about the benefits software firms are getting from using an internal software forge for open source practices. Examples: IBM, HP, SAP, others.

Presenter: Dirk Riehle

Status: On-going research, mature

2.4 Control Points and Steering Mechanisms^{vii}

Discusses how software firms that depend on open source steer and influence those projects to stay competitive and meet their performance goals.

Presenter: Dirk Riehle

Status: On-going research, mature

3 Economics

3.1 Economics of Open Source Foundations^{viii}

Shows the economics of open source foundations and why software firms are investing in them; why open source is sustainable.

Presenter: Dirk Riehle

Status: On-going research, mature

3.2 Functioning of Open Source Foundations^{ix}

Compares existing well-known and a few less well-known foundations and their rationale, governance, and operations models and practices.

Presenter: Sebastian Berscheider

Status: Bachelor-Arbeit, mature

3.3 Single-vendor Open Source^x

Shows how software development firms make money by "giving away" their software (dual-licensing, open core model); business model.

Presenter: Dirk Riehle

Status: On-going research, mature

3.4 SVOS Best Practices^{xi}

Choice of best practices presentations of single-vendor open source firms for:

- sales and marketing
- product management
- engineering and support
- community management

Presenter: Dirk Riehle

Status: On-going research, early

3.5 Software Developer Careers^{xii}

Discusses the benefits of being an open source software developer and the changes open source creates for the labor market.

Presenter: Dirk Riehle

Status: On-going research, mature

4 Research

4.1 Commit Size and Frequency^{xiii}

Reports about a detailed analysis of commit behavior (size and frequency) of developers and if/where tools fail them.

Presenter: Michel A. Salim

Status: Paper, mature

4.2 The Growth of Open Source^{xiv}

Presents current growth patterns and why open source promises to be a better software development paradigm than others.

Presenter: Carsten Kolassa

Status: Paper, mature

5 Teaching

5.1 The AMOS Project^{xv}

Presents the concepts behind a year-long software development project and lab course intended to teach students industrial strength software development.

Presenter: Dirk Riehle

Status: On-going

3. More Information

- i Better Mailing Lists
 - FAU internal link: http://www.studon.uni-erlangen.de/studon/repository.php?ref_id=171666&cmd=sendfile&rep_frame=1
- ii Reengineering Wikitext
 - <http://osr.cs.fau.de/2010/06/22/funding-for-research-project-reengineering-wikitext/>
- iii The Mydosis Open Data Portal
 - <http://osr.cs.fau.de/2010/11/12/mydosis-2010-amos-projekt-in-zwei-absatzen/>
 - Siehe <http://mydosis.de>
- iv Using Open Source in Products
 - FAU internal link: http://www.studon.uni-erlangen.de/studon/repository.php?ref_id=171667&cmd=sendfile&rep_frame=1
- v Firm-Internal Open Source
 - Talk 1.2 in <http://dirkriehle.com/wp-content/uploads/2009/05/2010-12-30-Dirk-Riehle-Stock-Talks.pdf>
- vi Firm-Internal Software Forges
 - See above.
- vii Control Points and Steering Mechanisms
 - <http://dirkriehle.com/publications/2010/control-points-and-steering-mechanisms-in-open-source-software-projects/>
- viii Economics of Open Source Foundations
 - <http://dirkriehle.com/publications/2010/the-economic-case-for-open-source-foundations/>
- ix Functioning of Open Source Foundations
 - FAU internal link: http://www.studon.uni-erlangen.de/studon/repository.php?ref_id=171665&cmd=sendfile&rep_frame=1
- x Single-vendor Open Source
 - <http://dirkriehle.com/publications/2009/the-commercial-open-source-business-model/>
- xi Single-vendor Open Source Best Practices
 - See above
- xii Software Developer Careers
 - <http://dirkriehle.com/2010/06/10/linux-tag-keynote-slides-a-new-developer-career/>
- xiii Commit Size and Frequency
 - Old version: <http://dirkriehle.com/2008/09/23/the-commit-size-distribution-of-open-source-software/>
 - Old version: <http://dirkriehle.com/2008/09/23/the-dominance-of-small-code-contributions/>
- xiv The Growth of Open Source
 - Old version: <http://dirkriehle.com/publications/2008/the-total-growth-of-open-source>
- xv The AMOS Project
 - <http://dirkriehle.com/2010/12/06/das-amos-projekt-konzept-2011/>