

The ePortfolio: a revolutionary tool for education and training?

Dr. Helen C. Barrett

Co-Director

ISTE's Community and Assessment in PT3
Catalyst Grant
University of Alaska Anchorage

*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?

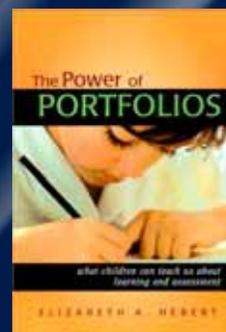
- A financial portfolio documents the accumulation of fiscal capital or monetary assets
- An educational portfolio documents the development of human capital or intellectual assets

The Power of Portfolios

*what children can teach us about
learning and assessment*

Author: Elizabeth Hebert
Publisher: Jossey-Bass

Picture courtesy of Amazon.com





The Power of Portfolios

Author:
 Dr. Elizabeth Hebert,
 Principal
 Crow Island School,
 Winnetka,
 Illinois

Picture taken by Helen Barrett at AERA, Seattle, April, 2001




From the Preface (1)

Hebert, Elizabeth (2001) *The Power of Portfolios*. Jossey-Bass, p.ix

“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.”



From the Preface (2)

Hebert, Elizabeth (2001) *The Power of Portfolios*. Jossey-Bass, p.ix

“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.”



From the Preface (3)

Hebert, Elizabeth (2001) *The Power of Portfolios*. Jossey-Bass, p.ix-x

“Our parents couldn’t possibly envision that these memory boxes would be the inspiration for an innovative way of thinking about children’s learning. These collections, lovingly stored away on our behalf, are the genuine exemplar for documenting children’s learning over time. But now these memory boxes have a different meaning. It’s not purely private or personal, although the personal is what gives power to what they can mean.”

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

Diez, Mary (1990). "The Portfolio Sonnet, Mirror and Map." In Burke, Kay, ed. (1990). *Professional Portfolios*. SkyLight Training & Publishing

Dr. Mary Diez' Metaphors (Alverno College)

The portfolio as



Map

Creating a plan and setting goals

Diez, Mary (1990). "The Portfolio Sonnet, Mirror and Map." In Burke, Kay, ed. (1990). *Professional Portfolios*. SkyLight Training & Publishing

Dr. Mary Diez' Metaphors (Alverno College)

The portfolio as



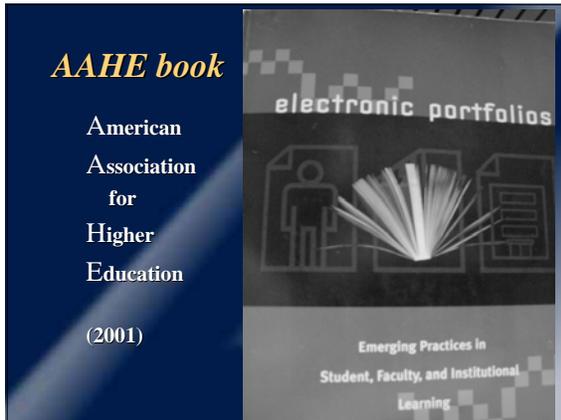
Sonnet

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

Diez, Mary (1990). "The Portfolio Sonnet, Mirror and Map." In Burke, Kay, ed. (1990). *Professional Portfolios*. SkyLight Training & Publishing

Portfolio Processes

- | | |
|---------------|--------------------|
| Traditional | + Technology |
| ■ Collecting | ■ Archiving |
| ■ Selecting | ■ Linking/Thinking |
| ■ Reflecting | ■ Storytelling |
| ■ Projecting | ■ Planning |
| ■ Celebrating | ■ 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?

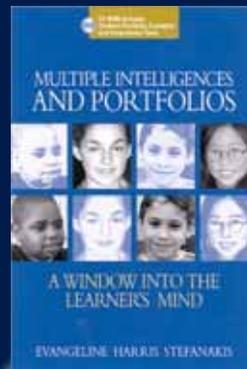
- uses electronic technologies as the **container**
- portfolio artifacts in many media (**audio, video, graphics, text**)
- **hypertext links** to organize the material
- and **connect evidence** to outcomes, goals, or standards
(in an assessment portfolio)

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?)

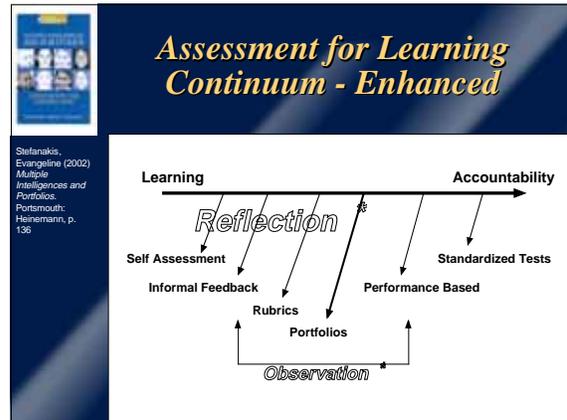
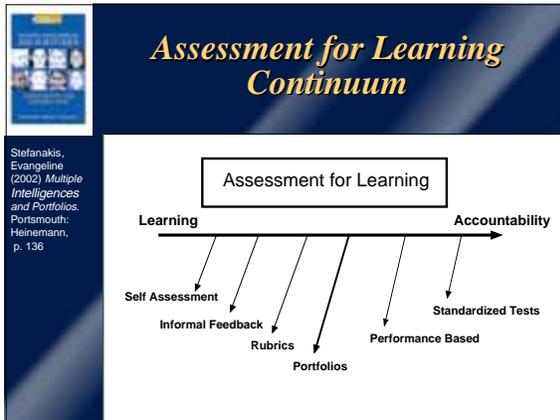
Audience *(Determine publishing format)*

- 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



- ### 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 | ■ Assessment Management System |
| ■ Multiple: <ul style="list-style-type: none">– Learning– Assessment– Employment | ■ Single: <ul style="list-style-type: none">– Assessment |

Data Structure



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

Data Storage



- | | |
|--|---------------------------------------|
| ■ Electronic Portfolio | ■ Assessment Management System |
| ■ multiple options:
CD-ROM,
videotape, DVD,
WWW server,
LAN | ■ LAN or secure WWW server |
| | • <i>Digital Divide Issues</i> |

Lee Shulman's 5 dangers of portfolios

1. "lamination"
2. "heavy lifting"
3. "trivialization"
4. "perversion"
5. "misrepresentation"

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

Lee Shulman's 5 dangers of portfolios

1. "lamination"
- a portfolio becomes
a mere exhibition, a
self-advertisement, to
show off

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

Lee Shulman's 5 dangers of portfolios

2. "heavy lifting" -
a portfolio done
well is hard work.
Is it worth the extra
effort?

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

Lee Shulman's 5 dangers of portfolios

3. "trivialization" -
documenting stuff
that isn't worth
reflecting upon

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

Lee Shulman's 5 dangers of portfolios

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?"

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

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)

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

Lee Shulman's 5 dangers of portfolios

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.

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...

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

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

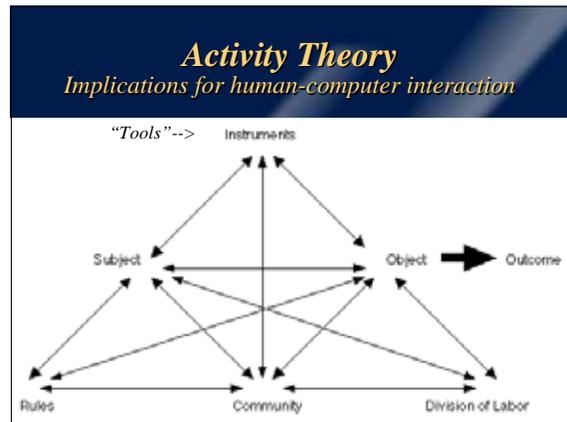
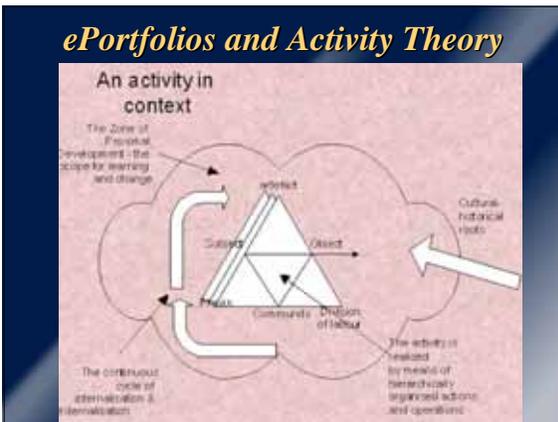
- Will ePortfolios become another tool by educational organizations for mechanistic forms of high-stakes summative assessment?
- Or will educators recognize that ePortfolios are the best way to recognize and showcase learning in highly complex self-organizing human systems

ePortfolios in Complex Self-Adaptive Systems

Conditions for self-organizing systems

Significant Difference	Transforming Exchange	Container

Glenda Eoyang & Edwin Olson, <http://complexOD.com>



- ### *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.

- ### *Dr. Helen Barrett*
- Co-Director ISTE's Community & Assessment in PT3 Catalyst Grant
 - hbarrett@iste.org
 - <http://electronicportfolios.org/pt3/>

- ### *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
- (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)