

LaGuardia Community College

Analysis of five years of eportfolio use provides evidence to support the following findings: (1) eportfolio can be successful in a large, urban community college with high risk students; (2) high risk students engage more deeply and effectively with eportfolios leading to measurable improvement in student learning outcomes; (3) balancing student ownership and program assessment is challenging; and (4) all-college eportfolios can be transformative.

LaGuardia Community College, Research Findings

For the past 5 years, LaGuardia Community College has actively explored the use of ePortfolio to support student engagement in learning and college-wide program assessment. A member of Cohort I of the National Coalition, LaGuardia has been studying the ePortfolio's impact, focusing on questions raised in the Coalition as well as other questions of interest to the College. This report provides a broad overview of some preliminary findings.

Finding #1: ePortfolio can be successfully undertaken in a large, urban community college and with high-risk students. To do so, however, requires significant investment of resources – human and technological, grant funded and institutional.

Context/Issue: When LaGuardia began its Portfolio project, its faculty research team found that most ePortfolio projects underway in higher education were based in four-year institutions—some of them small private colleges, others large and prominent public research institutions. LaGuardia is a large urban community college, working with an overwhelmingly immigrant working class student population; nearly 90% of LaGuardia's entering students need basic skills courses in language, literacy or mathematics. Part of CUNY, LaGuardia is significantly under-resourced, which translates into high faculty work loads (27 credit hours per year), overburdened infrastructure (both technological and human), and an initial focus on using the most inexpensive ePortfolio software available.

Evidence: Despite these challenges, LaGuardia has succeeded in building a major ePortfolio initiative. The number of students building ePortfolios at LaGuardia has grown steadily. In the 2003-4 academic year, a total of 370 LaGuardia students were actively building ePortfolios. In 2004-5 that number had risen to 1,868. In 2005-6, a total of 5,024 LaGuardia students actively built their ePortfolios, working in courses from introductory ESL and mathematics courses to mid-level courses in Humanities, Health Sciences, and Business. We see some progress in capstone courses, but this area still needs major attention.

LaGuardia's progress has been contingent upon many factors, including the investment of significant financial and human resources. The project began with a 5-year grant from the US Department of Education. As the project has progressed, LaGuardia added institutional support, including two dedicated computer labs, 2 senior professional staff and 6 junior technical support positions. The LaGuardia Center for Teaching and Learning has coordinated 4 years of faculty

development seminars serving more than 100 faculty from every department collegewide, and has built a range of student support services focused on ePortfolio.

Faculty leadership and broad grass roots faculty activity, coordinated through the Center, has been matched by visible support from the President, the Provost, the Vice President for IT and the Dean for Academic Affairs. This combination of “top down” and “bottom up” support requires considerable attention to discussion, negotiation, compromise and consensus building. Yet the payoff in terms of a constellation of essential support makes this effort worthwhile.

Finding # 2: ePortfolio software and hardware systems can be challenging. Identifying, deploying, learning and modifying the back and front end of ePortfolio software and hardware systems require a significant amount of staff time and effort. Excellent relationships and clear communication between the ePortfolio leaders and the college’s Information Technology leaders and staff are essential to success.

Context/Issue: When the LaGuardia ePortfolio team began researching software solutions in 2001, few off-the shelf products were available and the Open Source Portfolio initiative was in its infancy. Most of the colleges visited by the research team had built their own solutions. Creating such solutions is time-consuming and required more staff than LaGuardia’s IT Division was able to offer at the time. Our research team located a vendor who had a system for corporate use, but was looking to branch into a new market; seeking educational clients, the vendor promised to customize their product for our needs. The product was inexpensive, which made it attractive. However, during implementation we found customization to be painfully slow, causing numerous delays and significant problems in our faculty development process.

Evidence: The vendor delivered the product late, throwing our project off its timeline by a full semester. The ePortfolio team, which needed to work on other aspects of the project, had to devote far more time and effort to communicating with the vendor, testing the system, creating new handouts as the interface developed, etc. than we had initially anticipated or that we could afford, causing additional delays. Many faculty initially intrigued by the ePortfolio project lost interest in the initiative due to these delays, and due to problems in making the system functional and user-friendly. Despite all these difficulties, and because the ePortfolio initiative is vital to the College’s strategic plan, we have now gained the support and attention of the College’s Division of Information Technology. Today, our IT division has dedicated one and a half full-time staff members to helping us to solve problems with our current system. Meanwhile, we hope to learn from the growing Open Source network as we progress towards a system flexible enough to meet our needs, but structured enough to support broad student success.

Finding #3: A multi-faceted ePortfolio approach, combining different types of ePortfolios, is valuable for engaging students such as LaGuardia’s.

Context/Issue: There are many different types of ePortfolios. When LaGuardia began researching ePortfolios, we found there were career ePortfolios, learning ePortfolios, and expressive ePortfolios; we were frequently advised to focus on only one type of ePortfolio.

While respecting this perspective and the wisdom derived from prior experience, we persisted in creating a project that encourages a combination of all three. The College's goals for the ePortfolio were primarily academic: strengthening learning and assessment. However, given the economic needs of our students, we also concluded that incorporating a career development element was important. Meanwhile, our research suggested that that an approach that allowed for student creativity, reflection, and expression would be crucial to generating student "ownership" of the ePortfolio. So we decided to pursue a multi-pronged ePortfolio strategy.

Evidence: Our audacious (some would say foolhardy) strategy has created some difficulties. However, it also seems to pay off. Students build their ePortfolios around academic work. Yet an examination of sample portfolios reveals that they also put impressive effort into personalizing their ePortfolios through design, image, poetry, music, video, and personal statement. Formative surveys conducted with LaGuardia students have repeatedly revealed that they value both the expressive and career development elements of the ePortfolio. In 2005-6, for example, LaGuardia students were asked to evaluate their perception of the influence of the ePortfolio on the development of their career goals. This item was rated on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The response was very positive, with a mean rating of 3.84. And when students were asked they would like to show their ePortfolio to a potential employer the response was similarly positive. Aaron Hudson, a working class student from Brooklyn who hopes to graduate and go to Baruch College for a business degree, articulated the attractions of this side of ePortfolio:

Having your ePortfolio may place you a step ahead of the rest. You never know, employers may want to see more than just a resume, they will want to see some work that you have done, and they may want to see something that shows what kind of person you are. Before long, the standard face to face interview will be a thing of the past and the sending of an ePortfolio to a possible employer will have taken over as the deciding factor of employment.

While career goals were important to our students, other aspects were as well. For example, when asked to agree or disagree with the statement "I would like to show my ePortfolio to my family," the mean score on the Likert scale was even higher, at 3.98. Many students have told us that using ePortfolio to show their course work to families and friends, particularly those overseas, has had an inspirational effect. Angelica Serrano, a Human Services major originally from Mexico, wrote:

"Publishing my work and my reflections on my ePortfolio changed the way I think about my writing. I wrote a reflective essay for my ePortfolio. I knew that my essay would be read not only by my professor, but by a much broader audience. I couldn't be so facile; now my life, my self-perception and my goals would be revealed to everyone."

Finding #4: LaGuardia's experience demonstrates that ePortfolio helps high risk students engage more deeply and effectively in the learning process, leading to measurable improvement in student learning outcomes.

Context/Issue: LaGuardia has been examining the impact of ePortfolio on student engagement and student learning, using the nationally acclaimed Community College Survey of Student Engagement (CCSSE), qualitative data from students and faculty, and institutionally generated outcomes data on pass rates and course completion. Samples are still relatively small and the findings preliminary. A full discussion of this data is well beyond the scope of this report, but a sample of findings suggests the meaningful impact of LaGuardia's approach to ePortfolio on high risk students and its community college learning environment.

Evidence: To determine whether ePortfolio was supporting student engagement, LaGuardia compared 2005-6 CCSSE data from ePortfolio and non-ePortfolio classes, looking at questions drawn from Academic Challenge and Active Learning areas, illuminating a range of issues, including: critical thinking, writing, technology, and collaborative learning.

CCSSE data showed major gains for ePortfolio on virtually every count. For example, on one critical thinking-related question (Question 5a from the 2005-6 survey: "How much has your coursework emphasized synthesizing and organizing ideas, information, and or experiences in new ways?") the college wide mean, according to the LaGuardia Office of Institutional Research, is 2.85, a substantial .18 points above the national mean of 2.67. The mean for ePortfolio courses was 3.12, an additional .27 points higher than the already positive college mean. The pattern was similar for questions about writing (such as Question 12c) and effort (Question 4p). The ePortfolio-related gain was even larger for questions about technology (Questions 4j and 12 g) and classroom collaboration. For example, on Question 12h, ("How much has your experience at this college contributed to your knowledge, skills, and personal development in working effectively with others?"), the college mean was 2.70, a relatively modest .08 points above the national mean. The mean for ePortfolio courses, in contrast, was 3.10, an additional .30 points above the college mean.

Student reflection on the ePortfolio process gives voice to the reasons for increased engagement, including the ways that ePortfolio helps students become more aware of themselves as learners, linking classroom work to their changing identities. "From my first ESL class when I was introduced to ePortfolio I have grown a lot," wrote Sandra Rios, a student born in Columbia who started at LaGuardia in ESL and is now a psychology major at Hunter College.

Not only did I gain technical skills, but I learned how to express myself as a student. The different sections of my ePortfolio made me realize important things about how I see myself starting at LaGuardia, how I see myself now and in my future. My experience with ePortfolio at LaGuardia has made me see more of who I want to be.

Outcomes data, particularly data on drop-out and failure rates, provides further evidence of ePortfolio's positive effect on students. For example, looking at two semesters of institutional data from the 2005-6 academic year, based on a sample of more than 2,500 ePortfolio students, we compared the pass rate in ePortfolio courses and non-ePortfolio sections of the same courses. We found that the average pass rate in the comparison classes was 70.6 percent. The average pass rate in the ePortfolio sections of the same courses was 76.0 percent. The pass rate in ePortfolio courses, in other words, was 5.4 percentage points higher.

Whether viewed as an improvement in the pass rate or a reduction in the rate of failure, this is a dramatic gain. It correlates with the indications of increased engagement evidenced by the CCSSE data. And it confirms the implications derived from vast amounts of qualitative data generated by LaGuardia students and faculty. All together, this provides strong evidence for the positive impact of our approach to ePortfolio on student learning at LaGuardia.

Finding #5: Intensive faculty and student support is vital for ePortfolio success.

Context/Issue: LaGuardia has developed an extensive faculty development program that supports faculty learning about ePortfolio pedagogy and technology and integrates it with a range of other classroom-focused conversations facilitated by the Center, around topics such as inquiry learning, writing in the disciplines, oral communication, etc. Meanwhile, the Center and the IT Division have developed a support infrastructure for students that includes the creation of two dedicated “ePortfolio Studios,” staffed by ePortfolio Consultants. Key departments have attached a weekly “Studio Hour” to selected courses; in other courses, ePortfolio Consultants provide a short one- or two-period workshop for students.

Evidence: Our data suggests that increased support in these areas correlates with the increased impact of ePortfolio. For example, faculty who engage in a more sustained faculty development process around ePortfolio are more likely to show increased student engagement and improved pass rates, compared to faculty who have had more limited introduction and support. Similarly, students who have Studio Hour support are more likely (than students who only have limited workshops) to enjoy building their ePortfolios and to value ePortfolio as a tool for learning about themselves and their careers. Moreover, CCSSE data demonstrates that courses with Studio Hour support show a greater increase in engagement around critical thinking and collaboration.

Finding #5: Balancing the ePortfolio goals of student ownership and program assessment can be challenging.

Context/Issue: LaGuardia seeks to use ePortfolio to support a new college-wide program assessment process, as well as enhance student learning. Work gathered through the ePortfolio system is provided to faculty committees engaged in assessing their programs.

Evidence: Compared to other parts of the ePortfolio initiative, program assessment at LaGuardia is moving ahead at a slower pace. Coordinated by a subcommittee of college governance, the process of developing rubrics and training faculty to use them in program assessment has proven to take considerable time. Technical limitations of our software (*i.e.* the slow pace of developing functions needed to collect student work for assessment by the Committee) have complicated this process. The first program assessment integrating ePortfolio-based materials is now underway, led by the Department of Accounting & Managerial Studies.

Finding #6: Implementing reflection across the campus is a long-term process.

Context/Issue: Reflection is a key elements of our project. For our portfolios to yield the greatest potential, we need to help students and faculty understand reflection as a central practice. Following the mantra of “Collect, Select, Reflect, and Connect,” LaGuardia is committed to this process. Students reflect on courses, individual pieces of work and, in an “About Me” section, on their growth and change.

Evidence: As we examine student ePortfolios, we find many wonderful examples of thoughtful reflection (some of which, such as Kyoung Kang’s and Charles Mak’s, have been highlighted in previous reports). Reflection has been emphasized in some faculty seminars, and participants in those seminars have integrated reflective activities into their pedagogies. Reflective essays have proven to be one productive vehicle, allowing students to evaluate their learning experience in one course, to articulate the connections between a current learning experience and previous ones, and to link the classroom with lived experience. Meanwhile, other faculty and students have moved forward in experimenting with the possibilities of doing reflections in other forms, including audio, video, and art.

We have found overall implementation of reflection to be uneven, however. Some student reflections are superficial. Some faculty have reported difficulty figuring out how to integrate reflection into their courses. The most valuable reflections seem to be highly personal and contextualized, but encouraging such reflections takes considerable time and effort on the part of faculty. Meanwhile, the question of reflection and assessment is complex. There is little consensus about the value and implication of reflections offered through the integration of art and design. Success with reflection seems to be a second stage development for many students and faculty, (possible only after initial issues of technology and pedagogy have been mastered) and contingent upon sustained engagement and reflection-focused on-going support.

As we address this challenge, we seek ways to institutionalizing reflective practice without impeding curricular innovation. Our report last year identified some of the reflection-related questions that we face. “As we explore the role of reflection in learning,” we wrote, “we find that we want to approach reflection from two different directions. On one hand, we must create explicit opportunities for students to ‘learn’ to do reflective thinking. To do so with large numbers of students, we must be systematic in identifying a place for reflection within our pedagogy and within our ePortfolio system, asking students to reflect at specific times on specifically targeted work. Concurrently, we see that we also want to allow students to naturally develop their own unique reflective practice that may be evidenced in alternative expressions of synthetic thinking. This may be seen in students’ narratives, in artistic artifacts and in the selection of visual images and linking.” The need to more effectively support both systematic and creative reflection is one of the goals that will guide our work as we move forward.

Finding #7: ePortfolio takes you places that you didn’t expect to go. ePortfolio projects are all college projects, with every area contributing to its successes. Partly in consequence, ePortfolio has the potential to be a transformative project – not only for students, for faculty, but also for the institution as a whole.

Evidence: ePortfolio at LaGuardia is constantly growing and changing. Faculty and students keep coming up with new and unanticipated uses for ePortfolio. As a result, ePortfolio has connected to LaGuardia's discussions of (and work focused on) learning communities, integrative learning, educational technology, inquiry learning pedagogy, international linkages, second-language learning, Scholarship of Teaching & Learning, faculty course portfolios, preparation for high-stakes testing, advisement, school-college collaboration, professional program certification, etc. The rich potential of ePortfolio leads LaGuardia faculty and administrators to propose new usages for ePortfolio, many more than could possibly be implemented. This makes the work exciting and meaningful. And it also creates an open-ended process of on-going learning and change.

LaGuardia's experience suggests that characteristics of the institution, both its strengths and its weaknesses, have a profound impact on an ePortfolio project's development. A successful ePortfolio project, not only requires a broad institutional effort, a kind of collaboration rarely achieved in higher education. It also raises the possibility of broad institutional transformation, the realization of the College's potential as a learning organization. Recognizing this exciting prospect as one of our goals adds to the challenges in front of us, but also deepens our understanding of our project's potential significance and value.