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## Student ePortfolios for Independent and Group Projects

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## About Us

- Stanford University School of Medicine
- EdTech Group, Lane Medical Library  
<http://lane.stanford.edu/edtech>
- Technology Integration

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## Today's Learning Goals

- Learn the basics of ePortfolios
- Find out how ePortfolios are currently used in medical education
- Differentiate between ePortfolio tools
- Plan an ePortfolio pilot and evaluation
- Learn recommendations from our experiences

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## Learning How to Play the Game

Courtesy of Stephane Karoubi, Flickr.com

- Traditional: students watch instructor hit, students hit, instructor gives feedback, repeat
- New Model: students watch instructor hit, students are videotaped while hitting, student and instructor critique student while watching video, repeat

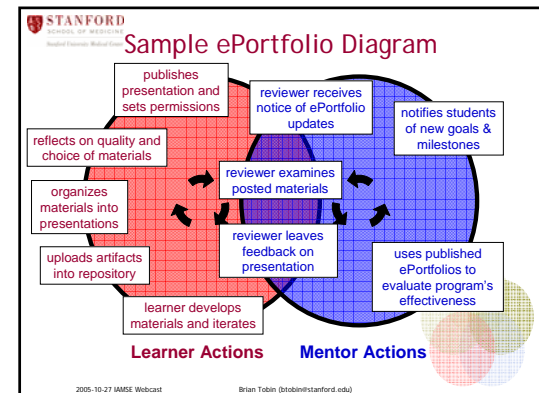
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## Definitions

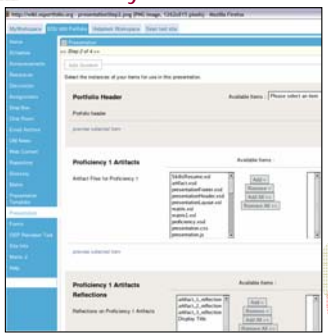
- ePortfolio / e-Portfolio
  - Collection of work(s) a learner selects and reflects upon to demonstrate achievement and rapidly iterate based upon peer / mentor feedback
- Artifact / Evidence / Asset / Learning Object
  - Learner-constructed contents in an ePortfolio
- Milestones
  - Steps or deadlines in ePortfolio process
- Advisor / Mentor / Guide / Reviewer / Facilitator
  - Provides feedback or guidance on learner's ePortfolio

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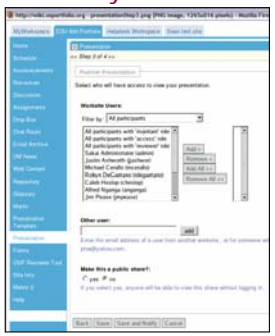
## Anatomy of an ePortfolio: OSP



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## Anatomy of an ePortfolio: OSP




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## Know Your Learners

- “Digital Natives”  
(Mark Prensky)
- Collect, archive, and share content freely
- High Expectations
- Active and relevant learning
- Faculty should be accessible




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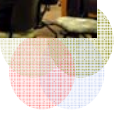
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## Active Learning in the Classroom

- Fewer lectures
- Student-centered
- Project-based learning
- Discussions and cases



- Example:  
Team Learning Classroom
  - theater-in-the-round
  - audience polling
  - students show laptops on projector



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## Know Your Mentors

- “Digital immigrants”
- Email savvy
- Taught by lecture
- Physicians
- Researchers
- Educators
- ... ePortfolio mentors?
- Need easy way to manage learner progress



Courtesy of Kingsley Wilks - SLIMM




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## Examples of ePortfolios in Medical Education

- Case Western Reserve
  - Student evaluation centered upon portfolios
- University of MN
  - Residency High/Low Points
- Johns Hopkins
  - Students apply to highly desirable internships
  - Pediatrics continuing medical education
- University of Pittsburgh
  - Student independent projects
- University of California, San Francisco
  - Student project presentations




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## Factors for Selecting a Tool

- Price
- Integration into existing curriculum and student information system
- Variety of permissions settings
- Ease of reviewing ePortfolios
- Compliance with standards
- Ease of artifact management
- Archive /download capability
- Reusability and length of use




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## Common ePortfolio Tools

- Freely Available
  - Open Source Portfolio "OSP"
  - Wikis (Tiki, Confluence, PM)
  - KEEP Toolkit
- Course Management System
  - Angel
  - WebCT (+Blackboard?)
- Document Management
  - Microsoft Sharepoint
  - Xerox DocuShare
- Custom-built
  - ePortaro Folio
- Home Grown
  - UW Catalyst ePortfolio
- HTML and web space




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## Stanford e-Portfolio Pilot 2004-2005



- Scholarly Concentration individual research projects
- Goals:
  - students organize learning experiences
  - students reflect on the process
  - facilitate communication between mentors and students
- Tool- borrowed UW Catalyst ePortfolio tool



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## Stanford ePortfolio Home Page

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## Stanford Student Project Page


University of Washington  
Catalyst ePortfolio tool

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## Evaluation Findings

- Usage varied
- Students rarely posted except at deadlines
- Students had little interest in peer review
- Students shared project info with mentors during face-to-face meetings
- Mentors never gave students feedback on ePortfolios
- Students prefer sending email



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## Learn from Others' Experiences

- About Running ePortfolios
  - clearly define and publicize ePortfolio purpose
  - face-to-face meetings between reviewers/ learners
  - start small and let project grow as users become comfortable
  - define rules and etiquette of online system
  - address privacy and ownership issues (perpetuity)
  - useful to have archiving and downloading capability
  - use camtasia / captivate to create help documentation (users need a walkthrough)

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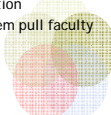


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## Learn from Others' Experiences

- About the Learners
  - assume varying levels of interest among learners
  - set requirements for deadlines/milestones
  - users want to selectively publish materials to a variety of groups (private, mentor only, peers only, public web)
  - build a culture of reflection and make it an expectation
  - encourage peers to leave feedback for each other
  - embrace email: use automatic email notification
  - students may be the best advocates- have them pull faculty into the process
  - use same login as course management system
  - educate learners about HIPAA issues

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## Learn from Others' Experiences

- About the Reviewers
  - assume varying levels of interest among reviewers
  - faculty development workshop on how to communicate in online forum / ePortfolio
  - continuously encourage mentors to leave feedback on projects
  - negative or simple comments will still increase portfolio usage
  - use pass/fail grading
  - minimize the work required to post/leave feedback

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## Learn from Others' Experiences

- Credits:
  - Helen Chen & Brian Tobin, Stanford University
  - Kari Branjord & Michael Lougee, University of Minnesota
  - Chandler Mayfield, University of California, San Francisco
  - Eileen Palenchar, Brown University
  - Jeff Haywood, University of Edinburgh
  - W. R. Klemm, Texas A&M
  - Karen Lundstrom, CUNY New York City Technical College

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## Starting an ePortfolio Pilot

- Determine where students collect materials and where they would benefit by presenting and getting feedback
- Install a free system or use an established system
- Clearly define purpose and goals of the ePortfolios
- Start with a face-to-face meeting between mentor/learner
- Use deadlines and requirements, but keep it simple
- Create culture of documentation and reflection
- If ePortfolios do not work out, at least faculty:
  - clarified learning goals
  - learned more about the student experience
  - used insights to improve their program

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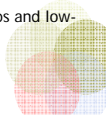


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## Evaluation of an ePortfolio Pilot

- Collect usage statistics
  - artifacts, reflection, feedback
  - add images or html pages to track hits on web server
- Survey learners and reviewers
  - surveymonkey.com or within Course Management System
- Hold focus groups
  - Compare feedback from high-usage groups and low-usage groups
- Are the ePortfolios meeting their goals?
- Share your results with peer institutions!

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## Other Resources

- ePortfolios
  - Electronic Portfolio Consortium
    - <http://www.eportconsortium.org/>
- Technology in Medical Education
  - Computing Resources in Medical Education (CRIME)
    - <http://missinglink.ucsf.edu/crime/>
  - Consortium on Medical Education and Technology (COMET)
    - <http://comet.med.nyu.edu>

