Research Data Management at the EPA
Summary of Findings

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Environmental science researchers are now using and generating ever-increasing volumes of data and information about our natural world. It is estimated that EPA's STRIVE (Science, Technology, Research and Innovation for the Environment) research funding programme will involve more than 1,000 researchers and company-based scientists over its seven-year lifetime" (Ahlstrom, 2007).

Background

The EPA's Environmental Research Centre (ERC) expects that large volumes of environmental data and information will be generated by projects funded by STRIVE. One of the key objectives of the STRIVE programme is to make the outcomes and data from this research available in a coherent and timely manner which will ensure synergies across the wider research agenda and early availability of these outputs into the formulation of policy"

The key step in harnessing the potential of environmental research data is capturing it quickly after it has been collected or generated. There is a risk that the reuse value of the data will be greatly reduced if a significant amount of time passes after the conclusion of the project. Every project funded under the STRIVE programme is obliged to submit all significant datasets and information generated during the project to the EPA at the conclusion of their research project (STRIVE, 2008). To support researchers in meeting this requirement the EPA have developed a large-scale computer system named the ERC Server for the upload, storage, management, dissemination, and long-term preservation of these data resources.

One of the key deliverables of this fellowship was the establishment of a software-based data management system for use by the environmental research community. The SAFER-Data system (http://erc.epa.ie/safer) was developed. SAFER-Data is a fully web-based interface to the ERC Server for use by STRIVE funded researchers and the environmental science community to upload and manage data resources generated during their research. SAFER-Data is also the principal point on the EPA website for the dissemination of environmental research data generated by STRIVE funded research projects.

Key Points

SAFER-Data provides a one stop shop for any stakeholder looking to access data resources generated by EPA funded research projects.

SAFER-Data is more than just a web-based system. Rather it is the realisation of the research data management vision of the EPA and the STRIVE programme.

SAFER-Data emphasises the philosophy of open and barrier free access to environmental research data to any stakeholder.

Concluding Remarks

In comparison to other similar systems (PortalU in Germany, CESIN in the United States, UK Data Archive, etc) the ERC Server and SAFER-Data are small systems. All of these systems operate in much larger countries and often with a wider thematic remit than SAFER-Data. However, the ERC Server and SAFER-Data should continue to be developed and managed with the goal of national, European, and international recognition in mind.

The STRIVE programme will significantly enlarge both the environmental science research community in Ireland and the volume of data and information generated by environmental research.

In continuing to change the mindsets of researchers towards a more open and coherent data sharing culture in environmental research in Ireland the ERC and SAFER-Data will have brought about very significant and long-lasting progress. Advances in web technologies (Web 2.0 and eventually Web 3.0) must be embraced along with the advances in mobile device access to Internet services and data. As the public expectation about data access changes and the public's usage of Internet technologies increases the ERC and SAFER-Data must keep pace with these changes. Data management services for the research community and data access services for the public and other stakeholders must be provided using the technologies that these user groups are using on a daily basis.

For Further Information

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