Building training into the value proposition of eResearch

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ABSTRACT

Advances in technology have accelerated the rate of research outputs. In spite of this, the capacity of research organisations to build and maintain the eResearch infrastructure required to enable researchers to maximise benefits from emerging technologies continues to lag behind the pace of innovation. The importance of the human e-Enabling component of this research infrastructure is well acknowledged and valued [1], [2], [3], yet institutions continue to struggle to build sustainable programs of eEnablers across their research communities. A number of regional, national, and domain specific programs have emerged to complement and supplement support at the institutional level. This aligns with global trends in eResearch/eScience/Cyberinfrastructure support, with programs in the United Kingdom, United States of America and the European Union identifying the importance of building the eEnabling workforce to close the gap between innovation and implementation [4], [5], [6]. Recognition of education and training is core to these programs [5], [6].

The Victorian eResearch Strategic Initiative (VeRSI) was established in 2006 and funded by the Victorian Government to accelerate and coordinate the uptake of eResearch in universities, government departments and other research organisations. VeRSI is an Unincorporated Joint Venture established through a Consortium agreement between the University of Melbourne, Monash University, La Trobe University, the Victorian Government Department of Primary Industries (DPI) and the Australian Synchrotron. In July 2010, VeRSI was extended to include partnerships with Deakin University, RMIT University, Swinburne University of Technology, the University of Ballarat and Victoria University. Together, VeRSI and Partners are delivering embedded technologies and adaptable models that foster multi-disciplinary collaboration, lower barriers, and encourage the development of cross-institutional services and platforms. The Partners benefit directly from their involvement as early adopters of eResearch, while also aiding in the development of an enhanced state-wide research environment.

In 2010, the VeRSI team commenced a review of the role that education, training and outreach (virtual and face-to-face) could play in the enhancement of eResearch outcomes. An initial scan of the eResearch ‘training & outreach’ landscape identified a number of groups offering outreach support, resources and training. Some of these groups are specialist teams with a specific eResearch domain or technology brief to meet, e.g. Australian Synchrotron and Victorian Life Sciences Computation Initiative (VLSCI): both of which focus on high-end instruments or computation. Interestingly, few surveyed appear to have a mapped out program of training specified. For VeRSI, outreach and training provision has been mostly opportunistic, usually coinciding with a visit from an international expert or a large regional/national meeting opportunity. This approach has been well received to date, but it is unclear if the impact would be greater with a more targeted implementation strategy. To this end VeRSI has embarked on two new activities in 2011-2012:

- Investigating the feasibility of embedding training and outreach into the project planning and delivery cycle, i.e. a greater coupling between training, outreach, communication planning and project delivery.
- Using a Victorian survey of researcher needs in research data management support and services to expand the VeRSI training and outreach program.

The focus of this paper is on the first activity; the goal of which is to investigate how readily a process template could be developed and implemented for a number of research and development projects undertaken with VeRSI Partners.

Embedding training and communications in project planning and delivery is not new in large-scale transformational technology based projects [7], [8]. eResearch enabling projects generally focus on ‘innovators’ and ‘early adopters’. The Rogers Adoption/Innovation Curve [9] suggests that this user group generally represents about 16% of potential users of a new technology. Our proposition is that for eResearch enabling projects this may be even lower. As with research more broadly, eResearch project delivery is usually highly variable, and depending on the project, the partner requirements and the deliverables in a project, is not always clearly articulated. Leveraging project success for expanded impact could support benefits beyond the life of the project [7]. VeRSI is looking at ways to build in ongoing Partner benefits beyond the life of a project by including outreach and training into the project delivery process. This shift from emphasis on ‘product creation’ to ‘value creation’ as the prime focus of project outcomes has been identified as a direction change in project management [8]. Value creation is supported with education, training, and outreach and will be used to enhance the positioning of products and services both within and across Partner institutions. Working with Partners to communicate the value propositions of new technology from the perspective of actual and potential users should enhance uptake of that technology and support business ownership by sustaining the change required to shift the balance in eResearch uptake.

In this paper we will provide examples of how these activities are evolving and what we are learning along the way as we take eResearch uptake to the eXtreme.
REFERENCES

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ABOUT THE AUTHORS

Anna Shadbolt is currently working as a training consultant with the VeRSI team to develop a plan to support a coordinated eResearch training program for Partners and other stakeholders in Victoria. This will include a number of targeted workshops and the mapping of existing eResearch training programs and resources, as well as documenting unmet training needs and requirements of research communities where possible. Anna has had extensive experience in the development and evaluation of training programs in a variety of contexts. Originally trained as an educational psychologist Anna’s interest in eResearch began when she managed an APSR funded project auditing the sustainability of data management practices used by a number of data intensive research communities at The University of Melbourne. Anna’s special interest is in research information and data management policy and support infrastructure and works closely with the Melbourne Research to develop, review and audit research data management policy and code compliance. Anna is Manager, Information Management Services at The University of Melbourne and managing Melbourne’s Seeding the Commons (ANDS) project.

Dr. Ann Borda has held strategic and operational roles in academic and research organizations for over 10 years. Ann is currently Executive Director of the Victorian eResearch Strategic Initiative (VeRSI) which is an Australian State Government funded Program to provide a coordinated approach to accelerating the uptake of eResearch by researchers in the state of Victoria and nationally. Previously, Ann held the position of eResearch Programme Manager with the Joint Information Systems Committee (JISC – www.jisc.ac.uk) based at King’s College, London, at which time she was responsible for the quality delivery of multi-million government-funded projects in developing a UK wide e-Infrastructure to support research, and in facilitating community engagement and broader take-up of e-Science tools, services and resources. Concurrently, she is Associate Professor & Honorary Principal Fellow with the Department of Computer Science & Software Engineering at The University of Melbourne.