Personal Online Learning Environments: Reclaiming Electronic Portfolios for Lifelong and Life-Wide Learning

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Electronic Portfolios & Digital Storytelling for Lifelong and Life-Wide Learning

What are e-portfolios?
- Definitions
- Components
- Purposes
- Process

What is a Portfolio?
- Dictionary definition: a flat, portable case for carrying loose papers, drawings, etc.
- Portfolio in Lifelong Learning: A purposeful collection of work that demonstrates efforts, progress and achievement in one or more areas [over time]

How do we move from this container to the WWW?

Why use Portfolios?
provide a richer picture of student performance than can be gained from more traditional, objective forms of assessment

Levels of ePortfolio Implementation
- Working Portfolio
  - The Repository
  - The Digital Archive
  - The Artifacts (meta-tagged)
  - Personal Information
  - Reflective Journal
- Presentation Portfolio(s)
  - The “Story” or Narrative
  - Multiple Views (public/private)
  - Varied Audiences (permissions)
  - Varied Purposes
E-Portfolio Components

- Multiple Portfolios for Multiple Purposes
- Multiple Tools for Multiple Processes
- Single Digital Archive (for life?)

(Repta, 2007)

A question to ponder

- What could happen if every citizen were issued personal web server space that they would own for a lifetime?

Educause Quarterly 2004

- “Beyond the Electronic Portfolio: A Lifetime Personal Web Space” [LPWS]
  - Ellen R. Cohn and Bernard J. Hibbitts (University of Pittsburg)
  - “Rather than limit people to the e-portfolio model, why not develop a model providing a personal Web space for everyone, for their lifetimes and beyond?”

MEMEX

- “A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory.”

Vannevar Bush (1945) “As We May Think” Atlantic Monthly

LPWS

- organized more like our brains than our file cabinets
- available anywhere, any time
- universally accessible to everyone, any ability, even the homeless
- can survive as an historical record of a person’s body of work

Cohn & Hibbitts (2004)

Benefits of LPWS

- Educational Continuity: Less Knowledge Left Behind
- A Convenient One-Stop Shop
  - Structured according to the user’s unique concept map and learning style, not by predetermined institutional or commercial templates
  - Crosses institution & sector boundaries
- Community-Building
  - link individuals to larger communities (e.g. ELGG, Facebook)

Cohn & Hibbitts (2004)
Digital Archive for Life (DAL)

- space to store raw materials for e-portfolios
- archives of family records, genealogy and digital stories, autobiographies, child development data
- evidence of personal and professional accomplishments, and all kinds of personal information
- Personal archive/content management system

What is an Electronic Portfolio?

- Digital Documents
- Organized and presented with some type of "authoring" software
- Stored in an electronic container
  - CD-Recordable disc
  - DVD-Recordable disc
  - WWW

Portfolio Processes

Traditional + Technology

- Collecting
- Selecting
- Reflecting
- Directing
- Celebrating
- Archiving
- Linking/Thinking
- Storytelling
- Collaborating
- Publishing

Reflection

The “Heart and Soul” of a Portfolio

Reflective Questions that tie the Past to the Future

Now What?

- Future Learning Goals… turn Portfolio Development
- …into powerful Professional Development
- …and Lifelong Learning
Four key pillars of Lifelong Learning

- Learning
- Understanding
- Facilitating
- Understanding

Purposes of E-Portfolios
- Learning/ Process/ Planning
- Marketing/ Showcase
- Assessment/ Accountability

Learning Portfolios
- “know thyself” = a lifetime of investigation
- Self-knowledge as outcome of learning

Showcase Portfolios
- Marketing
- Employment
- Tell your story
- A primary motivator for many portfolio developers

Assessment Portfolios
- Formative and Summative
- A major new commercial market
- A primary motivator for organizations

Process & Web 2.0 Tools
Ownership of Data
- Institution-centered vs. Learner-centered
- Time-limited vs. Lifelong
- Need to separate individual space from institutional needs
- Artifacts have unique identifier
- Use in a variety of contexts
- Meta tags, keywords

Portfolios in U.S. K-12 schools
- Ignored for reasons:
  - Lack of technology access
  - Accountability mandates of No Child Left Behind legislation
- Reconsidering for reasons:
  - E-Rate and EETT funding
  - 8th grade technology literacy requirement

Metaphors!
- Mirror, Map, Sonnet
- C.V. or Multimedia Resume
- Test
- Story

Portfolio tells a Story
“A portfolio tells a story. It is the story of knowing. Knowing about things... Knowing oneself... Knowing an audience... Portfolios are students’ own stories of what they know, why they believe they know it, and why others should be of the same opinion.”
(Paulson & Paulson, 1991, p.2)

Institutional Portfolios
- What happens when a learner leaves or transfers?
- Learners’ Digital Archives and presentation portfolios
- Blogs
- Guidance portfolios
- Employment portfolios
- Faculty generated evaluation data
- Academic focus
- Institution’s Server
- Limited Time Frame
- Institutional data
Separate Systems Learner-Centered

- Learners maintain collection across the lifespan, institutions maintain evaluation data & links

Learners’ Digital Archive & Blog
Learner-owned Lifelong Web Space
Meta-tags

Life-wide focus

Online Storage Systems

Institution’s Server & Purposes

Limited Time Frame

Guidance portfolio
Class portfolio
Institutional data

Faculty-generated evaluation data

Employment portfolio

Re-conceptualizing E-Portfolios using RSS feeds

Digital Archive for Life with tags

Institutional portfolios organized like del.icio.us

Recent changes in technology

Web 2.0: From Read-Only to Read/Write

Web-based Instructional Activities

Web 1.0 vs. 2.0
Blogs
Wikis
Social Bookmarking
RSS Subscriptions
Instant Messaging

Architecture of Interaction (Web 2.0)

allows a Pedagogy of Interaction (ePortfolio 2.0)
Microsoft’s MyLifeBits Research
- An experiment in lifetime storage
  - Lifetime store of everything using Gordon Bell’s life work
- A software research effort
  - Leverages SQL server to support:
    - Hyperlinks
    - Annotations
    - Reports
    - Saved queries
    - Annotations
    - Record:
      - web pages
      - IM transcripts

What about “My Life HITS?”
- Selection with Reflection and Direction

Begin process early in life

Lifelong Life-Wide Scenario
- Lifelong, life-wide approach to:
  - Lifetime personal web space
  - Electronic portfolios
  - Online Videos
  - Digital Stories
Families are the Centerpiece

Early Childhood Portfolios

Children enter school

Children take on responsibility

Example - Victoria 2nd Grade
7-12 Student Portfolio Examples

- Polaris
  - Naya
  - Shea
- Key Learning Community

Assessment Portfolio Systems

Two approaches
- Formative
- Summative

Formative Assessment (Feedback)

Summative Assessment (Scoring)

Personalizing & Goal Setting
Post-Secondary - Benchmarks

- Scenario

Portfolios in the Work Place

- Less well-defined
- Some professions produce digital products
  - Music
  - Art
  - Website design
- Accreditation of prior learning
- Personnel Evaluation?

Digital Stories - Legacies

- Scenario

How would we manage such a system?

- Who would offer portfolios and digital archive space?
  - Governments
  - Schools
  - Private Companies
- Advantages
- Problems

How would we get the systems to work together?

- Open ID
- RSS
- Tags
- Portfolio Specifications
Open ID
- Authentication
- Share logon ID

RSS
- Event notification and aggregation
- Really Simple Syndication

Tags

Portfolio Specifications
- IMS eportfolio specification
- Few vendors have adopted it
- JISC Cetis
- UK’s Leap 2.0

Challenges
- User Interface of Web 2.0 tools
- Security Concerns in Schools
- Quality of artifacts online
- Socio-Cultural

Age & Social Technology Adoption
Security
- Issues of secure access must be addressed
- Most e-portfolios inside school firewall
- Not accessible from home
- Need appropriate safeguards

Quality of Artifacts
- Online storage lower quality than hard drive or CD or DVD
  - Photo storage:
    - Flickr or Picasa vs. iPhoto
  - Video storage
    - YouTube or Google Video vs. DVD
- Acceptable tradeoffs in quality

Socio-Cultural Issues
- Not a technical issue
- Raising awareness
  - Why?
  - How?
- Usability
- Cost-benefit
- Efficacy
- Impact on learning & achievement
- Acceptance by employers or other stakeholders

Let 1,000 Flowers Bloom!
- Pick the ones that show the most promise!

How can I create an ePortfolio?
- Tools
- Process

What is the best tool?
- It Depends!
State of the Art of ePortfolio Development

- Publishing environments:
  - Optical media (CD-R, DVD-R)
  - WWW

- Authoring environments:
  - Common Software Tools
  - Customized (Commercial) Systems
  - Open Source Tools
  - Web 2.0 Technologies

Planning Issues

- What is your purpose?
  - authentic assessment (formative feedback)
  - showcasing best work and growth over time

- Software capabilities:
  - allow interaction between teachers/coaches and learners around learning activities and products

- Internet access: slow or fast?

ePortfolio Technology over Time

**Storage**
- 1991: Desktop
- 1995: CD-R
- 2000: Internet
- 2005: DVD-R
- 2007: Pocket Tech (PDAs, Flash drives, Phones, iPods)
- What’s Next?

**Software**
- Common tools
  - Hypermedia (HyperCard, HyperStudio)
  - Office & Acrobat (PDF)
  - HTML Editors
- Customized Systems
  - Online databases
  - Workflow Management
  - Assessment Management
- Interoperability (currently in “silos”)

Today’s Tool Choices

**Slow Internet Access?**
- Microsoft Office
  - Word
  - Excel
  - PowerPoint
- Other Options:
  - Adobe Acrobat
  - Apple iLife06 (iDVD, iWeb)
- Web Page Editors
  - DreamWeaver
  - Front Page
- These tools do not require Internet access to create electronic portfolios.

**Fast Internet Access?**
- Any commercial fee-based system
- GoogleDocs & Apps (free)
  - Document (Word Processing)
  - Presentation
  - Page Builder
- Web 2.0 tools (free)
  - Blog
  - Wiki
- These tools require only a browser and good Internet access to create electronic portfolios because they are Application Service Providers (ASP) - the software is on the remote server.

Office Tools - Word, Excel, PowerPoint

**Advantages**
- On most personal computers
- Common toolset
- Easy to create hyperlinks
- Easy to add comments
- Does not require Internet access to develop portfolios (students work off-line)

Better for publishing on CD or uploading to GoogleDocs

Today’s Tool Choices

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Web 2.0 Technologies

Advantages
- Free, often open-source tools on the WWW
- "Me Publishing" (blog and wiki)
- Shared Writing (Google Docs)
- Web Publishing (Google Pages)

Disadvantages
- May require higher technology competency
- Mostly not secure websites

"Small Pieces, Loosely Joined"

Change!

The Value Hierarchy in Web 2.0 Software

Users
- attention
- presence
- usage
- interaction
- collaboration

Data
- secondary: microblogging, ranking, recommending
- primary: information sharing, media, attention data

Function
- RIAs
- mashups
- hybrid apps
- Web services

Users are the center of the universe in Web 2.0 software, with data and functionality a close but distinct 2nd and 3rd.

Source: http://web2.iraq.com

Free Online (Web 2.0) Tools

- Blog with pages
  www.wordpress.com

- Wiki
  www.pbwiki.com
  www.wikispaces.com

- GoogleDocs & Apps
  docs.google.com/
Tools for Creating Multimedia Artifacts

- **Audio**
  - Audacity (open source software)
  - Odeo.com (website for recording audio)
- **Video**
  - Apple’s iMovie
  - Movie Maker2
  - PhotoStory3 (free downloads from Microsoft)
  - YouTube.com (website to store/share video)

Part 2
Constructing E-Portfolios with Web 2.0 Tools

Process of Creating an Electronic Portfolio

Using examples from my Google Pages and GoogleDocs Presentation portfolios
http://eportfolios.googlepages.com

How to get started

1. Define the **purpose** of the portfolio
   (Learning? Showcase? Assessment?)
   What is this portfolio supposed to demonstrate?

2. Collect digital documents [artefacts]
   (or convert documents into digital format through digital cameras or scanners or digital audio/video tools)

3. Select specific documents to meet the goals identified in step 1 above.
   (Sometimes in selecting the documents, the goals emerge!)

List of my artifacts and classification

[Deleted Image 1]
Created in Excel

Authoring an electronic portfolio

1. Create a first page as an introduction and table of contents
2. Set up a structure around the goals/themes identified in purpose statement
   - One page for each goal/theme with links to first page
3. Upload artefacts to page or create hyperlinks to documents online
4. Write reflections about how the artefacts demonstrate achievement of goals
5. Write future learning goals
6. Publish portfolio online (or on CD/DVD)
1. Create a first page - Intro & TOC

2. Set up a structure using goals (or themes) as organizing framework

3. Upload artifacts/create hyperlinks

4. Write reflections for each goal and each artefact

5. Write future learning goals
6. Publish Portfolio - Seek Feedback

Share GoogleDocs Presentation with other online users.

“every day-ness”

How can we make ePortfolio development a natural process integrated into everyday life?

Lifelong and Life Wide Learning

Digital Stories and ePortfolios: Documenting Lifelong and Life Wide Learning

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electronicportfolios.org

My Final Wish…

May all your electronic portfolios become dynamic celebrations and stories of deep learning across the lifespan.

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