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Overview
Beginning in July and ending in December 2011, the Center for Instructional Development and Distance Education at the University of Pittsburgh (Pitt) developed and administered a survey designed to gauge e-portfolio practices at Association of American Universities (AAU) member institutions. This research bulletin presents the results of that survey, which we hope will benefit other institutions as they explore or expand e-portfolio implementation. We believe these findings will be useful to decision makers by providing research-based discussion points for those who are considering implementing e-portfolios at their institutions or broadening existing e-portfolio use.

Research Highlights
Lorenzo and Ittelson\(^1\) describe electronic portfolios, or e-portfolios, as “a digitized collection of artifacts including demonstrations, resources, and accomplishments that represent an individual, group, or institution.” Results of published research conducted in 2006\(^2\) suggested that large, public research institutions, such as AAU universities, were lagging behind small colleges, large private universities, community colleges, and for-profit institutions in implementing e-portfolios. Although our literature search revealed a growing body of scholarly and professional research devoted to the study of e-portfolios in higher education, it revealed little information about e-portfolio practices in place at AAU member institutions, many of which are similar to Pitt. To help us understand the current state of e-portfolio use, this study surveyed academic technology or instructional technology leaders at AAU member institutions. We aimed to answer two research questions:

- Who among the AAU universities is using e-portfolios?
- How are they using them within their institutions?

Survey Instrument
After a review of the scholarly and professional literature and consultation with subject experts to check content validity, a survey instrument consisting of 36 multiple-choice questions was developed specifically for this study.\(^3\) Twenty-six of these were closed-ended questions, and ten questions offered the opportunity either to choose a closed-ended response or to check “other” and provide a free-form response. The survey was pilot-tested by the subset of institutions that are members of the Learning Technology Consortium\(^4\) and do not belong to the...
AAU (n = 5). The pilot study followed a participating pretest methodology; in other words, the respondents knew that this was a “practice run” and were asked to provide reactions to question form, wording, order, and survey timing. It was administered electronically using SurveyMonkey.

Following revisions to the instrument based on pilot study feedback, the link to the survey was sent in a personalized e-mail to academic technology and instructional technology leaders (one per school) at all AAU universities except the University of Pittsburgh\(^5\) (n = 60). The response rate was a robust 50%.

### Results

Some key results emerged from our analysis of the survey data. We classified them into five topic areas:

- Levels of e-portfolio implementation
- E-portfolio functions for AAU institutions and their primary users
- E-portfolio funding
- Implementation drivers
- E-portfolio policies

Each of these topics is discussed in greater depth in the following subsections, and aggregated results of the survey are provided. In some cases, reported responses total greater than 100% because participants were able to “check all that apply.”

#### Levels of E-Portfolio Implementation

The first and most fundamental question—“Are e-portfolios implemented at any level (for example, institution, program, or course level) at your institution?”—provided a striking statistic: 77% of AAU member institutions currently are implementing e-portfolios.

Follow-up questions designed to reveal a more specific level of implementation found that 84% of those who reported some level of e-portfolio implementation were using e-portfolios at the program level and nearly 74% at the course level (see Figure 1). No institution reported an institution-wide implementation, although, in the “Other” category, one respondent reported that plans for institutional implementation were under way. The “Other” category included responses such as

- “[E-portfolios] implemented by individual faculty in courses and more broadly in some programs. Not an institution-wide portfolio requirement.”
- “Some [e-portfolio implementation] at the department and/or college level as well.”
E-Portfolio Functions for AAU Institutions and Their Primary Users

Research revealed a wide variety of possible uses for e-portfolios in higher education. Based on a review of the literature, this survey requested information about these dimensions:

- Facilitating reflection on learning
- Measuring learning
- Documenting students’ achievements of competencies
- Student career-related purposes
- Streamlining the faculty promotion and tenure process
- Assisting with institutional, program, and department review, assessment, and self-study
- Providing evidence of institutional accountability
- Alumni development (lifelong learning)

Many other potential uses exist. When the Association for Authentic, Experiential and Evidence-Based Learning conducted a survey of its 100 institutional members in 5 countries in 2010, it found 61 distinct uses of e-portfolios among the 20 institutions that responded.⁶

At AAU member institutions, the most widely reported uses are student-centered. Survey results indicated the top three are as follows:

- To document students’ achievement of competencies
- For student career-related purposes
- To facilitate student reflection on learning in a course or courses
We were also interested in learning whether these institutions’ uses for e-portfolios had changed over time—in other words, were AAU member institutions still using e-portfolios for the purposes they originally intended? The data reveal the answer to this question to be “yes.” Although one respondent indicated that his institution was using e-portfolios to facilitate certification for professional licensure in education, social work, and pharmacy—a use that had not been originally expected—by and large, the survey respondents reported that their institutions’ original purpose for implementing e-portfolios had not changed over time. However, although the purposes and the rankings of reported uses remained stable over time, the percentage of use grew in every category. (See Figure 2.) The areas that saw the most growth were in documenting competencies (23.7%), to reflect on learning in courses (12.6%), and to measure learning in a course by students (12.1%), perhaps indicating not only expansion of the use of e-portfolios in general but also increasing interest in new ways of documenting learning and achievement.

Figure 2. E-Portfolio Uses Over Time

A question closely related to the variety of uses for e-portfolios is, “Who are the primary users of e-portfolios at these institutions?” Seventy percent of AAU member institutions report that undergraduate students are the primary users. The remaining 30% report that their primary
users are graduate and/or professional students. No faculty, staff/administration, or alumni were reported as using e-portfolios at the institution.

**E-Portfolio Funding**

How educational technologies in general are funded varies widely from university to university but usually involves a mix of central and department-based funding, some of which can be generated through student technology fees, special allocations, or grants. We were interested in learning whether most institutions provided central funding for e-portfolios. We found that at AAU member institutions, a large percentage—50%—receive funding for e-portfolios through their schools and/or departments, and a significant number of e-portfolio programs—35%—are funded through a centrally administered IT budget. The category “Other,” which comprised the remaining 15%, included the following responses:

- “They [e-portfolios] are not funded. IT personnel simply spin up a system at their own costs to respond to faculty needs. Institutional funding in the past has been inconsistent, low to nonexistent.”
- “A homegrown solution was developed at our institution that is now sold to other schools through a third party. We receive free hosting from the third party (along with revenue sharing).”

**Implementation Drivers**

We were interested in learning what campus groups were driving e-portfolio implementation. Interestingly, the data point to faculty. Faculty contribute to just over 63% of the policy and procedure decisions concerning e-portfolios. Departmental or program-level administration (deans, academic department heads), though, contributed to approximately 74% of policy and procedure decisions. Two institutions reported that they rely on a committee or advisory board established for this purpose. Fifty percent of responding institutions reported the existence of an on-campus group that helps sustain or facilitate ongoing e-portfolio initiatives or the creation of new e-portfolio projects. Our survey did not attempt to discover the constituencies that make up these groups—whether they are composed of faculty, administration, or representatives of other campus groups—which could be a topic for future research.

**E-Portfolio Policies**

Our survey requested information about a wide range of policies. Many AAU institutions reported policies in place to manage e-portfolio academic integrity, intellectual property, data privacy, and systems security issues that arise. As mentioned previously, faculty contributed to approximately 63% of policy and procedure decisions concerning e-portfolios. Departmental or program-level administration (deans, academic department heads), though, contributed to approximately 74% of policy and procedure decisions. Two institutions reported that they rely on a committee or advisory board established for this purpose.

Survey results indicate a commitment to proactively managing accessibility challenges, with 53% of responders indicating their institutions’ e-portfolio technology “supports users’ accessibility challenges” or that they are “working toward e-portfolio accessibility.” Almost 32% of the respondents chose the “I don’t know the answer to this question” option for this question, and so it is possible that this percentage is even greater.
What It Means to Higher Education

Without knowing the current implementation statistics for other types of institutions, it is not possible to state from our results that large public research institutions have closed the gap that Paoletti reported in 2006. What we can state is that the results of our study clearly indicate that e-portfolios have been widely adopted by many large research institutions and that they are implemented on a program or course basis, rather than institution-wide. Further research would be needed to understand the lack of institution-wide implementations and the factors that may influence use of e-portfolios on a wider basis. That said, we did find—beyond the scope of this study—evidence of institution-wide implementations at smaller institutions, where, for example, e-portfolios are being used by the administration to organize efforts to track institutional effectiveness, comprehensive assessment, and continuous improvement.

E-portfolio proficiency may soon be a recognized professional competency for aspiring teachers and will need to be addressed in teacher preparation programs. From 1999 to 2003, the U.S. Department of Education’s Preparing Tomorrow’s Teachers to Use Technology Program (PT3) awarded grants to help elementary and secondary teachers feel comfortable using technology in their teaching—including using e-portfolios to transform teaching and learning. While the overall results of this study are not surprising—given the number of years since the introduction of the technology—understanding the extent and patterns of use can help inform institutions that have not yet decided to implement e-portfolios or that might be in the process of developing implementation strategies.

Key Questions to Ask

This research naturally leads to further questions. We now understand the extent to which e-portfolios are used in AAU institutions. The questions about how they are used and the impact of their use on learning can be asked on every campus to further our understanding and inform future planning. Following are some of the questions we can ask that will help our institutions make the most effective use of e-portfolios for learning, assessment, and career development:

- Which disciplines within our institutions are using e-portfolios most extensively? For what purposes?
- How is the impact of the use of e-portfolios being measured?
- How do faculty assess the benefits of e-portfolios?
- For career-based e-portfolios, have students continued to expand on their content after they have left the university? If so, how?
- As use of e-portfolios expands in the K–12 environment, are institutions experiencing an influx of freshman with established e-portfolios?

Where to Learn More


The Association for Authentic, Experiential and Evidence-Based Learning. [http://www.aaeebl.org/](http://www.aaeebl.org/). AAEEBL is conducting research in 2012 to gain a better understanding of how e-portfolios are used across diverse institutions.

### About the Authors

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### Citation for This Work


### Notes

4. The Learning Technology Consortium is a collaborative of institutions with common interests in applying technology to enhance teaching and learning. For more information, visit [http://www.cidde.pitt.edu/learning-technology-consortium-ltc](http://www.cidde.pitt.edu/learning-technology-consortium-ltc).
5. The University of Pittsburgh was excluded from the survey because the person who would have been the respondent is a co-investigator on this study.