E-portfolios at 2.0—Surveying the Field

▸ **J. Elizabeth Clark,** professor of English, LaGuardia Community College, CUNY

Bret Eynon, assistant dean for teaching and learning, LaGuardia Community College, CUNY

Last spring, Kathleen Blake Yancey suggested that e-portfolios were a leading element in a "tectonic shift" in higher education. Yancey, the Kellogg Hunt Professor of English at Florida State University and former president of the National Council of Teachers of English, spoke to hundreds of e-portfolio practitioners gathered at a landmark e-portfolio conference held at LaGuardia Community College in 2008. She argued that e-portfolios radically alter how students learn, how faculty teach, and how institutions assess the value of their educations—that e-portfolios are literally remaking the landscape of higher education. (See Yancey's article on page 28 in this issue of *Peer Review*)

This is a bold claim. However, the e-portfolio movement has grown dramatically in significance over the past decade. Linked to sweeping economic, demographic, political, and technological changes, the e-portfolio is an increasingly salient feature of the changing educational landscape.

At this point, hundreds of thousands of educators around the world know that e-portfolios are digital collections of student work, defined by the mantra: collect, select, and reflect. No precise count of the number of e-portfolio initiatives in higher education has been established, but available evidence suggests that the number is high. The ePortfolio Consortium lists 894 institutional members, nearly 60 percent of them American colleges and universities. In April 2008, the Making Connections Conference: ePortfolios, Integrative Learning and Assessment, held at LaGuardia Community College in New York City, drew six hundred attendees from seventy different colleges and universities in thirty different states. According to a 2008 study by the Campus Computing Project, just over 50 percent of public and private universities and public four-year colleges now offer some form of an e-portfolio to their students. Across all higher education sectors, the study shows, the use of e-portfolios has tripled since 2003.

THE FOUR MAJOR DRIVERS OF E-PORTFOLIO USE

The e-portfolio movement's sweeping growth in the past ten years has four major drivers. The first is pedagogical change in higher education, a growing interest in student-centered active learning. Innovative teaching methods value student reflection and emphasize the importance of helping students develop metacognitive skills. Defining students as authors who study their own learning transforms the traditional academic power structure, asking faculty to work alongside students as colearners. Connecting across disciplines and semesters, linking the classroom to lived experience and broad life goals, e-portfolios respond to the growing movement in integrative learning.

The second force is the dynamism of digital communication technologies. The technological capacity to document and publish diverse forms of student learning has grown dramatically in recent years. Web-based technologies make portfolios accessible and adaptable. In an age of multimedia self-authoring, student interest in creating rich digital self-portraits has grown exponentially. As evidenced by the popularity of sites like Twitter and Facebook, a digital portfolio for student learning speaks the language of today's student body, made up overwhelmingly of millennials who came of age using social networking sites. Discourse around educational technology has been energized by emerging digital tools for distributive communication and exchange, often talked about as Web 2.0; and e-portfolios in many ways prefigure the emerging emphasis on user-generated content (Bass and Eynon 2009).

The e-portfolio movement has also been spurred by the pressure for increased accountability in higher education, symbolized by the 2007 Spellings Commission on Higher Education, which critiqued universities for not providing stakeholders with accessible and comparable measures of student learning. K. C. Green, of the Campus Computing project, attributes the rapid growth of

e-portfolios in part to their use for outcomes assessment, including the portfolio requirements for the National Council for Accreditation of Teacher Education (NCATE) (Green 2008). Documenting and organizing student work and linking it to institutional or disciplinary competencies, e-portfolios can facilitate a more classroom-based and faculty-driven alternative to traditional assessments focused on standardized testing.

Finally, the e-portfolio movement also responds to increasing fluidity in employment and education. At a time when multiple career shifts are increasingly common, and growing numbers of students take classes at multiple colleges, there is a need for "an education passport," a way for students—and professionals—to represent their learning and carry it with them as they move from one setting to another. The call for integrative learning highlights connections across disciplines and the links between educational, professional, and personal life experiences. Educators across many fields and institutions are now focused on educating "the whole student," bringing together what was previously seen as disparate facets of a student's career. E-portfolios can facilitate this integration and respond to the need for transfer and ongoing training and education in a wide range of careers.

THE E-PORTFOLIO MOVEMENT

These powerful dynamics have not only encouraged literally hundreds of U.S. colleges to adopt e-portfolios, they've also spurred change in the nature of the movement. In the early years of the e-portfolio movement, e-portfolio practice was defined by small liberal arts colleges like Messiah College, Alverno College, Wesleyan University, and Kalamazoo College. Today, e-portfolios are found across the entire panoply of the higher education system, from the University of Massachusetts and Minnesota's St.

Olaf College to Hawaii's Kapi'olani Community College; from Pennsylvania State University and Ohio's Lorraine County Community College to Spelman College and Oral Roberts University. From community colleges to four-year liberal arts schools to massive university systems, public and private, urban and rural, the e-portfolio movement has adapted to the needs and priorities of diverse students, disciplines, and institutional cultures (Yancey and Canbridge 2001).

In some areas, e-portfolio practice has achieved critical mass. The state of Minnesota, through the Minnesota State Colleges and Universities System has made e-portfolio use a statewide initiative. There now are well over 100,000 e-portfolio users on eFolio Minnesota, which is available to all state residents for personal and professional showcases. The state of California has begun to consider a similar project, with a particular interest in using e-portfolios to strengthen the linkage between two-year and four-year state colleges. On the East Coast, LaGuardia Community College coordinates a FIPSE-funded project that provides minigrants and sustained support to colleges working on e-portfolio projects. Last year, the program worked with teams from ten colleges; this year, it will serve twenty-four colleges, from Borough of Manhattan Community College to Rutgers–the State University of New Jersey and St. John's University.

Meanwhile, the movement has also extended beyond the boundaries of the United States. Some of the most significant growth for the e-portfolio movement has taken place in Europe, with signs of interest also growing in Australia, New Zealand, and parts of Asia. In part due to the Bologna Process, which has prompted conversations about the transferability of education across the European Community, e-portfolio initiatives are underway in Germany, France, the Netherlands, Spain, and the United Kingdom. In October

2008, the Eighth International E-portfolio Conference sponsored by EIFeL (the European Institute for E-Learning) was held in the Netherlands, with a thematic focus on E-portfolio and Digital Identity. Presenters came from far and wide, including the University of Hamburg, the University of Amsterdam, the University of Paris, Queensland University in Australia, and City University of London. The Ninth International Conference, with a theme of Innovation, Creativity, and Accountability, is scheduled for London in June 2009.

The growth of e-portfolio use is directly related to its elasticity, to the diversity of purposes for which it can be used, including enriched learning and improved career development, transfer, and assessment. In practice, colleges often combine a number of purposes for their e-portfolio projects, an integrative approach that allows for rich results. At Kapi'olani Community College in Hawaii, students use e-portfolios to document their development, using traditional Hawaiian cultural metaphors. In the first-year studies program at Portland State University, students compile an integrative e-portfolio that draws connections between the courses in their learning community during a first year of study. At Florida State University, students use e-portfolios to document their experience and education for future employers. Queen Margaret University in Britain uses e-portfolios as part of its first-year experience program. Bowling Green University, Indiana University–Purdue University Indianapolis (IUPUI), and the University of Michigan use e-portfolio as part of sophisticated approaches to assessment.

In their earliest implementations, e-portfolios often focused on a single course at a college. Today, programs like Clemson University's psychology department are experimenting with capstone e-portfolios for graduation that connect a student's entire general education experience at

the institution with their education in a major. Spelman College is redesigning and extending its first-year electronic portfolio to address benchmarks during each college year, culminating in a capstone portfolio. Maturing in their ease of use, professional look, and portability in a digital culture, e-portfolios are now increasingly used to demonstrate proficiency in professional competencies like art, nursing, education, and library sciences at both the undergraduate and graduate levels. The University of Wolverhampton in England uses e-portfolios to merge professional competencies and reflection by asking students to document their placements as part of their professional training in nursing and midwifery.

E-PORTFOLIOS AND ASSESSMENT

The expanding use of e-portfolios for assessment has been particularly striking. The Bush-era debate over accountability in higher education and the related efforts of accreditation agencies to prompt colleges to examine student learning outcomes spurred widespread interest in a tool with the potential to facilitate this process. And while the challenge of conducting holistic assessment of student learning on a broad scale remains, these efforts have started to pay off. The annual Assessment Conference sponsored by IUPUI highlights the use of e-portfolios for assessment; and the program increasingly showcases the presentation of assessment outcomes, not just plans and proposals. Similarly, over the past few years, competition for the Council on Higher Education Accreditation annual award for Innovation in the Assessment of Student Learning Outcomes has featured growing numbers of campuses that can demonstrate effective use of e-portfolios for this purpose.

Another significant feature of the current e-portfolio scene is the proliferation of e-portfolio software platforms.

Scores of companies offer e-portfolio systems, including Blackboard, PebblePad, Chalk and Wire, Foliotek, ePortaro, and Digication. Last year, the *New York Times* Knowledge Network announced that it would offer portfolio services through the Epsilen technology developed at IUPUI. Universities such as Johns Hopkins have developed e-portfolio systems and licensed them for use by other institutions. The Minnesota initiative is about to bring out a new platform, the XFolio, which it hopes to market on a broad scale.

One of the more interesting platforms is the Sakai Open Source Portfolio. Linked to the developers' community of the Sakai learning management system, colleges are working to create a flexible system where the programming code is freely available to all. The Open Source Portfolio is particularly focused on facilitating assessment, and has drawn scores of institutional adoptions.

THE EVOLUTION OF OUR E-PORTFOLIO THINKING

WASHINGTON STATE UNIVERSITY
my.wsu.edu/portal/page?_pageid=177,301634&_dad=portal&_schema=PORTAL

Washington State University (WSU) has an evolving e-portfolio project that helps students produce colorful, customized e-portfolios. A large public university, WSU's e-portfolio work is led by its robust center for teaching, learning and technology (CTLT), headed by Gary Brown. The CTLT guides a growing number of departments, including graduate programs in communication, American studies, and bioenergy as they adopt e-portfolio use. Each year, around three thousand of WSU's 23,000 students are actively engaged with the e-portfolio system.

WSU's e-portfolio site offers glimpses of multiple e-portfolios shaped by disciplinary conventions as well as students' individual choices. Using Microsoft's Sharepoint software as a core platform for integrating Web 2.0 tools, WSU gives students considerable freedom to determine their e-portfolios' look and feel. "It has to be something that works for the students," Brown argues.

Faculty at WSU can decide to use students' e-portfolios in their program review process, and to engage students and area employers, such as Boeing, in a multifaceted assessment process. Applying their skills and knowledge to authentic or "ill-structured" problems in their disciplines, students use e-portfolios to document their problem, their research methodologies, and their findings.

Portfolios are reviewed by faculty and panels of outside reviewers, including working professionals from the field. Students harvest the feedback and self-assess, incorporating their learning into future projects. Rubric-guided assessment of the students' portfolios shows substantial growth over time. Brown is pleased that these projects combine integrative learning with sophisticated approaches to assessment. And, he notes, employers tell him that "this is exactly what we need."

To Brown, e-portfolios can be a valuable mechanism for building mutually informative dialogue between academic learning and professional life. And he feels that everyone is learning, including the faculty and the professionals involved. "We have a lot of great work to do," he notes "around academic interaction with the broader community."

WHEN THEY HAVE PICTURES & ASSIGNMENTS, THEY CAN GET AN IDEA

LAGUARDIA COMMUNITY COLLEGE, CUNY

www.eportfolio.lagcc.cuny.edu/ , www.eportfolio.lagcc.cuny.edu/scholars/sp07.html

Nestled against the East River in Queens, New York LaGuardia Community College is home to a six-year-old e-portfolio program that reaches more than eight thousand students each year. Serving one of the most diverse, immigrant-rich student bodies in the country, the LaGuardia e-portfolio program combines a student-centered approach to e-portfolio creation with institutional assessment.

"I think it's good because my parents are in Sri Lanka so they need to see my progress in the USA," one student told interviewers in a focus group study. "When I tell them my major is business management, they can't really think about that course because they don't have background. But when I have pictures, assignments, and course descriptions, they can get an idea about those concepts. And I think it's a good opportunity for us to reflect to ourselves about our work and everything."

LaGuardia's e-portfolios are distinctive, in part because of their attention to visual rhetoric. Students have a high degree of control over their portfolio's appearance. Some students use customizable templates, while others create their e-portfolios from scratch, using Flash and Dreamweaver. Either way, students spend significant time on the imagistic look and feel of the e-portfolio, yoking their visual presentation to written content. The result is a striking collection of visually provocative e-portfolios that harness the power of multimodal composition.

Data gathered using the Community College Survey of Student Engagement show that students in e-portfolio-intensive courses at LaGuardia are more likely to show high degrees of engagement with critical thinking, collaboration, and writing. Analysis of course pass rates and semester-to-semester retention also show higher rates of success for students in e-portfolio-intensive courses, compared to students in similar courses that do not use e-portfolios.

Funded in part by grants from the Title V program of the U.S. Department of Education, LaGuardia's e-portfolio system also supports the examination of student work from first-year courses to urban study and capstone courses, as a part of the institutional assessment process. Read against faculty-developed rubrics in seven core competencies, this collection of longitudinal data has been used in program reviews from accounting to nursing to basic skills in writing, and provides a new way to think about student development at the college.

E-portfolios at LaGuardia are supported in two key ways. Faculty members take part in extensive, multiyear professional development, thinking about how e-portfolios relate to their pedagogy. Experienced students work with the e-portfolio program in a professional capacity as e-portfolio consultants, leading e-portfolio tutorials, working with faculty in the classroom, and designing e-portfolio templates for beginning students. As such, LaGuardia's e-portfolio initiative is a collaboration between a risk-taking faculty, a supportive administration, and talented students willing to share their expertise.

In general, the e-portfolio platforms have grown sleeker and easier to use, allowing students to easily showcase their work or display progress over time. Some systems, such as Digication, have incorporated Web 2.0 features, such as blogging and tagging. Few systems now require any knowledge of HTML authoring. This creates possibilities for broader adoption and ease of implementation, and can greatly facilitate management of the e-portfolio data for assessment purposes. However, the price of ease of use in many cases is an increasingly standardized look and feel—a portfolio where students simply add text, photos, and video, but the overall organization, structure, and appearance are set in advance by the software developer.

The loss of visual richness is potentially significant. At their best, e-portfolios are not simplistic translations of text to screen. Students respond enthusiastically to the digital medium, eagerly experimenting with the aesthetic look and feel of their e-portfolios, the potential for multimodal authoring that moves fluidly between text, image, and audio components. Visual rhetoric is an emerging area of interest in composition studies, recognition that imagery and visual design signify a change in the nature of thinking and writing. Through e-portfolios we have an opportunity to harness the power of imagery and digital media to advanced cognitive processes. If standardized presentations become the norm, it may jeopardize student enthusiasm and miss an opportunity to connect academic discourse to the visually rich multimedia universe.

The rapid growth and diversification of the e-portfolio movement has established a significant place for e-portfolios in higher education. Yet e-portfolios use remains a movement, not yet a field. It lacks many of the ligaments of a field, including overarching professional organization, a robust body of published practices, and disciplinary paradigms. The literature on e-portfolio use is growing, but it is widely

scattered in location and fragmented in nature. The movement has significant conferences, but there is no major organization guiding or even monitoring the growth of the practice.

The Inter/National Coalition for Electronic Portfolio Research (I/NCePR) may be the most significant organization in the movement. Led by Kathleen Blake Yancey, Darren Cambridge, and Barbara Cambridge, the coalition does not aim to coordinate the emerging field. But it does stimulate much-needed research. Launched in 2005, I/NCePR works with teams from campuses with e-portfolio initiatives to help them pursue campus-based research about e-portfolios. Now launching its fifth cohort, the thriving coalition has worked with more than fifty campuses on topics such as the efficacy of reflection, collaborations between academic and student affairs, and personal planning over a three-year period. The coalition's first overarching publication, *Electronic Portfolios 2.0: Emergent Research on Implementation and Impact*, was recently released by Stylus Books (Cambridge, Cambridge, and Yancey 2009).

The American Association of Colleges and Universities (AAC&U) has launched an effort of comparable significance. AACU's Valid Assessment of Learning in Undergraduate Education (VALUE) project brings together e-portfolio institutions in order to create cross-campus dialogue about national standards for e-portfolios. In addition to traditional areas of competency such as written communication, VALUE is looking at integrative learning, an essential component of effective e-portfolios. This project will help to set a standard for national discussions of student learning through e-portfolios and will provide individual campuses with nationally normed tools to use in analyzing their students' learning (Basken 2008).

The efforts of VALUE and I/NCePR are highly significant. Yet neither plays the broad coordinating role needed to help organize and strengthen the field. The creation and sustenance of an effective umbrella organization is one of the challenges facing the movement, one that will affect its long-term growth and success.

MOVING FORWARD

In years to come, as the e-portfolio movement advances, we see at least three other key factors that will shape its growth and development: (1) how Web 2.0 and social networking will change the look, feel, and interactivity of the e-portfolio, (2) the persistent tension between a learning focus versus an assessment focus, and (3) the implications of international growth.

First, e-portfolio systems will be inevitably reshaped by the wave of Web 2.0 technologies sweeping higher education and society as a whole. For e-portfolios to continue to be attractive to students, e-portfolio systems need to approach the ease and interactive features of social networking sites like Facebook, Twitter, and Web-authoring platforms like Blogger, TypePad, and Wordpress. Currently, many faculty address this lack in e-portfolios by linking online social networking to their e-portfolios. Penn State has already launched a blog-based version of ePortfolio, with considerable success. These efforts to harness the energy of social networking to academic learning are still in their early phases. Meanwhile, the explosive growth of social networking highlights questions about our changing understanding of privacy and ownership of Web-based content, questions that will play an important role in the future of e-portfolios in higher education. As Kathleen Yancey noted at a recent Coalition meeting, "In this new context, we may have to redefine what we mean by e-portfolio."

Technologically, e-portfolios must also develop the ease of use of YouTube or Hulu for displaying student-authored video and audio content. Web 2.0 technologies may offer ways to use cloud computing and other dispersed solutions to facilitate flexible, customized solutions to e-portfolio needs. But e-portfolio developers and university IT divisions have much work to do before these opportunities become realities. The ways that e-portfolio platforms respond to the opportunities and the challenges of Web 2.0 are likely to determine the nature and significance of e-portfolios in decades to come (Barrett 2006; Xuesong, Olfman, and Ractham 2007).

Second, the e-portfolio movement must find a way to balance and integrate the diverse purposes that lead campuses to adopt it. In particular, the field has to some significant degree been divided between those who see e-portfolios as tools for enriched student learning and those who focus on their utility as a vehicle for assessment. In a 2007 *Inside Higher Ed* article, Trent Batson lamented the ways that e-portfolio's potential for enhancing students' metacognitive skills had been "hijacked by the need for accountability." At the 2008 Making Connections conference, another founder of the e-portfolio, Helen Barrett, made a slightly different point, saying "There's a major tension right now between student-centered and institution-centered portfolios. Between what I would call the Assessment *of* Learning on one hand, and on the other: Assessment *for* Learning, Assessment *as* Learning."

Barrett and Batson both recognize the need for accountability and assessment. The e-portfolio movement must find ways

to address these needs without sacrificing its focus on student engagement, student ownership, and enriched student learning. The need for thoughtful assessment processes in higher education is profound, and e-portfolios' potential contribution to this challenge could play a significant role in deepening our dialogue about the nature and value of deep learning. Yet, if e-portfolios are only assessment tools, without value or meaning to the students who create them, they will lose vitality and become an exercise in discipline and surveillance. The success of the VALUE project and similar efforts will be significant in helping the e-portfolio movement develop an integrated solution to this dilemma.

Finally, the growth of e-portfolios in the global field of higher education will undoubtedly have a profound effect on the shape and scope of the e-portfolio movement. E-portfolios in Europe, Asia, or Latin America may well take very different forms from e-portfolios in the United States, suggesting new approaches, challenges, and opportunities. As technology continues to connect our world, our e-portfolios must begin to translate across cultures and national boundaries, enriching the global conversation about education. If international transparency is achieved, it could facilitate global examination of the nature of learning and thoughtful exchange and the future of education in a turbulent and fast changing world. The success of e-portfolios in the United States may well hinge on our ability to learn from and collaborate with emerging e-portfolio movements in the rest of the world.

In the end, debates about the direction of the e-portfolio movement come back to fundamental questions about learning. In a 2008 roundtable discussion of the future of the e-portfolio movement (Eynon 2009), Melissa Peet, a research scientist and leader in the e-portfolio program at the University of Michigan, pointed toward these underlying questions: "Here's what I want to know: How can e-portfolios enable a conversation about the purpose of higher education in the twenty-first century?" she asked. "How do we become learning communities? How can we become institutions that build students' capacities as lifelong learners? How do we, as institutions, build collaborative and deep learning capacities in our faculty? To me, asking questions about e-portfolios is synonymous with asking questions about the future of learning. And the future is here, now." ▪

REFERENCES:

Barrett, H. 2006. Authentic assessment with electronic portfolios using common software and Web 2.0 tools. electronicportfolios.org/web20.html.

Barrett, H. 2008. *Categories of ePortfolio tools.* www.electronicportfolios.com/categories.html.

Basken, P. 2008. Electronic portfolios may answer calls for more accountability. *Chronicle of Higher Education,* April 18. www.chronicle.com/free/v54/i32/32a03001.htm

Bass, R., and B. Eynon. 2009. Capturing the visible evidence of invisible learning. *Academic Commons,* January. www.academiccommons.org/issue/january-2009.

Batson, T. 2007. The e-portfolio hijacked. *Campus Technology,* December 12. www.campustechnology.com/articles/56617/

Cambridge, D., B. Cambridge, and K. B. Yancey. 2009. *Electronic portfolios 2.0: Emergent research on implementation and impact.* Sterling, VA: Stylus Publishing.

Eynon, B. 2009. The future of ePortfolio roundtable. *Academic Commons,* January 7. www.academiccommons.org/commons/essay/future-eportfolio-roundtable

Green, K., 2008. *Campus Computing 2008: The 19th National Survey of Computing and Information Technology in American Higher Education,* Campus Computing Project.

Xuesong, S., L. Olfman, and P. Ractham. 2007. Designing e-portfolio 2.0: Integrating and coordinating web 2.0 services with e-portfolio systems for enhancing users' learning. *Journal of Information Systems Education*18 (2): 203–15.

Yancey, K. B., and B. Cambridge. 2001. *Electronic portfolios: Emerging practices in student, faculty, and institutional learning.* Sterling, VA: Stylus Publishing.