Session Overview

- Setting the context
- Evidence of impact
- Evidence in research programs
- Approaches for delivery – project plans, staff transitioning
Value propositions

- Stay/Get ahead of the game
- Return on investment
- Increased efficiencies
- Reduce risks
- Customise to individual requirements
- Be more responsive to changing environment
- Broad value statements – e.g. common good

Isn’t eResearch about Innovation?

Innovators are risk-takers.
Does this align with researcher behaviour?

- Innovators: 2.5%
- Early adopters: 13.5%
- Early majority: 34%
- Late majority: 34%
- Laggards: 16%
Conventional Training

- Organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill.

What is the essence of education & training in eResearch

- Elusive, tacit
- Complex in definition and facilitation
- Eclectic array of experiences
- Diversity of learners
- ‘Readiness’ ignition point needed
- In the present and grounded in practice
- Creating & transferring knowledge
- Integration of awareness, outreach, building skill and community
The essence of education & training in eResearch

Outreach, Awareness, Knowledge Transfer, Training

Initiatives outside Australia

- National Science Foundation (USA)
  - Cyberinfrastructure CI-TEAM – Training, Education, Advancement, and Mentoring
- CORDIS (EU)
  - People Program including Marie Curie Initial Training Networks
- Digital Curation Centre (UK)
  - Research Data curation and management
- Digital Humanities Summer Institute (Canada)
  - Intensive programs aimed at scholars
- Software Carpentry (online)
  - “Helping scientists make better software since 1997”
Specialist Facility based programs – Australia

eResearch Facility based – teach the skills that are needed to get the most from the infrastructure
  ◦ Australian Synchrotron
  ◦ MASSIVE / VPAC
  ◦ BIOGRID Australia
  ◦ VLSCI – Life Sciences Computation

Integration with formal study

Integration of eResearch within formal training of researchers as early as possible is a logical and desirable goal. Two examples include:

› Undergraduate research placement – UROP. Bio21 Cluster, VLSCI, CSL & Vic Gov
› Monash University Info Tech undergraduate program – MURPA integrating an overseas research Summer placement with in-term seminar series
› eScience as a formal Professional Skills graduate subject in Masters Program – The University of Melbourne
**Victorian eResearch Strategic Initiative - VeRSI**

**Mission:** To provide a coordinated and accelerated approach to the uptake of eResearch by Victorian researchers.

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<tr>
<th>Capability Projects</th>
<th>Outreach, Awareness</th>
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<tbody>
<tr>
<td><em>exemplar development of eResearch capability within research projects and groups</em></td>
<td><em>promoting and accelerating eResearch uptake through the exemplars, forums and networks</em></td>
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<tr>
<th>Infrastructure R&amp;D</th>
<th>Advice and Consultation</th>
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<td><em>Building infrastructure and services to support capability projects and consortium members</em></td>
<td><em>Requirements gathering, ICT planning &amp; eResearch upskilling.</em></td>
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<th>Knowledge Transfer</th>
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<td><em>research into collaboration, research practice, infrastructure and the investigation of emerging ICT</em></td>
<td><em>building on project outputs, leveraging development for new communities, and knowledge exchanges</em></td>
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**Building eResearch capability by partnering**

- National infrastructure bids (e.g. NeCTAR, RDSI)
  - Facilitators
  - Proposals
  - Delivery
- Funded projects in partner institutions
  - Project plans highlight skills transfer through training, workshops, documentation and handover
  - Standards based approaches for community sustainability
  - Forums, networks, resources
Stakeholder Analysis

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<th>Stakeholder</th>
<th>Stake in the Project</th>
<th>Importance</th>
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<tr>
<td>Principal investigator</td>
<td>Project custodian and project leader committed to the project and has a direct interest in its outputs</td>
<td>Very High</td>
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<tr>
<td>eResearch Centre or equivalent</td>
<td>Coordinators, facilitators for eResearch capability adoption – the project maybe adding value and/or building on identified and strategic institutional priorities</td>
<td>Very High</td>
</tr>
<tr>
<td>Research community</td>
<td>Early adopters - May use or adopt the new capability at community and local levels.</td>
<td>High</td>
</tr>
<tr>
<td>State government</td>
<td>The project is potentially building a use case which will impact on and/or inform recommendations around further investment and directions</td>
<td>High</td>
</tr>
<tr>
<td>VeRSI</td>
<td>eResearch capability providers – the project enhances, builds and/or leverages partner capabilities and collaborations</td>
<td>Very High</td>
</tr>
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Knowledge Transfer

- As part of this undertaking, VeRSI will support a handover to partners of any software deliverables and related documentation within the timeframe of the project engagement.
- A handover will encompass group training and/or a community workshop around applications.
- VeRSI will also engage with the project partners on reviewing broader potential applications of the deliverables within the partner institution(s). The latter may be facilitated by a networking event and/or showcase.
Lessons so far...

- Small groups – practical workshops – short sessions – highly participative and situation/solution–based – focused on real–world issues in researchers’ workplace, in eResearch infrastructure, policy etc

- **Facilitative rather than prescriptive (mentoring approach)**

- Learning a better way to think of eResearch training, i.e. learning 'belongs' to the learner, rather than the organisation

- Can be independent learning (through web, tacit means) as well as organised learning

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Call to action

- A variety of models
- Multivariate approaches are responsive
- Knowledge transfer supported through project delivery and maintenance
- Specialised ‘institutes' evolve out of the innovations that hit the mark – run by practitioners
More information

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