BOF Proposal: Sustainable eResearch Software Development

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DESCRIPTION

This BOF discussion is directed to those interested in eResearch projects and programs. The BOF session will be in the form of a panel to guide discussion on methods to create and sustain software eResearch development.

The BOF session aims to build upon and extend the collective experience of the presenters through facilitated audience discussion. The panel will be drawn from those active in eResearch projects and programs at the conference. The session will be of interest to researchers, developers, service providers, support staff and organisational leaders.

OUTLINE

If we dared to dream about our idea of a perfect piece of eResearch software, it would already exist, if not be developed quickly, work perfectly, have a large and expanding user base, be easy to develop further to suit the new generations of users and have a wide and diverse community of developers supporting it.

In this seminar we will discuss this dream and our realities. We'll talk about things that have worked well and things that have not worked well.

Amongst other things, we'll discuss these topics, via case studies from our collective experience:

- Producing software that costs less to sustain. What lessons have been learnt by developing software with an eye on sustainability?
- Producing software that can be adapted to new situations. How to broaden the client base of users/researchers?
- Creating and maintaining a development community around software: what works, what doesn't.
- How the Cloud changes what we've thought about software sustainability up to this point.
- Five stars of Software Sustainability, the start analogy for open source software projects.

Introduction/welcome: Brief background, introductions, outline the session.
5 minutes

Group discussion: Engage the audience in discussion across the identified issues in sequence, (as above).
50 minutes

Wrap-up: Where to from here?
5 minutes

ABOUT THE SPEAKERS

Steve Androulakis works at Monash University’s e-Research Centre and also Faculty of Medicine. He and A/Prof Ashley Buckle created the MyTardis project in 2008 for raw protein crystallography data and have helped it grow into a multi-institutional collaborative venture. Originally the project’s sole software developer for two years and over two iterations, Steve witnessed proposed MyTardis-based projects become the sudden
recipient of much funding. With several projects around Australia with separate goals applied to different scientific disciplines, the question became: how to help grow and steer MyTardis to avoid it becoming the "jack of all trades, master of none". As MyTardis’ designated "benevolent dictator", and with its continuing expansion into new areas and more than 15 software developers having contributed, Steve is still learning how to best capture the work of skillful contributors while ensuring the software’s utility into the future. He’s pretty sure the answer to software sustainability involves constant communication, open discussion of design philosophy, saying ‘no’ sometimes, pizza and Github.

Peter Sefton is the Manager, eResearch at the University of Western Sydney. Before that he ran the Software Research and development Laboratory at the Australian Digital Futures Institute at the University of Southern Queensland. Following a PhD in computational linguistics in the mid nineties he has gained extensive experience in the higher education sector in leading the development of IT and business systems to support both learning and research. While at USQ, Peter was involved in the development of institutional repository infrastructure in Australia via the federally funded RUBRIC ([http://rubric.edu.au/](http://rubric.edu.au/)) project and was a senior advisor the the CAIRSS repository support service ([http://cairss.caul.edu.au/cairss/](http://cairss.caul.edu.au/cairss/)) from 2009 to 2011. He oversaw the creation of one of the core pieces of research data management infrastructure to be funded by the Australian National Data Service consulting widely with libraries, IT, research offices and eResearch departments at a variety of institutions in the process. The resulting Open Source research data catalogue application ReDBOX is now being widely deployed at Australian universities. His research interests include repositories, digital libraries, and the use of The Web in scholarly communication.

Rodney Harrison has 17 years experience as a development manager involved in the conception and development of software products across a wide spectrum of industries. His experience in growing organisations, delivering projects and developing engineering professionals ranges across the private sector including 15 years with Avaya, most recently as a Technical Manager in their Australian R&D team. Rodney is Intersect Australia’s Engineering Manager and has overall responsibility for the Project Management Office, including managing the day-to-day operational aspects of projects and supervising software engineering teams. In the financial year ending 30 Jun 2011 18 projects were completed at a cost in excess of $2.5m. The focus of these projects covered eResearch across domains including health and medical research, environment, humanities and social science, data and metadata management. Rodney has a Bachelor of Science from the University of New South Wales.

David F. Flanders currently works for the Australian National Data Service as the lead for ‘software assessment’. David has previously worked in the UK for the like of The JISC (as a technical lead), an project manager for the University of London and a database administrator at the British Library. All of which have had the common meme of ‘software sustainability’ underlying their shaky foundations. David feels that this topic of software sustainability is once again ‘hot’ as the Cloud offers new way to maintain software as part of a National infrastructure whereby projects can continue to exist for controlled period of time, but their products in the form of software can be sustained ‘Beyond the Life Of the Project’ (BLOP). David also sits as an review panel member of the UK’s Software Sustainability journal as run by the Software Sustainability Institute.

Steve Bennett has worked in eResearch for four years, from the ARCHER project, Monash eResearch Centre, at the Australian National Data Service, and now is now a software engineer and project manager at the Victorian e-Research Strategic Initiative. With a background in software engineering, he has helped establish data management projects in electron microscopy, neuroimaging, screen media, historical linguistics, and high performance computing. In particular, he has been involved in several instances of the MyTardis data management platform, playing a role in its promotion and strategic development. He has a keen interest in sustainable software development, rapid development, open source code and data, and low-cost solutions to long-tail, small data problems.