

I This chapter provides an overview of e-portfolio concepts and designs. It describes a model that outlines an array of dimensions for the categorization of e-portfolio systems, reviews selected systems, and makes observations regarding the importance for student affairs units to understand, collaborate, and include e-portfolio systems within their programs and services.

e-Portfolios: Concepts, Designs, and Integration Within Student Affairs

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The evolution of Internet-based applications to higher education, classroom learning, student affairs, and career services is providing dynamic new opportunities for college student programs and services. It is common for colleges and universities to use course management software such as Blackboard in support of the entire institutional learning community, including class assignments, while providing a communications system for students, faculty, and staff. The advent of the new Web 2.0, a highly communicative system, promotes and supports student interaction through applications such as MySpace and FaceBook. Also, specialized social networking sites have been developed as career recruitment tools. For example, corporate recruiters note that social networking technology such as LinkedIn provides a keyword search engine to seek job candidates throughout the world. Furthermore, most college and university career services offices employ an Internet-based system in support of student résumé databases, job listings, and recruitment programs. Examples of recruiting systems are NACELink using the Symplicity Career Services Manager system, MonsterTrak, CSO, and Experience. All of these Internet applications are rapidly changing the processes and tools that college students use in their career development and job-seeking behaviors.

In short, the practice of preparing and submitting a paper-based résumé and cover letter in support of employment is becoming outmoded. Emerging electronic portfolios hold great promise to change the national and international landscape in offering new Internet-based tools to support

college student career development. Specifically, career-related e-portfolios enable students to understand, develop, chronicle, and communicate their career attributes to others. However, career-based e-portfolios are just one of many e-portfolio applications. E-portfolios represent new and dynamic tools that support an array of higher education applications, ranging from reflective-based e-learning to assessment of learner outcomes and show-case systems supporting career development.

A comprehensive review of all e-portfolio concepts, designs, and applications is far beyond the scope of this volume. Rather, the primary focus here is on e-portfolio systems that support student affairs and university career services. However, in order to provide contextual understanding of specialized career-related e-portfolios reviewed in later chapters, the following section offers a brief discussion and overview regarding e-portfolio concepts, designs, and applications.

The Scope of e-Portfolio Systems

The scope of e-portfolios is addressed in terms of the primary goal: learning-based, assessment, or career development and employment systems.

Learning-Based Systems. Perhaps the most widespread application for e-portfolios is to support user learning. The intent of such portfolios is not to support concrete applications such as employment; rather, they are more commonly less structured in supporting user learning through reflection. For example, Cummings (2006) notes that e-portfolios provide an environment for self-reflection and often include digital representations of the visual arts, music, and storytelling. Siemens (2006) stresses the importance for supporting learning through fluid processes, and views e-portfolios as living documents emphasizing process and flow rather than the product. In these applications, e-portfolios are flexible, unstructured, and person-specific. Barrett (2006b) writes extensively regarding e-portfolios and emphasizes portfolios as vehicles that offer digital stories in support of deep learning. For Barrett, e-portfolios provide personal Web space. They are not institutionally based; rather, reflection is the heart and soul of portfolios.

It is apparent that opportunities exist for student affairs for these highly interactive Web-based applications that are becoming an integral part of college student life, and these opportunities are not necessarily linked to career services.

Assessment Applications. Assessment-oriented e-portfolios support the evaluation of student learner outcomes and may be used to support institutional assessment accreditation. Kahn (2001) addresses institutional portfolios and how they can be used in linking learning, improvement, and accountability. Kahn defines an institutional portfolio as a “focused selection of authentic work, data and analysis that demonstrates institutional accountability and serves as a vehicle for institutionwide reflection, learning

and improvement” (p. 136). Yancey (2001) describes digitized student portfolios and their use in supporting and documenting interactive learning. Hult (2001) describes the use of e-portfolios in assessing student learning through writing outcomes-based program competencies and course objectives. Student portfolios are assessed by faculty and curricular assessment committees with the data used in support of departmental effectiveness, curricular design, and university accreditation. Clearly student affairs can play a principal role in supporting the university accreditation process.

Career Development and Employment Systems. E-portfolios offer a direct application in support of users’ career development. Such e-portfolios are commonly used in support of the employment process in showcasing student skills and accomplishments. However, from the career development perspective, the process of e-portfolio development may be more important than the outcome. For example, through creating an e-portfolio, student users can be introduced to the ingredients of the career development process, be instructed in core skills that support career development, and better understand how to plan for involvement in experiences that support skill development. Furthermore, they can be systematic and intentional in building a career portfolio that could include career goals, academic records, résumé, references, skills with supporting evidence of experience, and artifacts and work samples developed throughout the academic program. Cummings (2006) described a student-owned and managed e-portfolio that, in addition to supporting self-learning and instructor evaluation, can be used by students in support of employment. Dominick and Funk (2006) discussed an institutionally based e-portfolio and how students can use “folio thinking” to their advantage in developing their portfolio and in support of the employment search process. A definition of “folio thinking” would be students’ ability to consider their experiences and reflect upon the resulting meaning and associated skills. Lumsden and others (2001) described a model for building an e-portfolio that supports university students’ career planning and employment. One of the primary components of this system is a skills matrix that enables students to learn about career-related skills and systematically build a skills matrix with supporting evidence of experiences. This system and a number of additional student affairs-based and career services-based e-portfolios are described in detail in later chapters.

Concepts and Design Considerations

Career portfolios must be placed within the context of the explosive nature of rapidly emerging e-portfolio systems that support user learning, student and institutional assessment, and career development. Indeed, the complexity in applications extends well beyond categories of e-portfolios intended to support learning, assessment, or showcasing career skills and accomplishments. But these are not mutually exclusive categories because many e-portfolio systems are used in support of all of these goals. Nevertheless,

I suggest that it is critical that the goals, intentions, and design applications of e-portfolio systems be clearly understood. E-portfolios can be considered as falling on a continuum denoting a range and extent of emphasis of e-portfolio designs. They are not offered as absolutes, forcing selection at either end of the scale. Furthermore, values are not placed on either direction, and clearly there are advantages as well as disadvantages to e-portfolio systems placed on either direction of a continuum. Figure 1.1 offers continua in considering e-portfolio designs.

Figure 1.1. Continua of e-Portfolio Design and Application

1. User Base

Student user-based	Institutionally based
<i>What is the extent to which the user or institution is accountable for the content?</i>	
<i>Does the e-portfolio represent an "official" document?</i>	

2. Unit Base

Student affairs-based	Academic affairs or other
<i>Which unit (student affairs, academic affairs, technical support, etc.) within the college or university holds responsibility for managing the e-portfolio system? To what extent is student affairs involved in the delivery of student e-portfolio systems?</i>	
<i>How much do units collaborate in implementing an e-portfolio?</i>	

3. System Developer

Institutionally-designed or built	Private-vendor application
<i>Who developed and designed the e-portfolio? Is the system based on an institutional server or is the e-portfolio housed on an external vendor server?</i>	

4. Structure

Structured product-based with templates	Unstructured, flexible, and process oriented
<i>To what extent does the user control the organization, design, and contents of the e-portfolio?</i>	

5. Usage

Optional use	Required usage
<i>What is the extent to which e-portfolio use is required, ranging from institution-wide to college, department, or course-required usage? To what extent may users create an e-portfolio on their own volition?</i>	

6. Product Versions

Unlimited or multiple versions	Single product
<i>How many versions of the e-portfolio may be created by users and/or the institution?</i>	

Figure 1.1. (continued)

7. Confidentiality and Access Control

Student controls Institution controls
Who controls access to student e-portfolios—the user or institution? Who holds responsibility for maintaining confidentiality of student data?

8. Reflective Learning

Reflection at all levels No reflection
To what extent does the e-portfolio encourage opportunities for reflective learning?

9. Assessment

Assessment applications included No assessment design options
To what extent is the e-portfolio designed for and used in support of assessment of learner outcomes and/or the evaluation of institutional effectiveness?

10. Employment and Application Support

Supports showcase and employment No user employment support
Can the e-portfolio be used in support of the user job search or application to graduate or professional school?

11. Career Development

Developmental process tool Product rather than process oriented
To what extent is the e-portfolio designed to facilitate user career planning and support student development and career maturity?

12. Lifelong Support

Lifelong access Temporal support
*Do users have access to the e-portfolio after graduation?
 To what extent can the e-portfolio be used to support lifelong learning and/or career development?*

13. User Costs

No user fee User fee-based
Are any user fees associated with access and use?

14. Institutional Cost

Free open source License fee
Does the institution charge costs or fees for implementation of the e-portfolio? If vendor-based, are there start-up or annual licensing fees?

15. Usage Costs

Unlimited usage Enrollment-based
Are the volume-based costs associated with the e-portfolio based on usage levels or enrollment?

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Figure 1.1. (continued)**16. Institutional Integration**

Integrated into institutional database	Generic: no integration
<i>Is the e-portfolio linked into the institution database? For example, does the e-portfolio access registrar information such as transcripts or cocurricular transcripts? Also, how much is the e-portfolio integrated into any institution-wide data management or communications software system such as Blackboard?</i>	

17. System Identity

Institutional identity	User identity
<i>Does the e-portfolio carry the institution identity such as school colors, seal, or mascot? How portable is the e-portfolio following graduation? For example, is a generic version available to users enrolling in a different institution?</i>	

18. Staff Support

Centralized management	Decentralized support
<i>Do designated staff within the institution hold responsibility for management and/or user e-portfolio support? Or are system management and user support diffused, including faculty, academic advisors, technical support staff, career services, and student affairs staff support?</i>	

Overview of Clearinghouses and Selected e-Portfolio Systems

Several selected e-portfolio systems and e-portfolio clearinghouses are noted in this chapter. A number of e-portfolio systems used primarily in support of career development are the focus of later chapters.

Clearinghouses and e-Portfolio Resources. A number of resources, centers, and clearinghouses are available for additional information regarding specific e-portfolio systems—for example:

Electronic Portfolios: Emerging Practices in Student, Faculty and Institutional Learning (Cambridge, Kahn, Tompkins, and Yancey, 2001)

E-Portfolio Clearinghouse (American Association for Higher Education, 2006)

An Overview of e-Portfolios (Lorenzo and Ittelson, 2005)

“Connectivism: Knowing Knowledge” (Siemens, 2006)

E-Portfolios—Annotated Bibliography (Penn State University, College of Earth and Mineral Sciences, 2006)

Kalamazoo College Portfolio (Kalamazoo College, 2006)

FSU Career Portfolio (Florida State University, 2006)

Inter/National Coalition for Electronic Research (2006)

In addition, Barrett (2006a) provides many online resources based on electronic portfolios.

E-Portfolio Systems Highlighted in This Volume. The e-portfolio systems highlighted in later chapters are the Florida State University (FSU) Career Portfolio, systems implemented or under development based on the FSU concept and design at the University of California San Diego (UCSD) and Georgia Institute of Technology (Georgia Tech), an e-portfolio project supported by the Connecticut Distance Learning Consortium, and an e-portfolio system created at the Pennsylvania State University.

FSU Career Portfolio. As one of the inventors of the FSU system, I am less than objective. Nevertheless, the FSU Career Portfolio represents one of the pioneering efforts and most successfully launched career portfolio systems at national and international levels. It enjoys institutionwide integration and boasts a high use. The goals of the e-portfolio are clear and directly reflect its intent to serve as a student user-based system in support of the career development process and for use as a showcase tool for employment or application to graduate study. Initial efforts in creating the FSU system date back to as early as 1997, and current use exceeds forty-five thousand student and alumni users since its 2002 launch.

UCSD Portfolio. This system was the initial adaptation of the FSU Career Portfolio model and has demonstrated similar levels of integration, use, and success at UCSD. UCSD revised the original FSU design, adding several strong features for use on its campus. Furthermore, like the FSU system, the UCSD career services office coordinates management and implementation of the system.

Georgia Tech. Georgia Tech's system, based on the FSU model, is under development. Development of this system has proved challenging in gaining institutionwide commitments for resources, agreement in system goals and design, and institutional buy-in.

Connecticut. The Connecticut Distance Learning Consortium e-Portfolio Project represents a statewide initiative with thirty-one partner institutions. This project represents a broad collaborative approach and thoughtful design considerations regarding the technical platform and system goals: student learning, career planning and job search, assessment, accreditation, showcase, advising and teaching, and faculty promotion and tenure.

Penn State. Penn State's e-portfolio represents an approach different from the FSU system. The FSU system was developed as a university-wide system for all majors and provides a template that can be modified by the user. For example, the system was initiated within an academic college (Earth and Mineral Sciences) and the design is less structured. Essentially the e-portfolio offers users personal Web space without templates.

Additional Selected e-Portfolio Systems. Several e-portfolio systems are briefly discussed in order to demonstrate the range of applications developed by colleges as well as private vendors.

Kennesaw State University e-Portfolio. Dominick and Funk (2006) stress the importance of creating a user mind-set of “foliothinking” in the process of reflection and creating portfolios. Kennesaw State employs a “buffet approach” to portfolios consisting of the Online Career Portfolio (Career Services), the Pocket e-Portfolio (Presentation Technology Department), and the WebFolio (Instructional Design Department). The College Senior Portfolio process has five continual phases of development: Reflect, Assess, Collect, Connect, and Express (RACCE). Kennesaw State seniors produce two portfolio formats. The Pocket e-Portfolio allows students to record their work on digital media and maintain their own files on CD, USB, or Zip disk. The online Career Portfolio is a Web-based system maintained by the student and monitored by the university. Both systems can be cross-referenced for students to document their talents and skills in the areas of academics, employment, technology, and community service.

Chalk & Wire e-Portfolio2. Chalk & Wire’s portfolio system was originally created as an assessment-oriented system that supported teacher preparation and education colleges’ need for a program to support teaching accreditation standards. The system now has applicability to all disciplines, and although it continues to be assessment-oriented, E-Portfolio2 has applications to support users’ academic, career development, and job seeking needs. Chalk & Wire’s digital portfolio supports a wide array of tasks, including course work presentation and support, external fieldwork assessment, secure résumé and portfolio distribution, and downloadable versions of portfolios.

Blackboard’s WebCT Portfolio. Many colleges and universities use vendor-based software such as Blackboard to support an institutionwide registration, instructional and course management, and communications system. Blackboard has developed an e-portfolio as an additional student service option. An advantage of systems such as the WebCT Portfolio is the natural interface between the course and instructional management system and the portfolio. As a result, it is relatively simple to download course information and projects into the portfolio system. However, users may not have lifelong access to their portfolio following graduation.

PebblePAD’s e-Portfolio. PebblePAD, based in the United Kingdom, offers a flexible learning and reflection-based portfolio system. It refers to learners’ publications as “stories,” which “may be very formal because they are written for assessment; some stories will be written for employers or recruiters while other stories may be very personal and may relate to hobbies or interests.” PebblePAD’s e-portfolio is best described as an evidence-based Web publishing system. The system allows learners to create new records, Web folios, and blogs, and upload files to their e-portfolio asset stores (anything stored in the e-portfolio is named an asset).

Kalamazoo College Portfolio. Kalamazoo College is regarded as a pioneer in the development and implementation of an institutionwide portfo-

lio system. Its portfolio was developed through a grant from the Fund for the Improvement of Post-Secondary Education (FIPSE). According to the *Kalamazoo College Portfolio* (Kalamazoo College, 2004), the innovative, Web-based, and nationally recognized “K” Portfolio starts before orientation with a “Foundations Essay” and culminates with a final “Senior Connections” response to four years at Kalamazoo. In eight required gateway points, students create their own home pages, link their best work, summarize their academic goals and plans of study, write about the choice of a major, capture their intercultural experience on paper, reflect on their career readiness, and discuss plans for their senior individualized projects. Many departments link significant course work to the portfolios of their majors.

Many student portfolios contain information and entries beyond this framework and course work at Kalamazoo College. Entries can include:

- Outstanding papers, lab reports, oral presentations, and other course work
- Photos from study abroad, internships, and other pivotal experiences
- Reflections on important relationships and experiences
- Symposia, conference, or SIP presentations
- Experiential education activities such as service-learning and an integrative cultural research project
- Application essays for leadership positions such as residence adviser or peer leader
- Self-assessment by athletes with coaches

Table 1.1 provides an example of an institutionwide systematic approach to the integration of an e-portfolio system at Kalamazoo College.

CSO’s *Folio21*. There is an array of vendors such as CSO that have developed systems to support college and university career services offices. CSO markets software in support of the recruitment processes, including job listings, student résumé databases, employer databases, and on-campus recruiting process. It added a portfolio system to its application. CSO offers *Folio21* (2006) and notes:

E-portfolios are exploding on the scene across campuses nationwide providing students with new ways to showcase their work and to differentiate themselves when seeking employment. A recent survey of nationwide university leaders indicated that 79% want to take advantage of e-portfolio’s cutting edge technology to innovate their universities. Students, career centers and faculty are experiencing the far-reaching benefits and limitless possibilities of e-portfolio leader *Folio21*, whose web based solution enables students to: Quickly and easily create an online portfolio, effectively highlight work and experiences, easily customize views for different employers, keep their portfolio secure, track who views it and how often, access it anywhere, anytime.

Table 1.1 Kalamazoo College e-Portfolio System

<i>Class</i>	<i>Portfolio Requirements and Recommendations</i>	<i>What It Is</i>	<i>Who Responds to It</i>	<i>When</i>
Freshman	Foundations essay	Connects high school experiences to the K plan	Advisors	Orientation
Sophomore	Foundations for intercultural understanding	Essay questions for study abroad application	CIP Staff	Sophomore winter
Junior				
Senior	Senior connections essay	Connects various parts of “K” education, reflects on K Plan and SIP, discusses growth in dimensions* and skills**	Major department, assessment committee, portfolio office of FY advisor	Spring term, senior year

**Dimensions*: lifelong learning, career readiness, leadership, intercultural understanding, and social responsibility.

***Skills*: information literacy, quantitative reasoning, writing, and oral communication.

Folio21 provides an online way to store and portray artifacts, work, and experiences; facilitates engagement in the learning process by providing the means to reflect on learning experiences and articulate what is gained; delivers secure and customized access for viewing; ensures total portability for unlimited use after graduation; and includes up to 25 megabytes of storage, with more available for an additional fee.

Symlicity/National Association of Colleges and Universities NACELink Alliance. NACELink represents a new paradigm in offering software systems in support of career services offices' recruitment services to students and employers. Like many other private vendor-based systems, NACELink software includes a job listing system, student résumé database, employer registration system, and on-campus recruiting support system. However, it differs from private vendors in that it is a nonprofit professional association controlled by college and employer members. In 2006, NACELink announced a new partnership with Symlicity Corporation to provide software development. The concept and design of FSU Career Portfolio, the focus of Chapter Two, was licensed to Symlicity and will be included as a module within the NACELink software system. The NACELink/Symlicity e-portfolio based on the FSU model is expected to be available during 2007.

International Applications

Portfolio systems are emerging internationally, with portfolio projects under way in United Kingdom, Australia, the Netherlands, France, and Finland. The European Institute for e-Learning (EIFEL) is an independent, nonprofit professional association whose mission is to support organizations, communities, and individuals in building a knowledge economy and a learning society through innovative and reflective practice, continuing professional development, and the use of knowledge, information, and learning technologies.

The Europortfolio Consortium (2006) from EIFEL notes: “The worldwide emergence of the e-portfolio is transforming our current views on learning technologies. For the first time in the relatively short history of learning technologies we see the rise of a new generation of tools dedicated to valuing and celebrating the achievements of the individual from nursery school to life long and life wide learning, a technology providing a key link for individual, organizational as well as community learning. While some counties and regions are already providing the infrastructure required to offer e-portfolio access to all citizens, other regions and countries are considering it, and others have yet to discover the possibilities.”

EIFEL has organized e-portfolio conferences attracting worldwide conference papers and presentations. For example, it organized an e-portfolio conference in 2006 in cooperation with Europortfolio Consortium and the British Educational Communication and Technology Agency. Portfolio vendor sponsors were Nuventive, Winvision, and Illuminate. The conference was held in Oxford in the United Kingdom, with papers addressing policy, organizations, personal and professional development, technology, employment, and other topics.

The Role of e-Portfolios in Student Affairs

This chapters in this volume discuss the importance for e-portfolio programs to be systematically integrated within colleges and universities and for student affairs units to play a lead role, or at least become involved in, the institutionwide e-portfolio system.

The Florida State University Career Portfolio reviewed in Chapter Four is a leading example of a system that was designed, developed, and implemented as a university-wide program. The portfolio was developed and is managed through a Division of Student Affairs unit, the Career Center. The users reflect the entire university community, from freshmen through graduate and professional school students. Furthermore, virtually all academic programs use the FSU Career Portfolio, including vocationally oriented majors such as business and engineering and the liberal arts as well as the fine arts. It is particularly interesting to note the extent to which the FSU Career Portfolio has been embraced by graduate and professional school programs including M.B.A. programs and the medical school.

Much of the success in the FSU Career Portfolio integration and high use is a result of the support that the system receives from academic programs. For example, students initiate their use of a Career Portfolio in an introductory human development course required for all majors entering the FSU College of Human Sciences. As a result, all human sciences students are systematically exposed to the Career Portfolio and as a result create linkages with the Career Center and the Division of Student Affairs. Many other faculty also require Career Portfolio use in their courses, departments, or colleges. Through such partnerships, strong linkages are forged between academic and student affairs. Clearly, the portfolio serves as a vehicle for the Division of Student Affairs to support the learning mission of the institution.

E-portfolios hold promise to strengthen ties and cooperative programming within student affairs units. For example, they can be used to document students' leadership and service experiences acquired through a range of student affairs programs. At Georgia Tech, in addition to support through academic affairs, the CareerTech e-portfolio is featured in student affairs programs, including freshman orientation.

The reflection process in e-portfolios enables student users to understand and demonstrate the learning and skill acquisition resulting from student affairs-based out-of-class experiences, ranging from working in campus recreation positions to serving as residence hall advisers or orientation leaders. Also, through reflection, students can document learning from academic courses.

Many of the e-portfolios that are the focus in this volume would be regarded as showcase or career portfolios. However, although the final goal of these e-portfolios is to showcase accomplishments and support employment or graduate or professional school applications, an important additional advantage and goal is the learning, maturation, planning, and skill acquisition that result from the process of creating an e-portfolio. Indeed, the process of e-portfolio creation may well be more important than the outcome or e-portfolio product. The e-portfolio provides a vehicle for student users to:

- Learn about and understand the skills that are desirable for them to acquire throughout the college experience
- Become familiar with the array of experience opportunities in support of skill development
- Become proactive in planning a set of experiences and skill acquisition throughout college in support of their career plans
- Through reflection, translate a range of experience into skills and their career plans

In short, e-portfolios represent powerful tools that support college student development as well as career development.

This chapter also has emphasized the types and goals of e-portfolio systems. Although the primary goal of the FSU e-portfolio is to serve as a showcase or career portfolio, it has been used in support of the university accreditation process. For example, the Florida State University Quality Enhancement Plan (Wetherell and Harrison, 2004), in support of Southern Association of Colleges and Schools (SACS) accreditation, is entitled *Leaders Educated to Make a Difference* (LEAD), and the Career Portfolio program is included: “The Career Center recently launched an innovative program—the online Career Portfolio. Using this resource, students are able to showcase the skills they have developed through coursework, research involvements, internships and work experience. . . . It is an interactive tool that allows students to record, reflect upon and evaluate their experiences both in and out of class. . . . Career Portfolios will be an integral part of LEAD plans” (Wetherell and Harrison, 2004, p. 33). As a result, e-portfolios can provide an additional student affairs–based program in support of the university SACS accreditation process, as described further in Chapter Four.

Student affairs units must assume leadership in the planning, development, implementation, and integration of an e-portfolio within the institution. This leadership could involve management of an e-portfolio program housed within a student affairs unit. It also could involve the collaboration of student affairs with other units holding responsibility for e-portfolio program management such as academic affairs or technology support services. There is considerable potential for e-portfolios to bridge student affairs and academic affairs in providing opportunities for collaboration. If e-portfolio program management is not housed within student affairs, the institution must develop a plan creating linkages to ensure that student affairs programs are integrated into a university-wide plan for e-portfolio integration, staff and faculty support, and student use.

Colleges and universities should be proactive in making choices regarding system goals and designs for their institution. For example, they must consider the primary and secondary goals of e-portfolios and all of the continua presented in this chapter in support of the development, implementation, and integration of an e-portfolio system. Student affairs units must be an important part of the planning process.

References

- American Association for Higher Education. *E-Portfolio Clearinghouse*. N.d. Retrieved December 16, 2006, from <http://ctl.du.edu/portfolioclearinghouse/>.
- Barrett, H. *Electronic Portfolios and Digital Storytelling for Lifelong and Life Wide Learning*. 2006a. Retrieved December 16, 2006, from <http://electronicportfolios.com/>.
- Barrett, H. “Voice and Interactivity in e-Portfolios: Digital Stories with Web 2.0.” Paper presented at the meeting of the European Institute for e-Learning (EIFEL) on e-Portfolios. Oxford, U.K., Oct. 2006b.
- Cambridge, B. L., Kahn, S., Tompkins, D. P., and Yancey, K. B. (eds.). *Electronic Portfolios: Emerging Practices in Student, Faculty and Institutional Learning*. Washington, D.C.: American Association for Higher Education.

- CSO. *Folio21*. N.d. Retrieved December 16, 2006, from <https://www.folio21.com/Default.aspx?>
- Cummings, K. "Of Tansley and Technology: E-Portfolios as the Foundation of an Ecosystem." Paper presented at the meeting of the European Institute for e-Learning on e-Portfolios, Oxford, U.K., Oct. 2006.
- Dominick, J., and Funk, L. "E-Portfolio Passport to Global Citizenship: Folio Thinking for College Seniors." Paper presented at the meeting of the European Institute for e-Learning on e-Portfolios, Oxford, U.K., Oct. 2006.
- Florida State University. *FSU Career Portfolio*. N.d. Retrieved December 16, 2006, from <http://www.career.fsu.edu/portfolio/>.
- Hult, C. "Using On-Line Portfolios to Assess English Majors at Utah State University." In B. L. Cambridge, S. Kahn, D. P. Tompkins, and K. B. Yancey (eds.), *Electronic Portfolios: Emerging Practices in Student, Faculty and Institutional Learning*. Washington, D.C.: American Association for Higher Education, 2001.
- Kahn, S. "Linking Learning, Improvement and Accountability: An Introduction to Electronic Institutional Portfolios." In B. L. Cambridge, S. Kahn, D. P. Tompkins, and K. B. Yancey (eds.), *Electronic Portfolios: Emerging Practices in Student, Faculty and Institutional Learning*. Washington, D.C.: American Association for Higher Education, 2001.
- Kalamazoo College. *The Kalamazoo College Portfolio*. 2004. Retrieved December 16, 2006, from <http://www.kzoo.edu/pfolio/>.
- Lorenzo, G., and Ittelson, J. "An Overview of e-Portfolios." EDUCAUSE Learning Initiative, Boulder, Colo., 2005.
- Lumsden, J. A., and others. "A Blueprint for Building an Online Career Portfolio." *Journal of Career Planning and Employment*, 2001, 62(1), 33–38.
- Penn State University, College of Earth and Mineral Sciences. "e-Portfolios—Annotated Bibliography." N.d. Retrieved December 16, 2006, from <https://www.e-education.psu.edu/portfolios/bibliography.shtml>.
- Siemens, G. "Connectivism: Knowing Knowledge." Paper presented at the meeting of the European Institute for e-Learning on e-Portfolios, Oxford, U.K., Oct. 2006.
- Wetherell, T. K., and Harrison, D. *Leaders Educated to Make a Difference: Quality Enhancement Plan*. Tallahassee: Florida State University, Feb. 2004.
- Yancey, K. B. "Digitizing Student Portfolios." In B. L. Cambridge, S. Kahn, D. P. Tompkins, and K. B. Yancey (eds.), *Electronic Portfolios: Emerging Practices in Student, Faculty and Institutional Learning*. Washington, D.C.: American Association for Higher Education, 2001.

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