Anne-Marie Lansdown: All aboard, destination: Seamless

**Abstract**

A key enabler for e-Research in Australia is to give researchers seamless access to resources, including each other. Significant investments have been made, and are continuing to be made, in supplying the above resources. Convergence, a key driver of current developments in telecommunications, media and information technology industries, has brought about the rapid evolution of digital, information and communications technologies and has created an environment in which the paradigms of research have changed.

Convergence is not just about the technology evolution. It is about services and about new ways of doing business and of interacting with society. It has created growing demand by researchers for services including seamless access to data held in universities, publicly funded research agencies, government agencies and industry; access to data generated by scientific facilities and access to computational capability. The emergence of new services and the development of existing services are expected to provide researchers with more opportunities. They may want access from anywhere anytime to any service, independently of the technology used, or the geographical point of such access within a trusted environment.

At the same time the evolution of the capability and sophistication of scientific instruments and facilities has seen an explosion in the quantum of data produced by experimentation, and the complexity of analyses conducted through data sharing. Globalisation amplifies the international dimension of convergence. The global reach of the Internet has already shown a need for international solutions to a number of key issues such as security, intellectual property rights, privacy and interoperability.

The effective re-use of research data on a national basis is the primary goal of the government and institutional investments into national data infrastructure. The investments will deliver access services; and outreach services for researchers and institutions that can enhance the effective use of data within a federated research data management system. The outcome will be the ability for all researchers to identify, locate, access and analyse any available research data, regardless of origin or scale, to interface with the outside world, within trusted environments for example the Australian Access Federation.

The key facilitators for this are adequate physical resources, middleware, access to data including data collection and generation; data storage and the physical management of stored data; the evolution of standards to enable data to be used and interpreted; and access regimes to permit data to be accessible.
The Australian Government, in partnership with research communities, state governments and key research agencies, is working towards coordinating the advancement of Australia’s national e-Research capabilities. The timely development of these capabilities, in an increasingly competitive international environment, will entail the careful coordination and bringing together of distributed initiatives and projects already undertaken by research communities, many institutions and jurisdictions.

e-Research capabilities will also underpin the implementation of the Australian Government’s Research Quality Framework (RQF). A key enabler of the RQF will be the Accessibility Framework, which will set out the principles governing the need for improved access to the outcomes and outputs of publicly-funded research. Ongoing work through the NCRIS Platforms for Collaboration capability will determine the strategic and balanced investments in system-wide infrastructure and ICT enabled services to support Australian researchers.

Only by a concerted, strongly-directed, intervention-based strategy and national cooperation will the critical mass be achieved to more fully enable Australian researchers with e-Research capabilities. By combining our resources, we will enhance the chances and opportunities for our researchers in the years to come.

**About the speaker**

Anne-Marie Lansdown is the Branch Manager, Innovation and Research Branch, Innovation and Research Systems Group, Australian Government Department of Education, Science and Training (DEST). In this role, she has responsibility for the National Collaborative Research Infrastructure Strategy (NCRIS), the Australian Research and Education Network (AREN), the Australian Information Infrastructure Committee (ARIIC) and the Australian ICT in Education Committee (AICTEC). She also has carriage of the e-Research Coordinating Committee.

Anne-Marie was General Manager responsible for Broadband issues in the National Office for the Information Economy and then the Australian Government Department of Communications, Information Technology and the Arts (DCITA). She has significant experience in a range of science and technology policy roles. Prior to her work on broadband, she managed the Office of the Chief Scientist and the team responsible for the Innovation Summit that led to the first Backing Australia’s Ability package.