Handbook of Research on ePortfolios

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ePortfolios: Beyond Assessment

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ABSTRACT

This chapter focuses on how ePortfolios: (1) shift the locus of control from instructor to student, (2) change curriculum design, and (3) develop social capital. Our contention is that as ePortfolio use gains momentum, the curricula will be scrutinized by persons both in and out of academia, and will evolve to adapt. As business, industry, the arts, government, and so forth influence and shape what is to be assessed, social capital (Bourdieu, 1986) is created, thus opening doors for new graduates entering their profession. Therefore, ePortfolios are not only tools for assessing learning and teaching, but more importantly they promote reform of the traditional educational system, bridge the divide between the academy and society, and develop social capital for the best interest of the global community.

INTRODUCTION

The advent of Web technology has brought about the ePortfolio, which is not only an effective way to assess student learning, but it is also a vehicle for knowledge transmission for career building (Napper & Barrett, 2004). This chapter focuses on three main areas: (1) how ePortfolios shift the locus of control—explaining the transfer of learning from being teacher-centric to student-centric; (2) how ePortfolios change curriculum design—covering the changes in the curriculum and instruction that will take place to match the collaborative learning promoted through ePortfolios; and (3) how ePortfolios develop social capital—addressing the important impact of ePortfolios on students’ social awareness and development of social capital, defined by Bourdieu (1986) as “the aggregate of the actual or potential resources
which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (pp. 248-249).

In her review of the literature on portfolio assessment, Brown (2002) classifies portfolios as either “capstone experience” portfolios, considered the student’s best work, or “process or learning” portfolios, which document cognitive growth and transference of learning to the workplace. This chapter will concentrate on the latter type, the process or learning portfolio, and the potential it has in its modern form, the ePortfolio.

**ePORTFOLIOS SHIFTING THE LOCUS OF CONTROL**

**Dynamic Student Body**

For traditional-age students (those in the 18- to 24-year-old range), ePortfolios can help them make professional connections, allow them to gain experience and understand societal needs, and encourage their lifelong learning. As society moves from the “Second Wave,” the Industrial Revolution, and enters the “Third Wave,” the Information Age, traditional-age students will more than likely experience many careers and will have to constantly learn new information and translate that information into knowledge (Toffler, 1980). Using ePortfolios will help these students document their career and learning experiences.

The second group of students to benefit is full-time working students. Aslanian (2001) has found that approximately “42% of all students at both private and public institutions are age 25 or older” (p. 4). Factors that contribute to older students returning to higher education are “the growth of continuing education programs, economic necessity, the rapidly changing job mar-

ket, changes in the economy, and the simple aging of student populations” (Bishop & Spake, 2003, p. 374). ePortfolios can better assess students with work and life experiences.

Another group returning to college and university are baby boomers (persons born in the United States between 1946 and 1964) retirees who are living longer due to advancements in health and medicine. Second (or even third) careers, soft-skills (computer/technical) training, or education-for-enjoyment will draw pensioners back to higher education, and their life and work experiences will require a different type of assessment. Given these demographic changes, ePortfolios appropriately demonstrate the learning of these non-traditional students and offer them the opportunity to reflect on their life and work.

**Adult Learners’ Characteristics**

How will institutions of higher education be able to address the learning needs of traditional-age students, working students, and retired students? In his andragogical theory, Knowles (1980) summarizes four crucial assumptions about the characteristics of adult learners that are different from the assumptions on which traditional pedagogy is premised. He states that as individuals mature:

1. their self-concept moves from one of being a dependent personality toward being a self-directed human being;
2. they accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning;
3. their readiness to learn becomes oriented to the development tasks of their social roles; and
4. their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly,
their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness. (pp. 44-45)

The assumptions of this learning model call for individualized and more personalized pedagogy. Commercial course management systems (CMSs), such as those developed by WebCT and Blackboard, are playing a dominant role in higher education in transferring education online. These systems are moving instruction from being teacher-centric to student-centric by opening up communication between students and instructors, allowing for synchronous and asynchronous interactions, as well as giving students access to course materials, which was not possible a decade ago. At present, it is technically conceivable to customize the curriculum to the student’s individual learning needs; however, a CMS cannot accomplish true learner-centeredness without an assessment model, such as an ePortfolio, that allows for the possibility of student, instructor, teaching assistant, advisor, mentor, and even peer reflection on the student’s coursework and learning.

ePortfolios for Student-Centeredness

Traditional portfolio work has focused on the passive collection of artifacts to create a polished product. The instructor typically would determine the type of content in the portfolio and how it would be evaluated; thus, the traditional portfolio falls in the teacher-centric category. On the other hand, ePortfolios emphasize analysis and reflection, and the process, not the product. Emphasizing the process not only raises the cognitive bar, but it also shifts the locus of control to the student. With an ePortfolio model in place, it is not so much what the instructor is doing, but what the student is doing to meet learning objectives. In addition, the student can reflect on her learning and can demonstrate learning to persons outside of the immediate learning environment with electronic artifacts. For example, interested employers could review a senior-level student’s résumé, sample writings, examples of spreadsheet work, group project contributions, and a number of other items that the student wants to make accessible. If the same student is also applying to graduate school, then she can make available to the admissions committee her transcript, letters of recommendation, as well as her sample writings.

ePortfolios and New Learning Models

Collaborative learning, inside and outside of the academy, is another feature of the new portfolio model. Peer-to-peer, student-mentor, and student-community collaborative efforts can be documented in ePortfolios. Peer-to-peer projects promote teamwork and organizational and communication skills. Student-mentor projects, internships, and so forth give students the opportunity to enter the world of work for better understanding of their future profession and workplace culture. Student-community projects offer the student first-hand understanding of societal issues and problems. Regardless of the type of project, the student should maintain control of his or her ePortfolio and allow peers, mentors, and the community to give input, while the instructor provides the opportunity for the interactions and assesses final outcomes.

ePORTFOLIOS CHANGING CURRICULUM DESIGN

“The institution of education is activated by a curriculum that itself changes in response to
forces affecting it" (Oliva, 2001, p. 20). The ePortfolio, a product of modern computer and Internet technology, is a catalyst for curriculum change as a new model of assessment. It connects the educational mission and objectives with the needs of society, it brings students closer to their future profession, and it carries learning into graduates' careers and possibly into their retirement.

Specifically, student-mentor and student-community ePortfolio projects open a dialogue between the academy and society. This creates a feedback loop that serves to update the academy on the skills required by students as they enter society. It is anticipated that faculty members will be in discussions with interested parties in the community and professional market to determine student outcomes: therefore, the assessment of a course, program, discipline, and so forth will be more and more influenced by persons outside of the academy. Hence, the ePortfolio, as a tool to assess the teaching and learning, changes traditional teaching mentality, promotes collaborative learning, and develops curriculum standards.

ePortfolio and Curriculum Development

ePortfolios promote extensive collaborative learning that incorporates societal issues and student internships in the process of education, and moves the curriculum from being education-centric to social-centric. If students are immersed in projects that extend into the dynamic workplace and community (rather than the limitations of the campus), then they must demonstrate not only applicability of knowledge, but also flexibility and adaptability. The pedagogical challenge then is to set up connections between academic objectives and societal needs that will update the curriculum by incorporating current global perspectives.

Seven general skill areas have been outlined by Carnevale, Gainer, and Meltzer (1990) that are appropriate for the Third Wave of students: (1) learning to learn, (2) basic competency, (3) communication skills, (4) developmental skills, (5) adaptability skills, (6) group effectiveness skills, and (7) influencing skills. In addition to this skills set, the curriculum should address the following aspects: (1) incorporating societal needs as a foundation of curriculum planning and developing, (2) using the ePortfolio as an evaluation tool to analyze the quality of the curriculum implementation, and (3) developing student competency based on societal needs. It is very important to develop a curriculum that can help students succeed in a collaborative learning environment, as well as build a valuable electronic repository that benefits students and society.

ePortfolio and Instruction

As recommended by Oliva (2001), the cyclical model of curriculum-instruction relationship is that the “curriculum makes a continuous impact on instruction and, vice versa, instruction has impact on curriculum” (p. 10). In other words, the relationship between curriculum development and instructional design is interdependent. New teaching methods and learning models will spin off as a result of these changes to the curriculum. The traditional college lecture format and rote learning cannot adequately address the needs of students taking on community projects and entering the workplace for the first time, much less the needs of working students. Lifelong learning and continuing education endeavors also call for new instructional models. Instructors will have to step away from lecture notes, textbooks, and laboratories, to some extent, and engage with the community to create a community of learners. For example, online interviews, discussions, or group projects
with subject matter experts or community leaders are some ways to build this sense of community.

The diverse interactions, collaborations, and communications should be integrated in daily teaching activities. The research study conducted by Veenman, Denessen, Akker, and Rijt (2005) indicates that “students do not naturally develop constructive interactional patterns without instruction” (p. 120). Teachers must provide explicit instructions on how to conduct collaborative and community learning, as well as create an environment to develop and practice the skills required for effective communication and collaborations to positively affect the quality of the ePortfolio.

Instructor’s Role

While online teaching and course management systems offer instructors the opportunities to be more creative, include more real-world issues in the curriculum, push out more content, and communicate more with students, more is not necessarily better for either party. Cyber classroom management is the key. Therefore, developing strategic approaches to enhance teaching and learning while still maintaining the integrity of the curriculum is a challenge to be faced if ePortfolios are adopted. In fact, class management in the new curriculum model will play an even greater role than in the traditional model, with the instructor acting as a project manager for various projects and activities.

As project manager, responsibilities would include, but are not limited to: (1) coordinating with other faculty as well as members outside of the academy to align course and program standards with those of a particular industry or other relevant outside agency; (2) teaching students requisite concepts and skills, perhaps even developing tutorials for basic competencies and remediation; (3) confirming that student projects meet pre-determined standards and objectives; (4) setting up contacts between the persons or groups outside of the academy and students; (5) meeting with students and mentors for formative and summative assessment purposes; (6) assessing the ePortfolio artifacts, which more than likely means working in conjunction with other evaluators; and (7) conducting a formal course evaluation at semester’s end. It goes without saying that such discernible changes in the instructor role and responsibilities will call for training of the faculty and leadership, and support on the part of the administration.

ePORTFOLIOS DEVELOPING SOCIAL CAPITAL

ePortfolio Community

In traditional academic learning environments, it is difficult for students to make meaningful reflections of the knowledge they have learned and the contribution they can make to society because of their lack of connection with society and the understanding of societal needs. ePortfolios can extend learning beyond the campus and foster learning community. Tosh (2004) summarized three benefits of ePortfolio: a learning tool for students, a monitoring tool for institutions, and a mechanism for employment opportunities. The social functions of these benefits define a special relationship of students, instructors, advisors, peers, and potential employers, and create a varied learning community. The ePortfolio community will promote new and authentic collaborations, and provide the means to foster learning, accountability, and reflections across the spectrum of academia and society.

ePortfolio communities can be successfully established through three channels. First,
schools can develop a special relationship with local communities, industries, research institutions, professional associations, and non-profit organizations to create diverse activities and projects that are related to students’ majors, so that students will have an opportunity to validate their school knowledge in reality. Second, faculty members, especially adjunct faculty members, who are providing professional consultation or working in the areas that are related to the subject areas they are teaching, can build a connection for students. They can help students arrange a learning community in which they work with professionals on special projects and experiments. Third, non-traditional working and retired students already have formed a social bond. They can help classmates to create learning communities in their working environments. In ePortfolio communities, students will be able to learn to interact with members in the community and creatively merge their learning with reality. They can get feedback through effective communication with community members and other learners, and have a better and deeper understanding of social needs so that they can revitalize their ePortfolios with rich life experiences that increase their value and applicability to society.

**ePortfolio and Social Awareness**

ePortfolio communities not only benefit students in making meaningful connections between schools and society for their careers, but more importantly, the process will help them raise their awareness of being active members of the society, increase their sense of social responsibilities, and develop their competencies to contribute to society. According to Selman’s (2003) definition of social awareness, it includes both the awareness of social relationships and the awareness of risks a student faces during the growth. The ePortfolio community interactions can help students improve the skills of coordinating diverse social perspectives, and it will also help them to understand one’s own point of view in relation to the point of view of others (Selman, 2003). The cooperation will make students more aware of the needs of others in the group (Veenman et al., 2005).

It takes time and effort for both students and teachers to become socially aware and develop social competencies. Teachers should foster a culture and environment conducive to the promotion of social awareness. Besides the ePortfolio community, there are other class activities that can be organized to promote student social awareness and help students develop social competence. These activities should be integrated into daily teaching and learning, such as group projects, collaborative learning experiments, student self-organized activities, discussion topics on how students can relate their learning and experiences to societal needs, project-based homework assignments, and so forth. As Selman (2003) stresses, “Social competence must be constantly practiced, or those skills will not be there when we most need them” (para. 3). Social awareness is easier to develop in a group or community in a shared environment (Divitini, 2003). It is very important that students are able to reflect their comprehensive understanding of social relationships and their social competence in their ePortfolios to demonstrate their readiness to make contributions to society.

**ePortfolio and Social Change**

ePortfolios will impact positive social change in that they promote community and lifelong learning, as well as create a bridge between academia and society. “The ePortfolio is the expression of learning as social activity” (Ravet & Layte, 2004, para. 7). The value of community learning lies in that it provides a learning context in which students can effectively relate what they
have learned in school with how the knowledge can be applied in reality. Students will have opportunities to interact with professionals and other learners to share knowledge through communities and further improve social competency. They will also develop new knowledge and perspectives from cognitive learning through neutralizing the discrepancy of school knowledge (Kourilsky & Wittrock, 1992). The ePortfolio should reflect the student's ability to learn and share knowledge in the community.

Developing an ePortfolio should be a lifelong process. With the accumulation of education, life, and work experiences, students can consistently add value to improve the quality of the ePortfolio in their life span. Students can learn purposefully and build an objective-focused ePortfolio to meet the standards and needs of society. Besides career-seeking function, ePortfolios can enable students to look back at their own life experiences and reflect on the weaknesses and strengths for developmental needs. What makes an ePortfolio a powerful tool is its dynamic nature, it is a process of constant building and learning. Students can significantly benefit from this tool by accessing "their records, digital repository, reflections to achieve a greater understanding of their individual growth" (Tosh, 2004, para. 4).

The networked ePortfolio is a tool that can transform social interaction (Ravet & Layte, 2004). By bridging the divide between academia and society, the special relationships between students and employers, and between students and community members will help students understand the professions they are entering, improve their interpersonal skills, and engage students in a wider public sphere. Students will have opportunities to make career connections and prepare for dynamic work environments. They can take proactive roles in creating an ePortfolio that can differentiate multiple career paths based on the inter-relatedness of knowledge and potential occupations.

ePortfolio and Social Capital

ePortfolios help students set up social norms and connections that will contribute to social capital. Social capital has been defined from different perspectives; the central meaning of it is clear—using collective power and resources to improve and benefit society and the individual through strong relationships and active interactions. This is exactly the objective of developing solid and well-grounded ePortfolios. Internet technology has further expanded the ability for ePortfolios to contribute to social capital worldwide. The successful establishment of social network and infrastructure through the ePortfolio community will maximize the benefit of social capital to the global community.

The four major components of social capital, as delineated by Nahapiet and Ghoshal (1998), are: trust, norms, obligations, and identification. ePortfolio community interactions help members develop social norms and mutual trust. In such an environment, community members are likely to share values, information, and knowledge that promote the exploration and utilization of social resources in benefiting communities in the most efficient ways. ePortfolios can contribute to the development of social capital by: (1) building trust relationships between parties to promote social interactions and engagement; (2) sharing information, personal experiences, and knowledge to contribute to social capital inventory; (3) improving students' sense of responsibility, accountability, and commitment; and (4) increasing the efficient use of resources worldwide. ePortfolios are becoming more and more important to the development of social capital and improvement of intellectual resource management.

Developing social capital directly involves the relationship and interaction of students in the ePortfolio community. The vital elements to build a strong ePortfolio community are all
related to an individual’s personal qualities; understanding of shared trust, norms, and values; and commitment and accountability to the community. Bourdieu (1996) considers social capital to be an attribute of an individual in a social context. Students should learn to trust others and learn to understand different value systems. The more comprehensive value systems students can build into their ePortfolio, the more valuable it will be to the social capital.

CONCLUSION

ePortfolios must be integrated into the curriculum in consideration of societal needs, otherwise “they may never fulfill their potential and become a tool that alters learning pedagogy” (Tosh, 2004). The development and implementation of ePortfolios imposes challenges to the traditional educational system, which has been confined for centuries in the ivory tower. Walking out of campus into the society, stepping down from the lecture podium, learning from the populace, and sharing resources with the global community will become common practice in the process of education. The ePortfolio is an effective tool to evaluate the curriculum planning and implementation to make certain that education is incorporating societal needs and nurturing students who can make contributions to the global community.

REFERENCES


**KEY TERMS**

**Assessment:** Student assessment is the process of documenting knowledge, skills, attitudes, and beliefs, usually in measurable terms. Assessment of a learning system includes the process of collecting and interpreting information to evaluate the curriculum.

**Curriculum Design:** The process of designing and organizing the curriculum to include content, teaching and learning strategies, learning activities and experiences, as well as assessments and evaluations to meet educational goals and purposes.

**Curriculum Development:** The determination of the purposes, goals, content, and standards of measurement for an educational institution or program. Curriculum development is seen as "the process for making programmatic decisions and for revising the products of those decisions on the basis of continuous and subsequent evaluation" (Oliva, 2001, p. 139).

**Higher Education:** Education beyond the secondary level; usually considered education at the college or university level.

**Learning Communities:** A group of individuals who engage in the acquisition, transformation, or creation of knowledge.

**Pedagogy:** The act, process, or art of transmitting knowledge and skills.