

Electronic Portfolios: Definitions, Decisions, and Dilemmas

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PT3 Catalyst Grant

What are your Decisions & Dilemmas about Electronic Portfolios?

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?**

Turn to a partner

**Talk about your questions about e-
portfolios**

Share a few with the large group.

Definitions

What is a Portfolio?

**A purposeful
collection of students'
work that illustrates
efforts, progress, and
achievement [over time]**

(NW Eval Assoc.)

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

Diez, Mary (1994). "The Portfolio: Sonnet, Mirror and Map" in Burke, Kay, ed. (1996). *Professional Portfolios*. Skylight Training & Publishing

Dr. Mary Diez' Metaphors (Alverno College)

The portfolio as **Map**



Creating a plan and setting goals

Diez, Mary (1994). "The Portfolio: Sonnet, Mirror and Map" in Burke, Kay, ed. (1996). *Professional Portfolios*. Skylight Training & Publishing

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The portfolio as **Sonnet**



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

Diez, Mary (1994). "The Portfolio: Sonnet, Mirror and Map" in Burke, Kay, ed. (1996). *Professional Portfolios*. Skylight Training & Publishing

Professional Portfolios for Teachers

Wilcox & Tomei (1999) Christopher-Gordon Publishers, Inc.

...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
3. **Reflective Portfolio** (What? So What? Now What?)
4. **Connected Portfolio** (Creating a hyperlinked document, adding multimedia, making connections)
5. **Presentation Portfolio** (Publishing and Sharing)
6. *Professional Development*

Decisions

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



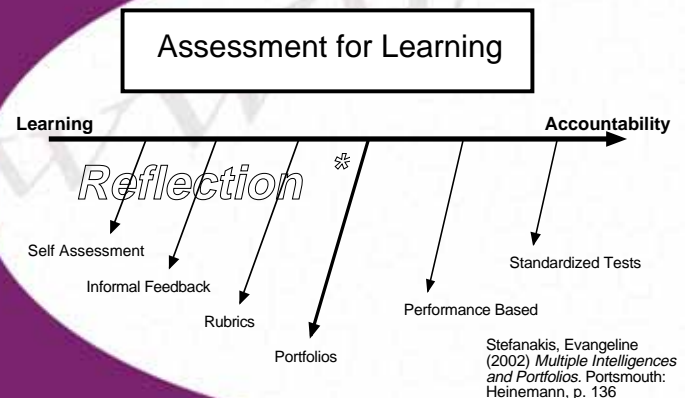
Types of Assessment

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



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

Assessment Management System

Multiple:

Learning
Assessment
Employment

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

*Portland State University

Technology Skills Required

Electronic Portfolio

Medium→High

More advanced skills:
information design
through hyper
linking, 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

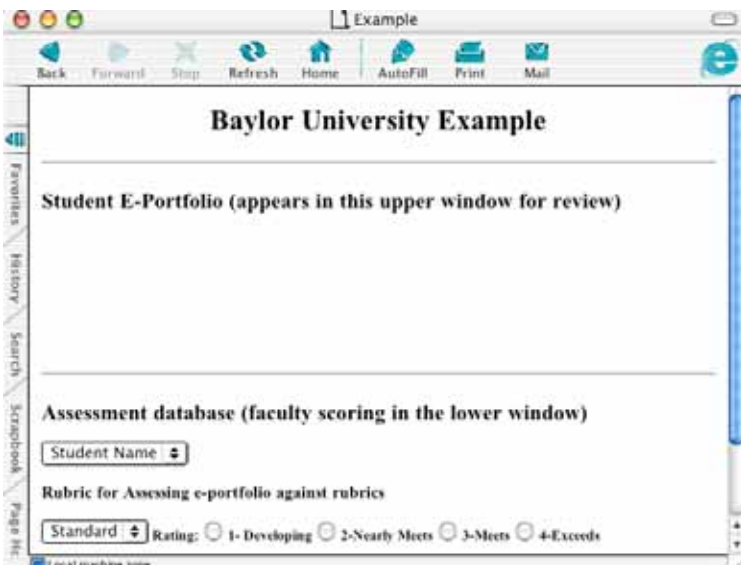
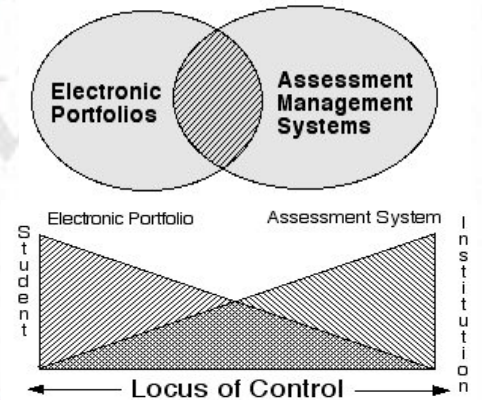
Low → Medium

depending on the
sophistication of the
artifacts added to
the portfolio

Locus of Control



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

(Lucas, 1992)

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

(Lucas, Catharine. 1992. Introduction: Writing Portfolios - Changes and Challenges. *Portfolios in the Writing Classroom: An Introduction*, ed. Kathleen Blake Yancey. Urbana, Illinois: NCTE: 1-11)

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

Shulman, Lee (1998). "Teacher Portfolios: A Theoretical Activity" in N. Lyons (ed.) *With Portfolio in Hand*. (pp. 23-37) New York: Teachers College Press.

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Lee Shulman's 5 dangers of portfolios

"...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)

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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...

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Lee Shulman's 5 benefits of portfolios

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

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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**

Contact Information

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