

Grey Literature, institutional repositories, and the organisational context

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Abstract

A wide variety of grey literature is produced during the work carried out at a large multidisciplinary scientific research organisation. This paper examines how the grey literature may be managed and the benefits that result. Trends in Technical Reports, which have always been an important medium for transmission of knowledge, are examined, and the use of an institutional repository is advocated for the future of the medium. Other kinds of grey literature produced in research projects are also described, and again the institutional repository is seen as an important mechanism for preserving and making accessible the knowledge they embody, particularly if it is coupled with other information systems in the organisation.

1. Introduction

CCLRC, the Council for the Central Laboratory of the Research Councils, is one of Europe's largest multidisciplinary research organisations supporting scientists and engineers world-wide. As well as participating in setting the priorities for the UK's science needs, it operates three research laboratories: the Chilbolton Observatory in Hampshire, the Daresbury Laboratory (DL) in Cheshire and the Rutherford Appleton Laboratory (RAL) in Oxfordshire, and employs 1800 people. These laboratories offer facilities and expertise including ISIS, the world's most powerful pulsed neutron source; high-power lasers; space science technology including satellite and ground-based instrumentation; and information technology.

The operation and development of CCLRC's facilities—which set the organisation apart from most universities—require a high level of specialised knowledge and expertise that has been built up over many years. Additionally, research is conducted by members of staff and users of the facilities. Collaborative projects are undertaken, sometimes of a very large scale: for example, the Space Science and Technology Department was strongly involved in the Mars Express and Venus Express planetary missions. In information technology, there is a history of many years of international collaboration in European research and development projects, involving partners (companies, research institutes and universities) in many countries and producing software, standards and academic publications.

It can be seen that CCLRC is a knowledge-intensive organisation with some special attributes and requirements. Grey literature, as well as literature for publication, plays a key role in its business, and this paper will study that role, link it to the context in which the business is conducted, and highlight the importance of CCLRC's institutional repository in supporting it.

2. Technical reports as grey literature

CCLRC and its predecessors have produced Technical Reports since the organisation was founded. These are formally published by the organisation and are deposited, according to UK law, with the National Deposit Libraries. The format was designed to capture the pre-refereed version of journal articles or to capture technical details for posterity and dissemination. The first point was especially relevant for particle physicists, as rapid dissemination of information was, and still is, important to advance the boundaries of the field. The second is a recognition that not all the knowledge gained from the scientific process is suitable for publishing in the scientific journal record but is still valuable. As one of CCLRC's main roles is the building and maintenance of large-scale scientific facilities, the organisation has detailed technical knowledge in very specialised fields. Building these facilities does not happen very often, but for example information contained in technical reports for the Neutron Spallation Source (ISIS) are being used twenty years later to aid the construction of a Second Target Station.

However both these roles have been affected by the changes in information dissemination that have occurred with the rise of the Internet. Pre-refereed paper versions have been completely overtaken by e-print repositories (such as arXiv¹) and the print form is now redundant. Furthermore, the internal processes for producing technical reports have been a barrier in this electronic age and the format has been in decline. Figure 1 shows the trends in the production of formal reports over a ten-year timespan.