

## I. Introduction and brief history

### A. Note distinction of “portfolio program” as

1. the technological infrastructure that overcomes technical challenges and
2. the pedagogy and rationale grounded in theories about learning, or concepts of the curriculum, or intended learning outcomes, or an institution’s mission.

I’m neither a technologist, nor an education professional, so I will only speak about the second. (This may be a qualification or a disqualification for the remarks that follow, and each of you will have to judge!)

- ### B. St. Olaf College launched a program of web portfolios together with its Center for Integrative Studies (CIS) in 2000. The CIS was and remains a center for many interdisciplinary and integrative scholarly activities. Its principal mission is to support students who design individual majors relying on courses from multiples departments. Web Portfolios were initially conceptualized as a means to insure the coherence of students’ major course of studies when they were not under the auspices of any single academic department. The pedagogy and rationale for web portfolios was developed through workshops and conferences involving faculty staff and students on campus and around the country. I made several presentations and heard comment from people at national meetings of the AAC&U and at regional meetings. St. Olaf was for two years a participant in the NCEPR convened by Kathleen Yancey of Florida State University (formerly of Clemson), a leading portfolio theorists and someone known to many of you. See Center for Integrative Studies at <http://www.stolaf.edu/depts/cis/>.

## II. What is a WP at St. Olaf?

- ### A. “A collection of a student’s work, selected by the student and maintained over time to illustrate the unfolding meaning of his or her academic career, stored and presented as a web site, using hyperlinks to demonstrate how the student understands relationships among many individual achievements, including links to the work of peers, and to work presented at external sites.”

### B. Unstructured

1. No application besides web editors
2. Only very general specification of what is to be included
3. Work products from classes, internships, laboratories, studios (artifacts)
4. Projections of future work
5. Reflective assessment of artifacts included
6. Links to relevant public sites

- C. “Web Portfolio” to be thought of as an activity, not a product
  - 1. Selecting
  - 2. Organizing
  - 3. Presenting
  - 4. Explaining

### III. Situating Web Portfolios

- A. Many uses of portfolios
  - 1. Certifying competencies specified by external agencies
  - 2. Presenting career related competencies
  - 3. Gathering evidence for institutional program assessment
  - 4. Intellectual development

Web Portfolios as I understand them are first and foremost about students’ intellectual development

Represent a wager that the activity of maintaining a portfolio advances intellectual development

NB: colleges seek to develop many competencies and dispositions—some broad and some very specific; some elusive and some very tangible and measurable.

Some are specific to particular disciplines, some are the common enterprise of the whole curriculum (indeed whole program of the college, curricular and co-curricular)

- B. In my conception of web portfolios three habits of mind are central
  - 1. Reflection: by this I mean a sense for the emergence and transformation of new ideas, judgments, perceptions, and abilities, over the course of an individual’s life, presented in something like a narrative form. Reflection points in the direction of being able to appraise our own past accomplishments with candor and humility so as to chart a realistic a fruitful course for the future. It tends towards the self-knowledge that distinguishes mature minds.
  - 2. Integration: by this I mean the sense for connections among subjects, including an awareness of the transferability of perspectives and cognitive tools or strategies from one domain to another. Integrative thinking points in the direction of an ability to intuit relationships among subjects or phenomena that may not commonly be considered closely related. It tends towards a sense for the whole that we associate with wisdom.
  - 3. Public thinking: by this I mean a sense for the challenge of communicating ideas, and recognizing the setting of one’s own ideas in a wider world of positions and counter positions. Public thinking suggests the ideal of rendering ideas available to a large community, rather than allowing them to

languish in solitude or in the private lingo of some academic or personal clique. It tends toward the recognition of the setting of one's own ideas and the nature of the contribution one's ideas make to ongoing public debates and pursuits.

Interestingly, almost every theory of intellectual, personal, cognitive, or moral development includes the notion that personal growth involves an expanding awareness both of the context of an individual's life, and of the history of that life. Growth happens through "crises" that require recognition of a larger horizon. So whatever the theory, it presupposes *integration* of anomalous experiences, and *reflection* on the course of life leading up to the "crisis." These are the things that are in play in a web portfolio.

They are very "high order" competencies, and thus not necessarily so easy to measure as more discrete skills may be. But they are precisely the kinds of competencies that liberal arts colleges claim as their stock in trade, and that we boast about as the unique "added value" of a liberal arts education

#### IV. Assessing CIS Web Portfolios

- A. In the CIS we have never intended to assign a precise grade to students' portfolios, or rank them in any way. So any exercise of assessing or evaluating them is really a matter of trying to make learning goals explicit.
- B. We have developed and refined rubrics that address the key variables in a web portfolio, as we understand it. And these rubrics are intended both to steer students' efforts and to guide faculty advisers and evaluators.
- C. The most fully developed rubric involves seven criteria, of which the last four are the ones of greatest interest to us. See appendix A.
  - 1. Substantive Focus
  - 2. Visual Style
  - 3. Effective Organization
  - 4. Integrative Thinking
  - 5. Reflective Thinking
  - 6. Thinking in Community
  - 7. Thinking in Context
- D. The rubric has two simple levels for each criterion to indicate the character of "acceptable" or "excellent" performance in each case.

#### V. Using Web Portfolios for Program Assessment

- A. It hardly needs restatement that "assessment" prompts an ambivalent response from educators.

1. A positive appraisal: A reasonable demand to find out if our students are meeting learning goals; perhaps it is even a kind of moral obligation for teachers.
  2. A negative appraisal: An irksome burden imposed by external constituencies who lack understanding of and sympathy for (and may even be hostile to) the aims of liberal arts colleges.
- B. In what follows I assume that meaningful assessment of student learning (i.e. assessment that faculty could undertake with relative enthusiasm)
1. Will provide clear, illuminative, honest evidence for outside constituencies
  2. Will provide real guidance for instructors and campus leaders concerning effective classroom practices and effective ways to organize the curriculum
  3. Will not impose burdens on teaching and learning out of proportion with the gains for teaching and learning
  4. As part of this, will not raise an impossible standard for reproducibility, validity, and reliability, but will accept the value of illuminating case studies, insofar as these studies meet the first two assumptions.
- C. Web Portfolios are well suited to these yardsticks for assessment
1. They promote an activity that generates real intellectual development of a type valued in liberal arts colleges
  2. They generate archives of materials that can be examined for evidence of many kinds of learning, but especially of the higher order kinds of learning that are otherwise the most elusive to demonstrate.
- D. Rubrics are an effective way to get a sense of individual accomplishments and to create a community consensus about what is valued.
1. Multiple rubrics can be developed in a web portfolio program, and indeed they can be developed in conjunction with the development of the web portfolio program itself.
  2. Developing rubrics is a salutary process of clarifying campus concepts and standards for elusive virtues, such as critical thinking, or cross-cultural awareness, or integrative thinking, or reflection.
  3. Then appraising web portfolios using a homegrown rubric is itself a salutary experience that identifies and celebrates excellent student achievements, and contributes even further to a community sense about where students strengths and weaknesses lie.
- The CIS rubric emerged from discussions among advisers, teachers, and staff members. And the process of developing it has served to cement a sense of how to guide students and what to expect from them.
- E. Another example of a rubric that seeks to isolate and recognize “integrative thinking” is emerging from the VALUE initiative of the AAC&U. This initiative (for Valid Assessment of Learning in Undergraduate Education) represents an effort to forge a national conversation on recognizing and documenting undergraduates’ development of the intangible qualities we think are so valuable, and to do this in ways that outside constituencies will take seriously. See

<http://www.aacu.org/value/>. Faculty at participating institutions have collected rubrics from all around the country and distilled these into meta-rubrics—or crystallizations of the best thinking about how to measure these elusive qualities. The metarubric for capturing integrative thinking is now being tested at several institutions. A group of St. Olaf faculty recently reviewed and proposed changes to the meta-rubric after using the rubric as a tool for appraising some CIS portfolios. We were guided by two questions, Does the rubric help us to recognize the success or failure of the student in demonstrating something called “integrative learning” in their web portfolios? and Does the rubric succeed in capturing what we already regard as distinctive evidence of integrative learning in their web portfolios? After this effort we recommended a revised rubric to the VALUE initiative that includes four criteria and four levels. See Appendix B

1. Dealing With Complexity
  2. Transferring Learning
  3. Communicating Effectively
  4. Demonstrating Self-Awareness
- F. We also tried to establish a kind of symmetry in the way levels of achievement are expressed across these four criteria, such that in all of the level shifts could be characterized in the following general terms:
1. "Basic Competency" -- ability to use basic terms and skills accurately
  2. "Awareness of Theoretical Contexts" -- ability to place basic terms and skills in appropriate larger frameworks
  3. "Awareness of Multiple Contexts" -- ability to transfer insights, terms, and skills from one framework to another
  4. "Creativity" -- ability to expand, evaluate, or interpret a framework through juxtapositions with others

#### VI. Conclusion:

- A. Web Portfolios are well suited both to intellectual development and to program assessment
- B. They are an intrinsically good activity for students
- C. They lend themselves to assessment of many kinds of achievement
- D. They facilitate assessment of the elusive, and not just the readily available, achievements that liberal arts colleges value.

Sample Portfolios available at <http://www.stolaf.edu/depts/cis/archivewp.html>  
At the workshop we briefly viewed portfolios undertaken by Schloer, Nervig, Stull-Lane, and Samuelson.

## Appendix A: CIS Rubric for Web Portfolios

	A PORTFOLIO SHOULD	ACCEPTABLE	EXCELLENT
	HAVE A CLEAR FOCUS, BASED IN THE MAJOR	Portfolio is organized around important themes and questions of the major. <i>Potential shortfalls: Portfolio may focus on the senior project rather than the major as a whole. Portfolio may have content or style more suitable to a personal web page.</i>	Portfolio is organized around the important themes and questions of the whole major, and illustrates how they interact through the courses, senior project, and other experiences of the major. It is clearly a coherent, sustained, academic effort.
	HAVE A VISUAL STYLE	Page layout is appropriate to content, with effective use of colors and fonts. <i>Potential shortfalls: Colors may change at random from page to page. Too much information on some pages may make it difficult to navigate.</i>	Page layout is appropriate to content, with effective and logical use of colors, fonts, and white space, and with information arranged for ease of navigation. Images and graphics add meaning, information, and understanding.
	HAVE A USEFUL MEANS OF NAVIGATION	All links are live, and there are connections among as well as to various pieces of work. <i>Potential shortfalls: Some links lead to dead-ends. Readers have no way of knowing where they are in the portfolio.</i>	All links are live, and there are connections among as well as to various pieces of work. Link paths are logical, and there are reminders to show where a reader is in the structure of the whole portfolio.
HABITS OF MIND	SHOW INTEGRATIVE THINKING – <i>The ability and habit of recognizing relationships among things not routinely thought of as related.</i>	<i>Portfolio includes several works with links to and among them. Potential shortfalls: Links may not be well explicated; links may simply function as an index from the homepage rather than as signs of meaningful connections; works included may seem unrelated.</i>	Portfolio includes and connects diverse works (e.g., diversity of disciplinary context, media, etc.). Portfolio explains the meaningful relationships among the works, so that each work enhances appreciation of themes, problems, and possibilities present in others; selection of links makes relationships explicit.
	SHOW REFLECTIVE THINKING – <i>The ability and habit of looking back on and reassessing previous experiences in light of new learning, of understanding and explaining the development of one's thinking.</i>	Portfolio includes consideration of student's process and development. <i>Potential shortfalls: Reflection may be superficial, haphazard, or non-specific.</i>	Portfolio shows evidence of the student's evolving understanding in the major. There is a journal or other annotation explicitly connected to course and other work that illustrates student's awareness of progress and process, and evidence of ongoing reconsideration of earlier ideas.
	<b>SHOW THINKING IN community- THE ABILITY AND HABIT OF SEEKING CONNECTIONS BETWEEN ONE'S OWN WORK AND THE WORK OF OTHERS WITH SHARED OR RELATED INTERESTS.</b>	Portfolio includes links or references to work of other individual majors, and awareness of audience. <i>Potential shortfalls: Links to other portfolios may be generic or not relevant to the topic of the portfolio. Structure of portfolio may not invite interaction.</i>	Portfolio shows evidence of consideration given to impact on viewer, as well as consciousness of and interaction with concerns of colleagues. Structure and content of portfolio invite interaction (by raising questions, soliciting responses, suggesting other sources). Intentional, richly explicated links to work of peers; integration of related interests into content and structure of portfolio.
	SHOW THINKING IN CONTEXT – <i>The ability and habit of seeking connections between conversations in "the academy" and resources and issues in the wider society.</i>	<i>Portfolio includes links to external sites. Potential shortfalls: Rationale for inclusion of particular links may be missing; external sites may not be evaluated and may be of varying quality or relevance; links to external sites may be appended to, rather than integrated into the portfolio.</i>	Portfolio includes links to communities outside academia, sites of discussion and information. Links are carefully chosen, and rationale for each connection is explicit; sites selected are of high quality; links to external sites are integrated into the structure and content of the portfolio; there is evidence of give and take between the student and the external community (correspondence, email, etc.)

## Appendix B: Sample Rubric for Appraising “Integrative Thinking” As It May Be Present in a Web Portfolio

### LEVELS

NB: In general, the advance from level to level for each criterion follows a roughly common pattern of increasing ability to place basic skills and concepts in larger theoretical frameworks, and then to deal creatively and self-reflectively with these frameworks themselves.

		Level 1 "Basic Competency"	Level 2 "Awareness of Theoretical Contexts"	Level 3 "Awareness of Multiple Contexts"	Level 4 "Creativity"	
		ability to use basic terms and skills accurately	ability to place basic terms and skills in appropriate larger frameworks	ability to transfer insights, terms, and skills from one framework to another	ability to expand, evaluate, or interpret a framework through juxtapositions with others	
CRITERIA	A	Dealing With Complexity	recognizes the complexity of subjects and issues	intentionally places the complexity of subjects and issues in distinct theoretical frameworks	addresses relationships and makes reasonable connections among multiple frameworks	extends and recombines varied frameworks to address increasingly complex issues
	B	Transferring Learning	applies learning from prior experiences to new situations	recognizes that prior learning belongs to specific frameworks that may be applied to new circumstances	brings multiple frameworks to bear on the solution or interpretation of new circumstances	explicitly recognizes the significance of new uses of familiar frameworks
	C	Communicating Effectively	[basically competent communication]	[communicates with awareness of audience, voice, and resources of media]	[communicates with sophisticated awareness of alternative frameworks and strategies]	[communicates creatively]
	D	Demonstrating Self-Awareness	describes self in terms of identity and values	places awareness of self in context of larger conceptions of identity and values	articulates identity in context of multiple contexts within which identity may be formed and understood	articulates and defends personal commitments in the context of multiple options