ePortfolios: Digital Stories of Deep Learning

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Themes

- 21st Century Learning
- Electronic Portfolios
- Assessment **for** Learning
- Reflection
- Storytelling
- Digital Storytelling
- Examples

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http://www.21stcenturyskills.org/

The Partnership for 21st Century Skills

Education that…

- Connects to students' lives
  - Reduces GAP between how students live and how they learn
- Reflects "How People Learn"
  1. Uses prior knowledge to build new understanding
  2. Able to organize knowledge within conceptual framework
  3. Metacognitive approach, take control of learning, monitor progress, improve achievement
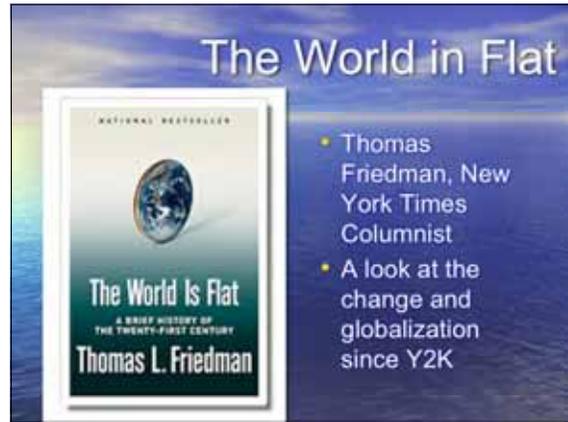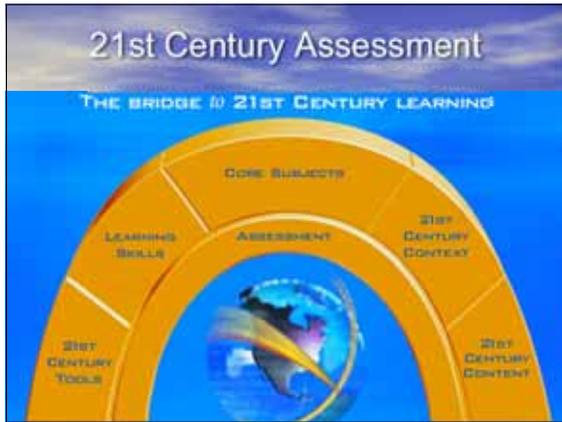
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6 Key Elements of 21st Century Learning

1. Emphasize core subjects
2. Emphasize learning skills
3. Use 21st century tools to develop learning skills
4. Teach and learn in a 21st century context
5. Teach and learn 21st century content
6. Use 21st century assessments that measure 21st century skills

Partnership for 21st Century Skills
http://www.21stcenturyskills.org/

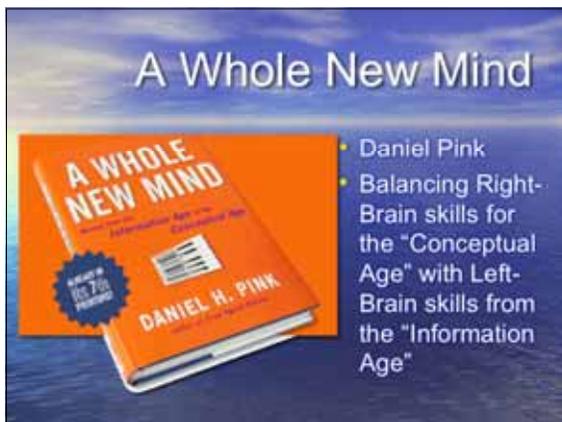## 21st Century Learning Skills

- Information and Media Literacy Skills
- Communication Skills
- Critical Thinking and Systems Thinking
- Problem Identification, Formulation and Solution
- Creativity and Intellectual Curiosity
- Interpersonal and Collaborative Skills
- Self-Direction
- Accountability and Adaptability
- Social Responsibility

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21st Century Assessment

THE BRIDGE to 21ST CENTURY LEARNING

CORE SUBJECTS
LEARNING SKILLS
ASSESSMENT
21ST CENTURY CONTEXT
21ST CENTURY TOOLS
21ST CENTURY CONTENT

The World in Flat

NATIONAL BESTSELLER

The World Is Flat
A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY
Thomas L. Friedman

- Thomas Friedman, New York Times Columnist
- A look at the change and globalization since Y2K

10 "Flatteners"

10 Major political events, innovations, companies

1. 11/9/89
2. 8/9/95
3. Work Flow Software
4. Open-Sourcing
5. Outsourcing
6. Offshoring
7. Supply-Chaining
8. Insourcing
9. In-forming
10. The Steroids

1. Walls down + Windows up
2. Netscape went public
3. Applications talk to each other
4. Self-Organizing Collaborative Communities
5. Y2K panic + help desks (India)
6. Shifting production (Asia)
7. Wal-Mart (China)
8. UPS
9. Google, Yahoo, WebSearch
10. Digital, Mobile, Personal, Virtual

The Quiet Crisis

- Need young people to constantly innovate new products, services = middle class
- Critical shortage of scientists & engineers capable of innovation - the "perfect storm"
- Dirty little secrets - gaps threaten our standard of living
  1. The Numbers Gap - science/engineering/IT 8x more engineering degrees in Asia than US
  2. The Ambition Gap - motivation & work ethic - goals
  3. The Education Gap - declining # K-12 students prepared for math, science, technology hi-ed

A Whole New Mind

A WHOLE NEW MIND
DANIEL H. PINK

- Daniel Pink
- Balancing Right-Brain skills for the "Conceptual Age" with Left-Brain skills from the "Information Age"

Causes of shift from LEFT to RIGHT Brain

- Abundance
- Asia
- Automation

6 Essential High-Concept, High Touch Aptitudes
Dan Pink, *A Whole New Mind*

1. **Design** (not just function) - create objects beautiful, whimsical, emotionally engaging
2. **Story** (not just argument) - the ability to fashion a compelling narrative
3. **Symphony** (not just focus) - synthesis--seeing the big picture
4. **Empathy** (not just logic) - forge relationships - care for others
5. **Play** (not just seriousness) - laughter, lightheartedness, games, humor
6. **Meaning** (not just accumulation) - purpose, transcendence, and spiritual fulfillment.

Digital Tools for Reflection
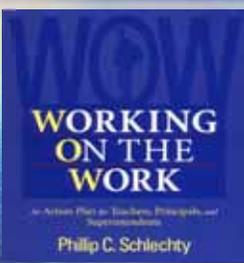
Electronic Portfolios and Engagement

A tale of two paper portfolios

- High School graduates in Washington state (and Utah, too!)

- High school freshman in NY
(Jim Mahoney, *Power and Portfolios* published by Heinemann)

What's the difference between those two stories?

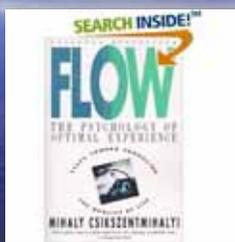- What are the variables that produce these extremes in attitudes toward ownership of portfolios?

Schlechty Center's Theory of Engagement

WORKING ON THE WORK
An Action Plan for Teachers, Principals, and Superintendents
Phillip C. Schlechty

1. Engagement
   - Learn at high levels/ profound grasp
   - Retain what they learn
   - Transfer to new contexts
2. Strategic Compliance
3. Ritual Compliance
4. Retreatism
5. Rebellion

Flow

- by Mihaly Csikszentmihalyi
- Based on more than 30 years of research
- Connections between satisfaction and daily activities
- A flow state ensues when one is engaged in self-controlled, goal-related, meaningful actions.

SEARCH INSIDE!
FLOW
THE PSYCHOLOGY OF OPTIMAL EXPERIENCE
MIHALY CSIKSZENTMIHALYI

"The Blind Men and the Elephant"
Thanks to Alan Levine

Blind Men and the ePortfolio
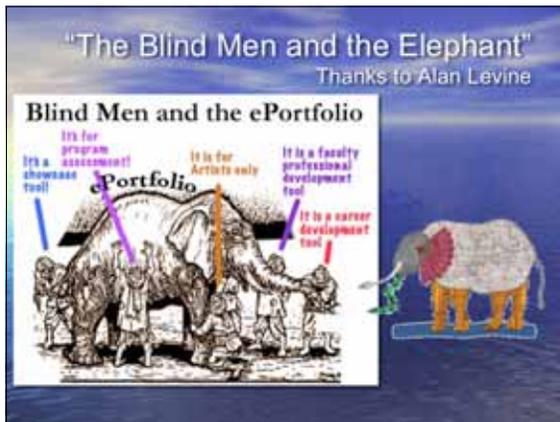
Eskimos and "Snow"

- Eskimos having 49 different words for "snow"
- Those who don't live in that environment tend to see it all as the same cold white stuff
- Same goes with "portfolio"

Metaphors!

- Mirror, Map, Sonnet
- C.V. or Multimedia Resume
- Test
- Story

- http://electronicportfolios.org/metaphors.html

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)

Portfolios tell a Story

"A portfolio is opinion backed by fact... Students prove what they know with samples of their work."
(Paulson & Paulson, 1991, p.2)

Purpose & Goals for the portfolio (Determine Content)

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

A few thoughts about Assessment -- What Type?

- Assessment OF Learning? or
- Assessment FOR Learning?

Purposes for Assessment

- Assessment OF Learning = Summative Assessment

- Assessment FOR Learning = Formative (Classroom-based) Assessment

- Past-to-Present

- Present-to-Future

Principles of Assessment FOR Learning

- Definition:
  Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.

Crucial Distinction

- **Assessment OF Learning**
  How much have students learned as of a particular point in time?

- **Assessment FOR Learning**
  How can we use assessment to help students learn more?

Rick Stiggins
Assessment Training Institute

Overview

	Assessment OF Learning	Assessment FOR Learning
Reason	Check Status	Improve Learning
To Inform	Others about students	Students about themselves
Focus	Standards	Enabling targets

Rick Stiggins
Assessment Training Institute

Slide 1

	Assessment OF Learning	Assessment FOR Learning
Example	High stakes external assessments, Classroom tests used for grading	Assessments that diagnose needs or help students see themselves improve
Place in time	An event after learning	A process during learning

Slide 2

The essential question

- Can we use assessment to help our students <u>want to learn</u>?

Rick Stiggins
Assessment Training Institute

Slide 3

Assessment FOR Learning Strategies

1. Student-friendly targets from the beginning (no surprises, no excuses)
2. Models of strong and weak work
3. Continuous descriptive feedback
4. Teach self-assessment and goal setting
5. Teach one facet of quality at a time
6. Teach focused revision (how to improve their work one facet at a time)
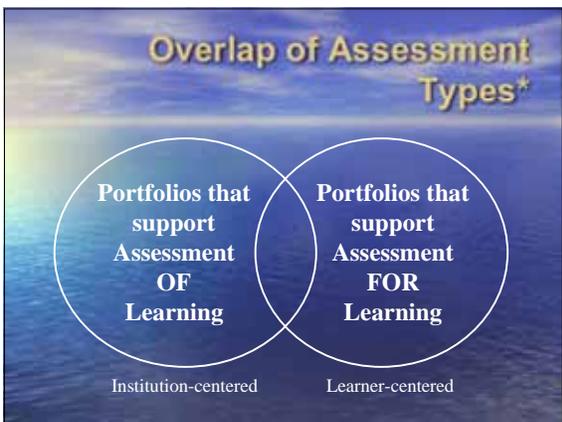7. Teach self-reflection to track growth

Rick Stiggins
Assessment Training Institute

Slide 4

What is your portfolio philosophy?

- A standardized **checklist** of skills? (Positivist)

or

- A reflective **story** of deep learning? (Constructivist)

Slide 5

Overlap of Assessment Types*

Portfolios that support Assessment OF Learning

Portfolios that support Assessment FOR Learning

Institution-centered   Learner-centered

Slide 6

Portfolio Differences

Assessment OF Learning
- Purpose prescribed
- Artifacts mandated - scoring for external use
- Organized by teacher
- Summative (Past to present)
- Institution-centered
- Requires extrinsic motivation

Assessment FOR Learning
- Purpose negotiated
- Artifacts chosen - feedback to learner
- Organized by learner
- Formative (Present to future)
- Student-centered
- Intrinsically motivating

Portfolio Development Process

Reflection
Selection
Direction
The ePortfolio as a Story of Learning
Collection
Celebration

Portfolio Processes

Traditional + Technology

- Collecting
- Selecting
- Reflecting
- Directing
- Celebrating

- Archiving
- Linking/Thinking
- Storytelling
- Collaborating
- Publishing

Reflection

The "Heart and Soul" of a Portfolio

What is Reflection?

- Major theoretical roots:
  - Dewey
  - Habermas
  - Kolb
  - Schön
- Dewey: "We do not learn from experience…we learn from reflecting on experience."

Jennifer Moon on Reflection

1999

2004

Reflection in Learning & Professional Development

Reflection is a form of mental processing – like a form of thinking – that we use to fulfil a purpose or to achieve some anticipated outcome. It is applied to relatively complicated or unstructured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess (based on Moon 1999)

Resource on Biology of Learning

THE ART OF CHANGING THE BRAIN

- Enriching the Practice of Teaching by Exploring the Biology of Learning
- James E. Zull
- Stylus Publishing Co.

The Learning Cycle
David Kolb from Dewey, Piaget, Lewin

- **Deep Learning** (learning for real comprehension) comes from a sequence of
  - Experience
  - Reflection
  - Abstraction
  - Active testing

The Learning Cycle
David Kolb from Dewey, Piaget, Lewin, adapted by Zull

Experiential Learning Model
Lewin/Kolb with adaptations by Moon and Zull

Outside

Concrete experience

(Kolb, 1984, p.21)

Have an experience

Testing implications of concepts in new situations

Observations and reflections

Try out what you have learned

Reflect on the experience

Formation of abstract concepts and generalizations

Inside

Learn from the experience

Reflection and Emotion
James Zull

- Hard to make meaning of experience unless it engages our emotions. (p.166)
- Reflection: a search for connections
- Sleep researchers: dreams help us make connections...we dream about what matters most. (p.168)
- For comprehension we need time. (p.168)

Moon on Reflection

- One of the defining characteristics of surface learning is that it does not involve reflection (p.123)
- Conditions for Reflection:
  - Time and space
  - Good facilitator
  - Curricular or institutional environment
  - Emotionally supportive environment

How might an e-portfolio support development of personal knowledge, reflection, and metacognition?

knowledge for acting/doing
reflection in action

performance

context

forethought   **self-reflection**

knowledge for planning actions *and imagination*

reflection for action

knowledge of self derived from doing

reflection on action

Norman Jackson
Higher Education Academy, U.K.

8

Digital Stories

- Chevak

Linked to…

Strategies that promote Intrinsic Motivation to maintain the process for Lifelong Learning

Online Portfolios

Digital Storytelling

Blogs & Wikis

Games

Digital Tools for Reflection

Digital Storytelling and Engagement

How can you leverage the technologies students own?

- Accessibility from home computers
- Connectivity with cell phones & PDAs (digital images, reflections)
- Video storage or streaming video
- **Podcasting** = audio-only digital stories and blogs

Helping Students Tell Their Stories

- **COLLECT** more than text documents
  - Pictures
  - Audio
  - Video
- Focus on **REFLECTION** over time
- Help students make **CONNECTIONS**
- Support multimedia presentation formats

## Digital Storytelling Process

- Learners create a 2-4 minute digital video clip

Anchorage 8th grade

  - First person narrative [begins with a written script ~ 400 words]
  - Told in their own voice [record script]
  - Illustrated (mostly) by still images
  - Music track to add emotional tone

"Free" Digital Storytelling Tools
http://electronicportfolios.org/digistory/tools.html

Macintosh
- *Audio recording*
  Audacity
- *Image editing*
  iPhoto, GIMP
- *Video editing*
  iMovie

Windows
- *Audio recording*
  Audacity
- *Image editing*
  GIMP
- *Video editing*
  MovieMaker2

Storytelling as a Theory of Learning

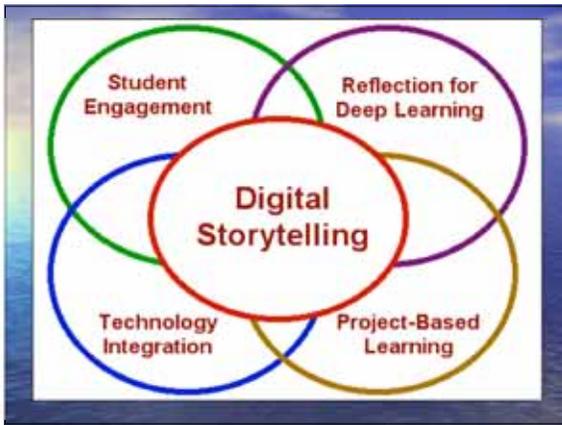Learning through STORYTELLING in Higher Education
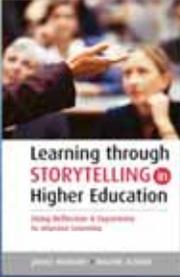
- Two educators from New Zealand – staff developer and health educator
- Relates storytelling to literature on learning and reflection
- Provides stages of storytelling related to reflection

Storytelling = Narrative Inquiry
Mattingly in Schön (1991)

- Aristotle: narrative – natural framework for representing world of action
- Everyday sense-making role of storytelling
- Stories reveal the way ideas look in action
- Narrative provides explanation

Student Engagement — Reflection for Deep Learning — **Digital Storytelling** — Technology Integration — Project-Based Learning

A Graduate Student's Letter to a Former Teacher

- Maybe you are a graduate student reflecting on what is drawing you into teaching
- Play "Coming Full Circle"
- Play "Deana"

Digital Storytelling is BOTH…
HIGH TECH
and
HIGH TOUCH

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

Digital Storytelling as Reflective Portfolio

- Learner Ownership and Engagement
- Emotional Connection
- Extended Future Time Perspective
- Deep Learning Tool
- Learner's Authentic Voice

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

Digital Paper or Digital Story?

Digital paper = text and images only

Digital story = tell your story **in your own voice**.

Multimedia = audio and video

What's Your Story?

Richness not possible in print

Audiences worldwide but most likely small and intimate.

Digital Story as Legacy

Not just for professional development

Or skills-based portfolios

Digital Storytelling Becomes a Lifelong Skill

- Cousin of scrapbooking and genealogy
- Cross-age collaborations
- Children interview elders
- Illustrate with family photos

Digital Storytelling Becomes a Lifelong Skill

- **Digital Family Stories** from birth to end-of-life
- **Digital Family Stories** help people **reflect** on life transitions
- **Digital Family Stories** preserve multimedia memories as a legacy for future generations

The REFLECT Initiative
reflect@taskstream.com
http://electronicportfolios.org/reflect/

A research project to assess the impact of electronic portfolios on student learning, motivation and engagement in secondary schools

Researching
Electronic
*port***F**olios
Learning
Engagement
Collaboration
Technology

Professional Development in The REFLECT Initiative

Philosophy & Pedagogy

- Teachers in Professional Learning Communities
- 21st Century Learning
- Assessment FOR Learning
- Electronic Portfolios

Student-Centered Learning

- Student Engagement
- Project-Based Learning
- Technology Integration
- Reflection for Deep Learning
- Digital Storytelling

Professional Learning Communities

SEARCH INSIDE!™

on common ground

- **On Common Ground**
- "The Power of Professional Learning Communities"
- Well-known authors in school reform

Digital Stories and e-Portfolios

- highly motivating project-based learning activity
- powerful artifacts in electronic portfolios
- the importance of reflection in e-portfolios
- tools for scaffolding reflection: blogging and digital storytelling
- overview of the literature on reflection and learning
- some new perspectives on storytelling as reflection on experience to improve learning (McDrury & Alterio)
- the role of reflection in brain-based learning (Zull)

My own story

- "One good example is worth 1000 theories" ->
- The issue of time and learning - reaching another transition and decision point in a long career, reflecting on the milestones in my life
- Play "choices"

My Final Wish…

May all your **electronic portfolios** become dynamic **celebrations** and **stories of deep learning** across the lifespan.

Dr. Helen Barrett

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- http://electronicportfolios.org/