REBOOTING COMMUNITY COLLEGES THROUGH EPORTFOLIOS:
A KEY STRATEGY FOR THE AMERICAN ASSOCIATION OF
COMMUNITY COLLEGE'S 21ST CENTURY INITIATIVE

A Thesis
by
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Abstract

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A KEY STRATEGY FOR THE AMERICAN ASSOCIATION OF
COMMUNITY COLLEGE'S 21ST CENTURY INITIATIVE. (MAY 2015)

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In an effort to increase completion rates among community colleges across the

nation, the American Association of Community Colleges (AACC) released a report that

provided a list of recommendations for community colleges to consider. These

recommendations strive to redefine missions and roles of the community college system

and improve institutions' outcomes. In consideration of these recommendations, I

suggest a tool that will recognize the tenets of each implementation strategy and achieve

the changes proposed by the AACC's report. The initiation of ePortfolio programs

throughout community colleges can address these recommendations with evidence-based

success. Through an analysis of community colleges that have successfully implemented

ePortfolio programs into their curriculums, such as LaGuardia Community College, Salt

Lake Community College, Tunxis Community College, and others, I offer evidence of

ePortfolio programs' useful applications. This evidence supports the notion that

ePortfolio programs are flexible enough to enact the AACC's recommendations, while

providing students and faculty with an established practice capable of remodeling an

institution's outcomes.

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I would like to thank my thesis advisor, Dr. Elizabeth Carroll, and my thesis committee members, Dr. Jessie Blackburn and Dr. Mark Vogel, for their time and helpful critiques of this thesis. I would also like to thank Dr. Georgia Rhoades for her time and guidance during the thesis preparation process.

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Introduction: Who, When, What, and Why

The American Association of Community Colleges (AACC), in response to President

Obama's challenge for community colleges to educate 5 million additional students by 2020

and to the country's declining completion rate among community college student

populations, has initiated a three-phase program titled the 21st Century Initiative. The

initiative began in Phase 1, which was labeled as the "listening tour." In this phase, the

AACC gathered a group of staff to collect information on student access, institutional

accountability, budget constraints, and future ideas from more than 1,300 stakeholders across

10 regions of the country. This information was collated into a report that emphasized

dozens of issues in community colleges such as, "the need to reexamine the role, scope, and

mission of the community college; the existence of an 'achievement gap' and need for

'scalable proven practices' to respond; the use of data metrics emphasizing transparency,

inclusion, and accountability; and the need for strategic partnerships with the business world,

local communities, and K–12 and baccalaureate institutions" (AACC v).

Phase 2 included the distribution of the report titled *Reclaiming the American Dream:*

A Report from the 21st Century Commission on the Future of Community Colleges. The

report from the AACC on the initiative claims that currently only 46% of students that enter

into a community college for a degree or certificate finish within six years (AACC 4). The

Initiative aims to increase completion rates by 50% over the next 5 years, but also hopes to

transform community colleges in the process by grounding their practices in what they term

the "Three Rs:" "to *redesign* students' educational experiences, *reinvent* institutional roles, and *reset* the system so it better promotes student success" (AACC 5). In a follow-up implementation guide, *Empowering Community Colleges to Build the Nation's Future*, the AACC has provided seven recommendations to elucidate the applicability of the Three R's.

Redesign:

    1: "Increase completion rates of students earning community college credentials (certificates and associate degrees) by 50% by 2020, while preserving access, enhancing quality, and eradicating attainment gaps associated with income, race, ethnicity, and gender."

    2: "Dramatically improve college readiness: By 2020, reduce by half the number of students entering college unprepared for rigorous college-level work, and double the number of students who complete developmental education programs and progress to successful completion of related freshman-level courses."

    3: "Close the American skills gaps by sharply focusing career and technical education on preparing students with the knowledge and skills required for existing and future jobs in regional and global economies."

Reinvent:

    4: "Refocus the community college mission and redefine institutional roles to meet 21st- century education and employment needs."

    5: "Invest in support structures to serve multiple community colleges through collaboration among institutions and with partners in philanthropy, government, and the private sector."

Reset:

6: "Target public and private investments strategically to create new incentives for institutions of education and their students and to support community college efforts to reclaim the American Dream."

7: "Implement policies and practices that promote rigor, transparency, and accountability for results in community colleges" (AACC x).

The implementation guide promotes key tenets on which the AACC suggests to amplify the effectiveness of the strategies: embrace diversity, integrate technology creatively, emphasize professional development, and prepare new leaders (7). The strategies provided are accessible for community colleges; however, the report does not mention the use of electronic portfolios for any of these recommendations. In an effort to establish a specific, practical application that is able to address most of the tenets and strategies suggested by the AACC, I will show how electronic portfolios have been successful in universities and community colleges in providing students with the knowledge and skills needed to achieve these initiatives. I will focus on electronic portfolios (from now on called *ePortfolios* in this thesis) as opposed to traditional portfolios in this thesis due to the additional benefits of digital platforms—which I discuss below—and the closer adherence to the AACC's statements on technology that ePortfolios provide over traditional applications. For the purposes of this thesis, ePortfolios are defined as a collection of electronic evidence of student progress, learning, and reflection that is assembled and managed by the student and displayed for selective, multiple audiences on the Internet and used for assessment purposes by faculty and administration on both the student and whole program review of outcomes.

Portfolios emerged in the process movement of the composition classroom in the mid 1980s when Peter Elbow and Pat Belanoff realized that their university's proficiency examinations, "undermine[d] good teaching by sending the wrong message about the writing process" (336). More than just a collection of documents and ideas that can be used for assessment, portfolios can be used to "support and study revision, and enhance student reflection" (Whithaus 208). There are not many scholars in the field of rhetoric and composition that will argue the effectiveness of portfolios in student learning and assessment. With this in mind, the transition from paper to ePortfolios has brought the effectiveness of portfolios to a whole new level. The Conference on College Composition and Communication (CCCC) position statement, "Principles and Practices in Electronic Portfolios," supports the advancement of portfolios into the digital realm. The position statement declares, "ePortfolios can be 'web-sensible'—a thoughtfully arranged collection of multimedia-rich, interlinked, hypertextual documents that students compose, own, maintain, and archive on the Internet or in other formats" (n.p.).

Traditional portfolios rely heavily on reflection from the student. Out of the student's collection of documents that have been previously written, students are able to identify where they have developed and what they have accomplished. As Kathleen Yancey points out, this is a key concept when constructing meaning (*Reflection* 2). The basic concepts of collection, reflection, and inquiry that make portfolios ideal for developing critical thinking and integrative learning can be found in traditional hard-copy portfolios and ePortfolios alike; however, ePortfolios provide additional features that can develop a student's presentation of what they have accomplished. Through the application and manipulation of digital media, students can present their work with more variety in presentation modes. Whether adding a

video, a link to a website, or an audio file, students can use various media to affect their

audience and remediate their written texts. These digital features provide students with more

outlets on which to display their learning and add to the complexity of their reflection. The

accessibility of ePortfolios works for the student more easily than hard-copy portfolios as

well. As a digital file uploaded onto a website, the ePortfolio can see a much broader

audience. The ePortfolio may also be viewed simultaneously for greater ease in peer-review

workshops among students or collaborative assessment among faculty. The pedagogical and

practical benefits of traditional portfolios and ePortfolios are the same; however, the addition

of various and new modes of media and the ease of accessibility make ePortfolios a logical

advancement in the development of this educational tool.

Katherine V. Wills and Rich Rice relate to the technological benefits of ePortfolios

versus traditional portfolios in their collection of articles, *ePortfolio Performance Support

Systems: Constructing, Presenting, and Assessing Portfolios*. As defined by Wills and Rice,

an electronic performance support system (ePortfolio) is "an integrated electronic

environment designed to reduce complexity in order to make sense of things, to provide

employee performance information in order to foster improvement, and to provide workers

with a decision support system in order to maximize productivity" (3). Electronic portfolios,

as opposed to traditional portfolios, "facilitate sustainable and measureable writing-related

student development, assessment and accountability, learning and knowledge transfer,

principles related to universal design for learning, just-in-time support, interaction design,

and usability testing." Wills and Rice situate their collection as an attempt to highlight the

differences between theoretical applications of ePortfolios and practical, technical

applications that can facilitate implementation and sustainability in a program.

Nedra Reynolds and Elizabeth Davis argue, "ePortfolios are multimodal compositions that afford students the opportunity to take advantage of a variety of digital media forms and writing and delivery processes" (v). Multimodality, which is characterized by several different modes of activity or occurrence (in the case of ePortfolios may include the combined use of digital texts, pictures, video files, audio files, etc.), is a key tenet to ePortfolios because it provides students with a rich collection that requires a more complex interaction between digital literacies. Reynolds and Davis identify two key differences between ePortfolios and traditional, hard-copy portfolios as visual expectation and effect; ePortfolios allow students to understand and employ multimedia communication (104). These principles are part of traditional and electronic portfolios; however, as the CCCC position statement claims, "web applications designed to support ePortfolio composition can offer additional opportunities for providing structure, guidance, and feedback to students, and can provide students with opportunities to connect selectively with multiple audiences." The authors emphasize multimodality in the shift to electronic portfolios from traditional because it increases complexity of the key principles by increasing the choice and variety of modes a student may use to display their learning, which in turn increases the amount of reflection required in the construction.

Eportfolios also support the concept of integrative learning, which has become extremely important among higher education in the last few years. Since the Association of American Colleges and Universities named integrative learning as one of the four essential outcomes for undergraduate education, scholars have considered its importance in ePortfolios, and have recognized the ease with which it can be applied in ePortfolios. Candyce Reynolds and Judith Patton's book, *Leveraging the ePortfolio for Integrative*

Learning, seeks to define the differences between standard ePortfolios, and integrative learning ePortfolios. The authors define integrative learning as "the ability to learn across context and over time and to be motivated to learn this way" (26). The biggest obstacle to integrative learning is encouraging students to seek connections on their own, and apply those connections as a part of their identity. ePortfolios, as a lifelong learning initiative, foster knowledge and skills capable of establishing connections between learning over time and across contexts, while enabling students to intentionally engage in learning that could be useful in the future. In addition to ePortfolios as collections of artifacts to demonstrate learning, reflections on those artifacts, and connections made between content in the ePortfolio, the authors note one additional key process necessary for integrative learning models: the use of the ePortfolio for identity development, which establishes a connection between the self and the content of the ePortfolio (13). The authors state ePortfolios enable students to create "a digital identity that reflects their values, skills, and accomplishments," by "building and managing what others see on the Internet" (103).

There is no evidence that ePortfolios are counterproductive in student learning and outcomes, and any scholar would be hard-pressed to find negative criticism on this pedagogical tool. Eportfolios provide students with opportunities for reflection, enhance assessment, and promote critical reading, self-expression, career development, and integrative and lifelong learning. Through advances in technology, students can use multimodalities and multimedia software to represent their individual identities in infinite and creative ways. The gaps between K-12 to community college to four-year-institutions through careers can be bridged by a simple, yet highly complex pedagogical tool that can be started early and build throughout a student's academic and professional career. Eportfolio

programs that seek to archive student achievements and display them as they develop and grow will provide students with a living exhibition of their learning. As models of development, ePortfolios provide students with an awareness of where they have been, where they are, and where they need to go. This awareness develops metacognitive abilities and assists with knowledge transfer, as will be discussed later in this thesis. The accessibility of ePortfolios has enabled this pedagogical tool to keep up with the technological demands of the 21st century. Accessibility has increased for students and faculty through technology, and ePortfolios have become more effective as they continue to become more user-friendly. It would seem that because of these technological benefits ePortfolios would be a universal tool throughout higher education; however, due to many obstacles that I will discuss further in this thesis, the vast majority of community colleges do not have a system in place to allow ePortfolios. These characteristics make ePortfolios a valuable tool that is able to respond to many of the issues the AACC has identified in their reports. By implementing ePortfolio programs into their curriculums, community colleges will be better prepared to address the concerns of the AACC and increase retention and graduation rates. Eportfolios are just one resource among many that community colleges may utilize for success; however, ePortfolios provide an inexpensive and evidence-based tool that is capable of facilitating many of the implementation strategies the AACC has identified in their report.

The issue of global competitive marketplaces in education has caused the country to take notice of institutions that produce the majority of middle-wage jobs and technical skills positions (AACC 5). The recommendations from the AACC aim to restore United States' preeminence in college education as the country has now dropped to 16th in the world for completion rates for 25- to 34-year-olds. I will analyze these recommendations and the

implementation strategies suggested by the AACC in this thesis; I will then explain how ePortfolios can play a role in enacting each of the strategies, how they have been successful in doing so for other community colleges, and what is needed for these kinds of successful implementations across the country.

Chapter One: How—ReDesign the System

The first recommendation the AACC provides encompasses the primary objective of the report and lays the foundation for the succeeding recommendations. Recommendation 1 states: *"Increase completion rates of students earning community college credentials (certificates and associate degrees) by 50% by 2020, while preserving access, enhancing quality, and eradicating attainment gaps associated with income, race, ethnicity, and gender"* (AACC 26). This recommendation will require a "redesigning" of the community college system. No movement in the history of community colleges has so drastically increased completion rates as is suggested in this recommendation. Many factors will have to contribute to such a difficult task; the AACC suggests the redesigning of community colleges is the first action to take.

In the effort to hurdle the vast obstacles this recommendation, as well as the other recommendations, will encounter, the AACC has offered strategies for implementation for each recommendation in the report. The strategies for Recommendation 1 are as follows: 1) construct "coherent, structured pathways" to certificate and degree completion; 2) promote transfer from community colleges to baccalaureate institutions through state policies; 3) devise strategies to identify students who have earned 30 credits at a community college to earn a credential (26). These strategies may be enacted in many different ways to successful implementation; as I will discuss in this thesis, one tool that may fulfill these strategies is ePortfolios.

How Diversity in Community Colleges Can Prove Valuable

Approximately 70% of high school graduates enroll directly in a postsecondary institution and of these 40% attend a two-year college (Cohen, Brawer, Kisker 6). The spectacular growth of community colleges throughout the twentieth century has been said to be their most impressive feature, as some years have seen as much as 15 percent growth in a single year (Cohen, Brawer, Kisker 45). The reason for such substantial growth at times may be attributed to several factors, including: nontraditional students participation; part-time attendance; the redefinition of students and courses; and high attendance by less "academically prepared students" (Cohen, Brawer, Kisker 47). These factors all play into the diversity of community colleges. Diversity in income, race, ethnicity, gender, and all of the factors above constitute the defining features of community colleges, and continues to shape the way these institutions work.

Nontraditional students in community colleges tend to lead more involved lives outside of college than traditional university students. Many students in community colleges must take classes part-time due to constraints at home. In a survey conducted by the U.S. Department of Education in 2011, it was shown that 59% of total students enrolled in two-year institutions were enrolled part-time (Cohen, Brawer, Kisker 49). Many factors contribute to these numbers, such as the need to work full or part-time jobs while attending school, child-rearing responsibilities, long commutes or unavailability of a four-year institution nearby, and many other commitments. Another survey conducted by the U.S. Department of Education discovered 25% of students in community colleges had one or more dependents, and almost half of these were single parents; 12% claimed some type of

disability; 45% were working part-time jobs and 33% were working full-time jobs; and 12% spoke a primary language other than English (Cohen, Brawer, Kisker 54). Community colleges pride themselves on open-enrollment and ease of access for students. These open-door policies lead to retention rates that are much lower than four-year institutions; in 2010 retention rates from one year to the next averaged 50% for full-time students and 40% for part-time students (Cohen, Brawer, Kisker 70).

Diversity is an issue in nearly every community college and it contributes to the multiple considerations faculty and administrators must address when implementing something on a grand scale, such as ePortfolio programs. One community college that has successfully implemented ePortfolios into the curriculum is LaGuardia Community College (LaGCC). LaGCC is no stranger to diversity among their student population; nearly two-thirds of the approximately 13,000 students are immigrants that span over 160 different countries (Eynon 59). Bret Eynon, Director of LaGuardia's Center for Teaching and Learning and Founding Director of Making Connections National Resource Center, has led the ePortfolio initiative at LaGCC since its implementation in 2002. Eynon breaks down the diversity of the student population as: 70% female, of whom most are low-income and first-generation college goers; 80% are "minorities"; and 90% require development skills courses to prepare them for the rigors of college-level coursework (59). The "challenging context" of a large urban environment with a high-risk student population was a prime candidate for the integrative learning benefits of ePortfolios. In an article titled "Making Connections: The LaGuardia ePortfolio," Eynon expresses the major "findings" of LaGCC's large-scale implementation. These findings are further analyzed in the Catalyst for Learning ePortfolio database headed by the Making Connections National Resource Center and showcase how

valuable ePortfolios have been as a tool for enhancing quality and preserving access for diverse student populations.

Eynon states that their ePortfolio initiative "demonstrates that ePortfolios, implemented with institutional and pedagogical strategies that value integrative learning, help high-risk students engage more deeply in the learning process, leading to measurable improvement in student learning" (64). In one study conducted on 2,500 students, it was found that the average pass rate of students in ePortfolio classes was 5.4% higher than courses that did not utilize ePortfolios (65). Retention data showed to be similarly positive; in a sample of 2,000 students in ePortfolio-intensive courses the percentage of one-semester return was 5.6 percentage points higher than the college average (65). The correlation between LaGCC's diverse student population and ePortfolios can be found in LaGCC's approach to social pedagogy. LaGCC encourages a culture of diversity and their ePortfolio practice is influenced by that culture.

Eportfolios have the potential to support diverse students populations in several ways. One advantage is the encouragement for students to construct their own identity by including honest biographies and introductions to their ePortfolio pages. By asking students to reflect on their lives and their individual accomplishments, faculty can assist students in finding their own unique voice. Another advantage can be seen when artifacts are collected and ePortfolios are shared among peer groups or with the class; students can learn from each other's diverse ideas and perspectives and can generate insight and analysis in their own writing. When students are given the opportunity to share their digital texts with others they become aware of different perspectives in meaning making and criticisms. As these different perspectives converge and students learn to construct their own unique perspective, identities

are formed and unique voices emerge. It is the social interaction between diverse perspectives and each student's awareness of their selves in their writing that make ePortfolios valuable tools for diverse student populations. Traditional portfolios allow these interactions on a local scale; however, ePortfolios increase access globally and work to increase diverse perspectives and interactions as the potential for viewership expands.

LaGCC's impressive increases are due to the ease of access the ePortfolios provide students. The potential for ePortfolios to make students' learning visible on a grander scale and develop reflective thinking through social interactions enables them to gauge their performance in the classroom. This consistent surveillance of progress and reflection on learning has improved student pass rates at LaGCC. The data supports a correlation between increased pass and retention rates, student diversity, and ePortfolios.

Evidence-Based Pathways for Assessment

Retention data and the assessment of ePortfolio programs make the benefits visible and necessarily transparent. AACC's first strategy recognizes the importance of data that is backed by evidence in the field. Strategy 1 suggests constructing "coherent, structured pathways" to degree completion by incorporating evidence-based educational practices and evaluating the effectiveness of programs and services (AACC 26). There are many factors that community colleges take into account when considering outcomes assessment and productivity: retention rates, transfer rates, and completion rates. As we have seen, these rates are very different for community colleges than for four-year institutions. The significantly low percentage of completion rates among community colleges has been the catalyst for the 21st Century Initiative in improving completion rates. Accountability among

community colleges has driven the need for outcomes assessment, which refer in main to completion rates, transfer rates, and employment status.

Salt Lake Community College (SLCC) began using ePortfolios in 2010 to examine essential student learning outcomes in their General Education program. While SLCC still faces the challenge of complete implementation throughout their curriculum, their efforts have shown to be valuable in assessing both individual student progress, and their ePortfolio program as a whole. SLCC's ePortfolio outcomes assessment is based on the principles of "inquiry, reflection, and integration;" which represents a "faculty-led, inquiry-based" approach to outcomes assessment. Through the use of this type of assessment, faculty have discovered areas where improvement is needed (e.g. "only 49% of the 262 assignments in the ePortfolio sample met or exceeded expectations for quality when it came to using quantitative data effectively"). One significant improvement was shown in the area of information literacy learning. As seen in Table 1, through the use of ePortfolios from one year to another, marked improvements were made among students conducting research outside of class, using credible sources in their research, and providing adequate citation. These numbers bring to question what about ePortfolios increase awareness in students on conducting research and citing sources. The principles of reflection throughout a course of study encourage a student to not only question what sources are being used in a given research assignment and what information those sources provide, but also *how* they support the student's argument and *why* they are important to the research. A properly executed research assignment collected in an ePortfolio platform will highlight the importance of credible research. For example, Nedra Reynolds and Elizabeth Davis argue for the

Table 1

Student Improvement with ePortfolios at SLCC

Year	2012	2013
Conducting Research Outside of Class	60%	77%
Using Credible Sources in Research	53%	61%
Providing Adequate Citations	37%	49%

Source: Salt Lake Community College. "Making It Real…Helpful: SLCC's Professional

Development   Story." *The Making Connections National Resource Center.* 5 Aug

2013. Web. 12 Feb   2015.

importance of scaffolding and sequencing assignments, "so that students engage with the

learning process in stages that build logically toward a higher goal" (96). The authors give

an example:

> You might consider thinking of individual assignments as opportunities for "mini-
>
> portfolio" assessment in which students document each stage of a project, from the
>
> early development of a research question to the collection of resources in an
>
> annotated bibliography to a preliminary draft with working thesis to a revision plan
>
> based on peer and/or instructor feedback to a final submission version with reflective
>
> post-write. (96)

The example Reynolds and Davis provides could be supplemented with mini-reflective blog

posts or journal entries in which the student identifies the importance of credibility

throughout their own research process and identifies how it was done successfully or where it

needs improvement. The interactive capabilities of ePortfolios among peers and/or

instructors also give the student multiple sessions of feedback in which topics such as

credible sources and adequate citations can be learned and corrected.

Similarly to SLCC's demonstration of improved research methods in student writing,

Tunxis Community College (TCC) has also developed ePortfolio programs that have been

shown to be valuable in evaluating the effectiveness of programs. Amy Feest states in her

article "Outcomes Assessment," ePortfolios at TCC were introduced in 2007 in the Computer

Information Systems and Dental Hygiene programs, and expanded to First Year Experience

and Composition (including developmental English courses) in 2010. TCC identifies

"inquiry, reflection, and integration" as key tenets of their program as well, and works hard

to incorporate these tenets into their curriculum by including sections on course abilities,

general education abilities, and co-curricular activities (Feest n.p). TCC also emphasizes the

importance of Capstone ePortfolios to encourage students to understand how they have

achieved course and program outcomes and abilities. Among the more persuasive evidence

of TCC's ePortfolio success is seen in Table 2, which features retention rates between spring

2010 and fall 2011.

There may be several factors contributing to these impressive numbers. I believe the

potential for ePortfolios to make learning and development visible to students as they reflect

on what they have accomplished encourages students to understand what they have learned,

and what they have left to realize the goals of the program. Kathleen Yancey makes three

claims about how reflection changes students' view of their learning:

Through reflection, students make knowledge by articulating connections among

portfolios exhibits, learning, and self; reflective activities introduce students to new

Table 2

Retention Rates of Tunxis Community

	Spring 2010—Fall 2011
No ePortfolio Course	52.7%
1 ePortfolio Course	60.9%
2 ePortfolio Courses	66.2%
3 ePortfolio Courses	71.4%

Source: Feest, Amy. "Outcomes Assessment: Focusing on Abilities." *Making Connections*

National Resource Center. 5 August 2013. Web. 3 April 2015.

> kinds of self-assessment, that they carry into life outside of and beyond educational
>
> settings; and through engaging in reflective activities, students develop the stance and
>
> practices of a reflective practitioner who can synthesize multiple sources of evidence
>
> and make contingent and ethical sense of them. ("Inventing the Self" 5)

Reflection encourages students to see their writing from more than one perspective. This not

only improves student writing outcomes by giving the student the opportunity to define goals

and processes through self-assessment, but in turn builds confidence in the students, which

suggests the reason for higher retention rates. Yancey supports her claims with an example

from a student at LaGCC who comments on her ePortfolio experience:

> 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.

("Inventing the Self" 13)

Reflection encourages students to identify the self through their writing and through self-

assessment of their writing. By assigning students tasks such as written reflections for all

assignments, or specific sections of reflection such as LaGCC's About Me section in which

students create a self-directed life narrative or the Educational Goals section in which focuses

particularly on the future, writing instructors can foster the ability in their students to identify

their place in the institution and acquire the confidence needed to succeed.

The ePortfolio program at TCC also increased pass rates, which may have contributed

to increased retention rates. In developmental English courses the average pass rate for

ePortfolio courses was 64.43%, whereas the average pass rate for non-ePortfolio courses was

61.25%; there was also evidence of improved retention rates in these composition courses of

78.1% for ePortfolio courses as opposed to 72.3% in courses with no ePortfolio involvement

(Feest n.p.). These findings offer strong evidence of effectiveness in the ePortfolio

programs, and provide students and faculty alike with evidence-based educational practices

that advance student learning and facilitate viable means for outcomes assessment.

The Dilemmas of Transfer Students and Credentialing

Strategy 2 suggests promoting transfer from community colleges to baccalaureate

institutions through state policy, allowing students who have earned core credits or an

associate degree to transfer without loss of credits. The North Carolina Comprehensive

Articulation Agreement is a statewide agreement that governs the transfer of North Carolina

community college students to North Carolina public universities. The North Carolina

Community College System provides a list of courses that are easily transferrable between institutions, which gives students a worry-free way to plan out their general education courses at a community college. The use of ePortfolios in these courses would provide students with a transferrable folder of their progress. This folder could be continued at the four-year institution in a seamless flow of development, and allow the students to recognize the importance of integration between their general education courses at one institution and their discipline-specific courses at the next institution.

The next strategy from the AACC recognizes students on the other end of the spectrum: students who will not continue on in college but who have not earned an acknowledged Associate Degree in the community college. Strategy 3 suggests devising strategies to assist students who have earned 30 community college credits in earning credentials. Stella and Charles Guttman Community College (GCC) in the CUNY system use ePortfolios in their first-year curriculum to great success. Laura Gambino, professor at GCC, claims in her article, "Putting Students at the Center of Our Learning," that "student use of ePortfolios helps unify Guttman's required first-year curriculum, which consists of courses such as City Seminar, Ethnographies of Work, Composition, and Statistics." The integrative qualities of ePortfolios have allowed students to make connections and "see their own growth and learning over time." Gambino states, "ePortfolios facilitate their ability to grasp how each individual component fits into a holistic, integrative learning experience." GCC's experience with ePortfolios in their first-year curriculum supports the idea that ePortfolios provide students with a better understanding of their learning over a 30-credit period, and offer administrators a basis for assessment in credentialing purposes.

Based on GCC's experience, I suggest the use of ePortfolios may be theme-based and used for assessment of credentialing purposes. A student may use a fully integrative ePortfolio to showcase a direction the student may have taken in their studies. Requiring students to develop a theme or direction they wish their education to take will give them the opportunity to connect the assortment of knowledge acquired and associate it with an appropriate credential that would serve them in life after college. This opportunity would build reflection skills as well as argumentative skills; students may be required to make a claim about the direction their courses took, and back up that claim with their ePortfolio. ePortfolios, as visible outcomes of student progress and development, would provide faculty and administrators with an appropriate assessment tool for credentialing.

Improving College Readiness

Recommendation 2 states: "*Dramatically improve college readiness: By 2020, reduce by half the numbers of students entering college unprepared for rigorous college-level work, and double the number of students who complete developmental education programs and progress to successful completion of related freshman-level courses* (AACC 26)." The three strategies the AACC provided to support this recommendation are: 1) redesign developmental education "fundamentally" by incorporating design elements such as "acceleration, contextualization, collaborative learning, and integrated student and academic support;" 2) align expectations of readiness for college-level work with those of high school graduation; 3) implement collaborations with K-12 districts to develop a "college-going culture," and other strategies for accelerating progress of students on the college pathway (26).

The issue of college readiness has been debated for many years. There are programs across the nation that have attempted to bridge the gap between high schools and colleges. Stephen Acker and Kay Halasek present one such program in their article, "Preparing High School Students for College-Level Writing: Using ePortfolio to Support a Successful Transition." Ohio State University teamed with two high schools from which it enrolls many students each year in what they called the "ePortfolio Project." This project recruited student volunteers to write essays and receive feedback from both high school and university writing faculty within an ePortfolio system. The authors explain the simple reasoning behind the project:

> We reasoned that feedback from both sides of the transition would help students better understand differences and similarities of what constitutes "good" writing in high school and the university. Moreover, we reasoned that the ePortfolio system itself—which enabled students to submit their writing and then read and compare responses from both university and high school teachers and *have continued access to those responses within a single instructional environment*—would provide a richer, innovative, and "more authentic" measure of the student writing. (Acker and Halasek 2)

By using the ePortfolio system, the team hoped to answer the question of whether this collaborative teaching and learning environment could be structured to improve student writing. The results of the project showed improvements in the students' writing holistically, as well as over 6 subscales—ideas and content, organization, voice, word choice, fluency, and use of conventions (6). The authors are careful to note that the feedback from both high school and university faculty constituted the influential changes, as opposed to the ePortfolio

technology itself. Nonetheless, the authors note that the "ePortfolio served to structure the learning environment and increase the convenience of the interactions to a threshold that permitted rewriting, re-commenting, comparison, and reflection" and also "initiated, facilitated, and sustained collaboration and community among its various users" (8).

Systems designed to connect high schools with colleges through the use of ePortfolios can nurture learning environments that may prepare students for college; however, many community colleges face the immediate challenge of underprepared students that have not been given the chance to learn what is expected of them. Developmental writing and basic writing courses offer underprepared students an opportunity to discover what will be expected of them at the college level. Closing the gap between high school expectations and college expectations can also mean identifying basic writers, and where they fall in the divide.

Elizabeth J. Clark and Marisa A. Klages of LaGCC argue for the importance of identifying the connections between basic writing skills and the digital literacies students possess. As the challenge of teaching basic writing skills in an ever-changing technological environment increases, Clark and Klages see ePortfolios as a tool that can "radically change our students' understandings of their relationship to the written word in an era of digital literacy and the power of authority hidden within that authorship" (34). Basic writing courses at LaGCC strive to shift students' perspectives of themselves as non-writers, as many students placed into developmental courses view themselves. In an effort to support students' transition from a high school curriculum that values grammatical correctness and five-paragraph robotic language, LaGCC aims to enable students to identify their emerging authorship and claim authority over their writing. As confidence proves to be a contingent

factor on student success in developmental writing courses, LaGCC seeks to build on students' present digital abilities and facilitate that confidence in their writing. As the authors state:

> The ePortfolio, and students' understanding of their progress and their limitations as writers, serves to provide them with a powerful counter-narrative within an otherwise anonymous and punitive writing context. As they develop rich multimodal ePortfolios characterized by an intensive use of visual rhetoric to complement their written and oral productions in the course, students build on their technological dexterity and begin to understand their emerging writing skills as equally important components of their digital literacy. (39)

The importance of this system for preparing students for the rigorous nature of college writing connects to one of the most important discoveries the authors have made: "we have found that ePortfolios is one way to move students from their personal writing to public writing" (42). The ePortfolios provide a "gateway" to the type of academic discourse of which they are entering. By teaching students to connect their public voices on social media, and other digital literacies they utilize on a daily basis without acknowledging they do so, with their academic voice, ePortfolios have enabled students at LaGCC to recognize their audiences and acculturate to a larger college discourse. Such acculturation can improve college readiness by developing awareness in the students of the abilities they already possess in composition and the correlation between these abilities and their social literacies. Identification of audience is a key factor in composition; the shift from personal writing to public showcases of literacies that ePortfolios provide can greatly influence a student's understanding of the importance behind audience.

TCC has also incorporated ePortfolios into their developmental English courses, which are presented as a multi-level, integrated sequence of reading and writing courses. These courses are designed as introductions to reflective learning by encouraging the students to reflect on their assignments over the course of the semester. The ePortfolio allows students to share their reflections with other students. This creates a community of developmental learners that is able to monitor their progress together, and gives each student multiple examples of reflection in a classroom. Jennifer Wittke and Marguerite Yawin, both professors at TCC, have constructed the developmental English courses in a way that integrates student learning over the course of two semesters. Students are required to reflect on both semesters in a final essay that combines both developmental courses. The retention rates of students from Fall 2010-Spring 2011 was nearly 6% higher for the students in developmental courses that utilized ePortfolios, as opposed to the courses that did not (Wittke and Yawin n.p.). Wittke and Yawin attribute their success in retention rates to the benefits of ePortfolios in their classroom, specifically ePortfolios' ability to enable students to accurately assess their own work, and identify when they need assistance for further progress.

Closing the Skills Gap

Recommendation 3 states: "*Close the American skills gaps by sharply focusing career and technical education on preparing students with the knowledge and skills required for existing and future jobs in regional and global economies*" (AACC 27). The 3 strategies are: 1) design of career pathways leading to "stackable" credentials such as "multilevel, industry-recognized credentials reflecting attainment of the knowledge and skills required at different stages of career; 2) develop technology-based tools to aid colleges in accessing data

on high-need areas in the labor market; 3) mobilize local, regional, and national partnerships to "establish alternative models for completing skills-based credentials, including classroom instruction, online learning, credit for prior learning, and on-the-job learning" (27).

Scholarship on the bridge between academia and job placement is expanded upon in Karen Johnson and Susan Kahn's article on the bridge from university to the world through ePortfolios. Johnson and Kahn argue that the process of scaffolded reflection within the ePortfolio prompts students to "envision and articulate how they will apply their learning to new contexts as professionals and citizens in a globalizing world" (85). In referencing the ePortfolio program at Indiana University-Purdue University Indianapolis (IUPUI), Johnson and Kahn examine how reflection at their university is different than other programs. IUPUI asks students to do more than simply reflect on their writing, but to focus on their accomplishments of the outcomes for the course, and gear their reflections toward those outcomes (90). The palimpsestic concept behind scaffolding requires that students develop reflective thinking skills that continually reflect on the previous transfer of knowledge and simultaneously look forward to the next step in the process. Johnson and Kahn offer student examples in their English capstone program and use these examples to support their theory that when students engage in more specific reflection and focus on individual input, the bridge between academic and "real-world" identity can be constructed. As students create their ePortfolios, they can envision a potential employer viewing it, and in turn, will benefit as they seek a discourse that can be transferred between contexts and situations. Students are enabled to collect professional materials such as current research, awards and acknowledgements of achievements, and professional development materials similar to those found in a hard-copy resume, but in a way that is interactive and specified for a student's

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planned discipline and career-specific audience. In this way, ePortfolios provide students with multimedia resumes that may show potential employers what the student has learned and how the student is able to apply that learning to a digital and audience-specific environment.

The Question of Transfer of Knowledge into Discipline-Specific Composition

One of the more difficult questions to answer in composition studies is how to transfer writing knowledge from general education courses to discipline specific courses. Elizabeth Wardle addresses this issue in her article, "Understanding 'Transfer' from First Year Composition (FYC)," and suggests the question is difficult to answer because we are not looking broadly enough at student development. Wardle claims that a more expansive study must look to the nature of writing activities in order to "account for the ways in which knowledge and skills are *transformed* across contexts" (69, Wardle's emphasis). Wardle states that one of the most important abilities FYC courses can cultivate is "meta-awareness about writing, language, and rhetorical strategies," because we cannot prepare students for every genre (82). She recommends assigning students to complete auto-ethnographies of their own reading and writing as one strategy to cultivate meta-awareness. As accessible archives of students' reading and writing artifacts, ePortfolios provide a reasonable platform on which to cultivate such meta-awareness. By asking students to research the culture of their own writing, FYC courses can "help students think about writing in the university, the varied conventions of different disciplines, and their own writing strategies in light of various assignments and environments" (82).

Following the same line of inquiry into transfer of writing abilities across contexts, Wardle teamed with Doug Downs to construct a new model of FYC;

A reenvisioned FYC shifts the central goal from teaching "academic writing" to

teaching realistic and useful conceptions of writing—perhaps the most significant of

which would be that writing is neither basic nor universal but content-and context-

contingent and irreducibly complex. (557-58)

This new model of composition pedagogy, called Writing About Writing (WAW), explores

how to understand and think about writing in school and society by employing activities that

promote meta-awareness in students' experiences with writing, and combining researching,

reading, and writing arguments with inquiries into how these processes are constructed

across genres and contexts. By focusing students' efforts on learning the components of

writing processes and encouraging metacognitive practices, such as reflection into the

students' own writing ethnographies, Downs' and Wardle's model seeks to serve as a

gateway into WAC and WID courses. To facilitate a continuation of these practices into

WAC and WID courses, ePortfolios can provide students with a visible and easily accessible

collection of research and writings into which students can continually add. By employing

ePortfolios across the curriculum and asking that discipline-specific courses work to scaffold

the knowledge students have acquired, faculty can increase students' meta-awareness of

contexts and transform their abilities to apply what they have learned to new and unfamiliar

situations and demands.

Kathleen Yancey, Liane Robertson, and Kara Taczak identify the question of transfer

in their book, *Writing Across Contexts: Transfer, Composition, and Sites of Writing.* The

authors state, "This question asks how we can support students' transfer of knowledge and

practice in writing; that is, how we can help students develop writing knowledge and

practices that they can draw upon, use, and repurpose for new writing tasks in new settings"

(2). The issue of transfer has been on many composition scholars' minds in the recent decade. The authors claim that one motivating factor for this is increasing interest in portfolios, "linking portfolios to writing curricula . . . has helped put a very specific face on the transfer question" (2). The use of multiple texts and artifacts from students' education allows faculty to see whether the student has made a successful transition from one place to another, particularly institutions and levels of education, and allows faculty to assess what might have been done to support these transitions. The specific dilemma of transfer can be negotiated through portfolios by answering questions of why "some students are able to make use of what they seemed to have learned in first-year composition to complete writing tasks elsewhere, while other students are not" (3). Through the reflective nature of ePortfolios, students are encouraged to reflect on what they have learned about writing, and in turn cultivate the meta-awareness that Wardle deems as essential for the transfer of knowledge across contexts.

Yancey, Robertson, and Taczak also discuss the importance of prior knowledge in their argument about transfer. The authors identify several influences on prior knowledge that play significant roles in students' abilities to transfer writing knowledge, such as "their attitudes toward writing; the strategies they drew upon; the knowledge about writing contextualizing their practices and, consequently, their development as writers" (103). Their research concludes that students call upon their prior knowledge, or lack thereof, when confronted with new writing situations. They label transfer in composition as an "active, dynamic process" that shows "students working with such prior knowledge in order to respond to new situations and to create their own new models of writing" (126). They also identify two methods of prior knowledge assimilation: the "assemblage" model, where the

student grafts pieces of new knowledge onto prior understandings of writing "that serve as a foundation to which they frequently return;" and the "remix" model, where students blend elements of both prior knowledge and new knowledge "with personal values" into a revised model of writing (126).

The authors admit their research is new and in need of continuing study, such as the influences of culture, choice of study, and intellectual tradition in a student's past that have shaped the prior knowledge of each student. Nevertheless, the arguments the authors make provide valuable insight into the process of how ePortfolios can provide gateways into discipline-specific writing tasks. By encouraging students to reflect upon their prior writing experiences, and to question what they have, or have not, learned from them, faculty can gauge students' prior knowledge and assess the current situation of their students. Through the multiple pathways an ePortfolio can be constructed, students have the opportunity to construct a map of where they have been; e.g. a student might choose to upload papers written for a high school English class and identify new learned rhetorical strategies in the style of an auto-ethnography. These identified instances from prior assignments may be digitally linked to current assignments in a FYC composition course in an effort to demonstrate a "remixing" of the student's prior writing knowledge, and the new knowledge being learned. The opportunity for reflection as the student constructs this ePortfolio will serve as the guidelines for the student's visual composition map as they seek to understand and interpret how they have expanded on what was already known, what has been and needs to be transferred, and where to go from there.

Carl Whithaus discusses how ePortfolios facilitate this transfer by expounding on Rhoda Grego and Nancy S. Thompson's concept of "thirdspaces." These thirdspaces, as

Whithaus interprets Grego and Thompson's definition, are "institutional openings and locations where writing faculty engage what Jonathan Mauk has called 'the spatial and material conditions that constitute the everyday lives of students'" (206). Whithaus argues that thirdspaces "highlight the disconnections that can occur between the articulated learning outcomes for general education courses and the articulated learning outcomes valued within disciplinary communities" (207). Eportfolios are the tools with which faculty and administrators can assess student reflection, and as reflection increases when the student progresses to higher-division, discipline-specific courses so do the demands of specified reflection on writing and pre-professional activities. At the University of California-Davis, the ePortfolio program incorporates the Open Source Portfolio (OSP) tool to track first-year composition course material, and in conjunction with the use of ePortfolios in the upper-division writing courses (including discipline-specific courses), serves as a tool for the assessment of knowledge transfer through the progression of courses. The potential for ePortfolios to track multimodal learning artifacts allows for easier assessment of knowledge transfer from general education to discipline-specific through the measurement of critical thinking skills, problem-solving skills, and collaboration skills in digital media. Whithaus argues that by assessing multiple samples from general education and discipline-specific courses we can create "a rich matrix of data-driven assessments that can work as a feedback loop and help inform curriculum development and the faculty's pedagogical choices" (218).

In order for Whithaus' ePortfolios model of transfer assessment to work, transfer must be identified and displayed by the student. Rebecca Nowacek's model of transfer, the "agents of integration" model, suggests that students as agents of integration "must learn not only to 'see' connections among previously disparate contexts but also to 'sell' those

connections, to render them appropriate and convincing to their various audiences" (39).

Nowacek argues that making transfer accessible and persuasive to an audience renders

transfer as a rhetorical act. This concept may act as a bridge for students into their discipline

as they identify their rhetorical situations and shape their portfolios, and the connections

they've displayed, to discipline-specific audiences. For this to be successful, institutions

must continue to encourage ePortfolio participation across the curriculum and over the course

of each student's academic career. The potential for ePortfolios to forge connections

between past, present, and future knowledge is valuable for: students to understand and

interpret how to shape and display their learning; faculty to determine where their students'

skills are upon arrival and where they need to go; and administrators to assess the outcomes

of their curriculums and the significance of transfer across contexts and disciplines.

Chapter 2: How—Refocus and Redefine the Roles

The purpose of redefining the roles of community college is to facilitate institutions that represent more open learning environments in which students can "access services from a network of colleges, customize their learning, and choose from multiple modes of delivery" (AACC 24). In this section of "Redefine," the AACC recognizes one of the key strategies for change discussed in the introduction of this thesis: "alignment of learning across education sectors, within community colleges, and with labor-market demands" (6). The AACC understands that better alignment between high school standards and community college entry requirements, community college exit competencies and university admission standards, and knowledge and skills gained from higher education and those needed for the job market are extremely important for increasing student completion rates. The AACC recommends that competency-based learning—"in which credits and credentials are based on mastery of skills and demonstrated expertise, rather than completion of courses"—should become part of this alignment (26). In addition, realignment may occur within an institution to smooth transitions between courses.

Redefining Institutional Roles

Recommendation 4 states: "*Refocus the community college mission and redefine institutional roles to meet 21st-century education and employment needs*" (AACC 24). This recommendation focuses less on instruction of knowledge and skills, and more on improvement of access for students to take their learning in their own hands. To improve

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access, it is recommended that institutions explore "new partnerships, staffing patterns, and business models" (24) which will enable colleges to become more efficient in providing opportunities and smoother transitions as students articulate across phases in their education. Eportfolios offer an excellent platform that students may use to cross the boundaries of their institutions. Darren Cambridge states, "portfolios are used to integrate across contexts, often looking beyond individual assignments, courses, or disciplines" (*Two Faces* 41).

The AACC advises 6 "actions" colleges may take to redefine their roles and open their learning environments. Eportfolios, and particularly the recent scholarship on integrative learning through ePortfolios, provide sufficient platforms which may supplement these actions. The first action declares: "*develop the role of community colleges as brokers of educational opportunities rather than solely as direct providers of instruction*" (AACC 24). Helen Chen declares, "ePortfolios offer a framework within which students can personalize their learning experiences; develop multimedia capabilities to support student-created media; and create different representations of their learning experiences for different audiences" (2). Eportfolios allow students to represent their own learning and how they interpret that learning across contexts. Community colleges can use ePortfolios to guide students in reflecting on their learning in a way that may identify the faculty as "brokers" of learning as opposed to "direct providers of instruction."

Through ePortfolios, as Kathleen Yancey describes, students experience more than one curriculum. Yancey identifies three curriculums that students experience in their learning: the *delivered* curriculum; the *experienced* curriculum; and the *lived* curriculum (*Writing Classroom* 172). The difference between delivered and experienced is about perception; the delivered curriculum stems from what is taught by the faculty, and the

experienced curriculum represents how the student perceives what has been taught. The

lived curriculum provides the "context through which the course will be understood,

experienced, received, interpreted" (172). Eportfolios allow for a creative representation

from the student on the lived curriculum and provides an insight into how the student has

connected their learning to their lives outside of the institution. By using ePortfolios,

community colleges may step away from directly providing information, and instead may aid

in providing a more integrative learning experience for their students.

The use of ePortfolios among institutions may also construct bridges between

institutions for the purposes of articulation and expanded opportunities for students. The

AACC suggests establishing college consortiums among institutions so that students may

"draw from the programs, courses, and delivery modes of every college in the network" (24).

The City University of New York (CUNY) school system is a good example of this type of

consortium. Consisting of 11 senior colleges and 7 community colleges, the CUNY system

is a diverse group of schools that provides access for each student across the whole of the

system. Students in each school are invited to use the resources provided by all eighteen

institutions. Of the 7 community colleges, four currently use ePortfolios as a tool for student

learning and assessment. The institution leading the ePortfolios program in this consortium

is LaGCC (as mentioned previously). LaGCC describes their ePortfolio program as a

"network of connections and as a catalyst for change" (Clark). Emphasizing connections

among institutions, LaGCC leads the Making Transfer Connections (MTC) program, which

facilitates transfer among CUNY's schools. Under LaGuardia's leadership, 5 CUNY

colleges employ ePortfolio practice in strengthening 3 areas pivotal to transfer success:

"instruction, advisement, and assessment" (LaGuardia Community Coll.). The MTC strives

to build cross-campus collaboration and exchange and supports students in articulation toward a baccalaureate graduation. The increased pass rates of LaGCC students in ePortfolio classes that were 5.4% higher than courses that did not utilize ePortfolios, as well as the retention rates of 5.6% points higher for students in ePortfolio courses than the college average for students in courses without ePortfolios, maintains the claims of how beneficial the pathways have been.

The increased pass rates could be simply from students' identification of what is required in the course. As John Zubizarreta states on student representation in ePortfolios:

> The benefit to the student is an opportunity to engage in self-examination of what has been learned in an assignment, a course, or a program; how it has been applied; why the learning has been valuable; and to what extent the product of learning meets educational standards and goals. (41)

In composition courses especially, students are taught the value and application of rhetorical strategies. When a student is given the opportunity to express what has been learned and how the course goals have been met, they can use the chance to apply persuasive elements they have learned in the class. This two-fold approach of reflection and persuasion may be a contributing factor to higher pass rates. In any case, the elements of ePortfolios provide a deeper interaction between the student and the assignments of the course, and in turn develop a reflective writing experience that encourages the student to identify the objectives of the course material and how those objectives were achieved. This direct relationship to course goals and outcomes demonstrates to the student how the course is assessed and how the outcomes relate to, "what extent the product of learning meets the educational standards and goals."

Advising, Learning Assessment, and Credentialing

The second action the AACC suggests in the implementation guide in order to redesign institutional roles states: "strengthen the role of community colleges in advising, learning assessment, and credentialing" (24). The AACC suggests there is a growing need for instruction that will provide students with the necessary skills to connect their learning with value in the labor market. An emphasis on competency-based learning and clearly defined competencies give students the ability to focus on what each student wants to know, or needs to know for credentialing, and minimizes wasted, unnecessary work (25). Eynon, Gambino, and Torok identify Proposition #2 in their article "What Difference Can Eportfolio Make?" as: "making student learning visible, ePortfolio initiatives support reflection, social pedagogy, and deep learning" (98). They see ePortfolios as a connective bridge across learning experiences. The authors claim, "advancing higher order thinking and integrative learning, the connective nature of ePortfolio helps students to construct purposeful identities as learners" (98).

Advancing higher order thinking and integrative learning through ePortfolios can happen in many ways. An instructor must be intentional in their pedagogy and skilled in the application of reflection into the curriculum. When a composition instructor assigns a reflective essay at the end of the semester, they encourage the student to practice what Yancey calls reflection-in-action. Yancey claims that reflection, "asks that we explain to others...so that in explaining to others, we explain to ourselves" (*Reflection* 24). One particular assignment to implement is to ask students to stipulate their goals in the course or in their education. As students reflect on these goals and attempt to explain them to us, they will begin connecting these personal goals to course or program goals and outcomes, and

identifying what type of learning in which they need to engage to achieve the goals. The identification of goals and outcomes will also improve students' revision processes by illuminating to the student what is missing in previous drafts.

By assigning students to identify which course goals and outcomes they have successfully implemented, and which ones still need to be implemented in future drafts, in each specific writing assignment, faculty can promote a student's higher order and connective learning skills. Encouraging students to reflect on what course goals and outcomes have been achieved with each specific assignment can transfer to other courses outside of composition and build integrative learning techniques. Eportfolios are particularly useful in this practice because they allow the student to hyperlink multiple forms of digital texts, such as video, in an effort to present reflection in myriad ways that are customized for the specific discipline of which they are demonstrating. Encouraging students to reflect on their learning in multimodal ways increases the complexity of the presentation and advances higher order thinking.

In a survey conducted for the Connect to Learning Project and conducted over four semesters and across campuses in the C2L network, students were asked questions about the ePortfolio courses they had taken. The results were very positive in student identification of their own learning. Of those surveyed, 70% of students agreed, or strongly agreed, with the item labeled: "Someday, I'd like to use my ePortfolio to show what I've learned and what I can do to others, such as potential employers or professors at another college" (Eynon, Gambino, Torok, *What Difference Can Eportfolio Make?* 101). By providing students with a tool they would be willing to share with future employers or professors, community colleges can use ePortfolios to strengthen their credentialing requirements. Community colleges can

use evidence of transfer of knowledge, as discussed in Chapter 1, from student ePortfolios to develop credentialing requirements in some of their programs. As more research is done on transfer, especially from general education and core classes to discipline-specific classes, more evidence will mount on which courses better prepare students for advanced classes. By using the visual evidence of knowledge transfer in ePortfolios, faculty can be more effective when constructing core course requirements, as well as elective choices, in an effort to establish new credentials for students who may not go the traditional route with their education. The evidence of transferred knowledge through ePortfolios can aid advisors in collecting courses that will develop integrative learning effectively, and justify a model of learning sufficient for an acknowledged credential.

Redefining Faculty Roles

Action 3 suggests redefining faculty roles. In the implementation guide, the AACC recognizes the importance of faculty with expertise in "effective teaching practices, curriculum pathway design, instructional technologies, learning assessment, student development, and so on" (25). Professional development is important in any institution. Many community colleges are challenged with attracting professionals with terminal degrees if there is no tenure to be earned, and with budget constraints that force colleges to hire a lop-sided ratio of part-time/full-time instructors. Therefore, professional development in community colleges becomes even more important. In an effort to sustain uniformity through curriculum but still provide faculty with the freedom to express their own individual expertise and creativity in the classroom, community colleges must staff pathways with teams of educators willing to redesign their roles as faculty.

The C2L project has identified three design principles essential for professional development: inquiry, reflection, and integration. As cornerstones of their professional development programs, the project defines these principles as follows:

> Inquiry-focused professional development processes invite faculty and staff to explore questions about ePortfolio pedagogy and student learning by testing innovations in their courses and programs; reflective professional development processes offer educators structured opportunities to weigh the implications of their experiences, helping to make meaning and plan next steps; integrative professional development helps educators build on inquiry and reflection, transferring insights from particular experiences to broader processes of curricular and pedagogical change. (*Catalyst for Learning*)

The C2L project has taken the principles of their student ePortfolios and has used them to support professional development. By encouraging faculty to make their own teaching ePortfolios and participate in ePortfolio construction workshops, and encouraging the identification of transfer in the faculty's teaching and within the curriculum, the project has implemented similar strategies in ePortfolio practice for the faculty as it did with the students. Eynon at al. states, "sustained collective inquiry in ePortfolio-related professional development and outcomes assessment, faculty, staff, and the broader institution construct new knowledge and understandings about the teaching and learning process" ("Catalyst Design" 2). This new knowledge is integrated into ePortfolio teaching in the curriculum, and used to further faculty understanding of its value in alignment of learning across disciplines.

As faculty learn to construct their own ePortfolios they will understand the importance of how reflection can promote an awareness of the future. When faculty think

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about what they will teach and how what they teach supports the goals and outcomes of the course they identify specific routes to take to get where they hope to be by the end of the course. With this in mind, faculty can construct specific pathways with student progression in mind. An example of this can be seen in Appalachian State University's Vertical Writing Model. The Vertical Writing Model is a progression of writing courses students are required to take during their four years of attendance at the university. The writing courses begin as Expository Writing, and progress to Writing Across the Curriculum, to Writing in the Disciplines, and then to a Capstone project in the student's senior year. Though still in the pilot phase, ASU's ePortfolio program will follow the student's progress through these courses, thus connecting the progression of composition development over the student's duration of study. Each student will pass through the Vertical Writing Model, and all composition faculty teach with this model in mind; however, there is an intentional focus on faculty agency when constructing assignments.

As faculty use professional development sessions to develop their own assignments through their own construction of ePortfolios, they can discover how important looking ahead is for completion of projected goals and outcomes in courses and programs alike. This potential for ePortfolios to encourage students to reflect upon the future can encourage faculty to develop assignments that will enable students to transfer writing knowledge across contexts. Yancey et al. claim, "belief that what a student is learning in a writing context will be useful in the future thus motivates students, and the reverse is true—that if no connection can be seen, students do not value the opportunity" (*Writing Across Contexts* 27). Assigning students to reflect on each writing assignment by inquiring and reflecting on how they can transfer what they have learned to future contexts will support the principles of integration

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that ePortfolios can foster. As curriculums develop and faculty identify these developments in their professional ePortfolios, they can apply the same principles of reflection when constructing assignments.

Salt Lake Community College (SLCC) takes a "rooted in community" approach to professional development through their "boot camp" support workshops. At SLCC members of the faculty build their own ePortfolios in an effort to experience what they ask of their students. By applying the three principles of inquiry, reflection, and integration, SLCC has seen vast improvements in the way their faculty approach ePortfolios in the classroom, especially for instructors less privy to technology. The process of community reflection among the faculty "encourages faculty who might be intimidated by the technology to see the possibilities that a reflection-heavy curriculum can provide in their courses" (Salt Lake Community Coll.). The "boot camp" ePortfolio support workshops invite faculty and staff to "think about their thinking in the courses they teach, or in their interactions with students…fosters re-envisioning of curriculum, academic plans, and connecting learning" (Salt Lake Community Coll.).

SLCC has also created a separate ePortfolio website for faculty to use as a resource. Through this site faculty can access student examples that will be used for professional development purposes in faculty workshops. By assessing ePortfolios as a community of instructors, SLCC has shifted the focus from what the faculty does in the curriculum, to what the students do. In connection with Yancey's notion of experienced and lived curriculums, SLCC focuses their professional development programs around student work, and confirms the efficacy of integration as a community.

Norwalk Community College (NCC), guided by the principles of the C2L program,

defines learning and understanding in ePortfolio professional development as an iterative

process. NCC describes their professional development in organic terms (emphasizing

growth) and material terms (emphasizing connectedness). NCC sees the value in a new way

of conducting development as well:

> A particularly effective way that we have found to highlight the value of these
>
> guiding principles is to have students attend part of our workshop and talk about their
>
> ePortfolios. Nothing is more powerful to an instructor than a student's own voice
>
> telling a compelling and enthusiastic story of her growth as a learner made visible.
>
> (Norwalk Community Coll.)

These professional development programs at community colleges demonstrate what

Eynon et al. emphasize when they observe: "placing ePortfolios at the center of sustained and

creative professional development processes has the potential to not only build ePortfolio

initiatives and advance sophisticated pedagogy, but also change and deepen the campus

conversation about teaching and learning" ("Difference" 106). Through professional

development workshops and practices that encourage faculty to construct their own

professional ePortfolios, faculty can construct assignments and writing prompts that promote

writing transfer across contexts and raise awareness in their students of future goals and

outcomes that must be considered. Such workshops that focus on writing transfer could

include the introduction of a Teaching for Transfer (TFT) course as Yancey et al. detail in

their book *Writing Across Contexts*. The TFT model consists of four major writing

assignments: the development of a source-based article analyzing genre, audience, and

rhetorical situations; a research essay; a multiple-genre composition on a research topic that

targets three different audiences; and a reflection-in-presentation assignment (75). Students

are asked to reflect on each assignment individually and identify how they will transfer the

process by which they composed the assignments to other contexts. In a professional

development workshop, it would be beneficial for faculty to construct their own reflections

of how these assignments were effective/ineffective, and how they could evolve over time.

The accessibility of professional ePortfolios provides faculty with multiple reflections on

these assignments and multiple applications of each assignment. As discussed above, the

potential for ePortfolios to support writing transfer across contexts and disciplines is a

subject that professional development workshops should continue to implement.

Technology in the Curriculum

Action 5 in AACC's implementation guide suggests incorporating "ingenious uses of

technology in instruction and student services" (25). The report highlights the growing

industry of technology and the effects it may have on advising, academic planning,

assessment of student progress, learning assessment, etc. With the addition of social media

in students' lives, connections between people have increased dramatically. The use of

technology may facilitate student connections, but also connections with faculty and staff,

and to information research and support services available to them.

There is no question that technology has played a vital role in the development of

ePortfolios over the past decade. The advent of social media has sparked a revolution in

students that has increased the languages they speak, as well as the roles of communication in

their lives. The multiple platforms and digital technologies that have recently been

developed in ePortfolios have generated a new form of visual learning. John Zubizarreta

declares that, "the landscape of portfolio development has expanded astonishingly with the

advent of multimedia, hypermedia, database structures, 'mashup' applications, blogging, and social networking…however the fundamental process of learning portfolio development remains steadfast" (64). The basic concepts behind portfolios should not be steamrolled by technology, but community colleges can find a powerful tool in technology when applied appropriately to the task at hand. The AACC's strategy behind employing uses of technology in instruction may be effectively implemented with the addition of ePortfolios in the curriculum.

Helen Chen and John Ittelson claim that ePortfolios "are more than just a technology: they imply a process of planning, keeping track of, making sense of, and sharing evidence of learning and performance" (109). As new technologies emerge, new literacies emerge with them. Students and faculty are able to share evidence of their learning and teaching, and in turn, can build bridges between academic environments and students' lives. Darren Cambridge, Barbara Cambridge, and Kathleen Yancey identify three key themes that are emerging as technology probes further into pedagogy and practice:

> First, the new technology provides opportunities to *for drilling down and linking up*, allowing programs and institutions to investigate student learning and institutional performance…Second, the greater variety of portfolio composition experiences offered by the new tools has reinforced the link between *design* and *deep learning*…Finally, the enhanced capabilities provided by the new technologies highlight the importance of clear *alignment between pedagogy and technology*.
>
> (145)

Cambridge et al. highlight the capabilities of ePortfolios in the areas of assessment, deep learning, and curriculum, which address one of the tenets of implementation from the

AACC's report that suggests integrating technology in way that strikes a balance between its usage and building human connections. The AACC is aware of the reputation of community colleges as institutions built upon close interaction between faculty/staff and students, and strives to maintain those connections as technology continues to advance. Eportfolios provide advanced technological applications of inquiry, reflection, and integration that supplement the integrity of connections between students and the college.

Katherine V. Wills and Rich Rice's collection, *ePortfolio Performance Support Systems: Constructing, Presenting, and Assessing Portfolios,* (as mentioned in the introduction of this thesis) begins with an article from Kathleen Yancey that views ePortfolios from a postmodern lens. Yancey applies the concept of palimpsests to ePortfolios; she argues that the many interpretations and representations of student work require the acknowledgment of multiple contexts. Yancey breaks student representations of learning into three contexts: the context of time past and present; the context of space; and the context of the subordinate, or future ("Postmodernism" 18). These contexts reflect the complexities and multiple meanings of student learning, and treat portfolios, of which there are different kinds, especially among ePortfolios, as "exercises of remediation" ("Postmodernism" 23). Eportfolio remediation—the remediation of student work from print to digital, or from text to galleries of images, audio files, videos, websites, etc.—creates a digital map of student learning, and represents a three-dimensional "space of ideas" that serve as a palimpsest of student reflection in the digital world.

Meta-reflection as a Technological Tool

Playing off of Yancey's postmodern ideas of multiple contexts, Rich Rice focuses on meta-reflection in his contribution to the collection. Rice claims that, like Yancey's idea of

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remediation, ePortfolios can be "re-tooled" in order to allow students to perform by doing

more than just *telling* their audience. Students, through the use of hypermediated

performance support systems, are enabled to *show*, through links, the transfer and application

of knowledge in the context of their learning. Rice argues that new technologies, and new

audiences, "call for more realistic or 'live' or enlivened performance, simulation which

embraces practical theory and 're-directable' application" (41). The boom of social media

has integrated students into the hypermediated world of networking and has created a sense

of social connection through cyber space as just as significant and meaningful as in-person

interactions. Through this multilayered process of interwoven media and real world

application, students have the ability to identify multi-contextualized processes of

demonstration in their own learning, and are enabled through remediated performance

portfolios to connect their socially-mediated identity to that of their academic identity.

Following Rice's observations of social media performances and the "re-tooling" of

ePortfolios through contextual considerations, Lauren Klein attempts to construct a bridge

between social media and academic applications in ePortfolios. Klein argues for the

pedagogical benefits of social media in conjunction with ePortfolios due to the opportunities

of "connection, communication, and collaboration" in social media (54). Klein suggests that

rethinking social media components to coordinate with student learning initiatives could

enhance the range of traditional learning objectives. When bridging the gap between

academia and job placement, social ePortfolios supply "additional evidence of skills and

qualities valued in the workplace: analytical ability, intellectual leadership, and creativity,

which are often difficult to discern in other presentations of student work" (Klein 63). Klein

effectively uses student examples to support her claims, and references the ePortfolio

collection at Macaulay Honors College, CUNY. These student examples comment on the importance of social media in students' identification of the connections between personal presentation and academic, and on the interactions between the languages they chose in each situation. Klein sees social media as a modern way to foster "authentic student voices" by facilitating student-centered social content (67).

As languages change with situations and students learn to navigate the discourses between professional, academic, and social realms, so, too, does learning and reflection change. As in the case with social media, when students know their work will be seen by others, especially by more than their instructor/professor, their reflections will change and their learning will, ideally, deepen. In a C2L survey, it was found that the connections students made between ideas enhanced dramatically when peer interactions were more prominent in their revisions. When students were asked if ePortfolios helped to make connections between ideas, there was a stark difference between the data from students whose ePortfolios had high peer interactions (86.6% agreed or strongly agreed), and those with low peer interactions (30.6% agreed or strongly agreed) (Eynon, Gambino, Torok, *What Difference Can ePortfolio Make* 103).

The numbers on peer interactions have important implications for faculty when considering curriculum development. As Kory Lawson Ching notes in his article, "Peer Response in the Composition Classroom," "students do not learn *from* teachers or *from* peers, but rather by engaging in the practices of writing and reading alongside both" (315). Ching emphasizes the "dialogic shaping of an individual's practices through coparticipation" when peer reviews are conducted on student writing. Eportfolios make possible a coparticipation between peers and teachers simultaneously by increasing access of student response and

employing multiple audiences for each student to consider during construction of the portfolio. One example in which faculty can utilize ePortfolios in peer interactions is by assigning groups at the beginning of class and asking students to respond through the use of forums or blogs to each individual's weekly reflections in each group. When course or assignment reflections are posted into an accessible ePortfolio program, students will be required to consider multiple audiences when they compose their reflections.   These peer interactions will increase discussion and reflection on each student's writing and allow students to learn alongside their peers and the faculty.

Empowering Students to Develop Their Paths

Action 6 of AACC's implementation guide suggests empowering students as "partners in developing their paths and achieving their educational goals" (25). It is important to teach students to take their learning in their own hands and to discover their potential in developing, on their own, those critical thinking skills needed for success in their academic careers. One mechanism that ePortfolios facilitate is that of teaching decision-making and goal setting. Alex Ambrose, Holly Martin, and Hugh Page Jr. of the University of Notre Dame have recently implemented what they call "advising ePortfolios." These teaching tools work to "assist students in improving their decision-making, goal-setting, and planning skills—capacities which are necessary in order for students to be actively engaged in managing their own learning." The authors claim "ePortfolios have the potential to assist students in becoming more intentional and active learners by helping them take ownership of their academic progress." The advising ePortfolios are ideal for Notre Dame's first-year studies program because they encourage reflective queries among students, and thus enable students to progress in a goal-oriented direction. By allowing students to take part in the

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advising process through the use of ePortfolios, the authors state that Notre Dame empowers their students to "chart future plans based on strengths and interests, to strategically develop necessary skills, and to make informed and conscious decisions emerging from both an evolving sense of self and an awareness of the complex university environment they inhabit."

The roles ePortfolios can play in refocusing and redefining the roles of community colleges are diverse. From improving assessment of course content and correlation among program requirements to better advise students in a course of action, to encouraging students to customize their own learning through identification of transfer and integration throughout their education, ePortfolios present a holistic approach for empowering community colleges in the academic setting. Eportfolios have the potential to achieve one of the key strategies identified in the AACC's implementation guide: "alignment of learning across education sectors, within community colleges, and with labor-market demands" (6). The evidence-based support for ePortfolios' success in the areas of assessment shows how recommendations from the AACC on improving competency-based learning can be facilitated through the use of ePortfolios. The integrative aspects of ePortfolios can redefine community colleges through increased connections between institutions, as demonstrated by the collaboration of schools in the C2L project. The community college no longer has to be a rogue institution, but can strive to be part of a larger context of networked colleges with similar goals and missions.

Chapter 3: How—ReSet the System

The purpose of resetting the system is stated in the AACC's implementation guide: "The recommendations for resetting the system urge strategic investment to promote student progress and to ensure rigor, transparency, and accountability in the community college sector" (29). The issue of funding in community colleges is a concern across the board; from institutions in higher income urban settings to those in lower income rural settings and everywhere between, funding affects the resources an institution might employ to educate students. This issue of funding is broad; for the purposes of this thesis I will identify one area that funding affects—digital literacies.   The importance of technology and digital literacies in ePortfolios correlates directly with the lack of technology, or funding for, in many community colleges and presents a challenge for the implementation of a digitally dependent platform.

In an effort to highlight this issue, it is important to acknowledge where community colleges reputably stand in the matter. Due to the vast diversity of community college students, there is a growing concern of the digital literacies of the students entering as first year students. The concept of the Digital Divide was introduced by the United States Department of Commerce in 1998 in their series of reports titled *Falling Through the Net*, and remains a concern today. The reports document the "haves" and the "have-nots" in our economy, and discuss the growing divide between those who have access to technology and those who do not. The increased numbers of students who would fall into the "have-not"

category that enroll in community colleges as opposed to those who enroll into four-year institutions generates a challenge for community colleges to address the issue of the digital divide.

The latest report released by the United States Department of Commerce, titled "Exploring the Digital Nation: America's Emerging Online Experience," gave accounts of broadband internet usage among the households of America. This report acknowledged similar obvious data that realized the different factors that contribute to the Digital Divide, such as demographics, socioeconomic factors, urban-rural divides, and state-to-state differences. The report found that one-third of households in America does not use the internet at home because of expense, inadequate computers, or lack of interest (United States Department of Comm. vii-viii). This data does not suggest that one-third of Americans are illiterate with the internet; however it does provide community colleges with an important number to consider when identifying their students' digital literacies.

Students that struggle with learning how to set up an email account, or even use a mouse and keyboard, would most definitely struggle to navigate an ePortfolio platform and construct a highly interactive ePortfolio. However, learning digital literacies and constructing ePortfolios need not be mutually exclusive activities. Adam J. Banks discusses the issue of the digital divide in his article "Oakland, the Word, and the Divide: How We All Missed the Moment," and claims that teachers "must make sure clearly articulated pedagogical goals drive all technology decisions so that purchases, training, and planning related to technology implementation remains relevant to the learning, social, political, and economic needs of those we hope to serve" (837). Banks' comments on the importance of defining pedagogical goals when implementing technology may guide a community college

with a strict budget to focus on the most important outcomes they wish to achieve, and to seek appropriate avenues within the limits of their resources. For the implementation of a program such as ePortfolios, this might mean to consider free software such as Google Docs or Wordpress.

Cynthia Selfe and Richard Selfe also address technology in the English classrooms of less affluent or resource-rich schools in their article "The Politics of Interface." Selfe and Selfe argue that English instructors should, "acquire the intellectual habits of reflecting on and discussing the cultural and ideological characteristics of technology—and the implications of these characteristics—in educational contexts" (484). The authors reference ideas presented by Banks that schools with fewer resources and higher student populations of minorities use technology in different ways than do schools with more funding and fewer minorities. For schools with less funding, fewer options in technology, and larger populations of students with limited digital literacies, it is imperative for instructors of English influence students to become critics of technologies. By teaching students to investigate such issues as access to technology, design of technology, and ideologies associated with technology, we can use the limited resources available as catalysts for inquiry.

To address the issue of the Digital Divide, community colleges must employ strategies to educate those students that need remedial instruction in technology, without expending their technology budgets on those remedial tools. Some institutions have found a way to combine the use of ePortfolios with competency in digital literacy development. Patrick Cox of Deeside College explains in his article "How ePortfolios Helped Us Improve Our College's Digital Literacy" how the use of In-Folio platform improved students' digital

literacies. The platform, which was developed specifically for students with developmental

learning needs, was "clear, adaptable, and allowed significant flexibility in how it could be

used." By employing what Cox termed online Personal Learning Plans (PLP), Deeside

College allowed students to take their learning in their own hands, and through the use of

their In-Folio system, students were able to identify their own goals, and then display and

monitor them with their tutors and instructors. Each student in the In-Folio system created a

personal profile with photographs and update information about their hobbies and interests,

which was shared with their personal tutors in a co-particpatory attempt to construct a

learning plan for digital competencies for the duration of their study.

Bret Eynon, Laura Gambino, and Judit Török emphasize the importance of platform

consideration in their report, "ePortfolio as a Technology: How Can Platforms Make a

Difference?" The authors suggest "choosing an ePortfolio platform is a critical institutional

decision that requires collaborative planning, goal setting, evaluation, and decision-making

processes" (1). Collaboration among primary stakeholders such as "faculty and staff,

assessment leaders, IT managers and other campus administrators" is important for choosing

a platform that will focus on student learning, while also acknowledging that cost will play a

prominent role in the decision (Eynon et al., *Platforms* 2). As with Deeside College, the

platform chosen must focus on the needs of the specific college. In order to narrow the

divide inside individual institutions, community college administrators and faculty need to

collaborate as one and identify the goals of the institution in accordance with the limitations

presented by the digital literacies of the student population.

The AACC seeks to improve measurement of student learning and employment-related outcomes among community colleges nationwide. The implementation guide's 7th recommendation states: "*Implement policies and practices that promote rigor, transparency, and accountability for results in community colleges*" (34). To that end, the AACC recommends community colleges adopt a framework developed by AACC, ACCT, and the College Board called the Voluntary Framework of Accountability (VFA). This framework seeks to gauge the performance of students with the unique make-up of community colleges in mind, i.e. the diversity of student populations and the unique missions of community colleges. The report on the VFA claims that existing tools of measurement tend to overlook "the crucial roles that community colleges play in providing developmental education, transfer opportunities, and workforce preparation (*VFA* 6). The AACC is concerned that existing measures "do not adequately capture information that is relevant to actual community college students' experiences and the institutions that serve them" (*VFA* 7). The AACC has worked to develop the VFA by giving the lead to community colleges in the development process in an effort to implement a new system of accountability customized for community colleges and universally sustainable. The system of metrics developed is too in-depth for this thesis to confront; however, the VFA identifies categories of measures that connect with what this thesis has been discussing on ePortfolios' benefits to assessment and outcomes. The categories identified by the VFA are: student progress and outcomes; career and technical education; adult basic education and the general equivalency diploma; and student learning outcomes. These categories are meant to measure a community college's performance with the idea that the data will provide a look into the "actual community

college students' experiences and the institutions that serve them." As we have seen, ePortfolios offer reflective and honest views of those experiences in first-hand accounts from students and faculty. While the VFA is a valuable system to implement in community colleges, I believe data that can be gleaned from ePortfolio programs, such as the demonstration and assessment of knowledge transfer between courses and subjects, may supplement the measurements collected by the VFA, and thus provide a better overall picture of students' experiences and community college accountability.

Reconceptualizing Accountability

In their conclusion chapter in *Electronic Portfolios 2.0*, Barbara Cambridge, Darren Cambridge, and Kathleen Yancey explore how ePortfolios can reconceptualize accountability. The authors discuss the inadequacies of one-time tests as appropriate for outcomes assessment, and label ePortfolios as the "antidote." Universities and community colleges across the nation have demonstrated that ePortfolios "can provide institutions with rich evidence of student learning on which to base curricular, pedagogical, and budgetary decisions" (195). They claim that ePortfolios can replace existing assessment procedures as a more "responsible" method because they involve the student in learning and assessment.

Considering the same issue, Stephen Acker of Ohio State University suggests that ePortfolios are "authentic" examples of student learning, and as "directly observable data" could supplant the proxy data for institutional quality (123). Acker's suggestion that ePortfolios provide directly observable data is demonstrated throughout institutions that have successfully implemented ePortfolio programs into their curriculums. Boston University uses a rubric developed by the American Association of Colleges and Universities VALUE project, which assesses students' levels of competence in critical thinking and perspective

taking, writing skills, and awareness of rhetorical and historical contexts. Boston University uses the rubric to assess their ePortfolio program in their College of General Studies. By incorporating the principles of inquiry, reflection, and integrative learning laid out by the C2L collaboration, Boston is able to gather quantitative data on the effectiveness of student learning and knowledge transfer with ePortfolios in the General Studies programs.

In a similar manner, Kapi'olani Community College (KCC) has utilized instruments of assessment to display the effectiveness of their ePortfolio program. The researchers at KCC administered the Learning and Study Strategies Inventory (LASSI) and the Na Wa'a ePortfolio Survey, a survey based on the Community College Survey of Student Engagement (CCSSE). Judith Kirkpatrick et al. of KCC analyzed the data collected and combined it with analysis of both students' reflective analyses and faculty feedback in an effort to construct a broad, yet very detailed, measurement of student performance. Kirkpatrick et al. observed that the measurements "present a picture of students who feel connected to their learning and who feel empowered to extend what they have learned to other venues" (101).

Diversity in Accountability

The challenge of using ePortfolios as assessment tools in community colleges stems from the unique diversity among student populations and the various missions of individual community colleges. As Thomas Edwards and Colleen Burnham of Thomas College suggest, "we must find creative and convincing ways to demonstrate student achievement" (89). Thomas College uses ePortfolios as a tool for more than student assessment, but institutional assessment as a whole. The authors comment, "by using ePortfolios to bridge the gap between mission and student achievement, we offer our students and the public a far richer, far more compelling picture of who we are and what we do" (89). Thomas College

has identified links between its institutional assessment of ePortfolios and individual items on three measures—the National Survey of Student Engagement, the Standardized Assessment of Information Literacy Skills, and the standards of the New England Association of Schools and Colleges. By combining institutionally customized assessment methods with national and regional, standardized assessment tools, Thomas College has implemented a creative solution to presenting ePortfolio outcomes as viable data to sustain its program and measure its progress.

The use of portfolios in assessment procedures thrives among diverse populations because of how personal portfolios may be. The advance to ePortfolios from traditional portfolios improves assessment procedures by increasing the accessibility of information and giving schools the unique ability to store large amounts of multimodal student artifacts within the grasp of multiple audiences of administrators and faculty. Whether using regional, local, or national standards, ePortfolios provide visual and quantitative measurements as well as reflective and integrative assessments on student and institutional progress. By supplementing the AACC's VFA with customized surveys and data systems specific to each community college's mission and goals, and backed by the values of inquiry, reflection, and integration seen in ePortfolios, institutions across the nation are able to promote the rigor, transparency, and accountability called for by the AACC's report.

Conclusion: Reflecting Success

It is essential for any program to discover what questions need to be answered, what is needed to answer those questions, and where those answers will take you. There is always a specific context in which each individual community college is situated. What works for one institution might not work as well for the next. As we have seen in this thesis, there have been several community colleges that have successfully fulfilled the recommendations presented by the AACC through the implementation of ePortfolio programs, including: LaGuardia Community College, Salt Lake Community College, Guttman Community College, Tunxis Community College, and others. Some questions I want to follow up on in this conclusion are: What did they do right? How did they do something other schools have been unable to do effectively?

While funding is an obvious issue, it varies so much from one institution to the other that anyone might be hard-pressed to identify a solution for the questions above. The AACC has provided a report with universal themes that, on the surface, appear to be helpful in any context. The evidence of ePortfolio effectiveness presented in this thesis seeks to remain universal as well; however, the CCCC position statement on ePortfolios recognizes the complexity of the situation when they describe ePortfolio programs as "dynamic, in-progress projects that necessarily undergo changes that are influenced by institutional exigencies and available resources." Customized implementation plans are a must; but a universal skeleton provides a reasonable place to start. With this in mind, I plan to focus my concluding

statements on the beginning. The initial planning phase of ePortfolio programs is crucial

because, without a strong foundation of inquiry, no endeavor so transforming will get past

the idea and into the action. The inception of the idea must come from faculty, and the

recruitment of faculty is key to successful implementation. It may seem self-evident, but the

simple fact that without faculty support ePortfolios will not last because it is the faculty that

teach, demonstrate, and assess the portfolios. Professional development programs are

essential in gaining faculty support and awareness. There are many ways to raise awareness

of the potential behind ePortfolios, and among the best ways are workshops. Once you have

lured faculty to the workshop with the promise of a free lunch or a small stipend, then the

real work begins. It is important to gauge faculty's level of awareness on the potential of

ePortfolio concepts such as reflection, inquiry, and integration and to construct a workshop

appropriately. For example, faculty in the composition departments will most often be aware

of the scholarship behind reflection in writing processes, and in turn the potential for

portfolios in the classroom. Many composition departments most likely employ hard-copy

portfolios into their curriculum already, therefore workshops that center around the need for

ePortfolios and the scholarship that reflects the benefits of that transition will be necessary.

If faculty do not believe in ePortfolios, there is no foundation on which ePortfolios

can be built. Faculty must be made aware of the benefits of ePortfolios for their students, but

also for their own teaching and professional development. Pace University employs a

professional development strategy that strives to raise awareness of what ePortfolios do for

their students and simultaneously teaches faculty how to teach ePortfolios in the classroom.

By using a practical approach that puts the teacher in the place of the student by encouraging

faculty to make their own ePortfolio during the workshops, Pace University has established a

professional development program that actively integrates the pedagogy of ePortfolios into curriculum development and professional development. Faculty are asked to keep a journal in their ePortfolios as the semester proceeds and to consistently reflect on the processes by which they teach with ePortfolios in the classroom. This practice encourages metacognition and self-recognition in the faculty member by enabling them to not only reflect on the effectiveness of the heuristic in their students, but to reflect on their own processes of teaching the tool.

During these workshops it is useful for composition instructors to learn how they can teach and demonstrate ePortfolios in the classroom by stepping into the student's shoes for a moment; however, we must not forget to instruct faculty on the importance of assessment. For composition faculty who have experience with hard-copy portfolios, there is simply a need to discuss the differences between hard-copy and electronic portfolio assessment. A demonstration of the scholarship behind the transition from print to electronic is essential, as is the importance of digital literacies in universities, especially for those students who wish to transfer from the community college into four-year institutions where technology resources and digital literacies may be far more accessible and encouraged. Advising faculty to understand the need for students to acquire these digital literacies is imperative to supporting a foundation for assessment procedures in ePortfolios. As writing advances digitally, so must students' abilities to communicate through these technologies. This concept can be uncomfortable for some instructors, but with appropriate professional development workshops, mentorships, and resources we can teach composition instructors how to teach, demonstrate, and assess ePortfolios in a student-centered way that will show marked improvement in student outcomes.

While faculty buy-in is of extreme importance, student buy-in is also important if ePortfolios are to be properly initiated. As any faculty member will agree, students are the priority when considering anything new in the institution. Gathering support in the form of student buy-in is critical in the initial pilot phases of any implementation program. The act of gathering this support can come in many forms. From randomly selecting students to generating interest in the program through flyers and tables of free cookies, the keys to beginning are to find students willing to put in some extra time to try something new, and then to create awareness of the benefits to other students by using those first students as examples. Following the progression of digital media, many schools have gone to making videos that create awareness for new programs. Appalachian State University, which is still in its pilot phase of ePortfolio implementation, has created a video that centers around a select few students' ePortfolio experiences and how it has helped them to think more deeply on topics in their discipline and helped them to construct a collection of artifacts that will help them in their professional lives. Many schools, including LaGuardia Community College, Tunxis Community College, and Salt Lake Community College, have employed the use of student-centered videos to support the ePortfolio development through the pilot phases.

Many times free food or digital media will attract students to at least pay enough attention to be introduced to something new. There other way schools can recruit those initial students to experiment with new tools of learning, such as offering extra credit in the classroom for participation, spreading eye-popping, persuasive flyers around campus, or simply petitioning for students' time as they walk to class to discuss taking part in something new. The resources employed must depend on the institution and its individual resources and

willingness to put in the effort. One example of institution-specific recruiting can be seen in Appalachian State University's "Aportfolio (ASU's term for ePortfolios) Scholars Award," which allows students to enter a competition that awards an iPad Mini to the student with the best Aportfolio site. Since ASU's ePortfolio program is still in the pilot phase and in need of student examples and buy-in, this strategy hopes to recruit more students to construct an ePortfolio, and also to talk about the program in general. Amassing student experiences with a new program, collecting positive results in those experiences, and then spreading awareness of those results in a way that students will appreciate are key moves when increasing student buy-in. By showing students that your new program will benefit their current studies and their future course of job searching, all while being fun but without making learning more difficult will ensure you have students on board. Without the support of a diverse representation of the student body, ePortfolio program implementation will not survive the first testing phase. By focusing initial efforts on convincing those groups of people that will be working day in and day out with ePortfolios, community colleges may develop a successful program.

From Inception to Faculty Support

In an effort to provide schools with a detailed set of universal standards that may be customized for any context, the Making Connections National Resource Center (MCNRC) reported a list of core strategies that were identified and initiated during the planning phases of the community colleges listed in this thesis. These strategies offer a valuable model for any school in the initial planning phase. Institutions like LaGCC were successful in their implementation phases because of how thorough they were in the planning phase. The list

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provided by the MCNRC, and collected by Bret Eynon et al. includes 10 core strategies as follows:

> 1) Developing an effective campus ePortfolio team; 2) Connecting to programs; 3) Connecting to high-impact practices; 4) Engaging students; 5) Advancing through professional development; 6) Building strategic connections to outcomes assessment; 7) Making use of evidence; 8) Leveraging resources; 9) Aligning with institutional planning; 10) Building a culture of learning. (*Scaling Up* 1)

These strategies were identified and planned out thoroughly before implementing the programs. This initiative was conceived prior to action and proved essential for these institutions to limit excessive expenditures or energy in endeavors that did not serve the established goals and outcomes for the programs.

The list provided is not all-inclusive and does not provide a total safeguard from hiccups along the way; however, extensive planning will help to limit those hiccups into manageable intervals. There are many variables that play into the hiccups an institution may encounter and identifying them all is beyond the scope of this project. However, some of the most common obstacles can be overcome by aggressive planning and identification of local concerns within the institution. The issue of funding will always be an obstacle when trying to implement something as potentially expensive and large-scale as ePortfolios. J.S. Dunn Jr. et al. identify one solution to expensive "from-scratch" ePortfolio software options in their article "Valuing the Resources of *Infrastructure*." Dunn Jr. et al. address the functionality of "off-the-shelf" options they used in Eastern Michigan University's First-Year Writing Program. By employing much cheaper platforms, such as Google Docs, Google Sites and WordPress, Dunn Jr. et al. were able to implement this technology even though their

resources were limited. These cheaper options, in turn, increased administrative buy-in and made the program more sustainable from a financial perspective.

Another obstacle almost every institution will encounter is professional development and sustainable interest among faculty in the ePortfolio program. This can be counteracted by continuing education and support for faculty through workshops, mentor programs, and the addition of ePortfolio lab hours. Workshops have proven effective for issues in professional development and as ePortfolio technology advances, continuing education through workshops will become more important. It is imperative to lead the workshops with current best practices in ePortfolio pedagogy, as well as quantitative and qualitative data that persuades new and on-the-fence faculty that ePortfolios can benefit all faculty's curriculum. Mentor programs, especially those that not only include faculty mentors but also student mentors, can give students and faculty one-on-one interactive guidance with ePortfolio construction and maintenance. The addition of specified lab hours held somewhere on campus will work similarly to campus Writing Centers; by giving students and faculty an identified space to work on ePortfolios, institutions can support the program by establishing the importance of its existence. In the end, ePortfolio teams must consistently gauge the awareness and interest in the ePortfolio program throughout the institution's faculty and administration, and plan accordingly in an effort to sustain the importance of the program's presence.

The AACC's implementation guide discussed in this thesis asks a simple question that follows their list of recommendation strategies: "How can colleges do this work?" (37). As the MCNRC declares in their first core strategy, the AACC suggests a focus on leadership. To implement the change required for the AACC's goals to be met, colleges

"will have to restructure priorities and reallocate resources to accomplish the critical work called for" in their report (37). In order to do this, leadership must be established and recognized as essential to implementation of programs that will facilitate the goals acknowledged. Eynon et al. state that successful ePortfolio leadership teams should possess characteristics from the following list:

> Diverse compositions representing different roles in the institution, including faculty representation; a formal process for meeting and communicating with each other; the ability to collaborate, distribute responsibilities, and meet deadlines; interest in engaging with the larger ePortfolio field; regular access to one or more administrative stakeholders at the institution; connections to professional development…technical expertise…institutional research…and student affairs. (Scaling Up 2-3)

Leadership is the key to success in ePortfolio implementation because faculty engagement in the issue is of the utmost importance. The AACC agrees in their implementation guide that faculty engagement is the next step toward implementing change. The importance of faculty recruitment is essential, and it can be done by: "demonstrating that the status quo is not sufficient, citing data to build a sense of urgency for reform…and redesign pedagogy and course content to meet the needs, learning styles, and expectations of 21st-century students" (38). The importance of faculty engagement can be seen in another demonstration from the team at LaGCC, who worked hard to encourage a majority of their degree programs to take part in their ePortfolio initiative. An instructor from LaGCC commented:

> There's no question that, at LaGuardia, our most successful ePortfolio practice has emerged in programs that have adopted ePortfolio across the curriculum…When

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students work on their ePortfolios in every course, they are more likely to recognize

its value and to use it productively. (Eynon et al., *Scaling Up* 5)

Eynon et al. claim ePortfolios are a "natural fit for incorporating their use throughout a

degree program or major" because of their integrative nature (*Scaling Up* 5). The ideas of

social pedagogy and integrative learning in ePortfolios presented earlier in this thesis are key

tenets for presentation when recruiting faculty. The social theme of connection among

departments that ePortfolios provide extend to more than just pedagogy; for example,

LaGCC connected their ePortfolio initiative with program assessment and review, which in

turn strengthened both the ePortfolio model and assessment at the college (*Scaling Up* 7).

Though these success stories show that participation across disciplines is important

for successful ePortfolio sustainability, there must be a starting point somewhere. Many

colleges have piloted successful programs by starting small. Tunxis Community College's

(TCC) initial ePortfolio program began in the Computer Information Systems and Dental

Hygiene programs. TCC's ePortfolio leadership team then used the programs as examples of

the effectiveness of ePortfolios, and thus encouraged other programs such as the Business

Administration and Early Childhood Education programs to join next. When these programs

were established, TCC focused on building a network of connections by integrating

ePortfolios into their First Year Experience Course and Capstone Experiences in the degree

programs mentioned above. The Capstone ePortfolios made the benefits of ePortfolios

visible to faculty in other departments.

Faculty Support Backed by Student Engagement

Faculty buy-in is crucial, but so is student buy-in. Students are capable of taking their

learning in their hands, and those who do so appreciate institutions that strive to provide

learning outcomes that are proven and substantial. As ePortfolio programs spread across

disciplines, the integrative learning of ePortfolios deepens for students and faculty. SLCC

successfully implemented ePortfolios into their General Education courses; this action has

allowed SLCC "to knit together each student's Gen Ed experience as they collect their

artifacts and reflection from each course…students are significantly more aware of the

College's learning outcomes now than before the ePortfolio was introduced" (Eynon et al.,

Scaling Up 6). The initiation of ePortfolios at SLCC was ambitious. Like LaGCC, and

others that have successfully implemented ePortfolios into the curriculum, SLCC began with

establishing the goals in which were most important to their specific institution: promoting

engagement and intentionality among students, cohering to their General Education program,

and accurately and effectively assessing the General Education program through the use of

the ePortfolios. When SLCC began their ePortfolio initiative in 2001, they set specific goals.

Many of these goals were not reached in the time they wanted, however, SLCC's ePortfolio

team did not waver in their endeavors. Faced with a decision in 2005 on whether to

implement the system in a small-scale or large-scale, SLCC chose the latter and it worked.

This approach was different from many institutions, but worked for SLCC because of the

institution-specific goals that they had established from the beginning, and because they put

student engagement as priority in the operation. Since SLCC wanted ePortfolios to begin in

the General Education program, they did not hesitate when complications arose, such as

faculty buy-in and technical support. This approach worked for SLCC because they valued

student buy-in as much as faculty buy-in. SLCC, through the use of videos, handouts, and

workshops, engaged students with the implementation process, and used the student support

they raised as a catalyst for administrative and faculty buy-in (Eynon et al., *Scaling Up* 7). In

this institution, student buy-in is reported as more important than faculty buy-in, which supports the idea that implementation is context-based and institution-specific goals and questions must be investigated before applying any universal appeals.

The AACC's implementation guide concludes with a declaration that community colleges may imagine success in the future if the right amount of hard work is involved. The challenges, such as "constrained resources, complex politics, community college people and partners working harder than perhaps they ever thought they could," are realized as "daunting but also doable," and in the end, "simply necessary" (44). There are many ways community colleges may go about fulfilling the needs the AACC has identified; I argue that ePortfolio programs can change the face of each institution. The benefits of this pedagogical tool are vast and various—from an instrument of reflection, integrative learning, social awareness, and critical development to a method of outcomes assessment, transparency, professional development, and accountability—ePortfolios have been shown to address the needs of students and faculty alike, and to foster a collaborative experience that encompasses the missions of community colleges across the nation.

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