

Managing Digital Cultural Heritage Resources: From Digital Creation to Digital Curation

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This article is published in *Information Scotland*, the Journal of the Chartered Institute of Library and Information Professionals in Scotland, ISSN 1743-5471, Vol 4(5) (October 2006)

Abstract

This article summarises a presentation given on behalf of LOCSCOT to the 'Google or Bust: Challenging the Profession' CILIPS day event in Dundee on 27 September 2006. The presentation explored certain issues faced by regional and local libraries regarding management, collection and preservation of digital cultural heritage resources i.e. websites and e-journals. (See DCC and UKOLN websites for full presentation.)

Introduction

The availability and growing use of digital information and services online has occasioned increasing expectations of digital services from cultural heritage institutions. This pertains not only for national institutions but also smaller bodies such as regional and local libraries. Many of these have already embraced the initial challenge of providing basic administrative and collection information online. Yet the provision of digital library *objects* online takes the digital library challenge to another level: objects and content must not only be collected or created, but also properly managed, stored, and preserved in order to maximise the initial investment and ensure the objects remain available for users for as long as is deemed necessary. 'Digital Curation' offers an approach based on complete life-cycle management to tackle these many challenges in a consistent, forward-planning, and ongoing process.

What is Digital Curation?

As the term 'curation' has only recently begun to be applied to digital materials, one ought to first take a moment to explain what we mean by 'digital curation'. Digital Curation, broadly interpreted, is about maintaining and adding value to a trusted body of digital information for both current and future use: in other words, it is the active management and appraisal of data over its entire life cycle. The life cycle approach is necessary because:

- Digital materials are fragile and susceptible to change from technological advances throughout their life cycle, i.e. from creation onwards;
- Activities (or lack of) at each stage in the life cycle directly influence our ability to manage

and preserve digital materials in subsequent stages;

- Reliable re-use of digital materials is only possible if materials are curated in such a way that their authenticity and integrity are retained.

Approaching digital information management from a life cycle perspective facilitates continuity of service and enables provenance to be verified despite technological and organisational contextual change. By taking control from the outset in the life of the digital materials, it also helps to maximise the initial investment made in creating or gathering the digital resources.

In the UK, research and development into digital curation requirements and activities are the core activities of the [Digital Curation Centre](#) (DCC).¹ Founded to support UK institutions which store, manage and preserve digital information, the DCC helps them address the enhancement and continuing availability of digital information for long-term use. As a centre of expertise in digital curation and associated digital preservation, the DCC provides a national focus for research and development into curation issues and promotes expertise and good practice, both nationally and internationally, for the management of digital outputs. More information about the DCC and its resources is available from the DCC website.

Issues in developing a digital library collection

Digital libraries can hold an array of digital information types, from relatively straightforward images and textual documents to more complex audio-visual material and websites. These may be digitised from an existing analogue original source, or 'born-digital'. Whatever the nature of the collection item, it should always be accompanied by metadata that describes the resource, helps to manage and preserve it, and facilitates its re-use. Both collection items and metadata need to be properly managed across the entire life cycle.

This is not a simple task; nor merely a technical one. Whilst certain aspects are certainly technical, others are cultural and organisational, whilst others are of a legal or financial nature. Insufficient space prevents their coverage in detail here, but they include, for example:

- Organisational and cultural infrastructure may not be geared towards digital longevity: resources are often created for the here and now, but such practices can be incompatible with the sustainability of authentic resources. Addressing this issue requires not just the proper technical storage infrastructure, but also education, training, managerial support, and dedicated funding;
- Curation and preservation is an ongoing commitment, but what of funding? What are the cost benefits in proper management of digital information? Is there a business model, and what are the options for revenue generation?
- The copying and provision of information online must comply with legal requirements, including Intellectual Property legislation and the Data Protection Act. Which legislation affects the creation of digital surrogates, and how? What solutions would support legal compliance whilst still providing access to the materials in digital form?
- What tools are available to ease the processes of harvesting, acquisition, ingest, indexing, and preservation? Which storage mechanism is most suitable, what metadata are needed, and how can the threat of technological obsolescence be addressed?

The DCC website contains links to many resources that can assist in addressing these challenges.

¹ The DCC is jointly funded by the Joint Information Systems Committee (JISC) and the e-Science core programme

Furthermore, many National Libraries have undertaken initiatives for preservation and accessibility that local and regional libraries can draw upon. In addition to these, a number of current projects and initiatives, such as the [International Internet Preservation Consortium](#) (IIPC), the [Internet Archive](#), the [UK Web Archiving Consortium](#) (UKWAC), and the [LOCKSS Project](#) (Lots of Copies Keeps Stuff Safe), can also offer useful insight into the challenges and solutions for developing and managing digital collections.