

Electronic Portfolios: the voice of the student

Dr. Helen C. Barrett

*University of Alaska Anchorage
International Society for Technology in Education*

The ePortfolio as a Story of Learning Digital Storytelling as Reflective Portfolio

Linking Two Dynamic Processes to Promote Deep Learning

***Portfolio Development Process
Digital Storytelling***

Constructed Meaning

"The portfolio is a laboratory where students construct meaning from their accumulated experience."

(Paulson & Paulson, 1991, p.5)



Portfolio tells a Story

"A portfolio tells a story. It is the story of knowing. Knowing about things... Knowing oneself... Knowing an audience... Portfolios are students' own stories of what they know, why they believe they know it, and why others should be of the same opinion.

(Paulson & Paulson, 1991, p.2)

Portfolio tells a Story

"A portfolio is opinion backed by fact... Students prove what they know with samples of their work."

(Paulson & Paulson, 1991, p.2)

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"

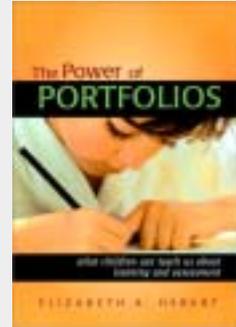
The Power of Portfolios

what children can teach us about learning and assessment

Author: Elizabeth Hebert

Publisher: Jossey-Bass

Picture courtesy of Amazon.com



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)

Portfolio Processes

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

Media

What MEDIA best convey the messages of the learning journey?

- Text
- Images
- Audio
- Video

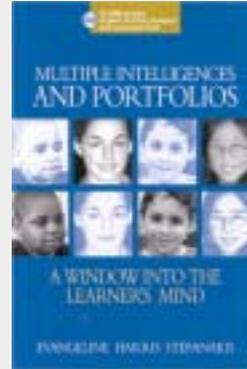


**"Portfolios tell a story...
put in anything that helps to
tell the story"**

- Pearl & Leon Paulson, 1991

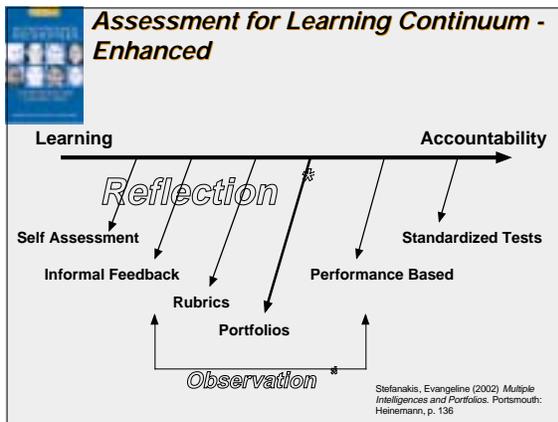
**Purpose & Goals for the portfolio
(Determine Content)**

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



**A Resource on
K-12 Portfolios**

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



Portfolio Process Increases Student Achievement

- Dr. Stefanakis' recent federal grant
- To demonstrate her preliminary findings:
 - That students who develop portfolios have higher standardized test scores

Stefanakis, Evangeline (2002) *Multiple Intelligences and Portfolios*. Portsmouth: Heinemann, p. 136



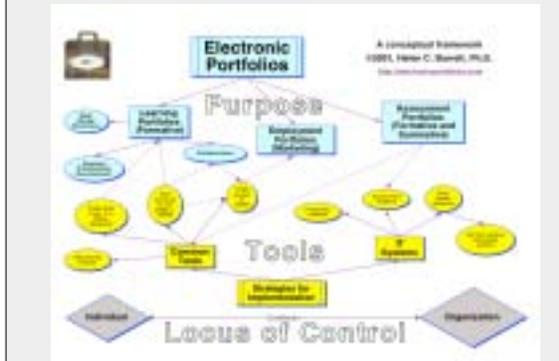
Learning/Process Portfolios

- **“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.

Technology for Learning or Process Portfolios

- Web Logs ('blogs')
- Reflective journals
- Online discussions
- Self-report surveys

Handout: Purpose, Tools, Control



Handout: 5x5 Model using Common Software Tools

The 5x5 Model of Electronic Portfolio Development: A Review of Technology Options. This table maps various software tools against five criteria: 1. User-Friendliness, 2. Portability, 3. Security, 4. Integration, and 5. Scalability. The tools listed include Blackboard, Canvas, FutureLearn, Moodle, and others.

Handout: ePortfolio as Storytelling



Storytelling as Reflection (Schön, 1988)

"...for storytelling is the mode of description best suited to transformation in new situations of action."



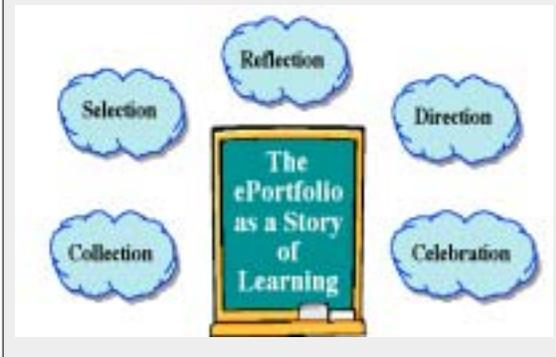
Storytelling as Reflection (Schön, 1988)

"Stories are products of reflection, but we do not usually hold onto them long enough to make them objects of reflection in their own right."

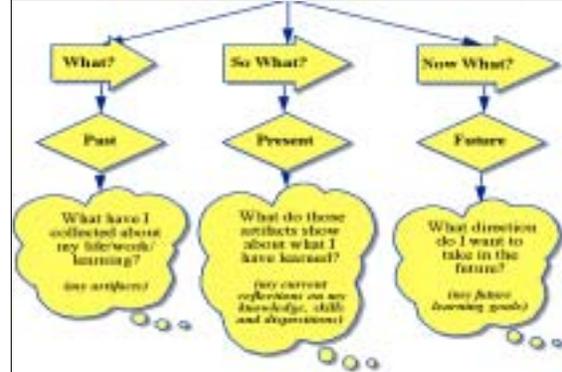
Storytelling as Reflection (Schön, 1988)

"When we get into the habit of recording our stories, we can look at them again, attending to the meanings we have built into them and attending, as well, to our strategies of narrative description."

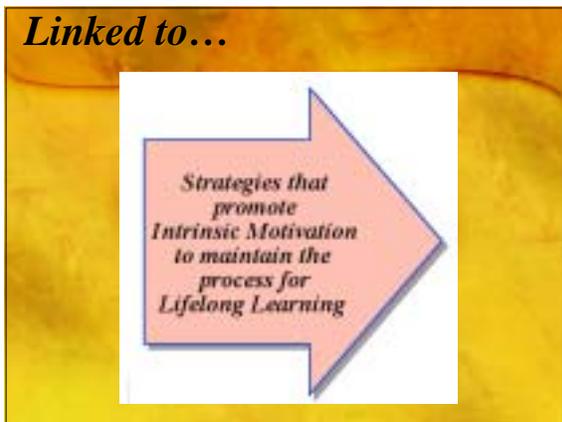
Portfolio Development Process



Reflective Questions that tie the Past to the Future



Linked to...

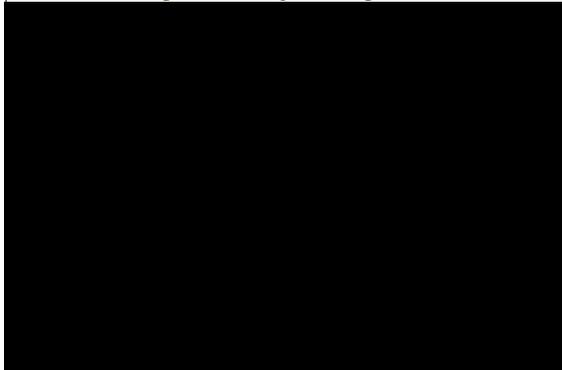


Digital Storytelling Process

- Learners create a 2-4 minute digital video clip
 - First person narrative
 - Told in their own voice
 - Illustrated by (mostly) still images
 - Music track to add emotional tone



What is Digital Storytelling?



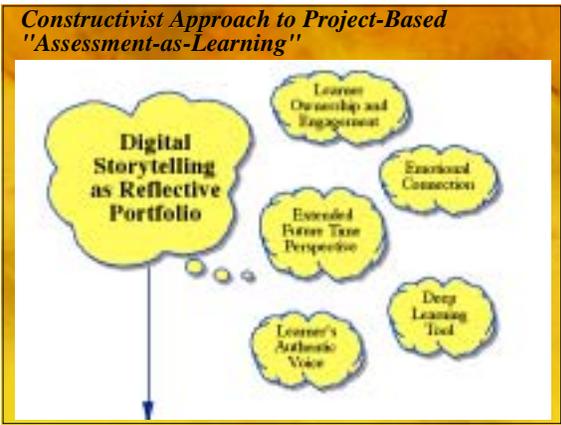
Center for Digital Storytelling



<http://www.storycenter.org>

Why?
Learner Motivation and Affect

Middle School *Portfolio* & Digital Story



Learner Ownership and Engagement with Portfolio

- The tools should allow the learner to feel in control of the process, including the "look and feel" of the portfolio.

Emotional Connection

- There is an affective component of the portfolio development process, that supports **deep learning**.
- **Deep Learning:**
 - involves reflection,
 - is developmental,
 - is integrative,
 - is self-directive, and
 - is lifelong

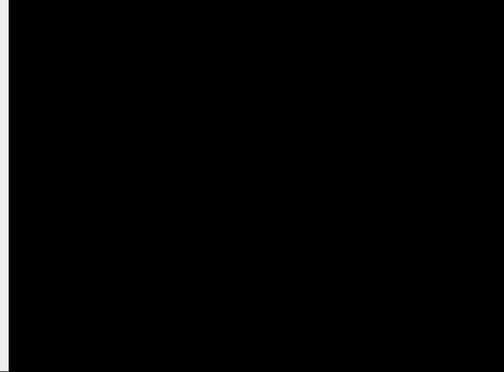
Learner's Authentic Voice

- As learners create their own electronic portfolios, their unique "voice" should be evident from navigating the portfolios and reading the reflections on the screen.
- In an electronic portfolio, the ability to add multimedia elements expands the definition of "voice" within that rhetorical construct.

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

Primary Portfolio and Digital Story



Barrett's Hypotheses

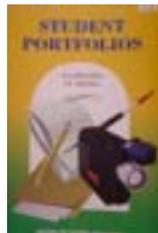
- **Tools**
to meet goals of balanced assessment and both paradigms
- **Motivation**
so that learners will want to maintain their portfolios as a "living history of a teaching/learning life"

Congruence with Philosophy

- Create a system that is congruent with underlying learning philosophy or conceptual framework
 - positivism vs. constructivism
 - psychometrics vs. hermeneutics
 - portfolio as test (or skills checklist) vs. portfolio as story

Contrasting Paradigms of Portfolios

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



F. Leon Paulson & Pearl Paulson (1994)
"Assessing Portfolios Using the Constructivist Paradigm"
in Fogarty, R. (ed.) (1996) *Student Portfolios*.
Palatine: IRI Skylight Training & Publishing

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."

F. Leon Paulson & Pearl Paulson (1994)
"Assessing Portfolios Using the Constructivist Paradigm"
in Fogarty, R. (ed.) (1996) *Student Portfolios*.
Palatine: IRI Skylight Training & Publishing

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."

F. Leon Paulson & Pearl Paulson (1994)
 "Assessing Portfolios Using the Constructivist Paradigm"
 in Fogarty, R. (ed.) (1996) *Student Portfolios*.
 Palatine: IRI Skylight Training & Publishing

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.**"

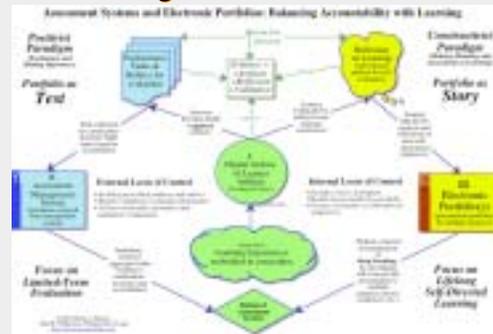
F. Leon Paulson & Pearl Paulson (1994)
 "Assessing Portfolios Using the Constructivist Paradigm"
 in Fogarty, R. (ed.) (1996) *Student Portfolios*.
 Palatine: IRI Skylight Training & Publishing

How can we address both types of portfolios?

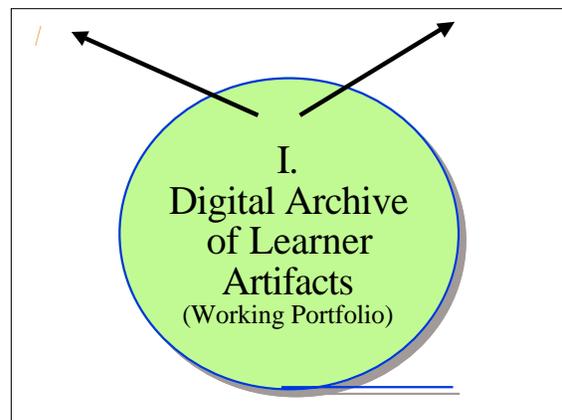
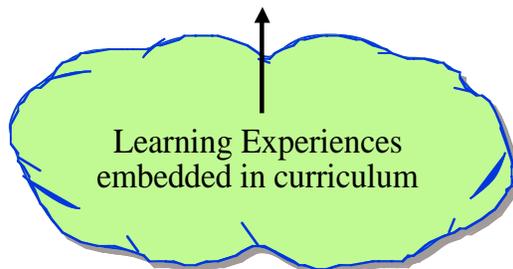
Use three different systems that are digitally linked:

- 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**

Handout: Balancing Accountability with Learning



Begin Here



Paradigm

Positivist Paradigm
(Evaluation and Making Inferences)



Portfolio as Test
(or skills checklist)

Constructivist Paradigm
(Making Meaning and Assessment as Learning)

Portfolio as Story

Assessor
EVALUATES
required
artifacts



Learner
COLLECTS
artifacts
from
learning
experiences

Performance Tasks & Rubrics for evaluation

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



Purposes

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



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

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

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



Resulting in...

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



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

Focus on:

**Limited-
Term
Evaluation**

**Lifelong
Self-
Directed
Learning**



Locus of Control

External

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

Internal

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



Both approaches result in a:



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

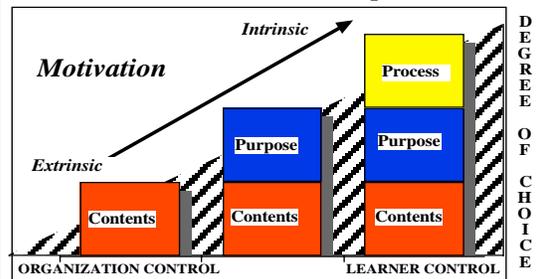
Components of Portfolio Development

- **Process:**
 - tools used
 - sequence of activities/rules
 - reflection
 - 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

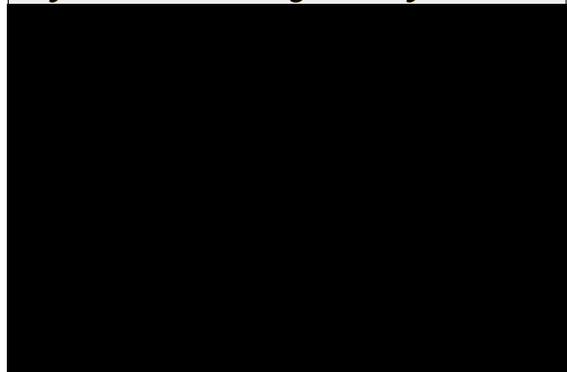


Learner Control vs. Organizational Control
Assumption:
Greater Learner Control leads to more Intrinsic Motivation

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>
- Teacher Portfolios
<http://electronicportfolios.org/teachers/index.html>

My first reflective digital story



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/>