Principles of Digital Heritage

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Roger Layton
CEO, Roger Layton Associates
roger@rl.co.za

Where we are…

We are at a unique point in history….ours is the ONLY generation which has to shift from physical to digital

AND WE ONLY GET ONE SHOT AT THIS!

We need to plan for a future in 5, 20, 50, 200 and 500 years and beyond

Currently we cannot see beyond 2 years into the future!

The ETHER Initiative

ETHER = ETernal HERitage
www.ether.co.za

Question: "How do we build computing systems that last forever?"

Heritage : the ONLY discipline with an eternal agenda

The most exciting area to be in in ICT at present.

Scope of Digital Heritage

Tangible	Intangible	Documentary	Knowledge
OBJECTS *Museums*	*Oral History*	*Libraries* *Archives*	*Scientific*
SITES *Archaeological* *Built Environment*	*Indigenous Knowledge*	*Oral History*	*Engineering*
		Indigenous Knowledge	*Health*
			Data Sets

WITHIN THE DIGITAL WORLD, ALL HERITAGE OBJECTS START TO LOOK THE SAME

National Policy on Digitization

Policy

27 core statements

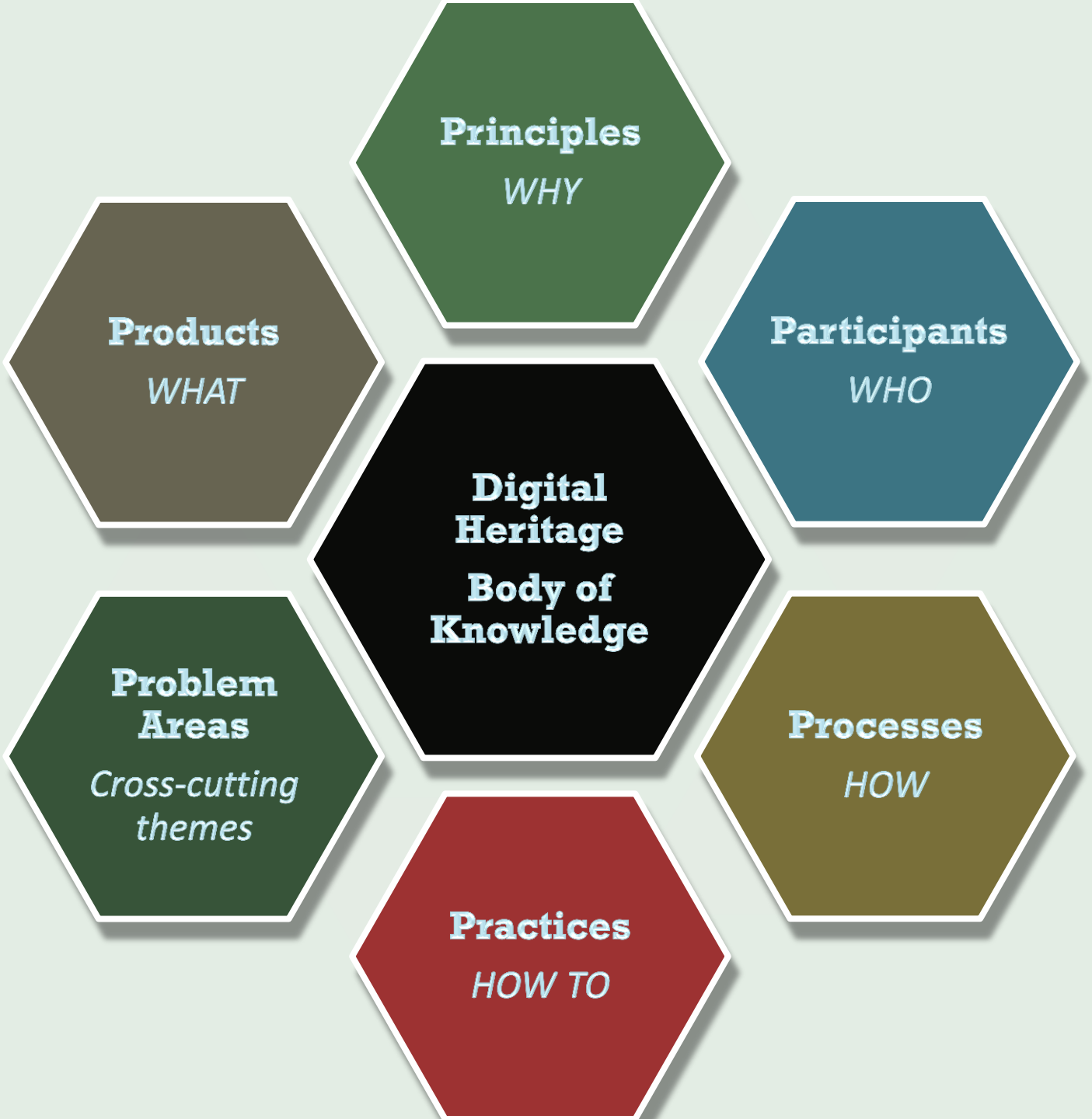
Strategy
Repository
Contracts
Access
Preservation
Metadata

Mechanisms

Implementation recommendations

Digital Heritage Body of Knowledge (DHBOK)

Practical guidelines


Principles
WHY
Products
WHAT
Participants
WHO
Digital Heritage
Body of Knowledge
Problem Areas
Cross-cutting themes
Processes
HOW
Practices
HOW TO

Participants, Processes, Products

participants	processes	Products / Practices
Custodian	Scoping	Audit
	Strategising	Digitization strategy
	Planning	Project plans
Producer	Preparing	Prepared environment
	Capturing	Digital objects (e.g. scanning of glass negatives)
	Describing	Digital masters (rich digital package with provenance)
Repository	Loading	Logs
	Storing	Digital repositories
Consumer	Accessing	Search requests / results / user interfaces
	Using	Repackaged products

Digitization Strategy

- AS-IS Analysis
  - Stakeholders, Collections, Programmes, Capacity, Skills, Documentation, Systems
- TO-BE Design
  - Institution Identity and Structure, Internal Policies and Procedures, Prioritisation Policy, Programme/Project Structure, Skills Development Plan, Resource Plan, Standards, Repository Plan, Preservation Strategy, Disaster Management Plan, Funding Strategy, Sustainability Plan, User Experience Goals, Performance Measurement

Principles

A common set of principles that embody the underlying qualities and enduring values that defining what we should be aiming for the digital heritage…

These principles should be valid in 50, 200, 500 years into the future…

The role of science fiction literature in informing our long future.

Why do we need Principles?

- When confronted with key decisions that do not appear to have a clear path ahead – we need principle-base guidance as an aid
- The Principles are key factors to inform the development of a Digitization Strategy and other decisions in the digitization life cycle of processes
- Principles should be self-evident and obvious to the reader…should not be a shock

Principle of Principles

"Any best practice structure is required to have an underlying set of principles that are widely accepted"

Each institution should make explicit which principles that they will use and why, and how they will be used

Principle of Standards

"Standards must be used where possible to enforce best practices and to enhance interoperability and these standards should be continually reviewed and refined"

Each institution must select, from an agreed list of acceptable standards, the standards they will use, and must justify why these are suited to their needs

Principle of Semantics

Digital heritage should not be seen as a collection of disconnected files and folders **but should contain powerful semantics that can enhance and can embrace the context and meaning of the digital objects** and render them capable of being connected in ways not anticipated at the time of their creation.

Web 3.0 : Semantic Web : Linked Data

Principle of Semantics

At the time of digitization it is essential to consider how semantics will be built into the digital object to embed maximum meaning – *beyond metadata*.

OUR CASE STUDY : Massively linked biographical records of victims of apartheid (Oral History Conference 2011)

Principle of Collections

"Heritage is best managed in collections, and this includes the digital heritage"

Shift from physical to digital to virtual collections

Decisions on digitization should be preferably at the level of collections

Principle of Universal Producers

"The growth of digital content appears to have no upper bounds as everyone becomes a producer of such content, and as direct sensing and record systems increase in usage."

There is too much data being generated by too many people and stored in too many places
Little control over born-digital government records

Principle of Respect for Rights

"The protection and control of intellectual rights is a core economic principle of our modern world. This applies no matter whether there are commercial rights or open rights associated with digital content."

Principle of Trust

In the rapidly expanding world of digital content, there is an increasing need for access to valid, authentic and reliable content.

Provenance of digital content will become the distinguishing factor between trusted and untrustworthy repositories.

Principle of The Glass Bead Game

All records are essentially massively connected and these connections between the items will become more important than inventory lists as we move into a semantic future.

Derived from "The Glass Bead Game", Herman Hesse, 1946.

Connections within and between repositories
Continental structures : Europeana

Principle of Ethics

"Ethical considerations arise frequently in decisions on the digital heritage and it is important to have an explicit stance in their Digitization Strategy on how such decisions are treated."

Principle of Eternal Preservation

"In the absence of anything to the contrary we should expect that what we consider today to have enduring value will be valid for future generations."

Institutions must explicitly plan for migration of formats and repositories in protecting the content forever.

Forever is a long, long time.

Principle of Constant Change

"Everything is always changing in the digital world. We cannot stop this, but we can adapt."

The only constant is change.

Adaptation strategies must be a core component of a digitization strategy.

Principle of Community

"There is a strong association between the community and heritage since communities are owners, producers and consumers of heritage and, in the case of the oral history, they are also the long-term custodians of this heritage."

Every custodian MUST engage with its communities

Principle of Sharing

"The ultimate reason that we create digital heritage is to allow this to be shared with others, both current and future."

The largest future community of users are high-school students

Principle of Identity and Diversity

"Digital repositories run the risk of normalising content and creating uniformity. A conscious effort is required to encapsulate diversity and differences."

We can use digital content as a means to enliven cultural identity.

OUR CASE STUDY: Access to heritage for tourism purposes, in all local languages which are normally spoken but not written or read.

Principle of Future History

"Future engagement with history will be mostly through digital technologies – our decisions of today have considerable impact on the future."

What will be lost to future generations?
Can we control this risk today?

Conclusions

- Universal Principles should be timeless
- They will guide the development of our
  - Digitization strategies
  - Decisions on prioritisation, methods, technologies, metadata, interfaces
- The Principles will be subject to peer review, as well as rest of the DHBOK