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Does the ePortfolio Platform Matter? A Focus on Student Choice, Preference, Motivation, and Learning Alliance at a Hispanic Serving Institution

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Many universities are integrating ePortfolios into their curriculum. There is little guidance on how to select an effective platform. Some schools are utilizing their Learning Management System (LMS) or purchasing licenses for programs specific to ePortfolio, while others are recommending free, online website publication sites. With the free options, a new question arises: should instructors (or institutions) allow students to choose their platforms or assign a specific one? Based on a case study chronicling implementation challenges, Fallowfield et al. (2019) recommended allowing students to choose their platform. We engaged in a year-long quasi-experimental study to examine how important the specific platform was to students' learning alliance with the instructor and intrinsic motivation. Additionally, the effect of student choice in platform selection was analyzed. Contrary to Fallowfield et al. (2019), students indicated a preference for the ePortfolio platform choice to be made for them as opposed to making the choice themselves. No difference was found in the learning alliance or intrinsic motivation based upon whether students had a choice in platform, and learning alliance was above average for all student demographics.

ePortfolio continues to demonstrate its relevance and significance as an effective tool and practice for enhancing student learning in higher education (Eynon & Gambino, 2018; Eynon et al., 2014; Jensen & Treuer, 2014; Kuh et al., 2018; Lewis, 2017). Although not identified as one of the original high-impact practices (HIPs), as defined by the AAC&U (Kuh, 2008), ePortfolio was added in 2016 (Watson et al., 2016) and has been shown to enhance the student success of other HIPs, earning it the label of meta-HIP (Eynon & Gambino, 2018; Hubert et al., 2015). ePortfolio has been incorporated into individual courses, across programs, and in some cases, institution-wide (Eynon & Gambino, 2018; Jensen & Treuer, 2014; Lewis, 2017; Yancey, 2019).

More than a repository of information and artifacts, the ePortfolio is a means for students to make connections between concepts, different courses, and experiences in and out of the classroom (Egan et al., 2018; Kuh et al., 2018; Lorenzo & Ittelson, 2005). Since the ePortfolio is not bound by any single course, let alone an institution, it functions as a constant space within which students are able to draw connections as well as observe the evolution of their learning over time across all aspects of their life. This inherent transcendent ability is what gives the ePortfolio its power as a HIP (Eynon & Gambino, 2018). In a prophetic 2012 article considering the trend of ePortfolio adoption, Trent Baston, former President of the Association of Authentic Experiential, and Evidence-Based Learning (AAEEBL), encouraged institutions to strategize how they will adapt to this "disruptive technology" that is likely to influence a shift in the learning paradigm. Indeed, as institutions have continued to implement, learn, rethink, and leverage its

unique abilities as a tool for learning, the ePortfolio's presence and influence continues to grow.

Because of the efforts of the Association of American Colleges and Universities (AAC&U), many institutions of higher education are adopting this HIP as they embark on revisions of undergraduate curriculum with an eye to attracting and retaining 21st century learners in a competitive higher education landscape. At our home institution, Adams State University, the faculty voted in 2017 to implement ePortfolios as a graduation requirement as part of a robust institution-wide curricular revitalization initiative that was planned and implemented over the course of four years. The desire to integrate ePortfolios across departments and programs necessitated that a team of faculty and staff clarify how ePortfolio could be successfully implemented. The team wrestled with best practices for such wide-scale implementation motivated by the potential power for increasing student ownership of their learning, supporting deeper processing through reflection, and promoting life-long learning. A key question surfaced during this work that all institutions or departments must answer: What digital solution for an ePortfolio platform should be selected that would meet the curricular objectives as well as the diverse nuances of academic departments and programs?

High-Impact Practice ePortfolio Platform Requirements

Selecting an ePortfolio platform is a critical task that should consider an array of factors and assumptions regarding its purpose. One primary consideration is that developing self-directed metacognitive engagement

with one's own identity as a learner is central to quality ePortfolio pedagogy (Kuh et al., 2018; Schrand et al., 2018). Reflection on one's development and learning is a central tenet of high-impact ePortfolio practice. This reflective practice prompts students to "think more deeply" about course content and experiences, "make connections between ideas," and "become more aware of their growth and development as learners" (Eynon & Gambino, 2018, p. 17; Schrand et al., 2018). Higher education's information transfer model with its fixed schedules, tendency towards lecture, examinations, and credit hours fragments learning into discrete chunks with connections between courses and disciplines likely unclear to the student. By and large, the student is left to decipher on their own what, if any, content is worth their time to retain beyond examination or course completion. It is reasonable to think that such a context leaves a lot of room for students to conclude that college, in general, is just a process of jumping through various hoops to get a degree. Within this rigid structure, the ePortfolio can provide an intentional space students can leverage to practice reflection and integration of diverse experiences, classes, concepts, thoughts, and actions that occur throughout college and influence their identity development. Therein lies the essential purpose of implementing ePortfolio as an experiential tool to enhance learning; to place the spiraled process of learning through experience, reflecting, thinking, and taking action at center stage in the life of students (Kolb, 2015).

According to Kolb (2015), "space needs to be created in curricula for students to pursue such deep experiential learning in order to develop expertise related to their life purpose" (p. 289). It follows, then, that if high-impact ePortfolio practice means students examine their own identities in their development as learners, then ePortfolio should in principle be a process that can (and perhaps should) start before a student enters college. By the same token, ownership over the process of developing as a learner also means that a student can contextualize the curated ePortfolio content as part of a process of ongoing learning and development that continues after college ends. Since ePortfolio development is ultimately a process of what can be accurately described as identity-making (Kahn, 2019), this process cannot be conceived as ending with a degree in hand. As students evolve, it is likely that their interactions with and within the learning space of the ePortfolio will evolve too. Thus, an ePortfolio platform must also be compatible with student development during college and as they anticipate growth after graduation. This inevitability underscores the relevance of an ePortfolio's portability as students recognize that their ePortfolio can have benefits beyond college.

Another consideration for high-impact ePortfolio practices is that when a student develops an ePortfolio,

they do so with an audience in mind. Lower-impact ePortfolio practice would presumably consist of students developing ePortfolios with only their instructor in mind: what they envision needing to include based on the content of the assignment, what they think they need to do to satisfy the demands of the assignment and course, etc. But when a student develops an ePortfolio for an authentic audience, they do so in the first place with anyone "other than the instructor" in mind (Bass, 2017, p. 66). An ePortfolio done well does not just contain a representation of content that the student intends just the instructor to see; instead, its content is curated also for people external to the classroom whose reactions the student genuinely cares about. Thus, an ePortfolio developed for an authentic audience gives students a sense of ownership over its content as well as a tacit accountability to their intended audience.

On our campus, the presumptive initial perspective was that the ePortfolio would be situated in the current campus learning management system (LMS), Blackboard, as licensed software specifically designed for ePortfolio was determined to be cost prohibitive. Blackboard continued to be the platform of choice for many campus stakeholders because it was familiar and there were resources already dedicated to it for supporting its other curricular applications; therefore, dedicating additional support to an ePortfolio component would be easily accommodated. However, through a focused investigation by a team of faculty and staff into best practices and engaging in conversations with several different institutions regarding their own experiences with platform adoption, it quickly became clear that Blackboard's ePortfolio solution was ill-suited for a successful campus-wide ePortfolio initiative. This information along with Blackboard's lack of portability, design constraints, and other limitations convinced our team that the institution needed to pivot away from the LMS to explore the option of web-based platforms for the ePortfolio. Website publishing platforms offer a high degree of design flexibility, intuitive functionality, and would address the inherent functional needs of the ePortfolio plus offer portability beyond graduation and the ability to reach an authentic audience.

There are several website publishing platforms to choose from that offer an entry level version of their services at no cost with the creation of an account and agreement to the provider's terms and conditions. Some examples include Weebly, Wix, Google Sites, and WordPress. These platforms have similar functionalities such as design templates, drag and drop, and the ability to cache images, videos, and documents on their own servers. The choice to move forward with the website publishing software platform option raised important questions: Which of the platforms should students use?

What are the advantages and disadvantages of a given platform? Lastly, should students be given the ability to choose the platform they use?

Recently, Thibodeaux et al. (2017) and Fallowfield et al. (2019) emphasized the importance of student choice over the ePortfolio platform. They explicitly recommended student choice as part of the adoption process, stressing that giving students this choice will have causal salience in student buy-in (Fallowfield et al., 2019) and encourage continued use of the ePortfolio (Thibodeaux et al., 2017). While allowing students voice and choice in platform selection is an inherently appealing conclusion, thus far, this has not been directly examined empirically. Convinced of the important role of student autonomy and in agreement with Thibodeaux et al. (2017) and Fallowfield et al. (2019) that student voice and choice is a factor for the successful launch of an ePortfolio initiative, we sought to test this empirically.

Institutional Context

Adams State University is a small, rural, Hispanic-Serving Institution (HSI). HSIs are federally designated when a university's undergraduate enrollment is composed of 25% or more Latinx students and greater than 50% of students reporting financial need (Hispanic Association of Colleges and Universities, 2021). In the fall of 2020, Adams State University's undergraduate student body was 36% Latinx, 43% White, and 7% Black (IPEDS, 2020). In recent years, the campus has made an intentional effort to become more serving of our Latinx student population by embarking on a variety of best practices, including updating the university's mission/vision, examining policies and practices of biases, taking a critical look at hiring and retaining diverse faculty, decolonizing the curriculum, and examining disaggregated student data (Bensimon & Malcolm-Piqueux, 2014; Garcia, 2019; Núñez et al., 2015).

Theoretical Underpinnings

A focus on inclusive excellence (AAC&U, n.d.) was a central tenant while developing our curricular reform, which included the addition of several HIPs to the undergraduate curriculum. As exposure to HIPs by underrepresented students has been shown to decrease achievement gaps (Finley & McNair, 2013), critical to the curricular reform resolution was the integration of four HIPs into the curriculum: ePortfolio, first-year seminar (FYS), writing intensive courses (WICs), and capstones. FYS with ePortfolio was piloted and implemented first, with WICs and capstone to follow in subsequent years. In all assessments of these new programs, examining data by ethnicity is crucial to ensure that new pedagogies are effective for our diverse student population.

Beyond a dedication to inclusive excellence and understanding platform adoption as it relates to our context, we were interested in other educationally relevant variables including intrinsic motivation and the student-faculty learning alliance. Regarding intrinsic motivation, it is important to note that a critical ingredient for ePortfolio success is student investment in the tool (Ciesielkiewicz, 2019). Fallowfield et al. (2019) identified a lack of student investment (i.e., voice and choice) in the adoption of the platform as a barrier to the success of their case study. Indeed, decades of educational psychology research has emphasized the importance of intrinsic motivation, doing something "because it is inherently interesting" (Ryan & Deci, 2000a, p. 55), for student engagement and learning (e.g., Deci & Ryan, 1985; Heyman & Dweck, 1992; Pintrich & Schunk, 2002; Ryan & Deci, 2000b; Sansone & Harackiewicz, 2000). Recent research examining student perceptions of the utility of ePortfolios concludes with an explicit recommendation to "include strategies that support intrinsic motivation" (Ciesielkiewicz, 2019, p. 660), and emphasizes the role of motivation in successful adoption. Thus, one of the educational variables of interest in the current study is students' self-reported intrinsic motivation.

We also believed measuring the working relationship between the student and the instructor to be worth investigating. After all, supportive relationships and connecting to faculty in the classroom are important for the learning of all students (Kuh et al., 2010) and are critically important to Latinx student success (Chávez & Longerbeam, 2016; Kuh et al., 2004; Rendón, 1994; Umbach & Wawrzynski, 2005). We were interested in seeing how ePortfolio creation affected relationships between faculty and students across the different platform options.

Current Study

Two website publishing platforms (Wix and Google Sites) were assigned to be piloted across three conditions, including one condition that allowed free choice of platform, in FYS courses during the 2019-2020 academic year. For the purposes of our investigation, we called a platform choice *imposed* when a student or faculty member was assigned the platform they use to build their ePortfolio (either Wix or Google Sites). Conversely, *induced* choice occurred when, independently, the student made their own choice of platform for developing their ePortfolio.

The primary focus of this study was to learn about student perceptions of ePortfolio platforms to guide our university-wide adoption of a platform. Moreover, because it has been recommended in the literature that students ought to choose their platform, we felt it was important to contribute to the literature in this area.

Recognizing student autonomy in selecting a platform of their choice appeared to us to be intuitively integral to ePortfolio as a HIP; however, this aspect of high-impact ePortfolio practice is lacking empirical support. Lastly, as we are embracing best practices at an HSI, we were interested in understanding if there are any differences in learning alliance and intrinsic motivation between Latinx and non-Latinx students, though this was not one of our primary research questions.

We posited the following primary research questions:

1. Do students want to choose the platform they use to build their ePortfolio?
2. Do students have a preference for a particular platform?
3. Does students' motivation (e.g., interest and enjoyment, perceived choice) and perceptions of learning alliance (e.g., collaborative bond, teacher competency, student investment) vary based on the use of different ePortfolio platforms (e.g., Wix, Google)?
4. Is there a difference between imposed vs. induced platforms in students' motivation and perceptions of learning alliance?

Method

We conducted a quasi-experimental study aimed at understanding differences in student perceptions of the platform and whether intrinsic motivation and learning alliance varied by group. There were three groups of FYS courses: (a) an induced group comprised of seven courses in which students were allowed to choose any

platform for their ePortfolio; (b) an imposed Wix group comprised of five courses, in which students were assigned to use the free, online platform, Wix; and (c) an imposed Google Sites group comprised of five courses, in which students were assigned to use another free, online platform, Google Sites. There were 17 sections of FYS included in the study, all taught in-person in the fall of 2019. These sections were taught by 15 faculty and included 374 students. Of these sections, 10 were taught by tenured or tenure-track faculty, four taught by full-time instructors, and three taught by adjunct instructors.

Participants

All students enrolled in the courses were invited to participate in a survey to learn more about their experience. Over the course of one semester, 121 students volunteered to participate in this study (32% of all FYS students). Of this sample, 49 (41.5%) were of Hispanic origin and 69 (58.5%) were of non-Hispanic origin. There were 25 (26.3%) students in the induced condition and 70 (73.7%) in the imposed condition. Of this sample, 30 Hispanic and 38 non-Hispanic students were in the imposed condition, and seven Hispanic and 17 non-Hispanic students in the induced condition. Students in this sample, on average, had completed 31.8 college credits, with a mean age of 19.4. They had an average high school GPA of 3.33, average college GPA of 3.01, and average ACT composite score of 17.74. See Table 1 for gender and ethnicity participant demographic data and Table 2 for age and GPA data.

Table 1
Demographic Frequency Data of Sample

	Characteristic	Counts	% of Total	Cumulative %
Gender identity	Male	37	30.6	30.6
	Female	81	66.9	97.5
	Transgender female	1	0.8	98.3
	Other	2	1.7	100.0
Self-identified ethnicity	Asian/Pacific Islander	4	3.3	3.3
	African American/Black	6	5.0	8.3
	Caucasian/White	57	47.5	55.8
	Hispanic	46	38.3	94.2
	Latino/x	3	2.5	96.7
	Other	3	2.5	99.2
	Prefer not to answer	1	0.8	100.0
Latinx	Hispanic	49	41.5	46.3
	Non-Hispanic	69	58.5	100.0

Note. Participants were recorded as Hispanic or non-Hispanic to examine whether differences exist between these groups as the study was conducted at a Hispanic-Serving Institution (HSI).

Table 2
Demographic Descriptive Data

	<i>N</i>	Missing	<i>M</i>	<i>SE</i>	<i>Mdn</i>	<i>SD</i>
Age	120	1	19.40	0.3910	18.00	4.280
High school GPA	118	3	3.31	0.0639	3.47	0.694
College GPA	97	24	2.98	0.0858	3.05	0.845
Composite ACT	69	52	17.70	0.9900	19.00	8.220
SAT	77	44	53.80	4.2100	67.00	36.900

Measures

Beyond demographic data, we also collected information on the ePortfolio platform participants used (e.g., whether assigned or chosen Wix or Google Sites, or another chosen platform), their preferred ePortfolio platform, and whether participants wanted to choose their ePortfolio platform. Additionally, because there are several individual difference variables which predict and contribute to college performance, and we did not have random assignment, it was important to statistically control for academic performance variables. Thus, we decided to collect data on high school GPA and ACT/SAT scores. High school GPA was included in the analysis because much of the research suggests high school GPA is a predictor of academic success in higher education. Academic success variables including the ACT Composite, or the Scholastic Assessment Test (SAT) scores were collected to control for prior academic performance. Both the ACT Composite and SAT are nationally recognized standardized college entrance examinations that purport to measure academic achievement. Exerting statistical control over these variables diminishes the likelihood that group differences are attributable to pre-existing academic performance.

Learning Alliance

The Learning Alliance Inventory (LAI) by Rogers (2012) is designed to measure the working relationship between the student and the instructor. Specifically, the LAI measures the degree of collaborative bond between student and instructor, how competent the student sees the instructor, and how invested the student is in the course. There are a total of 18 questions on a 7-point Likert scale (1 = *not at all*, 7 = *very much*). Higher scores indicate a higher alliance between student and instructor. Overall, we observed strong reliability of the overall LAI ($\alpha = .96$) and by subscale: LAI Collaborative Bond ($\alpha = .96$), LAI Teacher Competency ($\alpha = .91$), and LAI Student Investment ($\alpha = .97$).

Intrinsic Motivation

The Intrinsic Motivation Inventory (IMI) is a multidimensional measurement device intended to

assess participants' subjective experience related to an activity. It has been used in several experiments related to intrinsic motivation and self-regulation (e.g., Deci et al., 1994; Plant & Ryan, 1985; Ryan, 1982; Ryan et al., 1990; Ryan et al., 1991; Ryan et al., 1983) and has high reliability. The instrument assesses participants' interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure and tension, and perceived choice while performing a given activity, thus yielding six subscale scores. The IMI is 45 questions long on a 7-point Likert scale (1 = *not at all true* to 7 = *very true*); however, we only used 40 questions. Higher scores indicate greater motivation and interest. Overall, we observed strong reliability of the overall IMI ($\alpha = .92$) and the subscales: Value and Usefulness ($\alpha = .97$), Perceived Choice ($\alpha = .83$), Pressure and Tensions ($\alpha = .80$), and Interest and Enjoyment ($\alpha = .89$).

Procedure

Data were collected at the end of the semester by FYS instructors who had the option of providing the survey during class time or providing the link for students to do on their own time. All data were collected online via Qualtrics. The survey was designed to take about 30-45 minutes to complete. The demographic survey, including items about ePortfolio use and preference, was presented first, followed by a random order of the LAI and IMI items.

Results

Student Preference for Choice: Research Questions 1 and 2

To assess research questions 1 (Do students want to choose the platform they use?) and 2 (Do students have a preference for a particular platform?), we ran frequency analyses. Most students used Wix ($n = 61$, 50.4%), followed closely by Google Sites ($n = 56$, 46.3%), with a few students using Weebly ($n = 4$, 3.3%). Interestingly, a majority of students reported that they did not want to choose the platform ($n = 60$, 50.0%) as opposed to choosing ($n = 24$, 20.0%) or "ok either way" ($n = 36$, 30.0%). Furthermore, students had a slight preference for

Table 3
Platform Preference by Platform Use

	Google Sites	Wix	Weebly
Platform Choice			
I want a choice	19	1	4
I do not want a choice	2	58	0
I'm ok either way	35	1	0
Platform Preference			
Google Sites	45	11	0
Wix	3	44	1
Weebly	3	2	3

Table 4
Differences in Learning Alliance and Intrinsic Motivation by ePortfolio Platform Type

Variable	Google Sites	Wix	<i>F</i>	<i>df</i>	<i>p</i>	η_p^2
	<i>M</i> (<i>SE</i>)	<i>M</i> (<i>SE</i>)				
LAI collaborative bond	4.34(0.22)	5.05(0.21)	5.53	1, 100	.021	.050
LAI teacher competency	5.58(0.15)	6.29(0.14)	4.02	1, 103	.048	.040
LAI student investment	4.28(0.28)	4.50(0.26)	1.24	1, 103	.569	.003
IMI value and usefulness	4.29(0.25)	4.01(0.23)	0.64	1, 93	.637	.007
IMI perceived choice	4.33(0.18)	4.00(0.18)	1.65	1, 100	.202	.016
IMI pressure tensions	3.58(0.20)	3.64(0.19)	0.50	1, 102	.824	<.001
IMI interest and enjoyment	3.59(0.21)	3.61(0.19)	0.01	1, 99	.830	<.001

Google Sites ($n = 56$, 50.0%) over Wix ($n = 48$, 42.9%), and both Wix and Google Sites were far preferred over Weebly ($n = 8$, 7.1%). To unpack these results, we thought it was important to determine if the ePortfolio platform used changed their preferences. As illustrated in Table 3, it appears that of the students who used Google Sites, they wanted a choice more often; however, of those that used Wix, they did not want choice as often. Moreover, the ePortfolio platform they used was what they preferred to use.

Differences in Learning Alliance and Motivation: Research Question 3

To assess whether there were variances in participants' perceptions of learning alliance and intrinsic motivations between the different ePortfolio platforms (Wix vs. Google Sites), we conducted seven ANCOVAs on the subfactors of the LAI and IMI while controlling for high school GPA and age. We conducted an ANCOVA because we wanted to reduce potential bias of preexisting knowledge, academic performance, and the possibility of age effects which may unduly influence the impact of the independent variable. Often in scholarship of teaching and learning research, the designs are less controlled, thus using covariates such as age and high school GPA allows us to better understand how the independent variable specifically influences the

dependent variable while improving both internal and external validity (Bartsch, 2013).

See Table 4 for descriptive and inferential data for all analyses. As illustrated in Table 4, students in the Wix platform rated their instructor higher in collaborative bonds and teacher competency when compared to instructors using Google Sites after controlling for age and high school GPA. Effect sizes for these two significant results were small to medium (Cohen, 1988). No other learning alliance differences were found. Also, as illustrated in Table 4, there were no observed differences in students' motivation in the course (i.e., perceived choice, pressure and tensions, and interest and enjoyments) between students using the Google Sites and Wix ePortfolio platforms. As seen in Table 4, generally all participants, regardless of ePortfolio platform type, averaged above 4 (the midpoint of the IMI scale), with the exception if IMI pressure tensions and interest and enjoyment factors, indicating that, for the most part, they were motivated and had a learning alliance with the instructor.

Induced vs. Imposed Choice: Research Question 4

To assess whether there were differences between imposed and induced groups, we conducted seven ANCOVAs on the LAI and IMI respectively. See Table 5 for descriptive and inferential results. Results

Table 5
Differences in Learning Alliance and Intrinsic Motivation by Imposed vs. Induced Conditions

Variable	Imposed	Induced	<i>F</i>	<i>df</i>	<i>p</i>	η_p^2
	<i>M</i> (<i>SE</i>)	<i>M</i> (<i>SE</i>)				
LAI collaborative bond	4.84(0.19)	4.72(0.33)	0.09	1, 84	.762	.001
LAI teacher competency	6.20(0.12)	6.44(0.12)	1.06	1, 86	.305	.047
LAI student investment	4.56(0.23)	4.48(0.39)	0.02	1, 87	.873	.003
IMI value and usefulness	4.15(0.22)	3.99(0.36)	0.14	1, 79	.231	.007
IMI perceived choice	4.17(0.16)	3.94(0.27)	0.53	1, 84	.469	.006
IMI pressure tensions	3.61(0.17)	3.76(0.27)	0.22	1, 86	.641	.003
IMI interest and enjoyment	3.51(0.18)	3.71(0.30)	0.31	1, 84	.573	.004

indicate that, for the subfactors of the LAI and IMI, either imposing a specific ePortfolio platform or letting students choose the platform did not differentially affect the ways students perceived their instructors' learning alliance or change their motivation. No statistically significant differences were found. It should also be noted that for both the induced and the imposed groups, students rated on average above 4 (the midpoint of the IMI scale), with the exception if IMI pressure tensions and interest and enjoyment factors, indicating that, again, they were generally motivated and had a learning alliance with the instructor.

Lastly, because HSI experts recommend disaggregating data based on student demographics (e.g., Bensimon & Malcolm-Piqueux, 2014; Garcia, 2019; Núñez et al., 2014), we examined whether differences in learning alliance and intrinsic motivation existed between Latinx and non-Latinx students. No statistically significant differences were found, indicating that Latinx students were not experiencing any differences in the quality of relationships with their faculty, nor their motivation toward the ePortfolio assignments. This helps us feel confident that we are not perpetuating structural achievement gaps through this change to the curriculum.

Discussion

This was the first study we are aware of to directly and empirically investigate whether students want to choose their ePortfolio platform, and whether an induced or imposed platform affected student motivation and the alliance between students and their instructors. Thus, our findings have some potential impacts for course design and use of ePortfolio platforms. To summarize, our results indicate that students had a slight preference for Google Sites over that of Wix, and both Google Sites and Wix were far preferred over that of Weebly, the only additional platform chosen by students in the induced group. Overall, students preferred the platform they used in their course; however, the most surprising aspect of the

descriptive data is that the majority of students wanted to be told which ePortfolio platform to use rather than having to choose one themselves.

For the most part, using Wix or Google Sites did not affect the learning alliance between teachers and students and did not increase or decrease student motivation. However, when students used Wix, they did demonstrate stronger collaborative bonds with their teachers and viewed them as more competent when compared to students who used Google Sites. In addition, assigning students an ePortfolio platform to use did not change their perceptions of the learning alliance with their teacher, nor did it change their motivation in the course when compared to students who chose their own platform. Finally, it should be noted that, regardless of platform type or giving students a choice in their platform, overall, students had a strong learning alliance with their teachers and were motivated to participate in ePortfolio activities.

Despite the intuitive prospect that choice over platform will contribute to students taking ownership over their learning in an ePortfolio project, students in our sample did not seem to want or need the latitude to survey existing platforms and to make an autonomous determination about which one would be individually the most suitable for their purposes. Interestingly, while we found a slight preference for Google Sites, students that used it were more likely to say they preferred a choice or had no preference compared to students that used Wix (see Table 3). While this finding seems counterintuitive, it is reasonable to infer that their experience in using the Wix platform adequately satisfied the students' needs and desires for ePortfolio tasks.

A more general potential explanation for students actively desiring not to have a choice in platform is that they anticipate the requirements in higher education operating similarly to the requirements in K-12 school. Students are used to being told what to do and how to procedurally accomplish tasks. As the participants in this study were mainly first year students, they were already navigating the new landscape of higher education and picking a platform for an unknown (to

them) activity may have been met with a degree of indifference or may have caused additional and unneeded stress (Amirkhan et al., 2019; Amirkhan & Kofman, 2018). Thus, for campus-wide implementation, our data supported adopting Wix as the ePortfolio platform. Based on our findings, we offer the following considerations for engaging an ePortfolio adoption initiative.

Implications for Implementing a Campus-Wide ePortfolio Initiative

As noted, ePortfolio adoption as a high-impact educational practice is being implemented at universities across the United States and abroad. A critical decision point in this process is choosing the ePortfolio platform. Many viewpoints (student, faculty, IT, administration) ideally inform the decision, but as we encountered at our own institution, those viewpoints tend to skew in the trajectory of whatever gives the least resistance to a course of practical decision-making. The points of view involved in the decision-making process may be differentially influenced by high-impact practices or the experiences of other institutions relevant to ePortfolio usage. For this reason, many institutions may end up with low-impact ePortfolio practice in settling for an already-supported LMS platform.

Our data suggest that, from the student's point of view, it does not matter which platform is used to create an ePortfolio. However, we would qualify this conclusion with the caveat that the quality of the platform still matters a great deal (Lorenzo & Ittelson, 2005). Our data also suggest that tasking students with the responsibility to make a choice about the platform they build their ePortfolio on is to misunderstand the needs of our institution's student population. So long as the platform in question does not lend itself to low-impact ePortfolio practice, as may be the case with an LMS ePortfolio, is likely the case that imposing a platform for ePortfolio development will not detract from a student developing ownership over the process and the ePortfolio itself.

Student choice in platform adoption has been recommended in the literature, yet not been directly tested empirically. While Thibodeaux et al. (2017) and Fallowfield et al. (2019) suggested that students should have choice in their platform, along with several other practical recommendations stemming from Fallowfield's (2019) case study, we did not find evidence to support a desire on the part of students to choose the platform in the population we examined. However, we are unable to generalize from our study to the needs of all students developing an ePortfolio—our sample is small, and the needs of our students may differ because of our institution's unique demographic.

From a practical standpoint, there are compelling reasons for an institution to adopt a single platform, provided it can meet the needs of high-impact ePortfolio development. Having a uniform platform simplifies the experience for faculty and staff. There is only one platform for faculty to learn, teach, and assess. Anecdotally, at the outset of our pilot, some faculty voiced concerns over a multitude of platforms with different layouts, interfaces, and capabilities. A single platform streamlines the ability to provide robust technological support. Additionally, privacy settings vary by platform and by adopting one platform, these settings are widely known and understood across campus. We believed it was important for students to understand the public nature of their data, to give them alternatives to making the data public, and to promote general digital literacy at the same time.

For other institutions embarking on a campus-wide ePortfolio adoption initiative, we acknowledge that there is likely no single ePortfolio platform that will meet every university's unique needs. Though time consuming, we recommend that schools engage in a similar process of pilot testing platforms for adoption and integrating all stakeholders, including students, in determining the platform best suited to the campus culture. We recognize that each institution will have its own administrative process for adopting new technologies and differ in the resources available to invest in ePortfolio initiatives. While we do not recommend the choice be left to the individual students, we do recommend student voice as part of a thoughtful, iterative process to ePortfolio platform adoption. If other institutions with diverse student populations engage in research that generates similar results, then there might be generalizable guidelines for implementing campus-wide ePortfolio. Though there is evidence to suggest imposing a particular platform for our context, there are limitations to the current study.

Limitations and Future Research

As a quasi-experimental design, students were not randomly assigned to the conditions; instead, faculty had the option to choose the platform with which they were most comfortable. Some faculty had prior acquaintance (and in some cases expertise) with the platform group they volunteered for, and some had no experience with the platform they were assigned if they did not volunteer. So, we could not control for how well a given instructor knew the platform and how students perceived the ePortfolio assignment. This kind of discrepancy, however, usually does not bear on the decision-making apparatus of platform adoption at the campus-wide level.

In addition, we could not control for students' experience with website development in general.

Anecdotally, we know of students who were either especially pleased to be in the imposed Google Sites or Wix groups because of having had experience outside higher education developing websites on those platforms. We can imagine a student with a background in either platform having a desire to have that specific platform imposed, presumably not because they lack a general desire for a choice in the matter, but because they perceive themselves benefiting from an assignment whose requirements play into strengths they have already developed. Moreover, students were not involved in the selection process for the two ePortfolio systems that were tested, so no student input was included prior to the survey.

Another limitation was variation in the structure and content of the ePortfolio assignment in any given FYS course. FYS instructors worked closely with the ePortfolio and FYS coordinators overseeing the project, but there were some individual differences among faculty approaches to the assignment. Yet, these faculty followed a standard protocol developed by the ePortfolio coordinator and FYS coordinator. We want to stress that these data do nothing to suggest which particular platform should be adopted for ePortfolio practice at a given institution. If anything, we have shown that it is likely the case that student needs differ based on the demographic composition of the student body, as well as the involvement (or lack thereof) of stakeholders who give shape and clarity in how to best address student needs.

One intriguing area for future research to explore potential explanations for why first-year students may prefer not to have autonomy over platform choice. As mentioned previously, the participants in this study were mainly first-year students, and they were busy navigating the new landscape of higher education. Being tasked to pick a platform (among the many other new choices students are confronted with in the first year of college), students may have met this task with a degree of indifference, or it may have caused additional and unneeded stress. Emerging research on the impacts of stress on academic performance especially in first-year students is relevant to this topic of supporting student choice and should be investigated further (Amirkhan et al., 2019; Amirkhan & Kofman, 2018). In addition, more information relevant to explaining the lack of desire for autonomy over platform choice could be found by surveying students who have cultivated higher degrees of ePortfolio literacy than novice first year students. Those students might develop a stronger desire for autonomy over platform choice as their ability to curate and develop ePortfolio content strengthens over time.

Conclusion

Choosing a digital platform is a major step in implementing ePortfolio. Institutions will ultimately

choose to adopt a technology solution that is, in their opinion, the right tool for the job based on their needs and beliefs. Because of the nature of the student-centered, reflective, process-oriented ePortfolio pedagogy, it stands to reason that this essential choice will impact how students and faculty engage with and perceive the utility and value of the ePortfolio. We set out to help clarify a key element involved in this choice. We sought to understand if students preferred to have a choice in the platform they used and if the use of one particular platform had any impact on intrinsic motivation or learning alliance. This investigation was guided by the assumption that if students start their ePortfolio off with this choice, it may support their motivation to continue to engage in the ePortfolio. While we still believe that autonomy is an essential component of learning and in ePortfolio, our data failed to support the claim that students prefer to have a choice in the ePortfolio platform. In addition, the data did not reveal that intrinsic motivation differed depending on platform. The good news is that on average, regardless of ethnicity, students felt a strong collaborative bond with their instructor, they felt that their instructor was competent, and students felt invested in the course as measured by the LAI (Rogers, 2012).

We still support student autonomy. Intuition, certain accounts of human nature, and the literature all champion the vital role of autonomy. When autonomy is stifled, and quite often this is the case in education, intrinsic motivating factors such as interest, curiosity, playfulness, and persistence suffer. HIPs done well support autonomy. However, it is clear in this case that tasking students with the responsibility to choose what platform they build their ePortfolio on, given the needs of our student body, adds a redundant dimension of freedom into the development of the ePortfolio. More research is needed, however, to understand why.

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The 6A ePortfolio Model: Professionalizing Learning in Higher Education

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In this article, the researchers propose a student-centered, six-step model for implementation in higher education to transform learning ePortfolios into career ePortfolios. Using the integrative literature review as a research methodology, this article surveys peer-reviewed articles of ePortfolios with the goals of contributing to knowledge regarding career ePortfolios and creating an implementation model for campus-wide adoption by students, faculty, and administrators. This article then presents an overview of strategies that all individuals in higher education can take to transform learning ePortfolios into career ePortfolios as students complete their degrees and initiate their job search.

Research finds that use of ePortfolios leads to increased academic performance and deepened intellectual engagement (Ring et al., 2017). In addition, the use of ePortfolios in the classroom can be connected to active learning and high-impact practices (Nagle et al., 2019). A benefit of ePortfolios is the focus on processes instead of single deliverables, a manifestation of shifts in higher education exemplified by ePortfolios (Slepcevic-Zach & Stock, 2018). Because ePortfolios allow students a medium through which to ascertain and manage what they know, socially-networked ePortfolios are effective at fostering goal setting and learning strategies, corroborating that ePortfolio experiences engage individuals' ability to learn and acquire skills (Alexiou & Paraskeva, 2020). Given these benefits, ePortfolios provide an effective strategy to foster professional development (Coric Samardzija & Balaban, 2014).

ePortfolios have a unique capacity to measure professionalism, assess professional development, and juxtapose students' progress against professional criteria over time (Whitney et al., 2021). Furthermore, they permit the assessment of professional development after graduation and throughout alumni's careers (Watty & McKay, 2015). In addition, research has demonstrated that students find ePortfolios valuable for job seeking (Wakimoto & Lewis, 2019) and career advancement (Cieselkiwicz, 2019). Regardless of perceived benefits, the adoption and implementation of ePortfolios in higher education has historically faced several challenges (Deneen et al., 2018). One of the most prominent challenges is for students to provide a clear distinction between learning or assessment ePortfolios and career ePortfolios and how an ePortfolio can be used for career success and advancement purposes (Boulton, 2014; Tzeng & Chen, 2012). For this reason, the researchers of this study argue for the need of a model that not only demonstrates the clear distinction between learning and career ePortfolios but also how career ePortfolios can be used as career success tools after adaptation of learning ePortfolios. In this study, we aspire to provide higher education institutions with a model for programmatic

implementation of ePortfolios that bridges learning and career readiness and success. Evidence of the lack of this type of research (Clayson, 2019) motivates this study and proposed model for implementation. Even though relevant work about career ePortfolios is found in the literature (Coric Samardzija & Balaban, 2014; Rowley & Dunbar-Hall, 2015), there is still a need to expand the knowledge about this type of ePortfolio given that many employers are still unfamiliar with them (Leahy & Filiatrault, 2017; Tzeng & Chen, 2012).

The model presented in this paper also specifies the types of skills and levels of mastery that students who follow it can gain. These findings are aligned with research that promotes the use of ePortfolios in instruction given their impact on students' learning and growth (Ring et al., 2017). Recognizing evidence of correlation between grades and job performance (Walton et al., 2015), this model might help researchers identify factors that influence students' success in securing employment. Made possible by the model, such study is feasible given the longitudinal nature of students' transition from student to professional.

For this study, the overarching research question is: What process can students follow to professionalize their learning and adapt learning ePortfolios into career ePortfolios?

Literature Review

Types of ePortfolios

Given the lack of clarity that some students have about the types and purposes of ePortfolios (Tzeng & Chen, 2012), it is important to establish a clear distinction between the three types of ePortfolios: learning, assessment, and career ePortfolios. The learning ePortfolio is used at the course level as part of the curriculum of a student and includes a reflection process as well as a focus on the learning process (Coric Samardzija & Balaban, 2014; Fuller, 2017; Mihret et al., 2017). On the other hand, assessment ePortfolios are used at the program level and require the

demonstration of specific criteria or competencies (Garrett et al., 2013; Harver et al., 2019; Moon-Kwon Jun et al., 2007). Finally, career ePortfolios are used to showcase knowledge, skills, and abilities to potential employers in the job application process and for overall career success and identity (Bennet & Robertson, 2015; Nino, 2018; Ring et al., 2017).

ePortfolio Models and Frameworks

Existing ePortfolio implementation models and frameworks have focused on learning ePortfolios (Alexiou & Paraskeva, 2020; Mazlan et al., 2015; Roberts, 2018) and assessment ePortfolios (Kelly-Riley et al., 2016; Ring, 2015). Shin (2013) proposed an ePortfolio framework for research and assessment purposes, whose goal is to collect data from learners about specific tasks over periods of time. Other frameworks and models have added components of personal development, integrative learning, and reflections (Buyarski et al., 2015; Chen & Penny Light, 2010). ePortfolio frameworks have also been used to study and foster student growth through reflective practice (Pitts & Ruggirello, 2012).

In some instances, ePortfolio frameworks have been developed for curricular learning purposes, but their goal is to promote lifelong learning skills (Jones & Leverenz, 2017). Furthermore, models for measuring the success of ePortfolio programs at the student level have also been created (Balaban et al., 2013). Eynon et al. (2017) created the Catalyst Framework, which is focused on ePortfolios as a high-impact practice that promotes student success, making learning visible, and learner-centered institutional change. Based on this framework, Pitts and Lehner-Quam (2019) developed the ePortfolio Social Pedagogy Ecosystem, which allows learners “to document their growth in knowledge practices and dispositions in information literacy” (p. 29).

In addition, other frameworks have been created for campus-wide implementations, focusing on all the resources and stakeholders that need to be involved for successful adoptions at the institution level (Blevins & Brill, 2017). Other ePortfolio implementation models have focused on technology and social media integration, as well as the uses of ePortfolios for employability purposes (Bekri et al., 2013; Jwaifell, 2013). Jwaifell (2013) proposed a model that focused on the use of social media and government websites to use ePortfolios for employability purposes. Similar career ePortfolio frameworks and models have focused on the elements that should be aligned and constructed by student themselves to make learning more effective (Cordie et al., 2019).

Some ePortfolio models have been designed to enhance learning and development activities that are not directly connected to the classroom, such as

advising (Ambrose & Ambrose, 2013). Similarly, ePortfolio frameworks have been created for faculty engagement and their purposes for continuous learning that can have an impact on their teaching practices and effectiveness (Ring et al., 2016).

Career ePortfolios

The growth of career ePortfolios has prompted research that connects ePortfolios to impacts such as career readiness (Clayson, 2019) and effective job placement (Lievens, 2014). By developing ePortfolios, students can make strong career connections before entering the workforce, which allows them to prepare, in an effective and timely way, for the job search process (Whitney et al., 2021). In addition, career ePortfolios are widely used by students and even promoted in ePortfolio programs in higher education (Okoro et al., 2011). This is a result of ePortfolios having the potential to connect students to the workplace and prepare them for the realities of the job market (Ciesielkiewicz, 2019). In a study of business education and development graduate students, participants reported they liked the use of ePortfolios for job applications, with 64.5% also claiming that ePortfolio supported their career orientation (Slepcevic-Zach & Stock, 2018). Some studies have pointed out that in some fields, the use of a career ePortfolio is part of the job posting, with several hiring managers considering ePortfolios a valuable tool for recruiting purposes, for gaining broader and more detailed information about candidates, and for selecting them (Ciesielkiewicz, 2019). Moreover, ePortfolios used for career purposes have the ability to develop a sense of career identity in professionals as well as improve their practice (Panos, 2015). This can be connected to the reflection process in which students must engage in when developing an ePortfolio (Boulton, 2014; Wakimoto & Lewis, 2019).

As career ePortfolios are recognized as an effective tool for job applications and to land jobs (Carson et al., 2018), research into the professionalization of learning suggests that a learning ePortfolio can be transformed and customized to make it competitive and effective when applying for jobs (Nino, 2018; Tzeng & Chen, 2012). Ring et al. (2017) found that students with career ePortfolios had superior interviewing skills than those who did not, which provides evidence of the value of ePortfolio for career readiness and success. Furthermore, the use of career ePortfolios can have an impact on promotions and career advancement opportunities (Winberg & Pallitt, 2016). However, others have recognized the lack of formal frameworks to study and evaluate the use of ePortfolios in the workplace (Lievens, 2015).

An important and distinctive aspect of the career ePortfolio is its connection to additional robust

professional development programs (Coric Samardzija & Balaban, 2014; Rowley & Dunbar-Hall, 2015). This indicates that the success of an ePortfolio initiative for career purposes is connected to additional programs and resources that students can be part of during their higher education experience. Evidence of these programs include the creation of courses in digital ePortfolios, which prepare students to develop a strong and professional digital presence that can be evaluated by potential employers (Apostel, 2015).

Methodology

The methodology we used to conduct this study is integrative literature review. As a methodology, “the integrative literature review is a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated” (Torraco, 2005, p. 356). The design of this integrative review followed Whittemore and Knafl’s (2005) five-step process: problem identification, data collection, data evaluation, data analysis, and presentation of results.

Problem Identification

Even though the ePortfolio literature has presented cases of transforming learning ePortfolios into career ePortfolios (Coric Samardzija & Balaban, 2014), there is not a formal model that can guide students through this process and that considers all the resources needed for such transformation. However, existing evidence supports the benefits of adapting ePortfolios for career readiness and success (Korhonen et al., 2020). Moreover, in many instances students do not further develop their ePortfolios in professional settings, leaving their ePortfolios at the learning level (Slepcevic-Zach & Stock, 2018). In other cases, students use learning or assessment ePortfolios for the job application process, which can be detrimental for applicants (Clayson, 2019). For this reason, we identified a need to synthesize the literature and to develop a model that could be used by students at diverse colleges and universities to adapt learning ePortfolios into career ePortfolios. The model can be also used by faculty and administrators interested in promoting career readiness and success in their institutions. For these reasons, an implementation model, based on existing peer-reviewed and empirical evidence, is a suitable solution to this problem (Holt et al., 2016). Such a model has the potential to offer opportunities for replication, evaluation, and scalability.

As part of the problem identification stage, we developed the overarching research question: What process can students follow to professionalize their learning and adapt learning ePortfolios into career ePortfolios?

Data Collection

We utilized the Educational Resource Information Center (ERIC), given its centrality in the study of education (Echenique, 2014), to collect the articles included in this review. Then, we determined keywords for the search based on the scope of the study and the research question. These search terms were as follows: “EPORTFOLIOS,” “HIGHER EDUCATION,” “CAREER,” and “PROFESSIONAL.” We narrowed the search by filtering for articles that complied with the following criteria: availability of full text, peer-reviewed journal articles, and articles written in English. Articles that did not meet these criteria were thus excluded. The use of these keywords and filters yielded 91 articles used in the next step of the study: data evaluation.

Data Evaluation

In this step, we ensured that the articles focused on the intended scope of career ePortfolios in higher education. After careful evaluation and reading of the abstracts and major parts of the papers, we selected 24 articles for further consideration and analysis. Articles that were not considered for further study did not meet the criteria presented in the data collection stage.

Data Analysis

Because the goal of this study is to synthesize existing ePortfolio literature and to generate new knowledge in the form of a model, we employed qualitative data analysis methods. Qualitative analysis also is an appropriate method because the heterogeneity of methodologies in the sources collected for this study inhibits their synthesis (Whittemore & Knafl, 2005).

Qualitative data analysis for this study started with open coding of the 24 articles. In this stage, qualitative codes were assigned to any text within the articles that was connected to the research question and then exported to a data collection table. Once completed, we engaged in data comparison to ensure the codes were named consistently and applied accurately. Next, we completed axial coding in which similar codes and those that had commonalities and relationships were grouped into categories. These categories were labeled and further analyzed through a second round of data comparison. In this second iteration, the researchers sought additional and deeper relations, commonalities, possible cause and effect, and accuracy. This process culminated in the creation of themes (Whittemore & Knafl, 2005). Six major themes resulted from the data analysis and became the elements of the model presented in the next section of this paper.

Figure 1
The 6A ePortfolio Model



Presentation of Results

The results of an integrative review, which represent generation of new knowledge, can be presented in several forms, including a research agenda, a taxonomy, metatheory, or alternative models and conceptual frameworks (Torraco, 2005). To present the results of this study, we chose a model with themes that emerged from the analysis. This model will be presented and described in the next section.

Results

The product of this integrative review is a model of steps that students can follow to transform their learning ePortfolios into career ePortfolios within the context of institutional support, guidance, and commitment. Models are a common format to present results in this type of methodology and, in many instances, provide alternatives to existing frameworks (Alagaraja, 2014; Torraco, 2005). We have named this model the 6A ePortfolio Model, embracing six themes that emerged when analyzing data in this study: acceptance, assessment, appraisal, adaptation, application, and alliance. In this model, the first five themes become sequential steps, all undergirded by the sixth and constant theme (alliance), denoting collaboration and partnership between and among students, faculty, institution, alumni, and prospective employers (see Figure 1).

The 6A ePortfolio Model represents a student-centered model and, like existing models in the field, seeks to achieve specific outcomes as described in ePortfolio literature (Buyarski et al., 2015; Roberts, 2018). This model's goal is for students to land jobs because of their career ePortfolios and the skills they gained and documented in the process, which starts with a learning ePortfolio. As discussed in the ePortfolio literature, a career-focused model is valuable because many institutions have received criticism for failing to prepare students for careers (Carson et al., 2018). In addition, recruiters recognize the value and importance of applicants' ePortfolios when applying for jobs (Ambrose & Chen, 2015; Melles et al., 2018).

The following sections in this paper detail each element of the model and strategies relevant to each

step as students design and develop their career ePortfolios. This model suggests that ePortfolio programs whose goal is to promote career ePortfolios should start by fostering acceptance toward ePortfolios in general and learning ePortfolios in particular. Rather than implementing career ePortfolios at the outset of students' academic journeys, the model advocates that implementation happen through a process of maturation, growth, and transformation in students (Clayson, 2019; Prokopetz, 2018). The rationale behind such a process-driven implementation acknowledges the complexity of career ePortfolios, which entail intensive growth, reflection, and career readiness, demonstrated through carefully selected and honed artifacts (Cordie et al., 2019). The next sections describe in detail the strategies for implementation in each step of the model.

Acceptance

The process of creating a career ePortfolio should start with students' general acceptance of ePortfolios (Strampel & Lewis, 2016). Even though ePortfolios have gained popularity and are widely used in higher education, evidence reveals that many students and faculty are still unaware of their value (Cordie et al., 2019). This lack of understanding of ePortfolios' value is correlated to high levels of resistance to adopt ePortfolios in courses (Holt et al., 2016). Therefore, this model suggests that the first step toward developing a career ePortfolio is ensuring that students accept and recognize the value and importance of having an ePortfolio, especially for post-baccalaureate purposes, with opportunities for acceptance, creation, and development of ePortfolios in coursework, targeted programming, and/or learning communities. This recommendation aligns with the efficacy of existing ePortfolio programs because of high levels of acceptance by students (Cordie et al., 2019; Okoro et al., 2011).

Although acceptance of ePortfolios in general should be encouraged, this model encourages faculty members to promote the specific impact of ePortfolios in students' career development (Ambrose & Chen, 2015). Making connections between career readiness

and ePortfolio authorship can increase the level of acceptance and adoption in students (Cordie et al., 2019). Connections between assessments and career readiness not only increase acceptance of ePortfolios but also of curricular learning in general (Choate et al., 2019; Okoro et al., 2011).

A highly effective mechanism to promote acceptance by students is training (Ring et al., 2017). Such training should communicate the value of ePortfolios (Strampel & Lewis, 2016) and deliver user-friendly, accessible technology (Hanbridge et al., 2018). Topics in training sessions might include: “(a) what an ePortfolio is; (b) reflective writing exercises, including writing a personal mission statement; (c) targeting an audience; (d) collecting artifacts and ethical literacy; and (e) developing an ePortfolio using Wix or a similar online platform” (Cordie et al., 2019, p. 20), as well as data regarding the relevance of ePortfolio in securing jobs upon graduation and the trend of employers’ increasing consideration of ePortfolios in hiring (Ambrose & Chen, 2015; Lievens, 2014).

Another effective strategy to increase acceptance by students is academic planning and advising. First-year students can learn from academic planning and advising experiences about the importance of participation in co- and extracurricular programming and the role it plays in academic and professional success (Carson et al., 2018). When engaging in academic planning and advising, students can be guided in designing and developing career ePortfolios (Ambrose & Ambrose, 2013). A collaboration between career services professionals and faculty can result in a strong program defined by multiple initiatives, such as individual meetings, customized workshops, peer-to-peer interactions, and learning communities (Bennet & Robertson, 2015; Carson et al., 2018; Hanbridge et al., 2018). All these initiatives can increase student acceptance of ePortfolios, especially career ones.

Acceptance and Alliance

Intra- and more-than-institutional alliance is vital in cultivating acceptance. Current students can present and share with each other their ePortfolios in process, thus providing role models of acceptance and practice (Choate et al., 2019; Melles et al., 2018). Similarly, alumni constitute a vital alliance during acceptance (Ambrose & Chen, 2015). Including alumni early in implementation is beneficial because they can advocate for the values of career ePortfolios from personal experience while showcasing their own ePortfolios. Furthermore, alumni can contribute by connecting students to future internships and job placement, thus articulating instrumental validation for students beginning an ePortfolio (Kryder, 2011).

Allies vital to students’ acceptance are potential employers because they can inform students about the realities of the job market and the possibilities students can have upon graduation (Cordie et al., 2019; Choate et al., 2019). The 6A ePortfolio Model presupposes that strong connections between curricular learning and the needs and trends of potential employers can positively impact students’ success and performance given the relevance they then perceive in courses and assignments—and the relevance that faculty and student support professionals can thus design into their courses and programs. The participation and relevance of employers as allies can translate into increased acceptance of ePortfolios as a pedagogical and professional tool.

Finally, acceptance should also be promoted in faculty members as allies, given that they work directly with students and that implementing ePortfolios in their courses provides curricular opportunities for the creation, expansion, revision, and reflection of ePortfolios (Hanbridge et al., 2018). A key element in the institutional implementation of ePortfolios, even career ePortfolios, is helping faculty understand the pedagogical implications for their courses (Ring et al., 2017). As Bennet and Robertson (2015) stated, “many educators are striving to answer the question of how students might be prepared to negotiate and manage complex work and identity. In our case, we looked to the ePortfolio as part of the solution” (p. 2). To facilitate acceptance and alliance by faculty, this model recommends that faculty receive professional development on transforming traditional assessments into authentic ones aligned with the ePortfolio program (Strampel & Lewis, 2016) and that institutions create sustained, long-term support systems for faculty as they integrate ePortfolios into their courses (Carson et al., 2018). Moreover, advising can be enhanced with ePortfolios (Ambrose & Ambrose, 2013), which can facilitate the process for students and advisors, as well as promote acceptance.

Assessment

After acceptance, the second step in the 6A ePortfolio Model is assessment. For the purposes of this model, this step should not be confused with assessment ePortfolios. An assessment eportfolio is programmatic in nature and used for accreditation or professional development purposes (Moon-Kwon Jun et al., 2007). Assessment, as a step in this model for implementation, encompasses students’ creation of learning ePortfolios via coursework, targeted programming, and/or learning communities, in which summative or formative assessment can take place (Carson et al., 2018). The inclusion of assessment as a specific step ensures that students create fully developed learning ePortfolios, not mere repositories

of artifacts and projects, that are able to be further actualized as career ePortfolios (Roberts et al., 2016). This also ensures faculty formally assess knowledge, skills, and abilities in students, which can motivate students as they develop their ePortfolios (Apostel, 2015). Furthermore, this step entails the transference of best practices of course design and assessment in general to the development and implementation of ePortfolios in particular (Shin, 2013). In addition to manifesting best practices in course design, so too must faculty design learning activities and focus their assessment such that their course contributes to students' capacity to develop career ePortfolios out of multiple and diverse curricular, co-curricular, and extracurricular activities (Graves & Epstein, 2011). As with other instructional tools and programs, pedagogy must be the guiding force in an ePortfolio program (Ring et al., 2017). The long-term goal of assessment is to help students authentically demonstrate their mastery of knowledge, skills, and abilities required to enter a professional community through ePortfolios (Cordie et al., 2019; Graves & Epstein, 2011; Strampel & Lewis, 2016).

Designing assessments that connect curricular learning and career readiness—such as asking students to “develop a brand statement to deliver in a recorded 2-minute video” (Graves & Epstein, 2011, p. 393)—can foster authentic learning and improve performance in students (Choate et al., 2019). As assessments are presented to students, faculty members should make clear connections between them and the skills students are practicing and will eventually master (Lewis & Gerbic, 2012). Other types of authentic assessments include design documents and prototypes, project management flowcharts, recorded presentations, digital storytelling and podcasts, papers, infographics, and group projects (Nino, 2018). When possible and relevant, faculty members can design assessments relevant to the job search process, such as the creation of mission statements or the exploration of companies' websites (Cordie et al., 2019). Thanks to the richness of possible assessments, students in ePortfolio programs recognize the value of authentic connection to their emerging and developing professionalism (Lewis & Gerbic, 2012).

On the other hand, faculty can design assessments that help students master specific skills, beyond content knowledge (Graves & Epstein, 2011; Kryder, 2011), or the use of certain technologies (Boulton, 2014). As some studies have demonstrated, students sometimes are unprepared to apply for and land jobs, given that the skills needed for success in these domains are not taught in courses (Lievens, 2014). For this reason, faculty members interested in the development of students' career readiness can contribute to the professional growth of their students through assessments that demonstrate mastery of appropriate and relevant skills (Carson et al., 2018).

Moreover, assignments in this step must make insightful use of reflection, as is standard in the ePortfolio field (Guder, 2013; Roberts, 2018). Because some students do not value engaging in reflections (Strampel & Lewis, 2016), faculty should emphasize strategies that help students understand reflection's relevance and value. For example, thought-provoking prompts for reflection related to pre-professional identity could engage students in evaluating themselves and their career readiness (Melles et al., 2018; Prokopetz, 2018). In addition, faculty members can promote reflection as an effective exercise that prepares students for job interviews, in that they allow them to articulate the importance of their project and the skills they gained in the process (Ring et al., 2017).

As assessment takes place, faculty members should integrate and provide meaningful and constructive feedback (Cordie et al., 2019). Such feedback is extremely important because students tend to prefer their instructors' feedback more than other types (Hanbridge et al., 2018). However, faculty can supplement their feedback with peer assessment, which has also been reported as effective (Alanson & Robles, 2016; Buyarski et al., 2015). For peer feedback, faculty are encouraged to incorporate a rubric for students that guides them toward constructive suggestions (Alanson & Robles, 2016).

Assessment and Alliance

A collaboration between faculty and other campus units, especially career services, is also recommended for the purpose of stimulating significant reflection and providing vital feedback (Ambrose & Chen, 2015). In some instances, career services can connect students and faculty with potential employers, so they also provide evaluation of the artifacts that students produce and could potentially showcase in job applications and interviews (Cordie et al., 2019).

In terms of alliance, faculty members can use assessment examples from previous students' ePortfolios (Ambrose & Chen, 2015). Furthermore, former students can be invited to talk about their experiences being assessed through ePortfolios and the ways they used those assessments later (Melles et al., 2018). Importantly, partnership with campus career services professionals represents an alliance that can be embedded in assessment. Although assessment might not be fully oriented to job seeking at this point, career services can provide actionable advice such that the ePortfolios that soon-to-be alumni use in their job searches are as effective and successful as possible (Cordie et al., 2019). This aspect of alliance is crucial because employers are looking for skills that allow prospective employees not only to enter but also advance in the workforce. Some examples of these

skills are communication, critical thinking, decision making, collaboration, and transfer of knowledge (Hart Research Associates, 2018). For this reason, faculty should use these skills to develop the learning outcomes of their courses and assess students.

Appraisal

After assessment through ePortfolios in their coursework, students are ready to move to the next step of the model, a step that encompasses but transcends the activity of reflection: appraisal. However, this model contends that after assembling, curating, and reflecting on an appropriate number and types of artifacts, the students should engage in a holistic appraisal to evaluate the depth and breadth of their learning to this point, their strengths and weaknesses, their career goals, and the next actions they need to undertake to become career ready (Buyarski & Landis, 2014). For this reason, appraisal might take place months or years after the assessments and their reflections took place. Even though appraisal is a continuous and lengthy process, there is evidence about its effectiveness for students to make strong career connections (Whitney et al., 2021). Alanson and Robles (2016) stated that students' confidence can increase after engaging in an appraisal process. For this reason, appraisal is a critical step in the design and development of career ePortfolios (Lewis & Gerbic, 2012; Melles et al., 2018). At this point, students should fully value and embrace ePortfolios as a tool for career development (Ambrose & Chen, 2015).

Because the appraisal entails self-evaluation in concert with an overall evaluation of academic and career goals, this step might not be guided by a particular faculty member in a specific course (Bennett & Robertson, 2015). Thus, leaders of ePortfolio programs should provide venues and resources for students to engage in self-evaluation in independent and/or co- or extracurricular settings (Graves & Epstein, 2011). Such provisions might take the form of group or individual just-in-time training or consultations, live or recorded presentations, and materials that explain the relevance, forms and mechanisms, and goals of appraisal (Hanbridge et al., 2018). Since the appraisal step represents a longer-term commitment and is iterative in nature (Ring et al., 2017), an ePortfolio program can rely on academic planning or career services units to help as students reflect on and evaluate their learning at that time and the extent to which they are making progress toward accomplishing their career goals (Boulton, 2014; Carson et al., 2018).

In the appraisal step, students are required not only to know themselves, but their career interests and goals as well (Buyarski et al., 2015). With assistance of

career services or other professionals working in partnership with the ePortfolio program, students should evaluate their strengths and weaknesses in relationship to their career goals and determine an action plan to close the gap between their status and their career aspirations (Bennett & Robertson, 2015; Buyarski et al., 2015; Rowley & Dunbar-Hall, 2015). Moreover, it is imperative in this step that students reflect on co- or extracurricular activities for their alignment with professional goals (Carson et al., 2018). Such a wealth of evidence of students' academic experiences facilitates the activity of appraisal (Prokopetz, 2018) and thus benefits students because they learn and practice interrogating themselves and the evidence of their work that ePortfolios capture (Bennett & Robinson, 2015; Slepcevic-Zach & Stock, 2018).

Appraisal and Alliance

More important in this step than in prior steps is alliance. The presence of a system of support is even more crucial in that appraisal is more holistic in nature and distinct from any particular course, instructor, or adviser (Ambrose & Chen, 2015). What is more, this step emphasizes self-interrogation and self-evaluation potentially pressurized by anxieties about previous preparation and future professional belonging. At this stage, providing examples of successful ePortfolios, particularly those created by alumni, offers guidance and confidence to students as they plan for their careers (Hanbridge et al., 2018). In addition, alliance with peers via peer-to-peer interaction provides constructive, complementary, and empathetic feedback (Bennet & Robertson, 2015; Prokopetz, 2018). Because students have undertaken a similar process of acceptance and assessment strengthened through reflection in alliance with relevant support, they are well positioned to respond to each other's work. Of further benefit is that, because each student has different experiences and aspirations, they can complement and enhance each other's work (Ambrose & Chen, 2015). Finally, students should educate themselves as much as possible about the realities of the industry they want to join (Lievens, 2014; Weber, 2018). As students identify these realities, they can engage in a holistic appraisal of their strengths and weaknesses at that point of their education and how that can impact their career opportunities. As a result, students can engage in additional activities or programs and seek mentoring opportunities that close the gap between their status and career aspirations.

Adaptation

The next step in the model is adaptation, defined as the transformation of learning ePortfolios through

revision and customization into career ePortfolios relevant to applying, interviewing for, and seeking professional employment upon graduation (Nino, 2018). As the ePortfolio literature describes, a learning ePortfolio is distinct from a career ePortfolio (Yaffe et al., 2016), hence the need to go through an adaptation step. Although this model proposes that students start thinking about career ePortfolios beginning at the stage of acceptance, it is in this step, of adaptation, that students actively revamp and customize their learning ePortfolios (Buyarski & Landis, 2014). Because learning and assessment ePortfolios are designed for academic settings and purposes, they are not effective in professional settings (Clayson, 2019). The adaptation step also is iterative in nature, given that students might have to revise or customize career ePortfolios for each internship or job they seek (Cordie et al., 2019; Graves & Epstein, 2011).

In this step, students make necessary changes to the formatting, appearance, technology, and content of their learning ePortfolios so that they are marketable and attractive to potential employers (Melles et al., 2018). Because research has shown that perceived value and attitudes towards technology play a role in adoption (Tzeng, 2011), it is recommended that students have access to multiple technology options that meet their specific needs and that are user friendly for their skillset. At this point, the selection of technology should be as personal as possible and depending on the student's preferences, level of comfort, and perceived value (Korhonen et al., 2020).

Even though reflections are an essential part of the learning ePortfolio, they might be too lengthy, personal, or recondite for a career ePortfolio. For this reason, they should be excised and/or edited such that they conform to the expectations of hiring managers, teams, and screening software. In addition, students in the adaptation step also engage in showcasing activities and building their digital identity (Carson et al., 2018; Ring et al., 2017). For instance, students might create LinkedIn accounts for sharing their career ePortfolios, or they might embed their profile and relevant professional social media in their email signature (Ambrose & Chen, 2015). In this step, students also have to learn how to articulate the work presented in their ePortfolio and provide context from the perspective of a professional, not a student (Clayson, 2019). Thus, this step must consider rhetorical principles of message design, accessibility, and sound use of visuals and pictures (Weber, 2018).

Adaptation and Alliance

To develop skills needed to adapt a learning ePortfolio, students might take part in training sessions

and consultations supported by videos available to them beyond course curricula or activities (Ring et al., 2017). At this time, alliance with career services units is vital to offer guidance to students who might not identify clear connections between the work they have done and their career aspirations (Cordie et al., 2019). In addition, students on this step require the support that comes through alliance because they should focus on tasks and skills beyond the actual ePortfolio, which includes preparing application materials, preparing for the interview, and networking (Carson et al., 2018). Through in-person training and digital resources, career services units can provide comprehensive support to students preparing for professional belonging—just as they can promote collaboration between employers and students entering professional communities.

Creating opportunities for prospective employers and employees to interact helps both groups better understand current needs and trends in the profession and in the education that students have undertaken in preparation (Choate et al., 2019). Furthermore, students, in alliance with prospective employers, can share their career ePortfolios with professionals in the field for the purposes of gathering relevant, targeted, and actionable feedback (Buyarski et al., 2015). Finally, faculty members and administrators can become allies by promoting the creation of courses dedicated to teaching students how to develop career ePortfolios and an overall strong online professional presence (Apostel, 2015).

Application

The final step in 6A ePortfolio Model is application. In this step, students use their career ePortfolios to apply for jobs, incorporating the wealth of knowledge, resources, and coaching they have received through their ePortfolio activities (Weber, 2018). Their ability to present a career ePortfolio offers them an advantage in their job search: employers expressed a strong preference for applicants with an ePortfolio (Ambrose & Chen, 2015); likewise, Clayson (2019) provided data that alumni successfully used their career ePortfolios when applying for jobs. Furthermore, there is evidence that career ePortfolios are beneficial for employers and employees in terms of finding the right match (Lievens, 2014). Because students can clearly demonstrate mastery of skills, share their digital professional identities, and connect with employers by telling them about their stories through these platforms (Cordie et al., 2019), we concur that possessing and presenting a career ePortfolio is highly desirable—and will continue to increase in importance and use. Research has demonstrated that even though many employers are not replacing traditional application materials and processes, the adoption of an ePortfolio is an effective addition and asset for job applicants (Leahy

& Filiatrault, 2017; Lievens, 2014; Rowley & Dunbar-Hall, 2015). Furthermore, even though an ePortfolio per se might not be the only element into consideration in an application package, today's employers expect prospective applicants to have strong digital presences, as they use the Internet to know more about them (Apostel, 2015; Weber, 2018).

In this step, students might incorporate actions undertaken in previous steps. Acknowledging that some fields do not make widespread use of ePortfolios (Ring et al., 2017), students should seek to communicate the value of their ePortfolios to facilitate employers' acceptance. Likewise, students might return to appraisal, evaluating their preparation and ePortfolio insofar as it conveys the depth and breadth of their preparation, strengths, and professional goals to demonstrate their readiness for positions for which they are applying. Finally, students might continue their work of adaptation, customizing their career ePortfolios for each position for which they apply, given employers' desire for specific, relevant, and unique work samples (Clayson, 2019).

In refining their ePortfolios for professional purposes, students must assure effective organization, visual design, and written communication (Weber, 2018). Moreover, they must determine whether to include a curriculum vitae or résumé in their ePortfolios as well as badges and pictures, depending on the job description (Nino, 2018). Likewise, students must familiarize themselves with future employers, as employers prefer candidates who have explored the workplace before interviewing (Clayson, 2019). Finally, students must commit to networking, including via social media (Carson et al., 2018), for participation in professional communities is strongly correlated to their abilities to land jobs (Clayson, 2019; Kryder, 2011).

Application and Alliance

Alliance is also a fundamental part of this final step in the model, as graduating students and alumni move forward within a context of alliance. Because students or alumni directly interact with employers in this step, faculty members no longer serve as instructors but transition to roles of mentors and coaches (Ambrose & Chen, 2015). At the same time, graduating students and alumni will ally with career services professionals in the area of honing skills for job seeking and access to career fairs and job advertising, with alumni and employers functioning as complementary mentors who can facilitate entry into professional communities. Furthermore, alliance among faculty, advisers, and peers for the purpose of mutual support and encouragement is vital during this stage, among peers who have undertaken the ePortfolio program (Kryder, 2011). Finally, we encourage alliance between those

who have been part of an ePortfolio program and the institution, such that they share the lessons they learned and the challenges they overcame (Prokopetz, 2018).

Discussion and Conclusion

Given the integrative review we used as the methodology to conduct this study, the development of the 6A ePortfolio Model is based on peer-reviewed scholarship and empirical data. The model is grounded in data about effective best practices as well as extant gaps and challenges in ePortfolios and ePortfolio programs. The goal of this model is not only to coalesce existing effective strategies but also to offer recommendations to fill gaps and help practitioners solve problems. The limitations and recommendations of the studies presented in this review also played a role in the development of the model (Clayson et al., 2019; Melles, 2018), just as considering articles solely from the literature of career ePortfolios also effects limitations, as such consideration demarcates a specific and narrow scope that might cause results and conclusions not to be generalizable to other types of ePortfolios and ePortfolio programs.

Existing scholarship advocates for further study of career ePortfolios in general (Cordie et al., 2019; Melles et al., 2018), for further study of the efficacy of ePortfolios in securing employment (Clayson, 2019), and for further longitudinal studies, such as explorations of the integration of professional internships (Alanson & Robles, 2016) and graduates' continued use (if any) of ePortfolios following employment (Wakimoto & Lewis, 2019). The 6A ePortfolio Model can address these gaps in research and thus contribute to the growing body of knowledge in the ePortfolio field, given its long-term, scaffolded approach culminating in students' authorship of career ePortfolios utilized in employment-seeking activities. The researchers argue that this model can be applicable for practitioners for the purpose of implementation as well as for researchers for the purpose of future study.

This model specifies the types of skills and mastery that students who follow these steps can gain. These findings corroborate existing studies that promote the use of ePortfolios in instruction given their contribution to students' learning and growth (Ring et al., 2017). Recognizing evidence of correlation between grades and job performance (Walton et al., 2015), usage of this model might help researchers identify further factors that influence the success of students who land jobs. Such investigation is possible given the longitudinal nature of the model that documents the journey from student to professional.

In addition, the use of this model can enhance understanding of career identity and how students perceive themselves as professionals (Bennett &

Robertson, 2015). Using the 6A ePortfolio Model, researchers and practitioners can investigate how students' career identity changes over time and the effect such change can have on successfully applying and interviewing for jobs. Because career identity evolves with experience (Bennett & Robertson, 2015), a longitudinal study using this model might reveal the complex process of students' blending academic identities with emergent or clarified professional identities.

Future studies should investigate the applicability, implementation, and usability of this model in higher education institutions. In addition, future research should provide empirical evidence of the framework's impact on the efficacy and success of students and graduates to apply, interview, and secure jobs. Finally, future exploration should emphasize the multifaceted role of alliance in contributing to the comprehensive and collaborative implementation of this framework and the continuing success of its participants.

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The Journey of Designing and Implementing an Institution-Wide e-Leadership Portfolio

Tara Hornor
The Citadel

This case study analyzes a 10-year process of designing, implementing, and continuously improving an e-Leadership portfolio required of all undergraduate students. The case study documents the evolution of the e-Leadership portfolio, from originally focusing on leadership learning outcomes through its expansion to include general education essential learning outcomes and outcomes generated through a wide array of higher education high impact practices. The case study describes learning lessons gained through the design and implementation process, including the importance of integrating ePortfolios in institutional strategic planning and assessment processes, expanding collaborations between academic and student affairs and strengthening the use of ePortfolio assessment results.

ePortfolios are an increasingly utilized higher education high impact practice for fostering student learning, a powerful technique in demonstrating student learning growth, and a mechanism for addressing accountability demands (Amaya et al., 2013; Association of American Colleges and Universities, 2021; Hubert, 2016). The research literature highlights the rapid expansion of ePortfolio use in higher education institutions. As the number of institutions and students engaged in constructing ePortfolios continues to rise at an exponential rate, it is essential to examine design and implementation case studies to gain insight on effective ePortfolio strategies.

The growth of ePortfolios as a reflective learning and assessment technique has been well-documented within academic, general education, and co-curricular programs. Research studies continue to provide evidence of their effectiveness in fostering deeper learning, reflection, and ownership of the learning process, leading the Association of American Colleges and Universities (AAC&U) to name ePortfolios as the eleventh high-impact practice (HIP) in higher education (Watson et al., 2016). The continued expansion and widespread use necessitate a need for deeper study of institution-wide ePortfolio initiatives that are designed to foster student learning across multiple learning contexts.

Context

In Fall 2009, a public comprehensive master's degree granting institution in the southeast United States embarked upon designing and implementing a new 4-year, e-Leadership Portfolio for undergraduate students in all academic majors. In this study, I analyze the process of designing, implementing, and continuously improving an e-Leadership Portfolio required of all undergraduate students over a 10-year time period. Students enrolled within this institution were primarily traditional-aged, full-time students in a

residential college setting with academic majors ranging from business and engineering to education and disciplines within the liberal arts.

The e-Leadership Portfolio initiative was driven by the desire to develop an assessment strategy for measuring both individual and aggregate student leadership skills growth over time. The institution was also highly focused on delivering this ePortfolio in both academic leadership courses and experiential leadership experiences through a collaborative partnership of faculty and student affairs professionals. The e-Leadership Portfolio was originally conceptualized as a method for assessing student leadership growth, as student learning outcomes and embedded ePortfolio assignments were originally intended to be built into freshmen and sophomore leadership courses as well as junior and senior leadership experiential learning environments. However, after the first year of implementation, the e-Leadership Portfolio quickly expanded to be embedded within the general education program, academic majors, and a wide array of higher education HIPs.

Literature Review

A review of the research literature confirms the growth of ePortfolios as a powerful driver of student learning and assessment technique used within higher education institutions. Research studies also assert that ePortfolios are highly effective in fostering deep learning, reflection, and ownership of the learning process (Amaya et al., 2013). In addition to ePortfolios being added by AAC&U as the eleventh higher education high-impact practice (HIP) in 2017, there is a growing body of research that suggests ePortfolios are a "meta-HIP" due to their ability to foster strong connections and strengthen the student learning in other HIPs (Hubert et al., 2015; Kuh et al., 2018; Watson et al., 2016).

Effective ePortfolios integrate many aspects of HIPs, including reflection, demonstration of learning, and growth through feedback, as well as foster great synergies with other HIPs including internships, study abroad experiences, and first-year experience courses (Hubert et al., 2015; Kuh et al., 2018). Furthermore, ePortfolios empower learning through student ownership, the ability to make learning growth visible, assessing longitudinal growth and development over time, and in deepening learning through reflection (Eynon & Gambino, 2017; Kuh et al., 2018). However, a review of the literature highlights that, although ePortfolio assessment is becoming more common, student learning is enhanced and instructor attitudes toward assessment have improved, there is still research needed on how assessment data from ePortfolios can be used to improve the educational environment (Crowell & Calamidas, 2016).

In addition to fostering deeper learning, studies by Klampfer and Köhler (2013) and Shroff et al. (2013) have suggested that ePortfolios can also help foster engagement in the learning process itself. Klampfer and Köhler (2013) and Shroff et al.'s (2013) research provided valuable insight about student learning, attitudes, benefits, motivation, and acceptance of ePortfolio technology. The studies showcased the strong role ePortfolios can play in generating feelings of value for the learning processes itself, being in control, and taking responsibility for one's own learning processes. The studies indicated that ePortfolios were extremely powerful vehicles for fostering ownership in the learning process (Klampfer & Köhler, 2013; Shroff et al., 2013). Student engagement with and appreciation of the role of the ePortfolio in their learning is highly dependent upon how faculty and institutions integrate ePortfolio practice within the learning environment (Hubert, 2016). ePortfolios provide a powerful tool for collectively viewing student learning growth, which can foster a shared sense of responsibility for curricular outcomes (Hubert, 2016). Several research studies have examined the use of ePortfolio assessment data to enhance student learning.

Research by Kertesz (2016) described how ePortfolios provided evidenced-based competency and those important conditions that must be established for ePortfolios to be successful. Kertesz (2016) also described the increasing regulatory environment and the role of ePortfolios in helping to address expectations emerging from new regulatory requirements. Ring et al. (2016) assessed faculty development strategies that support the adoption and utilization of ePortfolios. Their findings suggest that use of ePortfolios and engagement in assessment activities fostered a continuous improvement culture that encouraged excellence in the classroom.

Many ePortfolio initiatives leverage AAC&U's (2009) VALUE rubrics in their assessment of student learning and expansion of a culture encouraging continuous improvement. Research on the AAC&U VALUE rubrics provides strong evidence of their effectiveness in assessing student learning (McConnell et al., 2019). Moreover, VALUE rubric research has indicated high reliability and validity with small standard deviations and low variation among faculty scorers (Finley, 2012; McConnell et al., 2019; McConnell & Rhodes, 2017). In addition, Baris and Tosun (2013) described dialogue in the educational community over recent years about the use of ePortfolios to assess student learning. Much of the existing literature has concentrated on attitudes and motivation associated with ePortfolios. An experimental design was used, placing students into experimental and control groups. The assessment scores were much higher for students who used ePortfolios to demonstrate their learning. In addition, a research study by Ada et al. (2016) provided a solid discussion of the perceptions held by higher education faculty about the impact of ePortfolios. The study indicated positive attitudes toward ePortfolios and made recommendations for professional development training to strengthen the use of ePortfolios for enhancing learning.

Eynon and Gambino (2018) provided a compelling case for the power of ePortfolios as a deeper learning catalyst. For students and higher education institutions to fully experience the power of this catalyst for fostering deep learning, ePortfolios must be taken to scale at the institutional level (Eynon & Gambino, 2018). Eynon and Gambino's (2017) Catalyst Framework includes a comprehensive approach for institutionalizing ePortfolios to achieve their full potential longitudinally and horizontally across multiple learning contexts, noting that ePortfolios are most effective when they combine faculty learning and organizational learning with student learning. Eynon and Gambino (2017) noted five areas central to achieving this institutional integration, including integrative social pedagogy, professional development, outcomes assessment, technology, and scaling up.

Students who engage with fully integrated ePortfolios in their programs are more likely to be retained and earn higher grades (Eynon & Gambino, 2017). Eynon and Gambino's (2017) research asserts that the principles of inquiry, reflection, and integration are central to fostering deeper student learning through ePortfolios and deepen outcomes assessment initiatives (Finley, 2019). Reflection can deepen our understanding of assessment findings and aid the campus community in seeing student learning more broadly across different contexts and integrating the data to make more powerful continuous improvements (Eynon & Gambino, 2017; Eynon et al., 2014).

Methodology

Given the complexity of designing and implementing an institution-wide ePortfolio for all undergraduate students, this study employs a case study as its methodological approach. This methodology was most advantageous to the research due to the focus of case studies on discovering meaning, examining processes, and gaining in-depth insight into a group or context (Lodico et al., 2006). The case study approach also provides the ability to view the study through a bounded system framework (Lodico et al., 2006) with the use of 10-years of findings within a single institution and a comprehensive 4-year e-Leadership Portfolio. To gain valuable insight into this bounded system, the triangulation of assessment techniques within the e-Leadership Portfolio was particularly important in achieving a more holistic view of the institution's design and implementation process as well as resulting student outcomes. Within the case study structure, three open-ended qualitative interviews were also conducted with a faculty member, student affairs professional, and an assessment leader who were knowledgeable about the e-Leadership Portfolio development and implementation.

e-Leadership Portfolio Design and Implementation Strategies

In Fall 2009, a public comprehensive master's degree granting institution in the southeast United States designed and implemented a 4-year e-Leadership Portfolio for undergraduate students in all academic majors. At the beginning of the e-Leadership Portfolio design process, a guiding institutional committee was created with representatives from each of the institution's five academic schools, information technology department, and a wide array of student affairs functional areas. The guiding committee made several foundational decisions that impacted the design and implementation process, as well as the portfolio structure that has endured over the past 10 years, including:

- Adoption of Taskstream Learning Achievement Tools (LAT) platform to collect, store, and assess student work since the institution was already utilizing the Taskstream Accountability Management System (AMS). Adoption of an outsourced tool enabled the institution to quickly gain momentum within the ePortfolio implementation.
- Identification of specific learning outcomes that would be assessed through the e-Leadership Portfolio.
- Designation of a course and activity-based design where e-Leadership Portfolio

assignments would be required and embedded in specific courses or activities and assessed.

- Creation of a required new student leadership fee that covered a 4-year ePortfolio software subscription for all undergraduate students and faculty.

During the 2009-2010 academic year, the e-Leadership Portfolio launched and was required of all freshmen. All sections of the institution's freshmen experience course included a class session in a computer lab where students registered their ePortfolio software and were trained on the purpose of the e-Leadership portfolio, its embedded requirements for their freshmen year and how to navigate the system and retrieve their assessment results. These sessions included a big picture approach of what an ePortfolio might look like after four years and how it could be used to showcase their work in job search processes. Likewise, presentations for faculty occurred in pre-semester course meetings, which covered the benefits of ePortfolios, a tutorial on navigating the software, and assessing student work within the ePortfolio.

In the initial launch year, the e-Leadership portfolio was originally conceptualized as a method for assessing student leadership growth, as student learning outcomes and embedded ePortfolio assignments were originally built-into freshmen experience courses, freshmen ethical reasoning seminars, and the co-curricular leadership day service-learning activities. Embedded assignments included both written essays and student self-ratings of their learning. Course instructors and service-learning student affairs professionals scored the embedded assignments using common rubrics.

During the following academic year, the e-Leadership Portfolio expanded to include both freshmen and rising sophomores with three additional embedded assignments. At the same time, the institution was revising its general education learning outcomes, curricula, and assessment strategies. As more faculty members and student affairs professionals teaching in the freshmen seminar course and interdisciplinary leadership courses gained experience with the e-Leadership Portfolio, the ePortfolio initiative gained strong advocates throughout the campus learning environment. The advocacy and exposure to student learning via the e-Leadership Portfolio fostered discussion and gained consensus to assess general education learning outcomes via the ePortfolio. Immediately following the revision of the new general education learning outcomes, the institution integrated those learning outcomes within the required e-Leadership Portfolio to foster student learning as well as the collection, scoring, and reporting of student performance data.

As the institution expanded the e-Leadership Portfolio to include assignments from the general education program, the institution's assessment committee made several important decisions that enhanced the design and implementation process, as well as the enduring ePortfolio structure, including:

- Identification of specific learning outcomes that would be assessed through the e-Leadership Portfolio. The four general education learning outcomes embedded within the required e-Leadership Portfolio included written communication, quantitative reasoning, critical thinking, and ethical reasoning skills.
- Designation of common course assignments in the e-Leadership Portfolio for each of the learning outcomes within each undergraduate year. For example, ethical reasoning skills assignments were built within the freshmen ethics seminar, the sophomore leadership seminar, junior co-curricular ethical enrichment experience, and the senior leadership seminar. Written communication assignments and assessments were embedded within freshmen English courses, sophomore literature courses, junior leadership courses, and senior capstone courses.
- Adoption of AAC&U's (2009) VALUE rubrics for the assessment of general education assignments.
- Expansion of co-curricular and academic leadership assignments and assessments.

The e-Leadership Portfolio relies on an established set of direct assessment measures to provide evidence about achievement of learning outcomes. Each year, students must submit papers or other written assignments into their e-Leadership Portfolios that document their achievement of outcomes. These papers, presentations, and projects are judged by an interdisciplinary team of trained faculty using the national AAC&U VALUE rubrics for written communication, ethical reasoning, quantitative reasoning, and critical thinking. The evidence is collected from students documenting their progress on all four outcomes over their college career. Scores using the VALUE rubrics are entered into the e-Leadership Portfolios, providing students with feedback about performance, and providing the institution invaluable data about student progress over time. Student performance data are collected semi-annually and annually from the e-Leadership Portfolio and developed into reports that are shared with academic units. Summary and detailed reports are provided to academic units that provide results—positive and continuous improvement areas—delineated by outcome. Data are reviewed and interpreted at all levels of campus leadership.

Following the success of integrating both leadership and general education program learning experiences and assessments within the e-Leadership Portfolio HIPs were also added. The HIPs included international study abroad programs, undergraduate student research projects, and first-year experience courses, service-learning experiences, and capstone projects. These HIPs were also assessed with AAC&U VALUE rubrics for cultural competence, community engagement, and inquiry and analysis. Many academic units also elected to use the e-Leadership Portfolio in their own academic degree programs and drawing upon freshmen and senior comparative learning outcome data for their enrolled majors.

The use of assessment data to improve students' e-Leadership Portfolio learning experiences were a central focus after initial implementation. Continued professional development opportunities were an important component of these continuous improvement efforts. Calibration exercises were conducted with faculty to ensure high inter-rater reliability. The institution also instituted an annual Assessment Gathering event to share best practices as well as an Assessment Awards program to recognize faculty and staff members engaged in innovative assessment practices. All the initial award recipients used the data gained from the e-Leadership Portfolio in their continuous improvement efforts.

Findings and Recommendations for Practice

There were several valuable learning lessons gained through the institution's design and implementation of the e-Leadership Portfolio. These learning lessons included the importance of integrating ePortfolios in institutional strategic planning and assessment processes, fostering collaboration between academic and student affairs, and use of ePortfolio assessment results. The following sections provide a discussion of each of these key learning lessons.

Integration in Institutional Strategic Planning and Assessment

Higher education institutions can gain valuable synergies and operational efficiencies when internal institutional processes are intentionally and carefully integrated (Hinton, 2012). This is especially the case when institutional processes are as impactful and far-reaching as ePortfolio high impact practices are across diverse college functional areas and as impactful to student learning, institutional strategic planning, and learning outcomes assessment. Commonalities in ePortfolio implementation, institutional strategic planning, and assessment of student learning make this synergy even more powerful. For example, each of these institutional processes focus on a

common purpose of enhancing student success and improving student learning outcomes. To be highly effective, ePortfolio implementation, planning, and assessment of student learning processes also rely upon institution-wide collaboration (Hinton 2012; Suskie 2018). These institutional processes have additional commonalities associated with their implementation, including functioning on multi-year planning horizons, being data-rich and evidence-based, leveraging organizational learning and continuous improvement goals, and requiring broad and consistent campus-wide communication (Hernon 2006; Hornor, 2020; Strike 2017; Suskie 2018).

Linking student learning assessment and strategic planning can be especially powerful to ePortfolio implementation due to the collaborative nature of the work and the criticality associated with enhancing student learning outcomes. ePortfolio implementation can be complex due to its very nature of coordinating the efforts of a broad array of campus functional units that must collaborate to continuously improve student learning outcomes. The intricacies of constructivism and active learning theories also impact the complexity of ePortfolio implementation processes, necessitating both the need for higher education institutions to recognize individual student differences and meet students where they are in the learning process.

Making intentional and thoughtful linkages between ePortfolio implementation, institutional strategic planning, and student learning outcomes assessment can improve all three of these institutional processes. The benefits to ePortfolio implementation are especially impactful, in fostering greater campus-wide collaboration and understanding of both the complexity and importance of ePortfolio use as a high impact practice, gaining trustee-level and senior administration visibility, and appropriation of financial resources. Institutional strategic plans assert powerful statements about institutional missions, values, and overarching priorities. Including ePortfolios prominently within institutional strategic plans is critical in communicating their value and importance. Making the intentional linkage between these processes has four essential steps, including (1) creating a planning architecture that makes systemic linkages and processes transparent, (2) integrating campus planning efforts, (3) prioritizing and funding institutional priorities, and (4) integrating assessment data to strengthen institution-wide ePortfolio collaboration and the culture of continuous improvement (Hornor, 2020).

Academic and Student Affairs Collaborations

e-Leadership Portfolio collaborations between academic and student affairs professionals played an important role in enhancing student learning as well as raising the prominence and visibility of the ePortfolio

initiative. As more faculty members and student affairs professionals teaching in the freshmen seminar course and interdisciplinary leadership courses gained experience with the e-Leadership Portfolio, the ePortfolio initiative gained strong advocates from different units on campus. Creating opportunities for these advocates to share their experiences with other faculty and staff was critically important. The advocacy and exposure to student learning from ePortfolio practice fostered discussion of additional ways in which ePortfolios could be used to enhance student learning within the institution. For example, faculty members and career center student affairs professionals who became familiar with the e-Leadership Portfolio from teaching freshmen seminar courses, partnered to embed joint e-Leadership Portfolio assignments within internship courses to engage students in reflection on career readiness that both units used within their annual assessment plans. Another noteworthy collaboration occurred when faculty members teaching service-learning courses for juniors and seniors within academic degree programs partnered with student affairs professionals in the institution's leadership center who administered a required 10-hour service-learning co-curricular activity for all sophomores. A reflective assignment on the service-learning experience was added within the e-Leadership Portfolio assessed by the AAC&U Civic Engagement VALUE rubric, enabling both units to consider the learning growth that occurred between the two service-learning experiences.

It also fostered rich conversations about student learning and assessment data between academic and student affairs professionals. The following quote from a student affairs professional highlights the impact of collaborative efforts with faculty members.

The e-Leadership Portfolio provided us with an opportunity and shared student learning space to collaborate with faculty members on assessing intercultural competency using AAC&U's intercultural knowledge and competence rubric. The study abroad office and faculty members leading study abroad trips are passionate about learning gained from international travel. Embedding a shared assignment in students' e-portfolio gave both units needed assessment data and led to important conversations on strengthening student learning.

These synergies and opportunities for collaboration were largely discovered over time and resulted from engaging with the e-Leadership Portfolio through an institutional initiative like the freshmen seminar or interdisciplinary leadership program. An important lesson learned by this experience is the value in creating more intentional opportunities where both faculty and student affairs professionals can learn about potential collaboration areas earlier in the implementation process.

The findings from this study suggest several key implications for innovative student affairs practice, including continued expansion of the student affairs role as instructional partners in the classroom and co-curricular experience as well as in ePortfolio initiatives. Consistent with the ACPA and NASPA's (2015) Competency Areas for Student Affairs Educators, student affairs professionals were active partners in the design and implementation of the e-Leadership Portfolio, serving as instructors in many of the first-year experience courses and interdisciplinary leadership seminars where e-Leadership Portfolio assignments were embedded.

Additional focus on integrating the student voice during the design phase would have strengthened the e-Leadership Portfolio implementation process. During the implementation process students provided valuable ideas about terminology used in the ePortfolio software as well as supporting instructional aids for navigating the software. For example, students recommended using visual graphics within the software to ease navigation, particularly in viewing components they used less frequently like their annual learning growth report. Students also requested labeling assignments with their associated courses or co-curricular experiences as well as using terminology they encountered frequently, including the terms "assignment" or "activity" versus "artifact," which was in the delivered software. Having student feedback earlier in the design process would have enhanced the implementation process. An experienced faculty member observed, "Students often peer mentor other students in the construction of ePortfolios, so investing time to empower student ownership is helpful in the implementation process." Seeking feedback and suggestions from students about potential ways to market and message the e-Leadership Portfolio to students while in the design phase would also speed up the implementation process. Gaining feedback and recommendations from student tutors and peer advisors early in the implementation would be advantageous.

Use of ePortfolio Assessment Results

The implementation of an institution-wide e-Leadership Portfolio strengthened the institution's culture of assessment and better integrated the use of learning outcomes and assessment data to improve student learning. The e-Leadership Portfolio provided a shared collaborative space to consider assessment results in a holistic manner across multiple learning contexts. Seeing student learning outcome growth over time was a powerful driver of both faculty and staff buy-in as well as e-Leadership Portfolio momentum. Another influential driver of buy-in was the ability for stakeholders to see linkages in the ePortfolio that would

strengthen their current learning outcomes and assessment processes. The importance of shared values is also highlighted by an assessment leader on the project team who stated,

The e-Leadership Portfolio provides a view of both individual and cohort student learning growth over time. Because the ePortfolio leverages essential learning outcomes for undergraduates, this centralized shared workspace houses assessment data that is important to academic and student affairs units throughout the institution. And prevents units from needing to re-create the wheel and duplicate assessments. These shared values surrounding student learning outcomes being measured provide a powerful foundation for collaboration and a more efficient way of connecting data for improvement.

The use of AAC&U's (2009) VALUE rubrics was a central component in this momentum, enhancing both cross-discipline communications and collaboration. The e-Leadership Portfolio leveraged several AAC&U VALUE rubrics, including written communication, critical thinking, ethical reasoning, quantitative literacy, civic engagement, intercultural knowledge and competence, teamwork, and inquiry and analysis. These student learning outcome domains proved helpful in assessing leadership growth as well as other higher education high impact practices. Embedding these rubrics within courses created a robust dataset of benchmarks for students each year, enabling academic programs and student affairs units to utilize these benchmarks to assess their students' learning growth over time. The cross-disciplinary nature of the AAC&U value rubrics enhanced ePortfolio buy-in and expansion of use.

A key early challenge identified in the design process was stakeholder perceptions of e-Portfolios as exclusively a student learning tool. Showcasing the dual value of ePortfolios as a powerful assessment tool was instrumental in the implementation process. In addition, placing additional emphasis on the cross-use of assessment data in the design phase would have encouraged more early adopters of the software. For example, showcasing how written communication e-Leadership Portfolio assignments could also be leveraged within academic program assessment plans would have been helpful in fostering earlier adoption by more academic units.

Limitations and Future Research

The use of a case study approach to examine the design and implementation of ePortfolios over time lends itself to several potential limitations and recommendations for future research. The study was

conducted at one higher education institution using a case study approach, which may limit the extent to which the results can be generalized to other institutions and types of students. For example, the students enrolled within this institution were primarily traditional-aged, full-time students in a residential college setting. Therefore, the results may not be generalizable to institutions whose students are primarily non-traditional aged or part-time non-residential student populations. Future research studies incorporating multiple institutions and a more diverse sample of students may improve the generalizability of the findings. The utilization of other qualitative or quantitative methodologies may also provide additional lens or perspectives on important factors in the design and implementation of ePortfolios.

Conclusion

ePortfolios are a critically important domain of study as a higher education high impact practice (AAC&U, 2021). Effective assessment of HIPs distinguishes higher education institutions and their high impact practices from other institutions (Finley, 2019). Examination of an institution-wide ePortfolio initiative highlights multiple opportunities for leveraging synergies within a common educational environment. The findings from this case study suggest that integrating e-portfolios in institutional strategic planning and assessment processes, fostering ePortfolio collaboration between academic and student affairs, and expanding the use of ePortfolio assessment results can strengthen and expand the use of ePortfolios within the learning environment.

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Collecting a Revolution: Antiracist ePortfolio Pedagogy and Student Agency that Assesses the University

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ePortfolios are spaces in which students create knowledge that can transform the university if faculty and administrators are willing to listen. This article explores the revolutionary potential of ePortfolios as spaces for antiracist institutional assessment in conversation with the twentieth-century cultural critic Walter Benjamin. Programmatic assessment has trended toward survey and review measures determined within a racist structure: higher education. As tools that encourage student agency and sense of ownership, ePortfolios instead provide space for students of color to write counternarratives out of their own knowledge. The present essay argues that the knowledge created within these self-owned spaces can run counter to the white supremacist knowledge assessed by and strengthening the academy, offering alternative methods to assessing degrees of curricular and institutional success.

For inside [the collector] there are spirits, or at least little genii, which have seen to it that for a collector . . . ownership is the most intimate relationship that one can have to objects. Not that they come alive in him; it is he who lives in them (Benjamin, 2019a, p. 1).

Within *the word* we find two dimensions, reflection and action, in such radical interaction that if one is sacrificed—even in part—the other immediately suffers. There is no true word that is not at the same time a praxis. Thus, to speak a true word is to transform the world (Freire, 2017, p. 60).

You've wasted your time... but you've wasted the time in the way you choose. There's... power in that (McElroy et al., 2021, 2:15).

Two ePortfolios from our Oxford College of Emory University students have been haunting me for over a year now: one from an international student from China and the other by a U.S. African-American student who created projects that founded their personal narratives in persistence through traumatic experiences (though trauma is never named explicitly). The Chinese student crafted a narrative of “overcoming struggles” of “loneliness” and “worry” attending school in a foreign country. She felt her two years at Oxford were successful because she was able to transform these feelings of loneliness into practical skills in compassion, community-building, and caregiving. The domestic student offered an account that centered work in the face of a society that would give nothing to him. He crafted a narrative founded in his upbringing by strong, Southern, Black women and on a philosophy of self-improvement. Both examples stand out to me because neither themes of *compassion* nor *self-improvement-through-work* are found in Oxford's general education program (GEP) learning outcomes.

This article demands that colleges and universities deploy antiracist ePortfolio pedagogy as a vehicle for student knowledge to assess their curricula and institutions. The problem I have in view is higher education's racist conventions: as Selfa Chew, Akil Houston, and Alisa Cooper (2020) argued, students, teachers, and communities of color have been effectively erased from the academy. Measures of ePortfolio assessment determined by White instructors and administrators within the academy, a Western invention, cannot on their own account for the knowledge created by students of color, knowledge—of joy, of resistance, of ambivalence, of marginalization, of resistance—from their communities. This, at base, is a failure of our institutions to value our own students. My framing question is, “How can we ensure ePortfolio pedagogy is not racist and how can we ensure it builds antiracist institutions?” What follows is a young, theoretical attempt to begin a response; it is an invitation to other higher educators to join us at Oxford College in a project of examining what it means for our institutions to participate in a legacy of White supremacy and how to deploy ePortfolios in an antiracist, pedagogical transformation. This work first involves interrogating what ePortfolios are (an ontological question) and what they do (a phenomenological question). To that end, my argument focuses largely on early knowledge gained from our experience at Oxford and philosophical and antiracist foundations for reframing ePortfolios' relationship to programmatic assessment.

My theoretical framing of ePortfolio pedagogy begins with twentieth-century cultural critic Walter Benjamin's essays on collections and history. Two of Benjamin's pieces, in particular, “Unpacking My Library: A Talk About Book Collecting” and “Theses on the Philosophy of History,” give us an opportunity to see student knowledge constituted in ePortfolios as revolutionary sites of learning and teaching precisely because the stories told have lives

that exceed the boundaries of an assignment. Benjamin's (2019) exploration of book collecting elaborates a process of ordering the "chaos of memories" (p. 2) as the collector themselves "lives in them" (p. 10). I argue that the student similarly lives within their ePortfolio. So, then, what happens when we engage these student collections? Again, Benjamin is helpful here, observing in "Theses on the Philosophy of History," the work of the "historical materialist" who identifies "monads" of the past as present moments frozen in time. These frozen moments—which I will call in this essay "artifacts"—are shot through with "chips of messianic time" (pp. 207-209). That is, the past is filled with countless potential moments of revolutionary action, just waiting to be grabbed by the historian—in this case, the student constructing their ePortfolio.

For this reason, ePortfolios by students of color have the potential for disturbing the whiteness of the academy. In the process of reflection-through-ePortfolio, students build a space that assesses every level of the higher education institution with the very knowledge produced within the ePortfolio—this moment of assessment shimmers with antiracist potential. I draw on Dewey's (1916; Rodgers, 2002) notion that reflection happens in community, which, Kathleen Blake Yancey argued (2016) "re-invent[s] the university" in the process (pp. 10-11). Yancey (2016) asserted that when knowledge is taken up in reflection—perhaps in an ePortfolio—and recontextualized into the student's embodied experience, new knowledge is created and contributed discursively back into the learning community. Students of color can create revolutionary ePortfolios because their collection of artifacts include, to use Benjamin's language, "chips" of their very lives that explode the historical narratives of the White Western academy from which they emerge. The two students mentioned above were not assessed on the values they espoused in their projects, nor should they have been. But accounts like theirs pose serious challenges to institutions of higher education: How do we expect to allow students to change our expected outcomes through the knowledge they bring to campus? Are we open to knowledge from lives lived in loneliness, isolation, and with a sense that you will never receive the support you deserve? Is persistence a value we want to foster when our universities provide the experience through which they must persist? The ePortfolio project itself becomes an antiracist project through the creative work of the student; our institutions take up that antiracist project only insofar as we allow these artifacts to assess *us*.

Early Days: An Oxford College Example

Oxford College provides a useful case study for antiracist ePortfolio pedagogy, because it is not a predominantly White institution (PWI) while maintaining a traditional administrative structure and a

majority White faculty and administration. Our institution is itself unique within the academy. Only 32% White (Oxford College of Emory University, 2019), a vast majority of our students attend Oxford for two years to receive an intentional liberal arts education, earning an associate's degree before completing their 4-year undergraduate education on Emory's Atlanta campus. Our general education program (GEP) curriculum requires students to complete a Milestone ePortfolio during their Oxford tenure, in which they reflect on their learning and integrate that knowledge into an account of how they are changing as a student. The ePortfolio is assessed pass/fail, with an attached evaluative rubric. This evaluative portion of the rubric is an opportunity for graders to tell the student how much they have grown and where they see room for future development as a learner. While the Milestone program is young—as I write this, our first pilot cohort of Milestone students has only just graduated from Oxford—we observed differences in the types of accounts given in ePortfolios from students of color and disparities in assessments by faculty readers. At this early moment of curricular, most of the data in this project remain anecdotal, and the argument of this essay should be taken as an initial theoretical exploration.

Our initial pilot cohort of 13 Milestone ePortfolios itself was demonstrably impacted by structural racism within the project assignment. The two African-American students who submitted ePortfolios received the lowest marks in the cohort, and a third made a clear decision to not even participate in the voluntary program. The assignment (Appendix A), structured around a "Reflective Analysis" and three "artifacts"—which can include academic creations, extracurricular experiences, social experiences, among other things—asked students to provide a narrative of growth over their first two years in college, but it did not define that change. Their reflections and artifacts met our assignment's criteria, and even offered new knowledge that no other student could create but was deemed unacademic and therefore did not demonstrate the sort of growth our institution expects of their students. Faculty graders, who have manifested commitments to racial justice in their own right, were left to their own devices and own experiences, informed by collective decades within the Western academy. In short, the work these students did exposed the Milestone assignment as one that benefited students who could properly follow a hidden curriculum.

The issues we identified with our first assignment could be boiled down to (a) jargon that encouraged a particular kind of reflection and (b) unclear requirements interpreted differently between students and between the panel of faculty graders. To the first point, the assignment vocabulary focused heavily on the

“story” students had to tell about their “development.” Asking anyone to provide this sort of narrative necessarily encourages them to provide a neat, linear recounting of their undergraduate experience with themselves as an achiever, not a complex account of their uneven growth as a learner or thinker. Moreover, the assignment was branded frequently as an Oxford-specific reflection, asking students to describe how Oxford played a role in their development.

This language seemed problematic to us, because it assumed our institution was a healthy environment for all students to learn and grow, ignoring the complexity of human experience, which often also involves suffering. Certainly, in the ePortfolios I referenced above, Oxford students of color demonstrated abilities to overcome difficulties posed by the structural Whiteness of higher education. This is impressive. Our assignment, however, neither required nor excited reflection of how our college campus may have contributed, which built barriers to their successful learning. Nor did we ask how our campus may have opened space for these students to succeed despite broader racist social structures. That we know neither of these things is a failure on our part as teachers and administrators, but we have no measures to know the degree to which we have failed.

Meanwhile, our students have made visible barriers to learning through their ePortfolios. Structural racism impacts Oxford students beyond the gradebook; perhaps more perniciously, the academy sets assessment measures that overlook or even silence knowledge marginalized students produce. Students of color who participated in our first two semesters of the Milestone pilot and another cumulative ePortfolio project included incisive reflections about learning from co-curricular activities. The two domestic students of color described knowledge created through participation in Oxford’s basketball team: one explored knowledge that they have a whole team behind them when they struggle personally and academically; the other went further, noting they learned how to “persevere through adversity,” particularly when their school did not value their accomplishments on the court. The second of these two projects even included their first semester transcript, with a disappointing grade in a chemistry course, and offered a concept of success-as-a-pathway. The Chinese student who had described her loneliness in our community, described how this feeling led her to participate in a program giving other international students resources to feel belonging at Oxford. This narrative tacitly acknowledged that such resources do not normally exist in this environment, so she created them and felt this experience meaningful enough to reflect upon and draw into her identity as presented in her Milestone ePortfolio. Critically, she created material products and lived experiences for others within our college community,

experiences that are not represented by our learning outcomes, but can live on within the ePortfolio and the members of our community she helped. Her ePortfolio is a testament first to her brilliance and only a testament to our institution’s brilliance to the extent that we acknowledge how this student’s presence has revolutionized it.

While our reflective ePortfolio pedagogy is just leaving the implementation phase, we have found enough evidence to interrogate ways students of color have struggled to succeed or belong not just in our Milestone course, but at Oxford in general. By making space for students to take ownership of their learning, their own accounts have shown where the intentional learning opportunities our institution offered and the community it has created are insufficient for or harmful to student flourishing. In short, our students of color have performed assessment of Oxford College; other institutions deploying integrative ePortfolios have no doubt also received this assessment: when and how will we accept it? And how will it change our learning communities?

A Framework for Antiracist ePortfolio Pedagogy

The struggles of Oxford students of color, as detailed above, are not unique to our school and certainly not because we have an actively racist faculty and administration. Western universities are participants in and beneficiaries of systemic racism; they are, in short, White supremacist institutions. This notion has been traditionally obscured to most higher education researchers and administrators because universities tend to aggregate data on phenomena like completion rates, argued McNair et al. (2020). Assessment practices that look at averages of student performance, without making race visible, help maintain White privilege in higher education as an invisible, omnipresent reality. To this end, antiracist pedagogy seeks to make privilege and oppression visible and actively dismantle it. This project takes Chew et al.’s (2020) definition of antiracism as its starting point: “The work of actively opposing racism by advocating for changes in political, economic, and social life. Antiracism tends to be an individualized approach and set up in opposition to individual racist behaviors and impacts” (p. 10). Chew et al. (2020) expanded this definition to education, arguing that antiracist pedagogy “actively acknowledge[s] and oppose[s] racism in all aspects” of learning—in the course and the institution (p. 10). Antiracist pedagogy, in short, raises consciousness of racist practices and structures in education—wherever they are—and does whatever is necessary to eliminate them. In the academy, antiracism homes in more specifically on erasure of non-white people from its histories, its values, its curricula.

Indeed, the starting point for antiracist work in the academy is the assumption that its very structures are suffused with whiteness and unable to center black people in their current iterations. Alda Blakeney's (2005) signal essay on antiracist pedagogy distinguishes the philosophy from three additional models, popular among progressive educational theorists: the assimilationist model, the integrationist model, and the cultural pluralism model. Broadly, all three call for the integration of students of color into classrooms, without acknowledging the structural problem of Western education's foundations in White supremacy. Blakeney (2005), wrote:

Antiracist Pedagogy makes provision for understanding the impact of race on opportunity as well as the cultural differences associated with upward mobility patterns by focusing on the constructs of these inequalities. Antiracist Pedagogy also addresses the historical constructs that facilitate inequalities and seeks to create an antiracist paradigm that in time will serve to historically condition a new antiracist society (p. 120).

Crucially, then, antiracist pedagogy understands that racism is embedded into the fabric of teaching and learning because it is embedded in the cultural and historical—read: systemic—forces of our everyday life in the Western world. The Oxford students I mentioned earlier, for example, were all “integrated” into the life of the college—they participated in activities, indicated they had achieved academic success—but they also offered knowledge that most colleges would not weave into their structures for assessing their own efficacy. Antiracist pedagogy also understands teaching and learning as integral tools in the process of dismantling those same structures.

So, what might ePortfolios offer our assessment of institutions like Oxford, Emory, and others? Robert Amico (2015) helpfully laid out the particular problem White supremacy poses in our classrooms: our educational system has been designed by White people, our teachers are White people, and our White students are invested in maintaining their privilege. For Amico—as with Paolo Freire (2017) before him—educators are faced with an assessment problem if their assessment lacks critical reflection and, more importantly, consciousness of privilege (Amico, 2015; Blakeney, 2005). I do not doubt all higher educators' commitment to assessment that is just for all students, but I question whether our assessment tools are just when the terms of assessment are set only by part of an institution: its administration and faculty. That is, institutional and programmatic assessments, ideally, turn the critical lens back on the educators and administrators of that school; however, it is the administrator, the professor, the accrediting board who

ultimately set the terms for this assessment. To this point, as McNair et al. (2020) noted, a small number (17%) of AAC&U members' institutions disaggregate their data on student learning outcomes by race, economics, or parents' education. That is, even if an entire university professes a desire to become an equitable higher education institution, they currently lack the tools to “know who [their] students are” (McNair et al., 2020, pp. 13-14). This is hardly a call to abandon learning outcomes-based assessment; rather, I acknowledge that learning outcomes that are too often set without consciousness of the knowledge students contribute to their learning communities.

ePortfolios, on the other hand, offer something different: a learning space wholly owned by the student, where their agency can be exercised. To what extent do these digital places, created by living subjects, present a challenge to institutional self-understanding? Moreover, what happens when we read—deeply, honestly—the ePortfolios owned by students of color? Are we, as higher education laborers, able and willing think about what assessment might look like that foregrounds the agency and voices of students as expressed in their self-owned portfolios? The aforementioned Oxford ePortfolios were created by students who were telling us who they are. Without these tools, our faculty, staff, and administrators would have continued using assessment measures that did not ask for students to tell their stories. Now that we have given students the opportunity to speak with agency into a medium that is also assessable, our institution has an opportunity to use qualitative data, infused with agency, to transform how we come to know more about ourselves.

Reflection as an Address to the Academy's Racist Structures

Because higher education is infused with racist structures, reflection from postsecondary students will necessarily confront racism within the academy. Chew et al. (2020) argued that reflective writing opens a space in which “students . . . become aware of and articulate their perspectives” (p. 21), opening themselves to a world of knowledge from antiracist scholarship and their peers. The practice of reflection acknowledges the chaotic, potentially liberatory, and often painful experience of learning by asking the learner to make connections between their embodied learning experiences. In short, reflective practices ask the student to take stock of the relationships and experiences that have shaped their ongoing development and create new knowledge that emerges from those connections. Our task as teachers is to take that knowledge seriously.

The present project suggests that the persistent racism built into the academy is a source of disorder for

many students, but first a working definition of *reflection* is necessary. I follow Naomi Silver's combination of John Dewey and Donald Schön's reflections. For Silver (2013), Deweyian reflection first requires a "forked-road situation, a situation which is ambiguous," for which one might propose "alternatives" (p. 11; Dewey, 1916). Continuing in a Schönian frame, Silver (2013) noted that this ambiguity is confronted, named, and framed to make explicit the tacit knowledge aligning theory and practice (Schön, 1987). In short, reflection is a decision made by a learner to take act in light of new input from a given source—a formal learning experience or not—and to create new knowledge. To put it another way, in the words of Kathleen Yancey (2016),

Through the practice of reflection, we draw on what is culturally known and infuse, interweave, integrate it with what we as individuals know—cognitively, affectively, and socially—to make a new knowledge that draws from the extant but is not a replication of it, that is, instead, unique, a knowledge only each one of us can make as it is in dialogue with what is (p. 11; see also Yancey, 2009, pp. 5-17).

Reflection, then, is an ethical act rooted in one's contextual environs, performed with their own agency, toward the creation of unique, situated knowledge.

My challenge in this essay is to demonstrate that even mundane reflections from our students can provide important critiques of the academy. A challenging assessment of an institution's racist structures is not a given. And while we have seen our students of color receiving lower marks on their Milestone ePortfolios, their reflections have not explicitly condemned White supremacy on campus or in our curriculum. However, this does not mean racism is non-existent in the curriculum, nor does this mean the work of our students of color does not condemn a racist curriculum. In fact, searches for racism in the open may obscure places where students are not explicitly naming its impact on their person. Learning outcomes assessment, as important as it is, runs the risk of missing social violence of this sort; therefore, it cannot be our only means of programmatic assessment. Following Yancey's (2009) notion that reflection reiterates knowledge from learning back into the context in which the student body lives, we can argue that any reflection performed by students of color reinvents the university itself. The question for us, as teachers and administrators, is whether we can see that and how we choose to conceptualize it. When students of color narrate their experience on campuses that by definition were designed for people with privilege and situate them in self-owned platforms like ePortfolios, those minoritized accounts are powerful, meaningful, and revolutionary on their own terms.

Walter Benjamin, Artifacts, and Collections

Early 20th century cultural critic Walter Benjamin offered language for thinking about both collections and artifacts. Here I converse with two of his essays to lay out a concept of what happens to readers when they engage material from another's life gathered for a specific purpose. First, in "Unpacking My Library," a reflection on book collecting, Benjamin (2019a) explored what happens when a collector confronts the "chaos of memories" with a "magic circle" of order (p. 2). Importantly, for Benjamin (2019a), the owner of the collection imbues a host of wholly unknowable experiences, and therefore the collection loses its meaning without the owner. No doubt, this notion already poses a difficulty to assessment of ePortfolios, if we consider the ePortfolio's curated artifacts a collection of memories into a coherent order: to what extent are we, as teachers, even appropriately or ethically assessing these works? Though the path I present is serpentine, I believe Benjamin's (2019b) essay, "Theses on the Philosophy of History," answered. Benjamin (2019b) responded to progressive history with his own understanding of "materialist historiography," which grabs for "monads"—read, for our purposes, *artifacts*—and recognizes the dynamic past and potential they have for revolutionary, "messianic" change in the present (pp. 207-208). The vibrant, living collection of artifacts the student composes is filled with knowledge, experiences, memories of a world foreign to the viewer and thus necessarily primed to revolutionarily shift the subjectivity of the viewer.

In "Unpacking My Library," Benjamin (2019a) elaborated on book collecting as an activity soaked through with lived history, eschewing the image of a collection-as-inventory. Of primary importance for Benjamin was the "history of acquisition," not necessarily or solely the thematic content of a collection (p. 3). Indeed, more than the act of reading them. Benjamin (2019a) wrote:

And the non-reading of books, you will object, should be characteristic of collectors? This is news to me, you may say. It is not news at all. Experts will bear me out when I say that it is the oldest thing in world (p. 4).

Benjamin (2019a), in other words, attempted to move our understanding of collections away from knowledge-banking or inventorying and toward a more chaotic realm: that of memory. The value of a book, of any collected item, is the unruly spectral host of past experiences, subjects, hopes, and anxieties. Creating a collection of books means acknowledging the unbound "magical" properties these artifacts can hold: "The

period, the region, the craftsmanship, the former ownership—for a true collector, the whole background of an item adds up to a magic encyclopedia whose quintessence is the fate of his object” (Benjamin, 2019a, p. 2). These books contain stories that are not just written in words but in the script of time and space.

If we are to consider ePortfolios as collections, it behooves us, according to Benjamin (2019a), to focus our gaze on the intimacy the collector feels for their artifacts. As readers, we can never imbue collections with the same force of meaning that the collector can. The collector’s relationship with their collection—perhaps from inheritance, memories, traumas, lost passions—is such that only the collector might maintain the same connection with their property. Benjamin (2019a) wrote:

For inside [the collector] there are spirits, or at least little genii, which have seen to it that for a collector—and I mean a real collector, a collector as he ought to be—ownership is the most intimate relationship that one can have to objects. Not that they come alive in him; it is he who lives in them (p. 10).

To put it crudely, the outsider who peruses a collection is not possessed in the same manner as its owner. This means collectors can gather anything: they can certainly carefully curate leatherbound tomes within their bookshelves, but others may be enraptured by comics, pamphlets, marginalia, or religious texts; regardless, their gathered artifacts have grabbed their very spirit, according to Benjamin. Collector and collection live within one another. Whether that collection is a book or an ePortfolio, the audience’s engagement—let alone their *assessment*—may never approach the genuine character of the artifacts gathered.

We can push this critique further: the collection within an ePortfolio a student finds most meaningful may not be the assigned collection but something within the reflections. To return to one of the African American students mentioned above, it appears all along that his most important artifact was not, in fact, any of the “artifacts” specifically required by the assignment. Following the assignment prompts, he described how his academic challenges and sciences courses have prepared him to pursue a medical degree, but the reflections he offered treated his pre-college life as the most valuable learning experiences—his caregivers, his achievements in martial arts, and his self-awareness. This student detailed how his pre-college life shaped him into the college student he is two years into his undergraduate education. In short, he bracketed off his college world from the rest of his life as a vehicle for achieving a goal—a medical degree—prior to his arrival at Oxford. The ePortfolio, as assigned by his instructor, provided the opportunity to

tell this story powerfully, but it also did not assess him on this narrative; his account stood outside the bounds of both the assignment and the rubric.

For the higher education teacher, then, this phenomenon poses a challenge: how can we effectively assess ePortfolios, a tool we know is a high-impact practice? Again, Benjamin (2019b) is instructive, laying his concept of historical materialism over the pedagogical meme of artifacts. Indeed, treating a student’s past as presented in their ePortfolio cannot be an exercise only in detecting a stated narrative. No doubt, coherence is important; communication skills are necessary for their participation in public life. However, in “Theses on the Philosophy of History,” Benjamin (2019b) warned of erasure when we privilege grand narratives over the mundane and abject: intense focus on triumphs and treasures of the past erases the potential for redemption we can find in silences, in ordinary artifacts, in items left unanalyzed. Put in terms of ePortfolio pedagogy, if our assignments and assessments are only looking for and rewarding specific curricular outcomes, then we run the risk of missing valuable stories, evidence of learning, critiques of institutional norms and practices, or traumas in the student’s life. The study and telling of history for Benjamin (2019b) need not be a triumphant, heroic endeavor to find the extraordinary. Instead, it is an active, persistent experience of—and he uses theological language here—the messianic power hidden in the mundane.

Exploring the past involves picking at the excesses, abscesses, and absences in historical material for messianic, revolutionary energy. Benjamin (2019b) confronted the irony that historians often profess their duty to tell the whole story of humankind, while ignoring even the most minor acts. Instead, he argued that all people are imbued with a “weak messianic” power to remember the past and “redeem” it by exploring historical quotidian things, people, and moments: “To be sure, only a redeemed mankind receives the fullness of its past—which is to say, only for a redeemed mankind has its past become citable in all its moments” (Benjamin, 2019b, p. 197). The entire past, in other words, is open to remembrance in the present and therefore to the potential for making revolutionary change in the present. For Benjamin (2019b), historical materialism always has the power to look backward, find an artifact from the past, and pose challenges to the present, challenges that rebuke the “conformist” narratives of “progress” that keep rulers in power (pp. 198–199, 202). Narratives of progress are conveniently neat, eliding any potential stories of resistance or evidence of weakness to ruling authorities. Benjamin (2019b) instead recommended a different source for historical knowledge: “Not man or men but the struggling, oppressed class itself is the depository of

historical knowledge” (p. 204). Indeed, historical accounts that do not account for the lives of billions but, instead of progress or great men, are disconnected reality.

Hearing history from the marginalized by grabbing ahold of mundane artifacts or historical idiosyncrasies causes “the continuum of history to explode” (Benjamin, 2019b, p. 206). Artifacts from the everyday and from our most marginalized students show where and what kind of learning happens; these artifacts demonstrate the limits of our curricula and the stories our institutions tell of themselves. Perhaps more urgently, artifacts from below also potentially include silences that speak to student traumas we, as educators may have missed, traumas our institutions may be responsible for, at worst, but also those traumas our students experience, and we might begin to engage.

Oxford College’s First Steps Toward ePortfolio Re-Assessment

At Oxford College, we have begun small steps toward antiracist work with ePortfolios through our Milestone curriculum. While our work is in its infancy, I encourage the reader to examine time-spaces at their institutions where the potential for Benjaminian-style revolutionary curricular change might burst into the material world. Our initial attempts at developing an antiracist ePortfolio pedagogy and programmatic assessment at Oxford have focused on our Milestone assignment, shifting from the aforementioned assignment that encouraged students to compose narratives of achievement to an assignment (Appendix B) that clarifies our curriculum, and assessment of our overall curriculum through analysis of student ePortfolio language and narrative.

As a small first step, we focused our changes to this first revised assignment on language and clarification of the assignment requirements to make the whole process more transparent and open to a wider range of student experiences. Central to these changes was a shift from narrative language to asking our students to “give an account” of their undergraduate experience (Bernard-Donals, 2011). This attempt to use what Michael Bernard-Donals (2011) called “archival writing” was intended to encourage students to create ePortfolios interested less in themselves on a heroic journey and more as people connected and indebted to communities of accountability. In short, students can see themselves wrapped up in a host of additional stories and in systems—not excluding oppressive systems. Moreover, we made explicit the understanding that many accounts of undergraduate life may not be positive and encouraged students to offer critical takes of Oxford College. Finally, we clarified our assignment requirements. Primarily, we made clear the precise number of academic artifacts expected by our faculty.

The assignment still prioritizes students’ academic experiences but provides a precise minimum number of academic artifacts, thereby also making clear students may include any number of additional artifacts from social and extracurricular experiences. If assessed properly, I believe we can begin creating an archive of minoritized knowledge that also makes change on how our students learn and live.

Next, we will design assessment practices that permit students to speak for themselves through the ePortfolios. Our current assessment proposal is a coding analysis of a sample of ePortfolios. This practice involves multiple levels of data gathering and synthesis from student work, using the language and concepts within the ePortfolios to demonstrate categories of student needs, strengths, and knowledge. Moreover, deploying coding of ePortfolios as an institutional assessment methodology gives us the tools to explore ways students may not express discontent explicitly; instead, we will look for language or behavior that is manifestly unhealthy for undergraduates. We will then compare the data gathered to Oxford’s other learning outcomes and other assessment data to determine whether we are meeting the needs of our students and to determine where the students can show us where we have fallen short. That is, coding permits our institution to understand where the multiplicity of its own student body is critiquing our own curriculum and community. In short, are we contributing to our students’ flourishing or to loneliness, isolation, and discontent?

ePortfolios as Antiracist Revolutionary Collections: Prospective Challenges to Higher Education

An ePortfolio as a revolutionary collection, in a Benjaminian vein, is embedded with power that comes from its owner, not its reader or assessor. Importantly, then, ePortfolios are not given influence by any outside entity; this includes the racist structures of higher education—from accrediting agencies to curricula, to professors and peers in the classroom. In fact, because ePortfolio reflections occur within higher education’s Western, colonial culture these collections contribute resistance from students of color to broader discourses within these spaces that have been built to exclude these same students. While racist structures are built to either exclude or assimilate marginalized people, ePortfolios offer a space-within-a-space from which genuine resistance emerges. These resistances provide qualitative, but more importantly, revolutionary institutional assessment.

Any response an ePortfolio author might make to institutional practices arises from their ability and freedom to generate a project infused with themselves. Following Benjamin’s (2019a) collections, we have no need to explore whether a student has attained certain

benchmarks in their learning—although we may do this in other ways—but instead honor the collection as a “magic encyclopedia” (p. 2). Treating student work as such opens at least two opportunities: (a) ensuring that ePortfolio assignments provide space for authentic and valuable student growth and reflection, and (b) ensuring that the reflections on student experiences within our own institutions is as close to authentic as possible.

In this spirit, I offer three preliminary suggestions for altering institutional assessment considering student expression through ePortfolios: (a) continual revision of capstone ePortfolio assignments, (b) revisit ePortfolio capstone assignment outcomes in consultation with student life professionals, and (c) build qualitative review of ePortfolios into your institution’s assessment practices.

Continual Revision of Capstone ePortfolio Assignments

Ideally, this is a change administrators can make quickly and repeatedly without too much resistance. If your institution deploys ePortfolios as a medium for capstone projects, revise assignment language and requirements in two ways: (a) elide any requirements or vocabulary that communicate to students their undergraduate experience must have been a positive one; and (b) open the assignment requirements to as broad a range of artifacts as possible, representing as many experiences as possible, while providing clear guidelines for how the project should be completed. Students should feel both the freedom to reflect in a genuine manner without guessing what their instructor or institution wants them to write (Yancey, 2016). Then, repeat this process with data from programmatic assessments from students and analysis of the ePortfolios themselves.

An additional opportunity for assignment revision is in your ePortfolio rubrics. This may be more difficult than updating assignment language and requirements, particularly if your rubrics are integral to certain elements of institutional assessment. However, rubric revision offers ePortfolio educators at least two vehicles for student-led transformation of ePortfolio pedagogy. First, clear rubrics make faculty assessment of student work easier, leaving less room for ambiguity and harm caused by the personal bias of the faculty member. Second, alterations to an ePortfolio rubric, if they are reevaluated in light of student work, provide an opportunity to change the sort of knowledges we are looking for as educators. Rather than seeing previously unassessed knowledge as irrelevant or even a deficiency, exciting students to explore their own localized knowledge that they bring to the classroom can help empower students of color.

Revisit ePortfolio Capstone Assignment Outcomes in Consultation With Student Life Professionals

Many of our institutions are blessed by dedicated student and residential life staff with expertise in student development and the culture of student life on our campuses. They also interact with students in a different capacity than faculty. From student clubs and events, to counseling, to resident assistants, student life professionals are often a critical piece to extracurricular experiences, which liberal arts colleges profess are central to integrated education. If ePortfolio assignments ask students to reflect on how their classroom and social learning inform one another, it behooves us to ask colleagues in our communities with a window into extracurricular experiences to contribute to our curriculum. Indeed, some recent conversations with our student life staff at Oxford were integral to our revision of our Milestone assignment. They showed us how things assumed in much of our curriculum, like learning outcomes, also guided much of their programming. As we altered our Milestone assignment to encourage students to showcase the knowledge they created in college, we are now able to excite students to include narratives of how their learning in class and in cocurriculars were integrated.

Build Qualitative Review of ePortfolios Into Your Institution’s Assessment Practices

ePortfolios narrativize reflection, a necessarily different genre than rubrics or student feedback surveys. As I have noted above, student-owned spaces for agency in reflection are best assessed as sites of knowledge production. In short, colleges need to assume that ePortfolios contain data points about teaching and learning practices presently uncaptured by established outcomes; rather, the knowledge students produce from ePortfolios can offer a deeper understanding of how learning outcomes are being met and whether these outcomes are sufficient for capturing the sort of learning occurring on our campuses. I discussed earlier one strategy we are exploring at Oxford—deploying qualitative coding analysis of our students’ Milestone projects—this may or may not work for your institution; for our purposes here, what matters is that student voices speak through their ePortfolios and that those voices are treated as legitimate assessment of their own college community’s teaching and learning practices and outcomes. Taken together with analysis from student and residential life professionals, qualitative analysis of ePortfolios provides student reflection on the process of learning, not student opinion on learning nor administration-driven assumptions of student need.

Furthermore, qualitative review of ePortfolios helps disaggregate data on student learning, as suggested by McNair et al. (2020). The knowledge creation narrated by students in ePortfolios, in fact, is extremely specific and can provide hyper-local datapoints about campus life and curricular success when explored on an individual level. These data can also be coded in ways that allow us to see patterns within various demographic groups on campus. I encourage ePortfolio practitioners to approach institutional research professionals on their campus for tools and best practices for gathering student ePortfolio data and deploying it for institutional change.

These suggested changes are intentionally vague because ePortfolios are vehicles for student knowledge creation from their undergraduate experience. I acknowledge that these suggested pedagogical and institutional changes may not mirror the language of “revolution” I have used throughout this article. My goal here is to identify practices that acknowledge the unique knowledge each student brings and ensure space for that knowledge to make change within our schools. This student knowledge is the revolutionary force working within ePortfolios. Where it takes our institutions, by definition, is as yet invisible within a higher education infused with white supremacy. And so, the traditional measures I suggest must always be in service of enabling something new to emerge within the academy, and what could be more alien to postsecondary learning than equity, justice, and “magic” programmatic assessment?

While programmatic assessment in higher education privileges objective measures and methods for making change within a college or university, ePortfolios-as-collections always already respond to their author’s immediate context with “magic” and “spirit.” The author of an ePortfolio who narrates their own experience, curates, and presents evidence of that experience, with an import that cannot be defined by the curriculum. The imagination with which they create may have been evoked by university requirements, but that imagination also contains multitudes of stories that have mediated the student’s life at the institution. Whether powered by experience or imagination, magic or spirit, the stories of life as postsecondary students contained within ePortfolios narrate material realities at an institution of higher learning that the institution itself could never anticipate. That is, such narratives tell readers about the successes and failures of a university before, say, professor evaluations or student body climate surveys are ever written. Moreover, these ePortfolios each set their own measures for what matters at the university. To put an even finer point on it: when the institution, imbued with the burden of racist history, seeks to end its own racial violence, it lacks the tools; when students of color tell their stories from within that institution, their stories transform it.

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Appendix A

Oxford's Original Milestone Pilot Assignment

The Milestone Portfolio is your chance to showcase who you have become at Oxford in a digital portfolio of your work created for the members of the Oxford community. Specifically, the Milestone is an opportunity to turn the lens of inquiry on yourself by asking and answering a meaningful question about who you have become through your liberal arts education at Oxford. We hope that it will deepen your journey of self-development at Oxford by providing you with a chance to explore and reflect on how you have changed during your time here. We call it a Milestone because your graduation from Oxford is not the end of your journey of self-development, but rather an important moment that deserves to be marked, reflected upon, and celebrated before continuing your life journey.

Telling Your Story

Together, the parts of your portfolio should add up to a coherent story or argument about your development as a thinker through your liberal arts experience at Oxford. Another way to think about this is that you are showcasing what you have learned while at Oxford, but it will be easier to integrate this into a coherent whole if you consider your learning in terms of yourself and your personal journey of self-development.

Developing your central idea about yourself should happen through an ongoing and recursive process of selecting, reflecting, drafting, and revising. You will benefit from ongoing collaborative discussions with peers, teachers, mentors, and your advisors in order to genuinely “re-view” your work and journey and gradually develop and polish your portfolio. We recommend that you begin this process during your Discovery Seminar by beginning some sort of reflective journal and by beginning to collect artifacts that might go in your portfolio.

Within your portfolio, you have several tools for telling your story:

1. selection of your artifacts,
2. evidence-based reflective writing (reflections that make claims about your work and point to or quote specific artifacts or features of artifacts),
3. interactive navigation (e.g., menus, hyperlinks, hyperlinked images),
4. arrangement of the elements of your portfolio, and
5. visual design and multimodal writing (layout, color, images, incorporation of video and audio).

Use these resources to carefully construct the story you want to tell about who you have become at Oxford, considering how these elements create meaning together.

Required Elements

1. *Evidence-Based Reflective Analysis* – Your portfolio will be framed by reflective analysis that guides your reader on your inquiry about your development as a thinker through your liberal arts education at Oxford and that provides coherence and context for the artifacts you have chosen to showcase. Your reflection should point to specific evidence in your portfolio, analyzing why and how events and artifacts have sparked development, detailing the processes by which chosen artifacts were developed, and establishing the artifacts’ relationships to the portfolio’s central idea. This reflection should be 750-1000 words.
2. *Artifacts* – Your portfolio should exhibit **at least three artifacts** from your time at Oxford that you have selected through a process of inquiry and self-reflection. These should span a range of disciplines, contexts, and experiences to fully engage with your liberal arts experience. Your artifacts should support the story you tell about yourself in your reflective analysis and demonstrate your development through the core dimensions of Oxford’s curriculum, such as:
 - Ways of Inquiry
 - Experiential Learning
 - Writing and Communication
 - Information Literacy & Research
 - Leadership

- Social Responsibility

Your chosen artifacts should be artifacts that you have produced or that showcase something you have produced. In addition to traditional academic papers, you should consider incorporating a broad range of artifacts, like an excerpt from a musical performance, a film project, or a picture of a research poster. The artifacts do not have to have been produced in the classroom, but could be from an internship, service learning, travel, club, etc.

3. *Biographical Profile* – In addition to your reflective writing, you should develop a profile page that is biographical rather than reflective.

Beyond these required elements, you may choose to identify other dimensions you feel you have grown in during your time at Oxford. You may also choose to add more than the three minimum artifacts and to include brief reflective introductions for each artifact. Make sure, however, that your artifacts are carefully curated and arranged to enhance your audience's experience of the portfolio

Appendix B

Oxford's Current Milestone Assignment

Your Objectives

1. Connect the most knowledge you gained in your liberal arts experience—from coursework, experiential learning, co-curricular experiences, or leadership—and explain how it has shaped you and your future plans.
2. Analyze and connect this knowledge through reflection, integrating the various elements of the portfolio into a coherent whole.
3. Adapt digital technologies and media to communicate for a specific academic audience and purpose.
4. Use reflective practice to put multiple perspectives, experiences, and contexts into conversation with each other to assess knowledge and performance and produce new insights.

Your Task

In your Milestone Portfolio, using the Digication ePortfolio platform, you will draw together in a coherent analysis the knowledge you gained in the first two years of your liberal arts college education—from the most meaningful ideas, thinkers, projects, activities, and moments. An excellent ePortfolio will use different forms of communication to give a coherent, evidence-based account of how you are changing as a thinker because of your learning in the classroom, in extracurricular activities, and with your community.

Your Audience

Your Milestone project will be viewed by three constituencies: peer reviewers in your advising cohort, your academic advisor as you create your project, and one other Oxford faculty member during final assessment. Therefore, you should plan to write your Milestone Project for members of the Oxford community. Do note, however, that you can control who can view your ePortfolio, using Digication's privacy settings.

The Required Elements

Your Milestone Portfolio must include the following pieces:

1. *Evidence-Based Reflective Analysis* – Your portfolio is framed by a 750-1,000-word Reflective Analysis, in which you write an evidence-based account of how the knowledge you gained at Oxford is changing you as a thinker. Your reflection should be guided by a coherent theme and provide context for your three Artifacts, which are evidence for how your learning is changing you as a thinker.
2. *Artifacts* – Your portfolio should include at least three Artifacts from your college experience so far, at least two of which should be products from academic experiences. Each artifact should showcase knowledge that you have gained over these past two years. They should span a range of disciplines (i.e., from more than one discipline) and experiences from your undergraduate life. Your Artifacts should support the central idea of your Milestone portfolio as evidence.
 - a. You might consider artifacts from core dimensions of Oxford curriculum:
 - i. Discovery Seminar and Inquiry courses
 - ii. Experiential learning
 - iii. Writing & communication
 - iv. Research & information literacy
 - v. Leadership & social responsibility
 - vi. Your coursework across disciplines
 - b. You have the option to add more than the three-artifact minimum. Make sure, however, that your artifacts are carefully curated and arranged to enhance your audience's experience of the portfolio.

3. *Biographical Profile* – This is a page in your portfolio that elaborates on your biography, demonstrating who you are in the context of your liberal arts education. This profile will help your audience envision who you are becoming in college.

Assessing the Milestone Portfolio

The Milestone Portfolio is graded S/U and includes your participation in MLP 101. See the “Minimum Criteria” in the rubric below.

You will also notice a section of the rubric, entitled “Evaluative Criteria.” These criteria are designed to show you where you have excelled in your digital reflection and where you have room to grow as a reflective learner. These criteria are **not** designed to grade your performance, but to offer you a guide for where you might foster growth in your intellectual life as you continue to the Atlanta campus and beyond.

