

**BRITISH
LIBRARY**

JISC
The Joint Information Systems Committee

LIFE CYCLE MODELING, THE BACKGROUND

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British Library/JISC

LIFE conference April 2006

OVERVIEW

- History of Lifecycle approaches
- Approaches at AHDS and JISC
- Impact and take-up
- (selectively) utilises *LIFE Research Review* by James Watson Nov 2005 (with some additions)

EARLY HISTORY

- **Terotechnology Handbook 1978**
 - The report advocates the life cycle costing approach and provides case studies on a selection of physical assets, including: a GLC Office Block, the National Bus Company and Rank Xerox.
- **The life cycle stages of physical assets are defined by the report as:**
 - Acquisition (of physical assets)
 - The operational life (of physical assets)

EARLY HISTORY

- LIFE Review was cast wider with research into the broader context of the concept of “life cycles” including:
 - Construction (Building and Maintenance) Life Cycle
 - Cost Analysis
 - Cost Design
 - Cost Impact
 - Family Life Cycle
 - Information (Resources) Life Cycle
 - Information System Life Cycle
 - Information Technology Life Cycle
 - Organisational Life Cycle
 - Plant Life Cycle
 - Records Life Cycle
 - Software Development Life Cycle
 - Waste Management Life Cycle

LIBRARY LIFE CYCLE COLLECTION MODELS

- **Andy Stephens 1988**
 - The application of life cycle costing techniques to library collections began with Andy Stephens of the British Library.
 - He introduces the formula for working out the total cost of keeping an item in a library throughout its life from acquisition.
 - The system is discussed and advocated, but, in this early study, no figures are applied.
- **Andy Stephens 1994**
 - uses practical case studies to input data into his model

LIBRARY LIFE CYCLE COLLECTION MODELS

- **Hernon (1994)**
 - early discussion of the “information life cycle” in the context of managing US governmental information.
- provides specific, generic stages, namely:
 - Information Creation and Gathering
 - Production, Processing and Publication
 - Transmittal (Access, Dissemination and Distribution)
 - Retrieval and use
 - Retention (Storage and Archiving) and Disposition
- **Models item rather than organisational life-cycle**

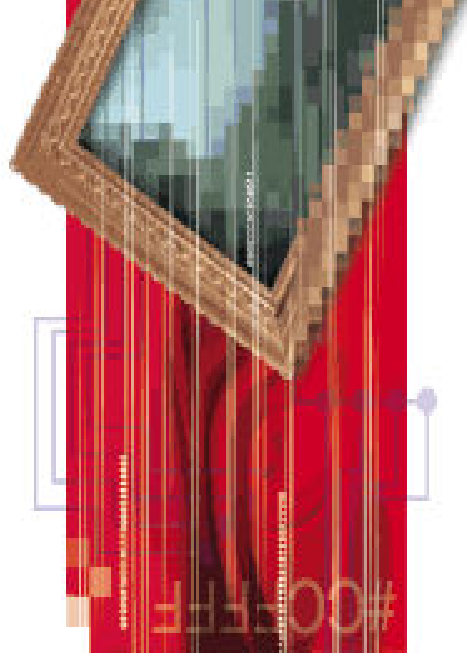
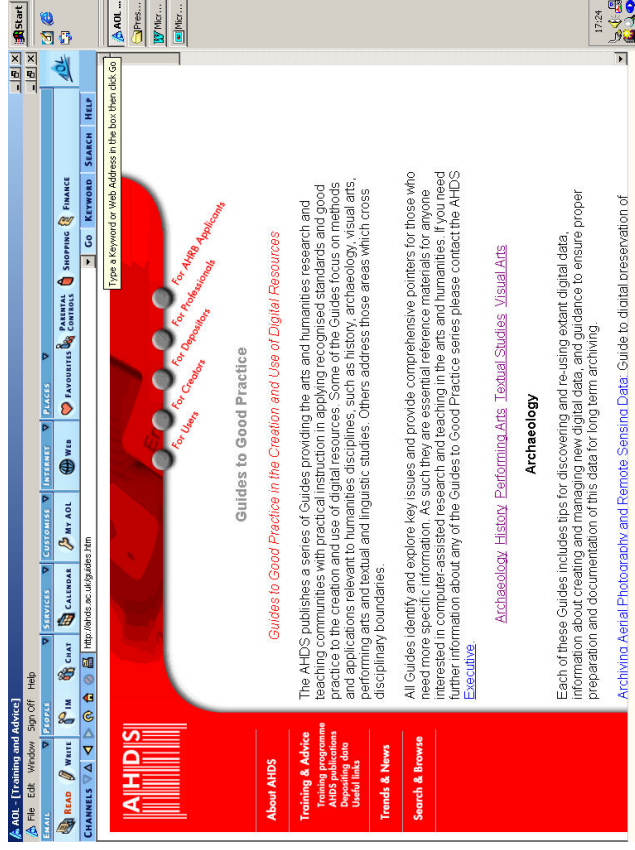
ARTS AND HUMANITIES DATA SERVICE

- Established late 1996-distributed service to promote creation, archiving and re-use of digital research
- I joined AHDS January 2007 to develop common collection development /rights/funders
- integrating support for creation, archiving, and use fundamental to ethos and policy of service
- Basic digital item life cycle approach in first collection policy



AHDS Guides to Good Practice

pro-active partnership with researchers
 promotes creation of good digital resources
 10 guides online <http://ahds.ac.uk/> and
 Oxbow books for print editions



ARTS AND HUMANITIES RESEARCH BOARD ICT POLICY

- **AHRB/AHDS strategic partnership - AHDS role:**
 - advise the AHRB on matters involving ICT in the arts and humanities
 - **advise the AHRB in the technical assessment of grant applications**
 - **advise the AHRB, its applicants and award-holders on standards and best practices**
 - act as a repository for selected data resources created in whole or in part with AHRB funding
 - educational re-use of those data resources and disseminate them for that purpose;



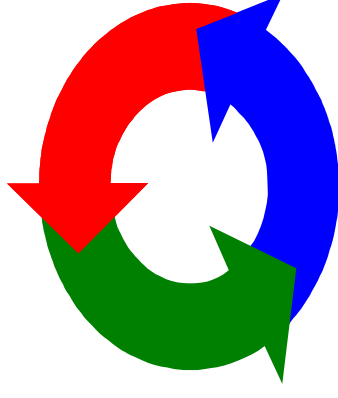
A STRATEGIC FRAMEWORK FOR CREATING AND PRESERVING DIGITAL RESOURCES

- Develops basic AHDS Collection Policy and tests for wider application
- policy framework life-cycle (“continuum”) of a digital resource and preservation
- Desk-top survey and 15 interviews with archives, libraries and museums
- 5 Case studies, best practice guidelines, resources and other studies
- Research starts 1997 – report Beagrie and Greenstein 1998



THE FRAMEWORK

- Three main phases of the life cycle:
 - **creation**
 - **management/preservation**
 - **use**
- Sub-divided into more specific stages
- Separates data storage and data preservation for first time



IMPACT AND TAKE-UP

- Hendley 1998 establishes the first life cycle based cost model for digital preservation.
 - adopts the strategic framework as basis of cost model
- *Moving Theory into Practice: Digital Imaging for Libraries and Archives* Anne Kenney/Oya Rieger 2000
 - Develop Formal policies to Encompass the Lifecycle of Digital Resources
 - Digitisation Workshop and Online tutorial
- Hodge 1999 *Digital Electronic Archiving: The State of the Art, The State of the Practice* for ICSTI
- Jones and Beagrie 2001 *Preservation Management of Digital Materials: A Handbook*

FURTHER INFORMATION

LIFE Research Review

by James Watson Nov 2005

<http://www.ucl.ac.uk/Is/lifeproject/documentation/review.doc>