

Scaling Up ePortfolios at a Complex Urban Research University: The IUPUI Story

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Summary

An early adopter of ePortfolios, IUPUI began its ePortfolio initiative without a roadmap or example to follow. Enthusiastic leaders were not enough: early efforts fell short. We retrenched and revamped, listening carefully to the needs of our campus stakeholders and attuning our strategy to the variety of disciplinary cultures at our complex urban research university. Adoption expanded, first slowly, then more rapidly as exemplars were established, the technology was improved, and we learned to make the case for ePortfolios. Today we have a rich mix of ePortfolio projects exploiting the varied abilities of ePortfolios to support student development, integrative and experiential learning, assessment of learning outcomes, and professional showcase.



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Our Scaling Up Story

Current Status of Our Campus Initiative

“Campus ePortfolio Initiatives” more accurately describes ePortfolio work at IUPUI than the singular “Initiative.” ePortfolio at IUPUI is centralized only in that a core campus group shepherds development, collaborates with the IU system’s IT organization, offers resources and expertise, and coordinates campus participation in national efforts like Connect to Learning and the Inter/National Coalition for Electronic Portfolio Research. The campus ePortfolio team supports a diverse array of ePortfolio projects in academic and co-curricular units across the campus, rather than a single ePortfolio initiative with a uniform approach and a shared set of purposes. As we explain in more detail later in this story, trial and error have taught us that such an approach best fits the culture of our institution, a large, complex urban research campus, with highly autonomous academic units and more than 250 degree programs in 21 schools.

In Fall 2013, the ePortfolio Initiative at IUPUI tallies approximately 40 ePortfolio projects, involving some 4,000-5,000 users—still only a small percentage of our 30,000+ student body. These projects include uses in individual courses, clusters of courses, degree programs, co-curricular programs, and cross-curricular engaged practices like service learning, study abroad, and undergraduate research. Uses of ePortfolio run the gamut of possibilities. Assessment and accreditation in professional disciplines, often at the graduate level, predominated in the earliest ePortfolio projects at IUPUI, and these purposes continue to drive much of the ePortfolio work on the campus. Other efforts, often situated in senior capstone courses, emphasize integrative learning, while projects located in units that coordinate service learning, study abroad, undergraduate research, and internships aim to deepen the impact of these already “high-impact” practices and help students to connect learning in and out of the classroom. Still others use ePortfolio as professional career showcase. The Electronic Personal Development Plan initiative, the focus of our Connect to Learning project, seeks to provide holistic support for undergraduate student development and success, and shows strategic potential as an undergraduate portfolio that is beginning to be adopted campus-wide.

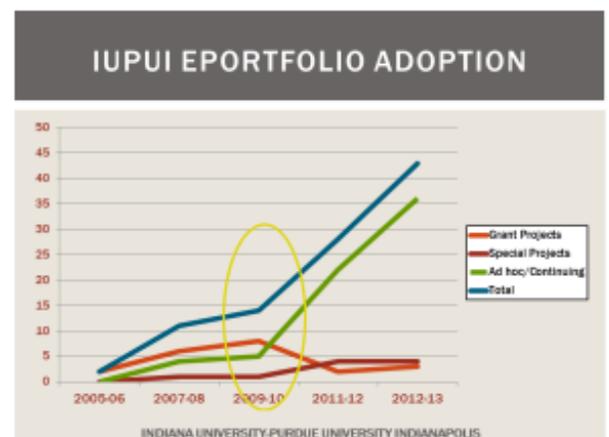
At IUPUI, we do not sharply differentiate “assessment” from “enhanced student learning.” Assessment is intended to support student learning as a formative strategy, frequently with some emphasis on reflection and/or application of theory to practice, or as a way to guide curricular improvement designed to enhance learning. Thus, very few IUPUI ePortfolio projects do *not* involve an explicit assessment component. Moreover, a qualitative research project we conducted in 2012 suggests that most IUPUI projects tend to expand the purposes and scope of their ePortfolio work as those involved begin to understand the potential power of ePortfolios to help them achieve multiple aims. (We suspect that this is not unique to IUPUI.) Involving a relatively large team in our Catalyst project and providing ePortfolio Initiative funding for participation in AAEEBL conferences has done much to catalyze these richer, expanded, and extended approaches to ePortfolio practice.



The current IU ePortfolio software environment is consonant with this flexible approach. Embedded in our learning management system, the ePortfolio is available to IUPUI units for a range of purposes according to needs and interests that *they* identify. A few programs have chosen alternate systems that they believe better meet their needs and those of their students, though one of those is converting to the current system. In the meantime, University Information Technology Services (UITs), the IU-wide technology organization, is exploring alternative platforms for the future, and IUPUI ePortfolio users are leading the effort to identify important functionality for the new system.

Early ePortfolio adopters at IUPUI were most interested in program assessment and accreditation. A surprising number of these—given early assumptions that adoption would focus on student learning of our Principles of Undergraduate Learning (see the Developmental History section below)—have been at the graduate level. Since the baseline software in those early projects included only a rudimentary presentation capability, that assessment bias was perhaps not surprising. As more prospective users expressed interest in web presentation capability, the IUPUI initiative worked with UITs to upgrade that functionality. Since the presentation tool, known as “Presentation Maker” at IU, became available, adoption of the ePortfolio has accelerated, with more projects focused on fostering academic engagement and supporting integrative learning.

The most successful aspects of the ePortfolio Initiative at IUPUI do not arise from comparisons among projects: each defines success in its own terms, and we seek to help them succeed according to these measures. We bring to bear expertise in practices that will help them achieve their goals and, we hope, broaden their awareness of the potential of ePortfolios. This flexible, customized approach has been key to increasing adoption of ePortfolio in recent years. Providing intensive support, including financial support, for early adopters was critical to leverage initial successes. Listening closely to those partners to learn about needs for software improvement and professional support also built success, as did our practice of calling on those partners to engage with colleagues from other departments as workshop presenters and facilitators both on campus and in national forums. Crucial to our success as well has been our practice of collaborating with units to foster long-term adoption—balancing the patience such an approach requires with the pragmatic need to demonstrate our own “results.”



The two most significant “scaling up” challenges confronting the IUPUI ePortfolio Initiative at present are (1) devising new methods and identifying resources for supporting the rapid growth of ePortfolio uses and users—scaling up support, in other words, to encourage and sustain scaled-up adoption by faculty, students, advisors, and others; and (2) exploring next generation software platforms that can better accommodate the range of emerging needs than our current, aging system. These subjects are discussed further in the “Next Steps” section below.

Catalyst and Connector

IUPUI was founded, in large part, to raise educational attainment in Indianapolis and Central Indiana; indeed, an “Interim Statement of Purpose” developed shortly after the campus commenced operations in 1969, included “encourag[ing] the development of innovative effective teaching methods and tools, both through technology and behavioral research.” Inquiry into student learning and support for student success are part of our institutional ethos, and, at any given time, the campus is home to dozens of research projects and initiatives focused on effective teaching and learning. Many of these efforts have incorporated innovative uses of technology, and a few can claim to have been truly transformative across and even beyond the campus: development of the first (as far as we know) course management system, for example; and University College, our academic home for new students and for a wide range of student support services.

It would be over-reaching, we believe, to claim that the ePortfolio Initiative has catalyzed similarly broad institutional change. We have certainly seen several cases of sweeping programmatic change; adopting ePortfolio requires instructors to collectively rethink curriculum and pedagogy and, at the least, to make connections among courses and experiences more explicit. (The need to do this has also been a source of resistance to ePortfolios.) We believe, though, that the Electronic Personal Development Plan (ePDP), the focus of our Connect to Learning project, shows promise for adoption and development of new connections and approaches on a large scale. Now in its fourth year of implementation in the First-Year Seminar (FYS) that almost all IUPUI freshmen take, the ePDP has already catalyzed rethinking of that course and is beginning to catalyze other changes on campus, including stronger linkages among the FYS, undergraduate degree programs adopting ePortfolio, co-curricular programs, and a new General Education program currently being launched. Of key importance to the adoption of the ePDP is that it was not centrally mandated; rather, it was designed by faculty in University College and several other schools to function as an undergraduate ePortfolio. Programs adopt the ePDP—or other ePortfolio models and practices—at their discretion, not as the result of administrative fiat.

Developmental History

Stage 1: False Starts and Lessons Learned

IUPUI's ePortfolio Initiative dates from 2000. At the time, the campus was seeking a way to embed our recently adopted Principles of Undergraduate Learning (PULs) into the curriculum, beginning with the FYS, and to assess student learning of those outcomes. The Executive Vice Chancellor and Dean of the Faculties asked a faculty member to convene a committee to consider a freshman portfolio, and attendees at that large meeting quickly decided that the campus should have an ePortfolio spanning the undergraduate experience. A comprehensive planning effort ensued, with multiple workshops and committees discussing topics ranging from student development to authentic assessment. Faculty communities of practice, each focused on one of the six PULs, spent a year creating guidelines for and suggested approaches to teaching and learning the PULs and developing rubrics for assessing them as students progressed through their undergraduate education.

PUL, Metric	Introductory	Intermediate	Advanced	Experiential
Core Communication and Quantitative Skills	Complex	Ready	Ready	Ready
Critical Thinking	Complex	Ready	Ready	Ready
Intellectual Depth, Breadth, and Adaptiveness	Pending	Ready	Ready	Ready
Integration and application of knowledge	Ready	Ready	Ready	Ready
Understanding society and culture	Ready	Ready	Ready	Ready
Values and Ethics	Ready	Ready	Ready	Ready

As these discussions were unfolding, UITs joined the Open Source Portfolio (OSP) Initiative and the Sakai Project, which subsequently merged. In Fall 2004, IUPUI began a pilot of the OSP in its new freshman Themed Learning Communities, in which cohorts of entering students took several linked courses, including an FYS, focused on a professional interest (e.g, engineering, health professions, social work, education) or other theme (e.g., the impact of media on personal identity, peace and conflict in contemporary society, women's roles and social change). We envisioned students in these learning communities creating ePortfolios as sites for integrative learning during their first college semester and continuing to develop them as they moved through their baccalaureate programs. Leaders of the initiative believed that faculty and students would quickly see the benefits that we saw, that departments would buy in, and that, after a few years, the ePortfolio would be used throughout our undergraduate programs.

Today (and maybe even back then), this undoubtedly sounds naïve, particularly the attempt to implement two initiatives—Themed Learning Communities and the ePortfolio—simultaneously. But we had no road map or Catalyst web site to guide us. Those in charge of the initiative were inexperienced in introducing new technologies, and the decentralized culture of our large urban campus compounded the challenges. Even UITs staff had little understanding of the technological and logistical challenges, which are quite different for ePortfolios than for other technologies like Learning Management Systems. OSP was not ready to launch, and with limited functionality and lack of prior testing with large-scale implementation, it failed to measure up either to the rhetoric or to the extensive planning effort that had taken place.

But perhaps our largest mistake was not grasping the magnitude of the paradigm shift that ePortfolios represented, and, consequently, underestimating faculty development and support needs. An orientation for instructors involved in Themed Learning Communities included just a brief introduction to the ePortfolio. Consequently, many of these instructors did not understand the rationale for the portfolio and treated it as an add-on rather than an integral part of the FYS. Not surprisingly, these faculty members experienced the ePortfolio as time-consuming, and students perceived it as busy work. The pilot was viewed as a failure, dealing a major setback to the initiative. By now, its faculty origins had been largely forgotten, and it was widely considered a top-down imposition of assessment by the administration. We clearly needed to regroup.

Stage 2: Re-engineering

IUPUI's ePortfolio initiative might well have ended at this point. (Some faculty leaders, in fact, did pronounce it dead.) Fortunately, despite an inauspicious first attempt, IUPUI's upper administration strongly supported the ePortfolio concept, and the initiative continued to have a budget and a director. Beginning in 2005-06, ePortfolio leaders offered incentives to departments and programs that themselves identified a need related to the ePortfolio. Small grants were provided to academic units to work on integrating and assessing the PULs and to begin experimenting with use of the ePortfolio. We strengthened collaboration with the IUPUI Center for Teaching and Learning, which dedicated a consultant to work one on one with the grantee departments, and we provided additional faculty workshops (attended mostly by grantees, but open to all), because we now realized that we were asking instructors to transform their practice. We attracted a few early adopters, whose projects largely focused on assessment for program accreditation.

During this phase, a new ePortfolio director and steering committee deliberately maintained a low profile for the initiative and did not attempt large-scale implementation. Rather, we sought to learn from grant recipients' experiences with planning and implementing ePortfolio use, and gathered feedback from them about what they needed the software to be able to do. This period might be considered the "Inquiry" and "Reflection" phases of the initiative that we had initially attempted to skip. We used the information and ideas provided by grantees to draw up specifications for software development during Spring and Summer 2007. Over the next two years, UITS worked closely with us to improve the platform, resolve problems, and add new features to contribute back to the Sakai community. We were fortunate that IU was a center for development of Sakai and therefore had knowledgeable resources for the task.

Stage 3: Starting Anew

By 2009, the technology platform for the OSP had dramatically improved, and we began to feel more comfortable about encouraging broader adoption. We ramped up faculty development programming. We became more explicit about expecting grant recipients to adopt and continue to use the ePortfolio. Today, the technology environment supports reflection, scaffolding of student portfolio work, peer and instructor feedback, and assessment and reporting, and includes a presentation tool that enables students to create a web presentation fairly easily. With more versatile technology, a wider variety of uses for ePortfolio has emerged. Assessment and accreditation still predominate, but more projects support student growth and development, learning enhancement, and integrative learning. We soon began to see faculty and academic programs adopting the portfolio without the inducement of grant support.

In addition, we intentionally aligned the ePortfolio not only with assessment of the PULs, but also with the RISE to the IUPUI Challenge initiative begun in 2007. RISE encourages undergraduate students to engage in high-impact practices, including undergraduate research, international experiences, service learning, and experiential learning. Altogether, our grant program funded 18 department/school projects from 2005-06 to 2010-11. About half of these completed their work and have continued to use ePortfolios; four have prompted spin-off projects in other programs within the same school. Three programs (two with grant funds and one without these funds) have now been through successful specialized accreditations with ePortfolios providing authentic documentation of student learning and achievement. These, along with the significant improvements to the technology, were all pivotal achievements.

Another turning point occurred in 2009, when we began working closely with University College to develop, pilot, and scale up the ePDP. In a sense, the ePDP represented a return to the original 2000 idea: asking students to begin an integrative, developmental portfolio in the FYS, with an eye to continuing its development throughout the undergraduate experience. But now, we had a better understanding of the kinds of planning and faculty development needed for such an initiative, and the purposes for implementing the ePortfolio in the first-year experience were much more clearly and specifically articulated: to “give students a compass” by guiding them through a reflective planning process in which they develop realistic personal educational goals; to have them document this Personal Development Plan in an ePortfolio that they carry with them throughout their college experience and periodically revisit and revise; and to empower them to take ownership of their college education, starting in the FYS. A small group worked throughout the 2009-10 academic year on planning an initial pilot of the ePDP and, in Summer 2010, participated in a week-long Summer Institute focused primarily on reflection. The first pilot took place in Fall 2010 and involved some 16 FYS sections. (Some instructors in the group piloted the ePDP in multiple sections.)

Several more pivotal events occurred in 2010: IUPUI joined Cohort VI of the Inter/National Coalition for Electronic Portfolio Research; the Association for Authentic, Experiential, and Evidence-Based Learning (AAEEBL) held its first national/international conference; and we had the opportunity to apply to participate in the Connect to Learning project. These developments in the wider world of ePortfolios and higher education enabled us to engage a larger group of IUPUI faculty, staff, and students in intensive ePortfolio inquiry and work, while helping to validate the importance of this work with internal constituencies.

These events, along with the recent improvements in the technology platform, fueled a new expansion of ePortfolio adoption across the campus. Participation in Connect to Learning, in particular, accelerated development of the ePDP project, especially in the form of University College collaborations with academic and co-curricular units to integrate ePortfolios into students' undergraduate education beyond the FYS. In Fall 2013, 47 or about half of FYS sections were working with the ePDP. In addition to the three units collaborating with University College to extend the ePDP beyond the FYS as part of the C2L grant—the Diversity Enrichment and Achievement Program, the Life-Health Sciences Internship Program, and the Department of Psychology—several other programs are piloting or planning adoption of the ePDP in the School of Nursing (a system-wide school at IU), the School of Public and Environmental Affairs, the School of Philanthropic Studies, and the Department of Art History in the Herron School of Art and Design. Moreover, the ePDP is “seeding” interest in the ePortfolio/ePDP within FYS instructors' home academic units.

Since the initial 2010 pilot, the ePDP model has evolved and improved. Approaches to reflection and assessment, for example, have been adjusted as ePDP leaders and instructors gained experience, improved their understanding of how to prompt students to reflect meaningfully, and more clearly defined the desired outcomes of the ePDP as students progress toward graduation. Instructors who have taught with the ePDP for several years have incorporated it as a central component of their course or program curricula. A small group of faculty and staff has worked for a year-and-a-half to create a conceptual framework, grounded in the student development and other relevant literatures, to guide integration and assessment of the ePDP within majors, co-curricular experiences, and high-impact practices.

Arguably, the ePDP initiative is now in the “Integration” phase, although each program that adopts it will need to engage in its own Inquiry, Reflection, and Integration process. We think the same is true of the campus ePortfolio initiative. At this stage, we have a number of fairly mature ePortfolio implementations: the Doctor of Nursing Practice degree, for instance, stands out as an example of a program that incorporated ePortfolio into the initial development of its curriculum and has now been professionally accredited, based in part on ePortfolio evidence of learning. Several baccalaureate-level capstone courses in the English, Spanish, and Art History programs also now have considerable experience with students creating reflective, integrative capstone ePortfolios. Many other programs have new ePortfolio projects underway, but the IUPUI ePortfolio team has a far better understanding of how to guide and support these implementations than was the case ten years ago.

Key Decisions

The decisions most responsible for the progress of our campus ePortfolio Initiative include:

1. The decision to work with programs to help them chart their own course with ePortfolio (2005-06).
2. The decision to deepen our collaboration with UITS by working with UITS staff to develop specifications for the ePortfolio technology platform that reflected IUPUI users’ needs and to implement these specifications within the ePortfolio software (2006-07). See our Technology Story for a fuller discussion of the evolution of our ePortfolio technology.
3. The decision to hire an ePortfolio Coordinator (2009). This decision built capacity and enabled the initiative to scale up faculty development offerings, to work more closely with programs implementing ePortfolios, including units that coordinate high-impact practices, and to staff participation in national ePortfolio initiatives, among many other accomplishments.
4. The decisions to join Cohort VI of the Inter/National Coalition for Electronic Portfolio Research and the Connect to Learning project and to allocate ePortfolio funds to supporting wide IUPUI participation in the AAEEBL conferences (2010 to present). These decisions accelerated and expanded professional development for use of ePortfolios among IUPUI faculty and staff and helped to build internal support for the ePortfolio Initiative.

Connections to Core Strategies

Like many institutions that have been working with ePortfolios for more than a few years, IUPUI has engaged, at least to some extent, in all ten of the C2L-identified Core Strategies. Four strategies stand out as most important to the development and expansion of our campus initiative: Developing an Effective Campus ePortfolio Team, Connecting to Programs, Connecting to High-Impact Practices, and Aligning with Institutional Planning. For purposes of discussion, we focus here on two strategies that, in our institutional context, implicitly include many of the others.

Developing an Effective Campus ePortfolio Team

Developing an Effective Campus ePortfolio Team is an ongoing process, evolving along with our understanding of what it means to be “effective.” From the outset, ePortfolio team members have represented diverse segments of the institution, including academic administration, the faculty, the Center for Teaching and Learning (CTL), and Planning and Institutional Improvement (PAII), the division that coordinates assessment. Although we did work in concert with UITS in the early years, the connection was relatively shallow, which accounts in no small part for the naivete with which technologists’ assurances were taken at face value in 2004. In regrouping after 2004-05, we worked to improve communication, adding to the team an experienced CTL consultant well qualified to translate lay faculty members’ desires for certain kinds of performance into requirements that a software developer could recognize and implement appropriately.

The core ePortfolio leaders come from the campus-level divisions that contribute to the ePortfolio budget or provide other resources: Academic Affairs (including the CTL), PAll, and UITS. Each member of the coordinating group brings to bear a background in two or more areas important to the effectiveness of the ePortfolio Initiative: assessment, faculty and professional development, communications, curriculum and instructional design, and management of technology-related change. Coordinating committee members also represent important campus-wide constituencies, including undergraduate research, information technology, professional development, service learning, and faculty governance. Through the UITS connection, team members have been linked to national work on Sakai, whose conferences have included a solid ePortfolio track. Through the Academic Affairs/CTL connections, members are linked with developments in the SoTL and POD organizations. Through the PAll connections, members are linked with AAC&U and its VALUE project as well as the national Assessment Institute, sponsored annually by PAll, and its ePortfolio track. When AAEEBL was organized, IUPUI joined early and ePortfolio team members have been active contributors to AAEEBL's Board of Directors and the annual conference planning committees.

In addition, over the past decade, ePortfolio team members have become seasoned ePortfolio leaders who have experience with both success and failure of ePortfolio efforts. They are deeply familiar with the ePortfolio literature, have worked with academic programs in many disciplines, have participated in multiple national and international ePortfolio projects, have advised other campuses undertaking ePortfolio initiatives, and have used ePortfolios in their own teaching and learning practices. Moreover, by supporting participation in AAEEBL, the Assessment Institute, and national initiatives like C2L, through campus and IU-wide committees, and through local faculty development efforts, we are nurturing the development of an additional layer of expertise embedded within the various ePortfolio projects across the campus and active in their particular disciplinary areas. Finally, we are dedicated to the educational reform agenda that ePortfolios represent; we are well aware that no two ePortfolio implementations are exactly alike; and we understand that we still have much to learn.

Connecting to High-Impact Practices

Connecting to High-Impact Practices has also been critical to the growth of our ePortfolio Initiative. IUPUI has a long tradition of focusing on best practices across its mission elements of teaching and learning; research, scholarship, and creative activity; and civic engagement, and we are known for innovation in the first-year experience, learning communities, service learning, and other forms of experiential learning. In truth, "Connecting to High-Impact Practices" at IUPUI is almost the same as "Aligning with Institutional Planning," because much of our institutional planning focuses on student learning and success. For example, as noted in our Developmental History above, the RISE to the IUPUI Challenge initiative has been a core academic strategy for the past six years and is a continued emphasis in a new Strategic Plan currently being completed. We have engaged professional staff leaders from the Center for Research and Learning (CRL) and the Center for Service and Learning (CSL) in the ePortfolio coordinating group, and we awarded grant funding to CSL to pursue the use of ePortfolios for development and assessment of "civic-mindedness." More recently, we worked with the Office of International Affairs to pilot use of the ePortfolio in Study Abroad, a pilot that seems likely to expand in the next year; and the Life-Health Sciences Internship Program within the School of Medicine is actively involved in our Connect to Learning project.

In addition, we know of at least four academic programs that are currently working with ePortfolios in capstone courses, and we hope to foster broader campus discussions of the potential of ePortfolios to support culminating experiences focused on integration, demonstration, and assessment of student learning. We have already noted here the importance of the ePDP as a strategic addition to the first-year experiences coordinated by University College. Designed as a compass for students to navigate their collegiate learning experiences, the ePDP is developed initially in the FYS and intended to be useful throughout a student's undergraduate career. Many of the FYS sections using the ePDP are linked with other courses in Themed Learning Communities, another high-impact practice whose local success has been extensively documented by University College. Students working with the ePDP are required to develop a plan for their RISE experiences, and University College has worked closely with representatives of the RISE units to assure that the ePDP's design will enable it to continue to foster student learning and development as students participate in these experiences.

The ePortfolio Initiative's connections to high-impact practices are both broad and deep. In fact, we believe that ePortfolios can be approached as a "meta"-high-impact practice, deepening and intensifying the impact of experiences like first-year seminars, capstones, service learning, study abroad, and internships. We plan to incorporate this idea into future scaling up efforts, as the campus implements its new strategic plan, which features a broad initiative to enhance undergraduate student learning and achievement and calls for continued development of and expanded undergraduate participation in practices that demonstrably contribute to student success.

Next Steps

The ePortfolio Initiative at IUPUI inhabits a vortex of converging opportunities in Fall 2013. Across the campus, grassroots interest in ePortfolios has surged over the past year, and we want to capitalize on that. The ePDP is expanding and improving with each semester, and is included in the plan for our new general education program. At the university system level, the ePDP is a key element of an "IU Roadmap" initiative that will support students' individual academic planning, and UITs is engaged in a series of pilots to select a new academic technology environment; both University College and the ePortfolio Initiative at IUPUI are helping to lead these university-wide decisions.

In our discussion of the current status of our ePortfolio Initiative, we identified scaling up support and selecting a more up-to-date ePortfolio technology platform as our key scaling-up challenges. All of the trends and initiatives noted above will intensify the scaling pressures we have already begun to experience as we seek better ways to support growing numbers of both faculty and student ePortfolio users. Thus, we will need to pay even more attention over the next couple of years to the Core Strategies of *Aligning with Institutional Planning* and *Leveraging Resources*. If we can reach an agreement with UITs on an ePortfolio platform that better meets our needs, we may be able to reduce both the extent of one-on-one consultation faculty and programs currently require to establish an ePortfolio site and the volume of last-minute, end-of-semester student communications with the UITs Help Desk.

Leveraging our connections with the various campus-wide units focused on high-impact practices may also help us address our scaling up issues. Several of these units employ peer mentors to assist faculty and students in implementing these practices, and have already begun adding ePortfolio support to the mix. A few schools with multiple current or developing ePortfolio implementations (e.g., the Schools of Nursing, Dentistry, and Social Work) are assisting their faculty with increasingly knowledgeable instructional support staff. With our Responsibility Center Management structure, that approach may be financially viable for some of our larger schools. As we work to expand the faculty and professional development programs the ePortfolio Initiative provides, we can help these new colleagues, as well as the growing cadre of experienced ePortfolio users, by addressing more advanced pedagogical issues. As for student support, we believe that we now have a large enough pool of users to engage some focus groups to understand how we might better support their needs. UITS, as well as some campus units, has invested large amounts of staff time in preparing varied, accessible, multi-media, on-demand how-to guides, but few students seem to pay attention.

Decisions about a new technology platform will be critical in determining how successfully we can meet these challenges. We are optimistic about the new IUPUI strategic plan and about the ePortfolio Initiative's potential to support several of its priorities and initiatives, including promoting undergraduate success and expanding assessment of prior learning for credit. We are also confident that the networks of collaboration at IUPUI will enable us and our growing number of partners to work together to seize new opportunities.

Connections to Other Sectors of the Catalyst

Pedagogy

IUPUI is home to many academic and instructional cultures, and we have observed a range of reactions to ePortfolios and ePortfolio pedagogy. Somewhat to our surprise, faculty in professional programs, particularly those in health sciences, often at the graduate level, were among the earliest adopters of the ePortfolio at IUPUI. These instructors frequently began working with ePortfolios primarily as a vehicle for authentic documentation and assessment of student learning of professional competencies, but also proved receptive to ePortfolio pedagogy once exposed to it. Attending AAEEBL conferences has been especially exciting and eye-opening for a number of faculty in nursing, dentistry, and social work. IUPUI health professions programs have been early adopters of problem-based learning, clinical simulations, and other pedagogies that actively engage students in addressing issues they are likely to encounter as professionals. These disciplines also have a strong emphasis on developing reflective practitioners who can readily integrate and apply learning to new and complex situations. Perhaps we should not have been surprised by their interest in ePortfolios as a learning and assessment modality.

ePortfolio pedagogy has also resonated strongly with some of our first-year experience instructors and advisors and with student life professionals. These faculty and staff tend to embrace a constructivist view of knowledge, understand active and collaborative learning and related pedagogies, and are often quick to grasp the potential of ePortfolio to support integrative reflection and learning, as well as the development of academic and personal identity. Similarly, faculty and staff associated with some of our units responsible for high-impact experiential practices—undergraduate research, study abroad, and service learning, particularly—needed very little persuasion to see how ePortfolio might help students document, articulate, integrate, and deepen their learning in these experiences.

The liberal arts and science disciplines have been slower to adopt ePortfolio, but we are beginning to make inroads into these programs, particularly via capstone experiences and via faculty from these departments involved in the ePDP initiative. In fact, once we got past the early, unsuccessful pilot and were able to offer an improved technology platform to students and faculty, scaling up ePortfolio has not been difficult at IUPUI. The philosophy of our ePortfolio Initiative at IUPUI has been never to attempt to impose ePortfolios, but to win converts by cultivating exemplars of success, improving our ability to communicate about the potential of ePortfolios to support more powerful and engaged learning, developing campus experts and advocates within programs and disciplines, and supporting faculty involvement in innovative ePortfolio initiatives and professional development beyond the campus—e.g., I/NCEPR, C2L, and AAEEBL. Over the next few years, as a new strategic plan focused on student success takes final form and is implemented, we will take every opportunity it offers to advance the use of ePortfolios to support enhanced student learning and achievement.

Professional Development

Professional development has been the lifeblood of our scaling up strategy. IUPUI is fortunate to have a relatively large and well-developed Center for Teaching and Learning, and strong Instructional Technology and Instructional Design groups within this center. Members of these groups have spent thousands of hours working with both individual instructors and program-based groups to design and set up ePortfolio sites and to walk them through key decisions and processes like developing reflective prompts and designing or selecting assessment rubrics. In addition, as noted above, the campus ePortfolio Initiative has gradually scaled up its program of campus-wide workshops and symposia, working in collaboration with the CTL. These events have helped build initial interest in experimenting with ePortfolios and enabled established users to improve their teaching, learning, and assessment practices. We always include faculty practitioners in our professional development programs to provide examples of effective approaches and offer a user perspective. Participating in national ePortfolio initiatives and supporting attendance at AAEEBL conferences have been valuable adjuncts to our campus-based efforts.



Most recently, several of our larger campus ePortfolio initiatives, including the ePDP, the Center for Service and Learning, and the School of Nursing projects have sponsored their own workshops, tailored to their particular purposes in using ePortfolios. These offerings have broadened and deepened the campus's capacity to foster awareness and interest in ePortfolios and to support existing projects in achieving their goals.

Assessment

Assessment leaders at IUPUI conceptualize assessment as a cycle that includes gathering data, analyzing the data and determining needed improvements, implementing those improvements, and beginning the cycle again. We ask units to organize their annual assessment reports around this cycle, which roughly parallels the Inquiry, Reflection, Integration process.

For the ePortfolio Initiative, assessment has been both a motivator for adoption and a barrier to it. Among early campus adopters especially, as explained in our Developmental History, assessment, often for specialized accreditation purposes, has catalyzed interest, while ongoing assessment needs have helped to sustain ePortfolio implementation. We have noted that programs that begin an ePortfolio project to generate assessment data tend, over time, to perceive the value of ePortfolios for student learning or for professional showcase purposes and to expand the scope of their work as they appreciate these new possibilities. Assessment strategies improve in sophistication as well.

The evolution of the assessment approach in the ePDP has been a telling example of such development: beginning with a piecemeal approach that focused on individual responses to reflection prompts, leaders soon realized that this strategy did not yield helpful information on what students were learning from creating an ePDP. This year, the project is experimenting in the FYS with a holistic approach that examines a student's entire ePDP, using a draft rubric that focuses on the intended outcomes of the FYS. The conceptual model for the ePDP developed over the past two years will help to guide holistic ePDP assessment at later stages of students' progression toward a bachelor's degree. The philosophy now embraces what Helen Chen calls "folio thinking" (Light, T.P., Chen, H.L., & Ittelson, J.C., 2013, pp. 8-9) as well as Kathleen Yancey and Darren Cambridge's argument that ePortfolio assessment means assessing the portfolio as a whole composition that yields rich information about student growth when evaluated in its entirety (Yancey, K.B., 2004, pp. 731-767; Cambridge, D., 2010, pp. 94-107).

Resistance has also played a role in our developmental history. Some faculty have viewed the ePortfolio as a top-down imposition of assessment, although this perception seems to be fading. Understanding of ePortfolios as mainly an assessment vehicle may help explain the slower pace of adoption in IUPUI liberal arts and science programs, where assessment is not as strong a tradition as in professional disciplines subject to specialized accreditation.

Technology

The role of technology in our scaling up story is explored in some depth above in our Developmental History. Weaknesses in our platform seriously damaged the ePortfolio Initiative early on; we saw initially enthusiastic instructors become detractors after experience with the early iteration of our software. Only after it improved dramatically did adoption begin to accelerate. We are hopeful that adopting a new platform in the next few years will stimulate increased adoption. It will certainly be easier to scale up when establishing an ePortfolio site no longer requires hands-on assistance from CTL consultants and when ePortfolios can more easily "travel" with the student from program to program and even institution to institution.

Conclusion

The growth of IUPUI's ePortfolio initiative is a relatively recent phenomenon. Listening to campus stakeholders and striving to meet the needs they expressed was important. Offering financial incentives and extensive faculty development support attracted a few early adopters. These strategies enabled us to pick the lowest-hanging fruit—units interested in using ePortfolio for outcomes assessment—and to nurture exemplars who could demonstrate the usefulness of ePortfolios to other campus stakeholders. Our efforts to work closely with our IT colleagues to improve the technology platform and adapt it to the needs of our earliest adopters on the campus were also of crucial importance.

There is no one-size-fits-all strategy for scaling up. That, perhaps, is our most important take-away. But we believe we have learned some lessons that can benefit campuses beginning or seeking to expand an ePortfolio initiative:

- Start small.

- Attune your strategy to your institutional context and culture(s).
- Start with the needs your faculty, administration, and student stakeholders perceive now; once they begin with ePortfolio, approaches and uses will broaden and deepen.
- Understand that ePortfolios represent and require a paradigm shift.
- Develop advocates in key areas of the institution.
- Give the people who will use the technology as much control as possible over selection of a platform.
- Expect to provide professional development assistance and resources.
- Expose instructors and others to national and international ePortfolio work.
- Align with your campus's strategic goals: most campuses are seeking to improve student success and to generate meaningful assessment information.