

# **Electronic Portfolio Technology Options**

Darren Cambridge, George Mason University

[dcambrid@gmu.edu](mailto:dcambrid@gmu.edu)

EDUCAUSE Mid-Atlantic Regional Conference

January 12, 2005

# Technology Options

- Generic
- Proprietary
- Open source
- Homegrown

# Generic Tools

- Web design: Dreamweaver, Netscape Composer
- Graphics tools: Adobe Photoshop, Illustrator
- Audio and video: iMovie
- Print design tools: Adobe Acrobat
- Published on the Web or to CD-ROM
- Some examples:
  - <http://www.bsu.edu/web/knkramer/index.html>
  - [http://scil.stanford.edu/research/learningcareers/capstones/brian/LOB\\_index.html](http://scil.stanford.edu/research/learningcareers/capstones/brian/LOB_index.html)
  - <http://www.stolaf.edu/depts/cis/wp/wernerb/>

# Generic Tools Advantages

- Require little infrastructure, central IT support
- Author has great flexibility and control
- Develops and demonstrates ICT skills
- Many students know how to use these tools already or learn them within the existing curriculum

# Generic Tools Disadvantages

- Many students and faculty members don't know these tools already; steep learning curve
- Students need access to expensive desktop software and fast computers
- Time consuming to produce (and consume)
- Privacy challenges
- Lack of workflow scaffolding

# Generic Tools Best Practices

- Make space in the curriculum for the skills and activities necessary to take advantage of the power of generic tools
- Provide technical and conceptual support services
- Clemson University
  - Credit for portfolio building over several years within general education
  - Studio in professional writing center with expert consultants

# Commercial Tools

- Web applications
- Hosted by campus or vendor
- Major US vendors:
  - Nuventive ePortaro
  - Taskstream
  - LiveText
  - Blackboard
  - Avenet

# Commercial Tools Advantages

- Ease of use
- Features:
  - Views
  - Access control
  - Roles-based permissions
  - Integrated commenting and scoring
- Hosted option
- Vendor technical support
- Vendor consulting services
- Integration with other enterprise systems

# Commercial Tools Disadvantages

- Proprietary format
- Author has less control of information architecture and visual design
- Rapidly evolving market
- Dependent on vendor for customization
- Licensing costs

# Commercial Tools Best Practices

- Survey the range of portfolio practices you might need to support before choosing a tool
- Develop a CFP based on your needs, not available features
- Look for open standards support (IMS and OKI)
- Schedule lots of demos, even if you're not the sole or primary decision maker
- Budget for both software and services

# Open Source Tools

- Similar in features and structure to commercial tools
- Unbundling on software and support (Wheeler 2004)
- Open Source Portfolio
  - The Open Source Portfolio Initiative
  - R-Smart Group
- Epsilon (“open” for a fee)
  - ePortConsortium
  - CyberLearning Labs

# Open Source Tools Advantages

- No (or low) licensing costs
- Commercial advantages: Ease of use, features, and integration with other systems
- Customizable in-house
- Factored architecture (OSPI)
- Technical support and vendor consulting
- Support from community (Linux)
- Direction of development determined by community

# Open Source Tools Disadvantages

- Direction of development determined by community
- Proprietary format
- Other people's code is harder to work with
- You support it yourself

# Open Source Best Practices

- All the commercial best practices apply
- Engage the community before you commit
- Formalize your relationships with the key players (CHEF -> SAKAI example)
- Find a way to contribute early and often
- Consider partnering with other institutions

# Open Source Example

- Open Source Portfolio
- Designed for multiplicity
- Designed for connectedness
- Sophisticated assessment and reporting
- <http://www.theospi.org/>

# OSP 2: Multiplicity

- Collection

- Artifacts - files, reflections, comments ...
- Relationships - reflection on, attests to, evidence of, etc.

- Design

- Visual design
- Hypertext

- Guidance

- Matrixes and rubrics
- Wizards and checklists
- Analytical tools: search and query

# OSP 2: Connectedness

- Common Interest Groups (CIG)
  - Anyone can create CIGs, guidance, and designs
  - Collaboration tools through Sakai
- Libraries and templates
  - Anything can be shared with any CIG
- Interoperability
  - Easier integration with other systems through open standards
  - Import and export using IMS ePortfolio

Sakai : NCATE Unit Standards : Repository - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://johnellis.rsmart.com:8181/portal?site=1099067098877-40&page=1099067099478-47

r-smart OSPI portfolios Sakai Open Source Research gadgets Tools JA-SIG travel personal

**OSPI**  
Open Source Portfolio Initiative

Logout

MyWorkspace All Majors Bible and Theology **NCATE Unit Standards**

Home  
Announcements  
NCATE Unit Standards  
Repository  
Site Info  
Help  
Users present:  
Sakai Administrator

**My Repository**

0 items 19.1MB available

Edit Worksite Node Permissions

Name	Action	Date Modified	Size	Kind
My Repository		29-10-2004		Folder
All Majors		29-10-2004		Folder
Bible and Theology		29-10-2004		Folder
NCATE Unit Standards		29-10-2004		Folder
group examples		29-10-2004		Folder
standard 1 Candidate KSDs		29-10-2004		Folder
IU Educause 04.ppt		29-10-2004	383KB	application/mspowerpoint

Add Folder

icon	description
	Expand folder
	Collapse
	Delete this folder or file
	Move the selected folder or file to this folder
	Upload a file into this folder

| The Sakai Project |

Done

Sakai : NCATE Unit Standards : NCATE Unit Standards - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://johnellis.rsmart.com:8181/portal?site=1099067098877-40&page=1099067099478-43

r-smart OSPI portfolios Sakai Open Source Research gadgets Tools JA-SIG travel personal

**OSPI**  
Open Source Portfolio Initiative

Logout

MyWorkspace All Majors Bible and Theology **NCATE Unit Standards**

Home  
Announcements  
NCATE Unit Standards  
Repository  
Presentation  
Presentation  
OSP Reports  
Presentation  
Site Info  
Help  
Users present:  
Sakai Administrator

### PUL Learning Matrix

Click on a cell to view/edit

PULS	Introductory	Intermediate	Advanced	Experiential
Candidate Knowledge, Skills, and Dispositions	Ready	Locked	Locked	Ready
Assessment System and Unit Evaluation	Ready	Locked	Locked	Ready
Field Experiences and Clinical Practice	Ready	Locked	Locked	Ready
Diversity	Ready	Locked	Locked	Ready
Faculty Qualifications, Performance, and Development	Ready	Locked	Locked	Ready
Unit Governance and Resources	Ready	Locked	Locked	Ready

Legend

Ready
  Completed
  Pending
  Locked

Done

My Workspace : Home - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://johnellis.rsmart.com:8181/portal?site=~cdcoppola

r-smart OSPI portfolios Sakai Open Source Research gadgets Tools JA-SIG travel personal

# OSPI

Open Source Portfolio Initiative

Logout

MyWorkspace All Majors Bible and Theology NCATE Unit Standards

Home  
 Membership  
 Schedule  
 Presentations  
 Announcements  
 Worksite Setup  
 Preferences  
 Account  
 Repository  
 Users present:  
 Chris Coppola

### My Comments

[Awesome animation....](#)  
[Please call to sched....](#)  
[My only comment fo....](#)

### My Templates

[Jay's Resume](#)  
[Personal Contact Info](#)  
[Slideshow](#)  
[Jim's Media Container](#)

### My Presentations

Porsche Animation

Lilly Resume

Internship Resume

South Africa Trip

CT302 Class Project

Watch my Portfolio Grow

Done

# Homegrown Tools

- Written and supported in house
- Often computerizes an existing format and process
- Examples:
  - Digital Diagnostic Portfolio (Alverno College)
  - Learning Record Online (U of Texas at Austin)
  - Portfolio Community (U of Denver)
  - Catalyst Portfolio (U of Washington)

# Homegrown Tools Advantages

- Total control
- Focused and lightweight
- Community and knowledge building through development process

# Homegrown Tools Disadvantages

- Need development infrastructure
- Scalability
- Still have to provide support
- Proprietary format
- Lack of a broader community
- Danger of reinventing the wheel

# Homegrown Tools Best Practices

- Research existing software before you build
- Consider integrating rather than building from scratch
- Involve all stakeholders, especially students, as early and often as possible
- Plan for sustainability

# Homegrown Tools Examples

- Alverno Digital Diagnostic Portfolio
  - [http://ddp.alverno.edu/production/login.php?base=DDP\\_Demo](http://ddp.alverno.edu/production/login.php?base=DDP_Demo)
- Carnegie Foundation KEEP Toolkit
  - <http://www.cfkeep.org/html/snapshot.php?id=971>
- Learning Record Online
  - <http://lro.cwrl.utexas.edu/>