The ePortfolio: a revolutionary tool for education and training?

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ISTE = International Society for Technology in Education

2001 PT3* Catalyst Grant

Preparing Tomorrow’s Teachers to use Technology

These Slides will be posted to:
http://electronicportfolios.org/portfolios.html#conf

Legacy from the Portfolio Literature

- Much to learn from the literature on paper-based portfolios
- As adult learners, we have much to learn from how children approach portfolios

“Everything I know about portfolios was confirmed working with a kindergartener”

Contextual Definition

- Bird (1990): "portfolios" communicate meaning only in the specific context in which they are used
- To be meaningful, the portfolio concept needs to be clearly defined as it will be used in education and training

Financial or Educational Portfolio?

- A financial portfolio documents the accumulation of fiscal capital or monetary assets
- An educational portfolio documents the development of human capital or intellectual assets

The Power of Portfolios

what children can teach us about learning and assessment

Author: Elizabeth Hebert
Publisher: Jossey-Bass
Picture courtesy of Amazon.com
Portfolios have been with us for a very long time. Those of us who grew up in the 1950s or earlier recognize portfolios as reincarnations of the large memory boxes or drawers where our parents collected starred spelling tests, lacy valentines, science fair posters, early attempts at poetry, and (of course) the obligatory set of plaster hands. Each item was selected by our parents because it represented our acquisition of a new skill or our feelings of accomplishment. Perhaps an entry was accompanied by a special notation of praise from a teacher or maybe it was placed in the box just because we did it.

“We formed part of our identity from the contents of these memory boxes. We recognized each piece and its association with a particular time or experience. We shared these collections with grandparents to reinforce feelings of pride and we reexamined them on rainy days when friends were unavailable for play. Reflecting on the collection allowed us to attribute importance to these artifacts, and by extension to ourselves, as they gave witness to the story of our early school experiences.”

“Let’s get personal... Think for a minute about:

Something about your COLLECTIONS:
- Suggested topics:
  - If you are a parent, what you saved for your children
  - What your parents saved for you
  - What you collect...
  - Why you collect...

Some issues to consider:
- What do your collections say about what you value?
- Is there a difference between what you purposefully save and what you can’t throw away?
- How can we use our collection experiences to help learners as they develop their portfolios?”
What is a Portfolio in Education?

A portfolio is a purposeful collection of student work that exhibits the student's efforts, progress and achievements in one or more areas [over time].

(Northwest Evaluation Association, 1990)

What is a Portfolio in Education? (2)

The collection must include:
- student participation in selecting contents
- the criteria for selection
- the criteria for judging merit
- evidence of student self-reflection

(Northwest Evaluation Association, 1990)

Dr. Mary Diez’ Metaphors (Alverno College)

The portfolio as Mirror

Captures the reflective nature of the portfolio
Allows students to “see” themselves over time


Dr. Mary Diez’ Metaphors (Alverno College)

The portfolio as Map

Creating a plan and setting goals


Dr. Mary Diez’ Metaphors (Alverno College)

The portfolio as Sonnet

Provides a framework...the contents can showcase creativity and diversity
Structure supports process but does not guarantee results


Portfolio Processes

Traditional
- Collecting
- Selecting
- Reflecting
- Projecting
- Celebrating

+ Technology
- Archiving
- Linking/Thinking
- Storytelling
- Planning
- Publishing

Three types of Portfolios

- Student
- Faculty
- Institutional

Electronic Portfolios as Knowledge Builders

- Characteristics that make them powerful tools for learning and assessment.
- Portfolios can:
  1. Feature multiple examples of work
  2. Be context rich
  3. Offer opportunities for selection and self-assessment
  4. Offer a look at development over time

(Hamp-Lyons & Condon in Cambridge, 2001)

Planning Issues

- Barton and Collins (1993): “the first and most significant act of portfolio preparation is the decision of the purposes for the portfolio” (p. 203)

Elements of Portfolio Planning

- Purpose
- Audience
- Process (not Product)

Purpose & Goals for the portfolio (Determine Content)

- Many purposes:
  - Learning
  - Assessment
  - Marketing/Showcase
Learning Portfolios

- “know thyself” = a lifetime of investigation
- self-knowledge as outcome of learning
- portfolio development study (Brown, 2002)
  - increased students’ understanding of what, why, and how they learned throughout their careers
  - enhanced their communication and organization skills
  - reinforced the importance of reflection in learning.

Learning Portfolios

- Support reflection which is central to learning

Reflections
  - The Heart and Soul of the Portfolio
  - An electronic portfolio without reflection is just a
    - Digital scrapbook
    - Fancy electronic resume
    - Multimedia Presentation
    - Personal web site

Showcase Portfolios

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

Assessment Portfolios

- A major movement in Teacher Education in U.S.
- A major new commercial market
- A primary motivator for organizations

More later!

Balanced Assessment

Types of Assessment

- Kay Burke (1999) and Robin Fogarty (1998) advocate a balanced approach to assessment
- Focus on three components:
  - Traditional Assessment
  - Performance Assessment
  - Portfolio Assessment
Assessment as Celebration

- Celebrating the successes of what we’ve learned through assessment
- Done through documentation
- Students take charge of their own learning

Portfolios support a Culture of Evidence

- Evidence = Artifacts
  + Reflection (Rationale)
  + Validation (Feedback)

What is an Electronic Portfolio?

- uses electronic technologies as the container
- portfolio artifacts in many media (audio, video, graphics, text)
- hypertext links to organize the material
- and connect evidence to outcomes, goals, or standards (in an assessment portfolio)

Electronic Portfolio Decision Considerations

- Questions to ask:
  1. What is the portfolio’s purpose?
  2. What technology do you have? (and what skills do you have?)
  3. Who is the audience? (and what technology do they have?)

Audience (Determine publishing format)

- Who are the primary audiences for the portfolio?
  – Student
  – Parent
  – Teacher/School community
  – Employer
  – College
- What technologies do they have?

A Resource on K-12 Portfolios

- By Evangeline Harris Stefanakis
- Published by Heinemann
- Includes a CD-ROM with examples of student portfolios
Assessment for Learning Continuum

Assessment for Learning Continuum - Enhanced

Technology to Support: Self-Assessment Individual or Organization
- Weblogs
- Reflective journals
- Online discussions
- Self-report surveys

Technology to Support: Rubric Development
- RubiStar
  http://rubistar.4teachers.org/
- TaskStream
  http://www.taskstream.com

Technology to Support: Portfolio Development
- Generic Tools
  –“worldware”
- Customized Systems
  –Online database

Directions in ePortfolio Development
- Generic/Common Tools Approach
  - MS Office: Word/Excel/PowerPoint
  - Other tool software or desktop databases
  - Portable Document Format (Adobe Acrobat)
  - HTML - Web pages
  - Multimedia authoring (Director, eZedia)
- + Low startup and maintenance costs
- — Ability to aggregate data for assessment
Directions in ePortfolio Development

- IT Customized Systems Approach
  - Online database
  - Assessment Management Systems
  - Examples of commercial companies: LiveText, TaskStream, ePortaro, Chalk & Wire
  - Northwestern University’s Collaboratory
- Server programming/purchase (or student fee subscription), maintenance & Internet access requirements
- + Ability to aggregate data for institutional assessment

Which approach should you take?

- Are you looking for an electronic portfolio…
- Or an assessment management system?
- What’s the difference?
  - Along a Continuum

Purpose

- Electronic Portfolio
  - Multiple:
    - Learning Assessment
    - Employment
- Assessment Management System
  - Single:
    - Assessment

Data Structure

- Electronic Portfolio
  - Primary Type of Data
    - Qualitative
- Assessment Management System
  - Primary Type of Data
    - Quantitative and Qualitative
- varies with the tools used to create the portfolio; most often common data formats (documents often converted to HTML, PDF)
- most often uses a relational database to record, report data

Primary Type of Data

- Electronic Portfolio
  - Qualitative
- Assessment Management System
  - Quantitative and Qualitative

Data Storage

- Electronic Portfolio
  - multiple options: CD-ROM, videotape, DVD, WWW server, LAN
- Assessment Management System
  - LAN or secure WWW server
  - Digital Divide Issues
**Technology Skills Required**

- **Electronic Portfolio**
  - Medium → High

- More advanced skills: information design through hyper linking, digital publishing strategies, file management

**Technology Skills Demonstrated**

- **Electronic Portfolio**
  - Assessment Management System
  - Low → Medium

- Depending on tools used to create portfolio

**Control of Design & Links**

- **Electronic Portfolio**
  - under control of portfolio developer

※Hyperlinking reinforces metacognition※
※Design=Individuality※

**Locus of Control**

- **Electronic Portfolio**
  - Assessment Management System
  - controlled by database structure

- Depending on the sophistication of the artifacts added to the portfolio

**Electronic Portfolio or Assessment Management System?**

**Cautions about Portfolio Use (Lucas, 1992)**

1. The weakening of effect through careless imitation
2. The failure of research to validate the pedagogy
3. The co-option by large-scale external testing programs

Lee Shulman’s 5 dangers of portfolios

1. "lamination" - a portfolio becomes a mere exhibition, a self-advertisement, to show off
2. "heavy lifting" - a portfolio done well is hard work. Is it worth the extra effort?
3. "trivialization" - documenting stuff that isn't worth reflecting upon
4. "perversion" - when used as a form of high stakes assessment “why will portfolios be more resistant to perversion than all other forms of assessment have been?”
5. "misrepresentation" - and if one of the requirements … is that you develop a sufficiently objective scoring system [for portfolios] so you can fairly compare people with one another, will your scoring system end up objectifying what's in the portfolio to the point where the portfolio will be nothing but a very, very cumbersome multiple choice test?” (p. 35)
Lee Shulman’s 5 dangers of portfolios

5. "misrepresentation" - does "best work" misrepresent "typical work" -- not a true picture of competency


Lee Shulman’s 5 benefits of portfolios

1. document longer episodes of teaching and learning
2. encourage the reconnection between process and product - very best teaching portfolios contain excerpts of student portfolios & highlight the results of teaching that lead to student learning.
3. institutionalize norms of collaboration, reflection, and discussion
4. a portable residency... introduces structure to the field experience
5. (most important) shifts the agency from an observer back to the teacher interns...


Joanne Carney’s Dilemmas of Electronic Portfolios

1. Multiple Purpose Dilemma
2. Personal Revelation Dilemma
3. Cognitive Overload Dilemma
4. Self-Expression Dilemma
5. Dead-End Dilemma
6. Data-Aggregation Dilemma

Carney, Joanne (in development) “Campfires Around Which We Tell Our Stories: Confronting the Dilemmas of Teacher Portfolios and New Technologies”

One final thought about the two days ahead...

■ Assessment for Learning
■ Portfolios for Learning

My questions

■ Will ePortfolios become another tool by educational organizations for mechanistic forms of high-stakes summative assessment?
■ Or will educators recognize that ePortfolios are the best way to recognize and showcase learning in highly complex self-organizing human systems

ePortfolios in Complex Self-Adaptive Systems

Conditions for self-organizing systems

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<thead>
<tr>
<th>Significant Difference</th>
<th>Transforming Exchange</th>
<th>Container</th>
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Eoyang, Glenda & Edwin Olson, http://complexOD.com
ePortfolios and Activity Theory

Where is the revolution?

- Learners taking responsibility for their own learning
- Portfolios providing that mirror, map, and sonnet to celebrate learning and increase self-esteem
- Portfolios embedded as formative assessment support continuous improvement for quality

My Final Wish...

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

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