ePortfolios in K-12 and in Teacher Education

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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”

The Power of Portfolios

what children can teach us about learning and assessment

Author: Elizabeth Hebert
Publisher: Jossey-Bass

Picture courtesy of Amazon.com

From the Preface (1)


“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.”

The Power of Portfolios

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

Picture taken by Helen Barrett at AERA, Seattle, April, 2001
“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.”


“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)
**Portfolio Processes**

Traditional
• Collecting
• Selecting
• Reflecting
• Projecting
• Celebrating

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

**Purpose & Goals for the portfolio**

(Determine Content)

• Many purposes:
  – Learning
  – Assessment
  – Marketing/Showcase

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**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 - Enhanced**

**Electronic Portfolio or Assessment Management System?**

<table>
<thead>
<tr>
<th>Electronic Portfolio</th>
<th>Assessment Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple purposes: Learning, Assessment, Employment</td>
<td>Single purpose: Formative and Summative Assessment</td>
</tr>
<tr>
<td>Data structure varies with tools used to create the portfolio; common data formats (converted to HTML, PDF)</td>
<td>Data structure most often uses a relational database to record, report data</td>
</tr>
<tr>
<td>Primary type of data: qualitative</td>
<td>Primary type of data: qualitative and quantitative</td>
</tr>
<tr>
<td>Data storage in multiple options; CD-ROM, videotape, DVD, WWW server, LAN</td>
<td>Data storage primarily on LAN or on secure WWW server</td>
</tr>
<tr>
<td>Visual design and hyperlinks most often under control of portfolio developer</td>
<td>Visual design and hyperlinks most often controlled by database structure</td>
</tr>
<tr>
<td>Student-Centered</td>
<td>Institution-Centered</td>
</tr>
</tbody>
</table>

**Which approach should you take?**

• Are you looking for an electronic portfolio…
• Or an assessment management system?
• What’s the difference?
Along a Continuum
Assessment Systems and Electronic Portfolios: Balancing Accountability with Learning

©2004, Helen C. Barrett
Judy Wilkerson & William Steve Lang

Contrasting Paradigms of Portfolios

- **Positivism**
- **Constructivism**

Positivist Portfolios

“The purpose of the portfolio is to assess learning outcomes and those outcomes are, generally, defined externally. Positivism assumes that meaning is constant across users, contexts, and purposes... The portfolio is a receptacle for examples of student work used to infer what and how much learning has occurred.”

Constructivist Portfolios

“The portfolio is a learning environment in which the learner constructs meaning. It assumes that meaning varies across individuals, over time, and with purpose. The portfolio presents process, a record of the processes associated with learning itself; a summation of individual portfolios would be too complex for normative description.”

A few examples of K-12 ePortfolios

- Victoria’s Electronic Portfolio (K, 1, 2)
  http://homepage.mac.com/eportfolios/families/ or my Apple Learning Interchange Exhibit
- Middle School ePortfolios
  - examples - Shea - Naya - Naya’s story
- High School ePortfolios
  http://electronicportfolios.org/hs/index.html
Tension between two approaches
“The two paradigms produce portfolio activities that are entirely different.”
“The positivist approach puts a premium on the selection of items that reflect outside standards and interests.”
“The constructivist approach puts a premium on the selection of items that reflect learning from the student's perspective.”

“Assessing Portfolios Using the Constructivist Paradigm”

How do we create an Institution-Centered Assessment and Accountability System...
Without losing the power of the portfolio as a student-centered tool for lifelong learning and professional development?

Why?
- Learner Ownership and Engagement with Portfolio
- Emotional Connection to Process
- Learner's Authentic Voice
- Portfolio as Story
- Portfolio as Lifelong Learning/Professional Development Tool
- Support deep learning

How do we maintain the authenticity of the portfolio process...
And help our teacher candidates develop the skills and attitudes necessary to implement this strategy with their own students once they have their own classrooms?
Modeling!

Voice = Authenticity
- multimedia expands the "voice" in an electronic portfolio (both literally and rhetorically)
- personality of the author is evident
- gives the reflections a uniqueness
- gives the feeling that the writer is talking directly to the reader/viewer
How can we address both types of portfolios?

Use three different systems that are digitally linked:

I. A digital **archive** of a learner's work
II. An institution-centered **database** to collect faculty-generated assessment data based on tasks and rubrics
III. A student-centered **electronic portfolio**

**Interactive Process**

\[
\text{Evidence} = +\text{Artifacts} + \text{Reflection} + \text{Validation}
\]
Positivist Paradigm
(Evaluation and Making Inferences)

Portfolio as Test

Assessor EVALUATES required artifacts

Data collected for certification/licensure (high stakes) and for accreditation

II. Assessment Management System
(institution-centered data management system)
Resulting in…

Institution-centered aggregated data leading to certification/licensure and accreditation

Focus on Limited-Term Evaluation

External Locus of Control

- Includes prescribed artifacts and rubrics
- Requires database to manage information
- Focuses on faculty's formative and summative evaluations

Constructivist Paradigm

(Making Meaning and Assessment as Learning)

Portfolio as Story
Learner COLLECTS artifacts from learning experiences

Reflection on Learning (self-selected artifacts for self-evaluation)

Learner SELECTS artifacts and reflections to meet self-determined purpose(s)

III. Electronic Portfolio(s) (presentation portfolios for multiple purposes)

Resulting in…
Student-centered documentation of deep learning, for developing self-concept and presentation to multiple audiences (peers, employers, etc.)

Deep Learning
- involves reflection,
- is developmental,
- is integrative,
- is self-directive, and
- is lifelong

Focus on Lifelong Self-Directed Learning

Internal Locus of Control
- Includes choice of artifacts
- Results in personalized e-portfolio
- Focuses on learner's celebration of uniqueness

Both approaches result in a:
- Balanced Assessment System

One final thought...
- Assessment of Learning
- Portfolios for Learning
- What about Motivation?

Components of Portfolio Development
- Content
- Purpose
- Process

Components of Portfolio Development
- Content: evidence (artifacts + reflections)
Components of Portfolio Development

- **Purpose:**
  - the reason for developing the portfolio – includes audience
  - Learning & professional development
  - Assessment
  - Employment

- **Process:**
  - tools used
  - sequence of activities
  - rules
  - evaluation criteria (rubrics)
  - collaboration/conversation

Developmental Levels of Portfolio Implementation

- **Extrinsic Motivation**
  - institutional directed content, purpose & process – external locus of control

- **Mixed Motivation**
  - learner ownership over one or two of the components

- **Intrinsic Motivation**
  - learner ownership of content, purpose and process

Learner Ownership and Control of Electronic Portfolio Development

- Learner Control vs. Organizational Control
  - Greater Learner Control leads to more Intrinsic Motivation

My Final Wish...

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

Dr. Helen Barrett

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- http://electronicportfolios.org/
Assessment Systems and Electronic Portfolios: Balancing Accountability with Learning

**Positivist Paradigm**
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**Focus on Lifelong Self-Directed Learning**

III. Electronic Portfolio(s)
(presentation portfolios for multiple purposes)

- Learner SELECTS artifacts and reflections to meet self-determined purpose(s)
- Learner COLLECTS artifacts from learning experiences

I. Digital Archive of Learner Artifacts
(Working Portfolio)

- Learn Evidence = +Artifacts +Reflection +Validation

- Learner

- Assessor

- Data collected for certification/licensure (high stakes) and for accreditation

**Balanced Assessment System**

(begin here)

Learning Experiences embedded in curriculum

- Student-centered documentation of deep learning, for developing self-concept and presentation to multiple audiences (peers, employers, etc.)

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