All Aboard, Destination: Seamless

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Into the future

It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to management than the creation of a new system.

For the initiator has the enmity of all who would profit by the preservation of the old institution and merely lukewarm defenders in those who gain by the new ones.

Nicolo Machiavelli
Putting the pieces together - Converging Agendas

Converging Agendas

Network

High Performance Computing Capability
  National Computational Infrastructure

Data Management
  PMSEIC Data for Science Working Group
  Accessibility Framework
  Research Quality Framework
  Australian National Data Service
  Interoperation and Collaboration Infrastructure

Access & Security
  Australian Access Federation

Coordination & Collaboration
  e-Research Coordinating Committee
  NCRIS Platforms for Collaboration
Coordination and Collaboration

- e-Research Coordinating Committee
- National Collaborative Research Infrastructure Strategy-Platforms for Collaboration

e-Research Coordinating Committee

- Recommendations included:
  - the need for leadership to drive cultural change;
  - fostering engagement, participation and cooperation;
  - data management and accessible databases;
  - coordination; and
  - the development of capability and skills for e-Research.
- Ministers noted the findings and recommendations
- The key findings and recommendations have been integrated in the Platforms for Collaboration Investment Plan
NCRIS Platforms for Collaboration

- Collaborative, cooperative and coordinated approach to managing future data and e-Research infrastructure needs
- Building on Systemic Infrastructure Initiative (SII) investments – moving from research and development to deployment and production

Network

- The Australian Research and Education Network (AREN)
- A new AARNet Charging Model
- The Australian Education Digital Network (AEDN)
High Performance Computing Capability

• National Computational Infrastructure (NCI)
  – National Facility
  – Specialised Facilities
  – Computational Tools and Techniques

Interoperation and Collaboration Infrastructure (ICI)

• Provides researchers with seamless access to digital repositories, scientific instruments, virtual environments, on-line collaborative interaction and resource sharing;
• Expands facilities, services and user base developed by the grid program of the Australian Partnership for Advanced Computing (APAC);
• Offers open access to the ICI infrastructure to all researchers undertaking research across NCRIS capabilities as well as researchers accessing other affiliated resources; and
• Operates collaboratively with the other components of the NCRIS Platforms for Collaboration capability.
Data

• "We are drowning in information but starved for knowledge. The trick is to filter out correct knowledge; to pull useful information from the endless sea of computerised data."

• "Intuition becomes increasingly valuable in the new information society precisely because there is so much data."

John Naisbitt, Megatrends 1982

Data

"Getting information off the Internet is like taking a drink from a fire hydrant."

Mitchell Kapor

"If you torture data sufficiently, it will confess to almost anything."

Fred Menger
PMSEIC Data for Science Working Group

- Reported to PMSEIC in December 2006
- Suggested a cooperative, Whole of Government approach
- Key recommendations included:
  - National strategic framework for scientific data
  - National network of data repositories
  - Improve sharing and collaboration
  - Increase skilled workforce for best practice in data management

Accessibility Framework

- The Research Quality and Accessibility Frameworks were announced together as part of Backing Australia’s Ability in 2004.

- The Accessibility Framework is all about ensuring that publicly funded research is accessible by the public, by government, by business.

- It includes elements of:
  - Technology;
  - Policy;
  - Regulatory framework; and
  - Innovative approaches to solving problems of access to data/ research.
Research Quality Framework (RQF)

- Funding from the Systemic Infrastructure Initiative (SII) has supported the development and deployment of digital repository technology eg. ARROW, APSR, RUBRIC.
- The Australian Scheme for Higher Education Repositories (ASHER) will provide $25.5 million for
  - purchase of hardware and software to establish or update a repository, and
  - support to meet the workload involved with populating the institution’s repository
  in order to make research outputs available for RQF assessment.

Australian National Data Service (ANDS)

- A workshop was held on 29 May 2007 focusing on:
  - what services ANDS will offer; and
  - governance model and implementation issues.
- Next step:
  - a small working group to be formed to advise on how to proceed in implementing the workshop outcomes.
Australian Access Federation

- The Minister approved $4.8 million to establish the Australian Access Federation (AAF).
- The AAF:
  - aims to provide a national authentication and authorisation framework for higher education and research;
  - will play a critical role in ensuring seamless access to research infrastructure and research outputs;
  - builds on SII investments; and
  - will also be developed so that it can be extended to the schools and vocational education and training sectors over time.

Where is it all leading? The Future

- Research infrastructure and data should be accessible:
  - to a range of users – research community, government, states and territories; and
  - under controlled, authenticated but simple access regimes.
- Access should be independent of location – network infrastructure should therefore be robust and reliable.
- Data should be discoverable, accessible, managed and long-lived.
- The effect of the investments by governments and research communities in research and education should be maximised.
If the world should blow itself up, the last audible voice would be that of an expert saying it can’t be done.

Peter Ustinov