

Electronic Portfolios and Digital Storytelling

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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.

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

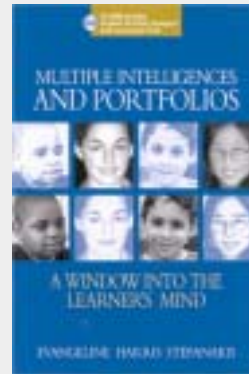
(Paulson & Paulson, 1991, p.2)

Portfolio Processes

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

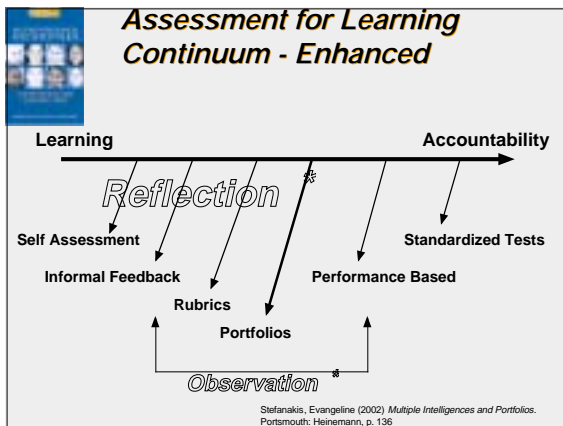
**Purpose & Goals for the portfolio
(Determine Content)**

- 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



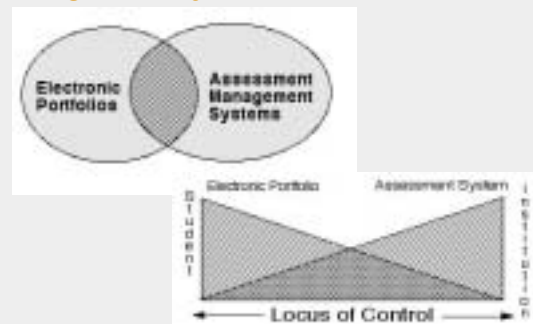
Which approach should you take?

- Are we implementing **electronic portfolios...**
- Or **assessment management systems?**
- What's the difference?
Along a Continuum

**Electronic Portfolio or
Assessment Management System?**

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

**Electronic Portfolio or Assessment
Management System?**



Handout: Purpose, Tools, Control



Handout: 5x5 Model - Generic Tools

The 5x5 Model of Electronic Portfolio Development - Overview of Technology Options

	1. Learning Objectives	2. Assessment Strategies	3. Learning Activities	4. Assessment Tools	5. Learning Tools
1. Learning Objectives					
2. Assessment Strategies					
3. Learning Activities					
4. Assessment Tools					
5. Learning Tools					

Handout: One model of construction



Handout: ePortfolio as Storytelling



Storytelling as Reflection (Schön, 1988)

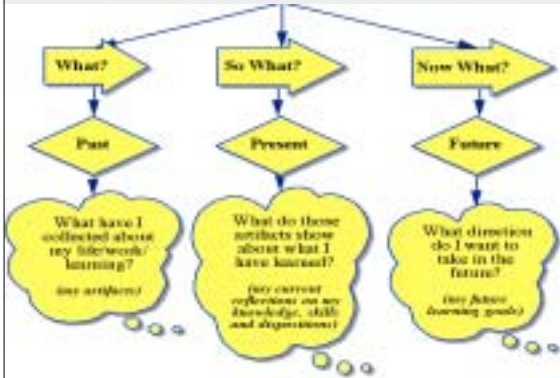
"...for storytelling is the mode of description best suited to transformation in new situations of action."

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

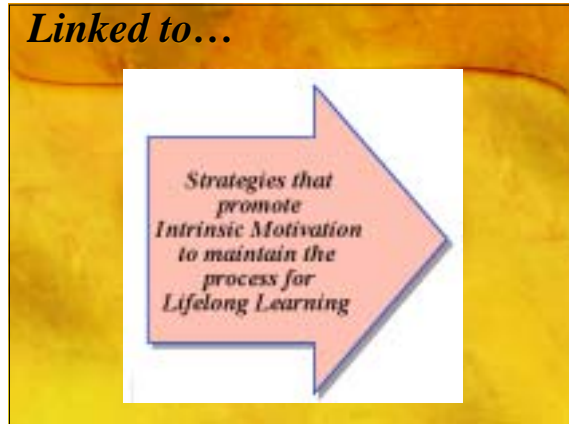
Portfolio Development Process



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

Elements from the Center for Digital Storytelling



<http://www.storycenter.org>

Why?

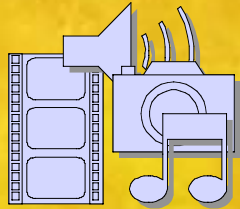
Learner Motivation and Affect

Constructivist Approach to Project-Based "Assessment-as-Learning"



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

Portfolio as Lifelong Learning/ Professional Development Tool

- The tools used to develop the portfolio should be accessible to a learner throughout their chosen career.
- Dependence on propriety software that is not accessible to a learner after graduation may not, in the long term, provide the skills necessary to maintain the e-portfolio as a lifelong professional development tool.

Constructivist model supports deep learning

- As Portland State University has found, **hyperlinking** leads to **metacognition**, which leads to deeper learning.
- Whenever possible, learners should have the opportunity to plan and assess their own learning.

Research Questions

<http://electronicportfolios.org/research.html>

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?

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!

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"

Assessment Systems and Electronic Portfolios: Balancing Accountability with Learning

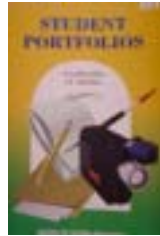
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Congruence with Philosophy

- Create a system that is congruent with underlying learning philosophy or conceptual framework
 - positivism vs. constructivism
 - psychometrics vs. hermeneutics
 - portfolio as test 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*.
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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*.
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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"
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How can we address both types of portfolios?

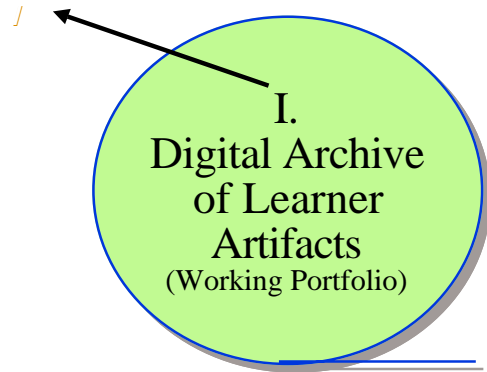
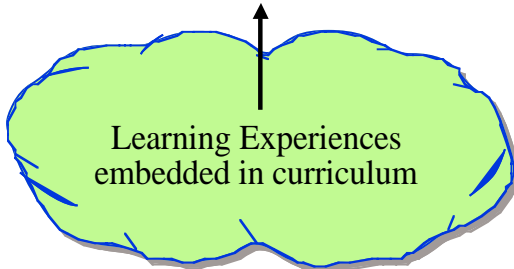
Use three different systems that are digitally linked:

- 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



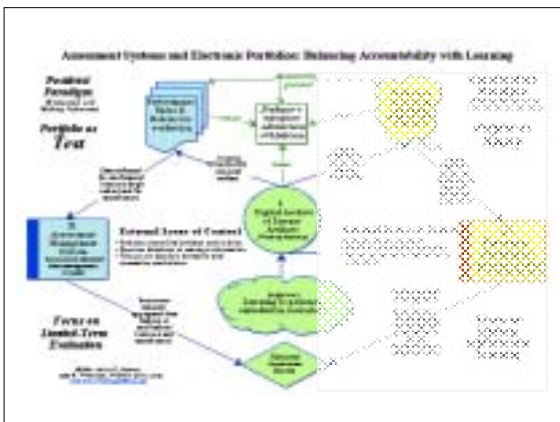
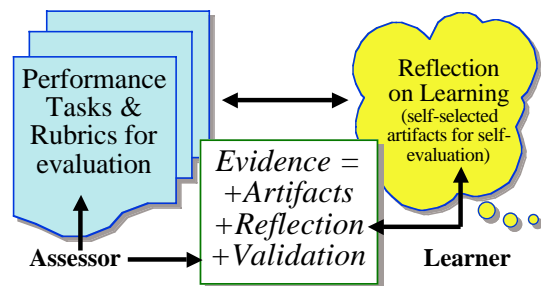
Begin Here



Interactive Process

*Evidence =
+Artifacts
+Reflection
+Validation*

Interactive Process

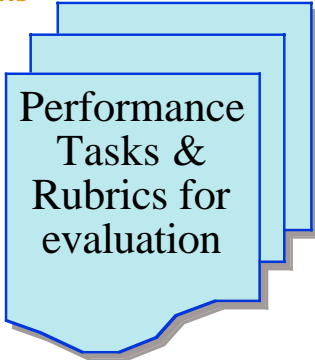


Positivist Paradigm
(Evaluation and Making Inferences)

Portfolio as Test

*Assessor
EVALUATES
required artifacts*

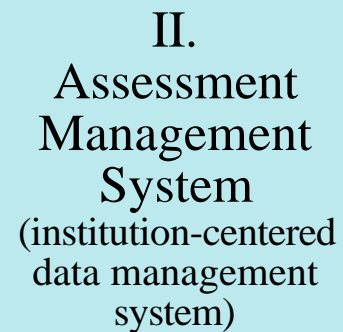
Perf tasks



Performance
Tasks &
Rubrics for
evaluation

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

//



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

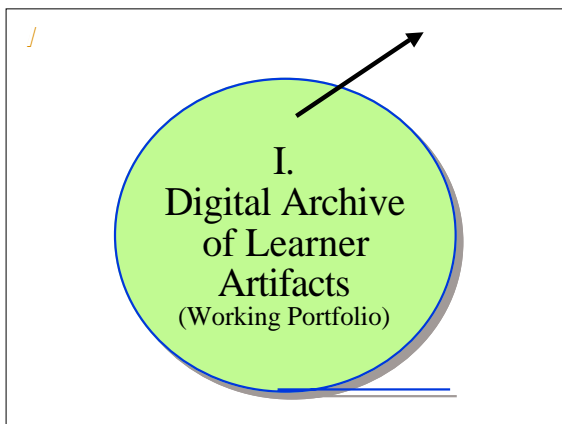
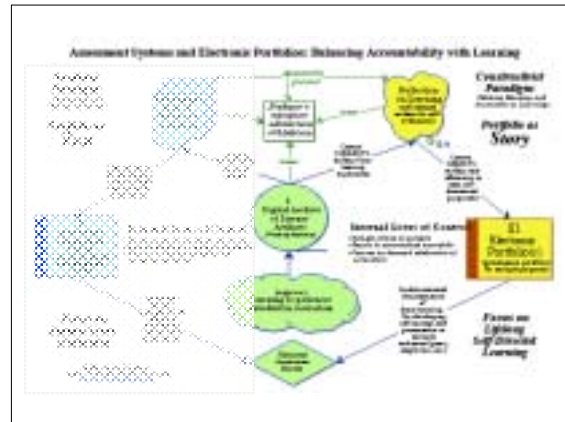
Resulting in...

**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*



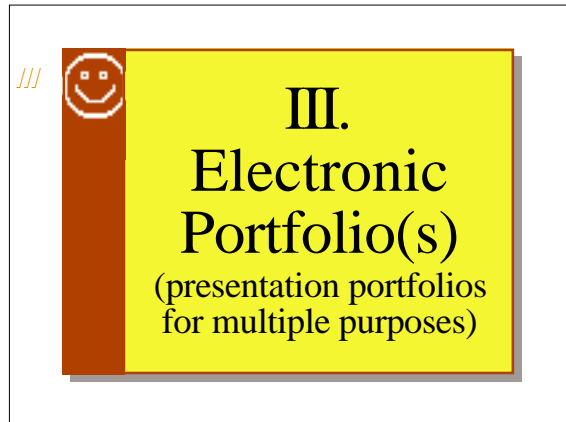
Constructivist Paradigm
(Making Meaning and Assessment
as Learning)

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)*



Resulting in...

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

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:



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

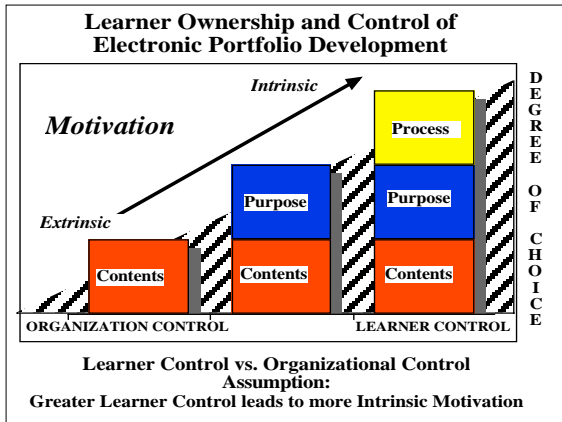
- **Purpose:**
the reason for developing the portfolio – includes audience
 - Learning & professional development
 - Assessment
 - Employment

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



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/>