Agenda

• Importance of Records
• Results of Statewide Survey
• Archiving—What Is It and Why Is It Important?
• Trusted Digital Repositories
• The Proposed Hawaii Digital Archives Plan
IMPORTANCE OF RECORDS
Knowledge is Power

- Sir Francis Bacon, *Meditationes Sacrae* (1597)
Records and Information
or, Why we do what we do

If – Knowledge is power...
And - Records are the storage of knowledge

Then – Records must be preserved for future generations

Why?
Future generations must learn from our success and our failures
13th Century BCE Hittite – Egyptian Peace Treaty

Museum of Anatolian Civilizations
Ankara, Turkey
1976 Viking Lander Mission

“All the programmers had died or left NASA. It was hopeless to try to go back to the original tapes.” – Joe Miller, USC Neurobiologist
“We must not make the mistake of thinking that recording on a long-lived medium gives us meaningful preservation” – Paul Wheatley, CAMILEON
STATEWIDE SURVEY
Legal Responsibilities

- §94-3 HRS to maintain *all* records created or received in course of business *according to* approved retention schedule

- Comptroller Circular No. 2001-02 states that *all* public officials are responsible for the protection and accessibility of government records under their purview

- §94-1 HRS directs the State Archives to *collect all public archives*; arrange, classify, and inventory the same; *provide for their safekeeping*; and compile and furnish information concerning them
Survey Protocol

- Conducted in Nov 2010, expanded on 2005 survey
- Sent to records creators, records mangers, and IT from three branches, higher ed and local govt
- Web-based, email, or print responses
- Twenty-Three agencies responded
- 77 responses tabulated, analyzed
- Series of recommendations resulted

Without proper training and archival repository, today’s records will be lost to future generations
Survey Findings

- 61% store records on CDs
- 60% don’t manage email
- 40% don’t follow retention schedules
- 53% have no migration plan
- 73% convert paper to digital
- 40% destroy the paper
- 66% don’t know what a record is

Digital Archives is **NEEDED** and **OVERDUE**!
Everything we do is digital

Enter the Matrix
What is it and Why is it Important?

DIGITAL ARCHIVING
Why a Digital Archives?

Comply with statutory & regulatory mandates

– The law requires preservation of certain public records
– it doesn’t specify whether those records are paper or electronic. All records must be given the same care.

Avoid loss of legal & historical records

– As technology changes, the older media (5 ¼” floppy disks, for instance) become harder to read.

Preserve rare and ‘at-risk’ paper records
Why a Digital Archives?

Centralize Records

– Centralization means uniformity in maintenance
– ‘Trained professionals’ serve as caretakers

Improved access for citizens

– By centralizing historical digital records in one location, ‘one-stop shopping’ will provide the information quicker and easier
Mission of the Digital Archives

• Collect digital records of enduring legal, historical or fiscal value
• Maintain these records in perpetuity in a useable state for the good of the public
• Make records that are discloseable accessible to the public
What the Digital Archives is not

- Not mass storage for active business applications & data
- Not remote back-up for state & local government networks & data
What is ‘Archiving’ in the Electronic Age?

Protecting machine readable records of enduring legal, historical or fiscal value from loss, alteration, deterioration and technological obsolescence in an environment independent from that which produced the record.
What is a ‘Record’ in the Electronic Age?

Information in a fixed form that has content, context, and structure, is created or received in the course of individual or institutional activity and set aside as evidence of that activity for future reference.
The Digital Archives will:

- Preserve digital records with long-term legal, historical and/or fiscal significance in a useable state for the good of the public
- Assure platform-neutral retrieval 50, 100, or more years from now
- Provide security back-up of certain permanent digital legal records (courts, vital records, land records, etc.)
- Disclose those records that are accessible to the public, exclude those that are not
WHY IS THIS IMPORTANT?
Accountability and Transparency

- Maintenance of actions taken, history
- No ‘gatekeepers’
- Visibility
- Reduce duplication and unnecessary storage
- Noticeable compliance (or lack of)

Foundation of Democracy is Government Accountability to the People
Centralization of records

• One stop shopping
  – Citizens don’t need to know creator
• Can access records from multiple agencies
• Fast and Efficient
• 24x7 access from any island
Societal Continuity

• Beyond just business continuity
• Continuance in the event of a regional disaster
• Protect citizens rights
• Reestablish government quickly, efficiently
• Limited ‘Hot Site’ backup
TRUSTED DIGITAL REPOSITORIES
What is a TDR?

- From RLG-OCLC report *Trusted Digital Repositories: Attributes and Responsibilities*:

  “A trusted digital repository is one whose mission is to provide reliable, long-term access to managed digital resources to its designated community, now and in the future.”
As defined in RLG-OCLC report:

- accept responsibility for the long-term maintenance of digital resources on behalf of its depositors and for the benefit of current and future users;
- have an organizational system that supports not only long-term viability of the repository, but also the digital information for which it has responsibility;
- demonstrate fiscal responsibility and sustainability;
- design its system(s) in accordance with commonly accepted conventions and standards to ensure the ongoing management, access, and security of materials deposited within it;
- establish methodologies for system evaluation that meet community expectations of trustworthiness;
- be depended upon to carry out its long-term responsibilities to depositors and users openly and explicitly;
- have policies, practices, and performance that can be audited and measured;
Centers on Trust

• Many software packages capable, pivots on implementation:
  – Nurture the trust of users
  – Develop relationship, procedures of donors
  – Faith in third party providers through testing
  – Trustworthiness of content sent to repository
Trust of Users

- Historically, trust in archives very high
- New medium can challenge perception
  - Careful planning
  - Continuing/renewed education
Work with the Donors

• Records only as reliable as when sent
• Balance between undue burden and sufficient information
• Formalize and document the process
• Written MOU (Memorandum Of Understanding)
Trustworthiness of Content

- Archival Diplomatics
- InterPARES
- Set a high bar to reach, mark those that are of lesser or unknown quality
- Establish minimum standards, create or locate tools to generate
- Many authentication methods
  - Easier intra-network, directory services
  - Inter-network leads to PKI, authentication tools
  - Many legacy digital documents will fall far short
- But... what have we done in the past with paper records?
Open Source

- Became popular with Linux as an alternative to Windows Server Platform
- Based on free source code, readily available
- Anyone modify, change, radically alter it
  - Often with proviso that new code given back
- Often with original providers offering integration services as a cost ($$$)
Pro-Open Source Arguments

• **Lower cost** – volunteers design the software, no centralized ‘company’ to collect revenue or pay employees
• **Customizable** – implementers can develop the system to do whatever is necessary
• **Nimble** – Adaptations implemented faster than typical commercial development cycle (months to years)
• **Openness** – Easy to look under the hood
• **Faster update cycle** – bugs and security holes can be patched in-house
DIGITAL ARCHIVES PLAN
The Plan

• Made possible through a grant from the National Historical Publications and Records Committee (NHPRC)
• External Consultant to leverage knowledge, experience
• Detail the current state of archiving
• Recommendations to preserve digital records
  – Hardware
  – Software
  – Staff
  – Supporting rules, policies, procedures
  – Identify potential partners, opportunities
Digital Preservation Software

• Leverage off of existing software
• Use lessons learned from other digital archives, extensive research of scholarly literature
• Modified to meet needs of Hawai'i government agencies and the public captured as functional requirements
• Improve and grow with each iteration and phase
• Early and active participation from partners, agencies and public consultation

If it doesn’t work for them, it doesn't work
Phased Implementation

Divide project into three iterative phases while working closely with partner agencies, public

• **Prototype Phase** -- Test functionality and capability
  – Work with one to three partner agencies
  – Expected Time Frame: 12 months

• **Pilot Phase** – Expand feature set, functional requirements
  – Work with three additional partner agencies
  – Expected Time Frame: 12-18 Months

• **Production Phase** – Provide robust features for statewide rollout
  – Expected Time Frame: Six Months
Proposed Partners

- Legislative Clerks
- Governor’s Office
- Supreme Court Law Library
- Bureau of Conveyances, Department of Land and Natural Resources
- Hawai'i State Public Library
- Information and Communication Services Division
- Office of Information Management and Technology
- Office of Hawai'ian Affairs
- University of Hawai'i
- Hawai'i Pacific University
Enabling the State Archives

- Need to expand the technical skill set of staff
- Increase the infrastructure of the State Archives to execute on its mandate with regards to digital records
- In partnership with CIO, ICSD and SPO

Provide the State Archives with the needed and vital tools to preserve the cultural and intellectual heritage of the State of Hawai‘i for future generations
17th Century
“So long as men can breath, and eyes can see,
So long lives this, and this gives life to thee.”

- William Shakespeare, *Sonnet XVIII* (1609)

21st Century
As long as the media is still readable, a drive available, the software can be loaded, the hardware still runs and file can be found!
Made possible through a grant from

NHPRC
DOCUMENTING DEMOCRACY
National Historical Publications and Records Commission