Electronic Portfolios: Definitions, Decisions, and Dilemmas

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My Questions:
Is the addition of technology changing the definition of what a portfolio is or can be?
How can we create an electronic portfolio that our students want to maintain as a lifelong learning tool?

Definitions

What is a Portfolio?
A purposeful collection of students' work that illustrates efforts, progress, and achievement [over time]
(NW Eval Assoc.)

What are your Decisions & Dilemmas about Electronic Portfolios?

Turn to a partner
Talk about your questions about e-portfolios
Share a few with the large group.
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 standards (in an assessment portfolio)

Financial or Professional 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

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

Professional Portfolios for Teachers

...extends the possibilities for portfolios in education by going beyond assessment, learning, and professional development to the use of the portfolio as a living history of a teaching-learning life.
(p.5)
Helen Barrett’s Stages of Electronic Portfolio Development

1. Determine the purpose, audience, content
2. Working Portfolio (Developing the Digital Archive) - Digitizing, Storing
4. Connected Portfolio (Creating a hyperlinked document, adding multimedia, making connections)
5. Presentation Portfolio (Publishing and Sharing)
6. Professional Development

Electronic Portfolio Decision Considerations

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

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)

Purpose & Goals for the portfolio (Determine Content)

Many purposes:
– Learning
– Assessment
– Marketing/Showcase

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 for Learning Continuum

Assessment for Learning

Reflection → Accountability

Self Assessment → Informal Feedback → Rubrics → Portfolios → Performance Based → Standardized Tests

Culture

What else has to change for the portfolio to be valued AND valuable?

Collaboration
Partnerships
Leverage

Curriculum Issues

Where is the concept of the e-portfolio introduced to students?
Does the curriculum require “appropriate digital artifacts for electronic portfolio?”
Is there a course in the curriculum where the students develop their electronic portfolios?
How are the portfolios assessed?

Type of Technology

What MEDIA best convey the messages of the learning journey?

- Text
- Images
- Audio
- Video

"Portfolios tell a story...put in anything that helps to tell the story” - Pearl & Leon Paulson, 1991

Stage 3
Constructing the Reflective Portfolio
Stage 4
Connections

Reflections

- The Heart and Soul of the Portfolio
Making Connections
- Linking artifacts to standards, outcomes or goals.
What Tools to Use?

What is the best electronic portfolio program???

**IT DEPENDS . . .**
on the assessment context
+ variety of other factors, human and technological

**Directions in Electronic Portfolio Development**

**GT**

**Generic/Common Tools Approach**
- MS Office: Word/Excel/PowerPoint
- Higher level tool software
- Portable Document Format
- HTML
- Multimedia authoring
  + Low startup costs
  + Replicate process in classrooms
  — Ability to aggregate data for assessment

**Directions in Electronic Portfolio Development**

**CS**

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

**Show Examples**

**Josh’s Student Teacher Portfolio**
Josh’s Introduction
Word portfolios
Digital Storytelling clips
Chevak Assessment

**Which approach should you take?**

Are you looking for an electronic portfolio…
Or an **assessment management system**?
What’s the difference?

**Purpose**

Electronic Portfolio  
Multiple: Learning Assessment Employment

Assessment Management System  
Single: Assessment
Data Structure

**Electronic Portfolio**
varies with the tools used to create the portfolio; most often common data formats (documents often converted to HTML, PDF)

**Assessment Management System**
most often uses a relational database to record, report data

Data Storage

**Electronic Portfolio**
multiple options: CD-ROM, videotape, DVD, WWW server, LAN

**Assessment Management System**
LAN or secure WWW server

*Digital Divide Issues

Primary Type of Data

**Electronic Portfolio**
Qualitative

**Assessment Management System**
Quantitative and Qualitative

Control of Design & Links

**Electronic Portfolio**
under control of portfolio developer

**Assessment Management System**
controlled by database structure

*Hyperlinking reinforces metacognition*

*Design=Individuality

Technology Skills Required

**Electronic Portfolio**
Medium→High

More advanced skills: information design through hyperlinking, digital publishing strategies, file management

**Assessment Management System**
Low→Medium

Minimal skills, equivalent to using a web browser and adding attachments to an e-mail message

Technology Skills Demonstrated

**Electronic Portfolio**
Medium → High

depending on tools used to create portfolio

**Assessment Management System**
Low → Medium

depending on the sophistication of the artifacts added to the portfolio

*Portland State University
Locus of Control

Electronic Portfolio
Student-Centered

Assessment Management System
Institution-Centered

Electronic Portfolio or Assessment Management System?

Questions to the audience:

What do you think about my distinctions between e-portfolios and assessment management systems?

Is there any evidence of how the decisions we make about electronic portfolio systems impact the learners and the institutions?

Cautions about Portfolio Use

The weakening of effect through careless imitation

The failure of research to validate the pedagogy

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

Baylor University Example

Assessment database (faculty scoring in the lower window)

Rubric for assessing e-portfolio against rubrics

Lee Shulman (1998)
Lee Shulman’s 5 dangers of portfolios

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Lee Shulman’s 5 benefits of portfolios

1. tracking and documentation of longer episodes of teaching and learning
2. encourage the reconnection between process and product.
   - very best teaching portfolios consist predominantly 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...


“Portfolios are owned and operated by teachers; they organize the portfolios; they decide what goes in them.” (p.36)


Pedagogical Requirements

An online portfolio system needs to support a CULTURE of EVIDENCE:

Evidence = Artifacts + Learner Reflections + Validation or Feedback

Pedagogical Requirements

Storage Space

Security

Linking and Grouping Artifacts

Reflection

Publishing

Portability

Storage Space

To store digital artifacts (with meta-tags)
To store learner self-reflection and self-assessment on each artifact
To store feedback on each artifact from assessor(s) (independent validation)
To store details of the assignment with criteria for assessment (rubrics)

Security

Ability to restrict access, setting permissions to view:
- Artifact only
- Artifact with reflection
- Artifact with reflection and feedback

Ability to set permissions separately for faculty to view portfolio and provide feedback on work.
Linking and Grouping Artifacts

Ability to organize portfolio in a variety of ways (flexibility in organization)
- By standards or learning outcomes
- By course
- By date (entered, last updated, etc.)
- By status of work (Work in progress, ready for assessment, ready for publication)

Ability to include:
- Goals for portfolio, Contents of portfolio
- Learning Goals or Standards
- Resume

Reflection

Ability to reflect on a specific grouping of artifacts to make a particular case (i.e., how this collection demonstrates achievement of standards or learning goals)

Ability to set learning goals and future direction

Publishing

Ability to create a variety of portfolios, depending on audience and purpose

Ability to individualize the portfolio, to allow creativity of expression in the presentation (how to avoid the “cookie cutter” effect or identical “look and feel” of a data-base or template-based portfolio)

Portability

Ability to archive work in a portable format such as:
- CD-ROM
- HTML or PDF Archive
- DVD

Learners can take their portfolio to another institution or maintain it on their own.

Dilemmas

Joanne Carney’s Dilemmas of Electronic Portfolios

Multiple Purpose Dilemma
Personal Revelation Dilemma
Cognitive Overload Dilemma
Self-Expression Dilemma
Dead-End Dilemma
Data-Aggregation Dilemma

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

Electronic portfolios should provide a dynamic environment for learners to document and celebrate their learning across the lifespan.

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