

Equipping Future Nonprofit Professionals With Digital Literacies for the 21st Century

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Abstract

Digital technologies now permeate the professional interaction, access, and distribution of information. Future nonprofit professionals must obtain the necessary skills and knowledge to leverage the power of digital technologies in an ethical and appropriate manner. The challenge for educators and their students moving into the professional realm involves the disruption of traditional forms of professional training through digital technologies. This paper demonstrates how technology is utilized to equip students with digital literacies through the evaluation of a course that included digital technologies. The course focused on communication, marketing, and digital activism in the nonprofit and voluntary sector. Data were gathered over four semesters, and findings indicate that through participation in the course students experienced growth in digital literacies across all domains. Educators can help prepare future professionals by equipping them with the necessary digital literacies to ensure they become competent professionals.

Keywords: *digital literacies; social media; education*

Technology has changed the ways nonprofit organizations communicate and collaborate (Eimhjellen, 2014; Finn, Maher, & Forster, 2006). Nonprofit organizations have increasingly used social media and digital technologies to provide services, engage in advertising and fundraising, engage in advocacy, and implement innovative strategies to interact with their communities (Kanter & Fine, 2010; LaCasse, Quinn, & Bernard, 2010; Mansfield, 2011; McPherson, 2015; Saxton, Niyirora, Guo, & Waters, 2015; Saxton & Wang, 2014; Waters & Jamal, 2011). Because social media and digital technologies have become more ubiquitous, it is important for educators to infuse these technologies into their courses and increase the digital literacies of their students to help them become competent professionals in the nonprofit and voluntary sector.

Current trends in higher education demonstrate diverse challenges and opportunities such as the use of online programs and social media that lead to what can be termed digitally mediated education. Digitally mediated education is the use of any digital technology to support, enhance, or otherwise augment the process of education, learning, and professional training. Future nonprofit professionals now benefit from an array of specializations, certifications, and degrees that can be obtained solely online. Digital technologies that mediate the educational process include smart classrooms, computers, learning management systems, tablets, mobile devices, and more (Baldrige, McAdams, Reed, & Moran, 2013; Shorkey & Uebel, 2014). The use of digitally mediated education also serves to break down traditional forms of professional training and socialization (Jenkins, Clinton, Purushotma, Robison, & Weigel, 2009), which offers another set of challenges. In a traditional classroom, students can interact with their professors or others in a way that allows for critical comprehension of principles and demonstration of learning outcomes. Technology is becoming more proficient at replicating the traditional model and offering students more flexibility to further their professional education and training at any time and in any place. An increasing need in the face of technology is to enhance the digital literacies of students as they move to becoming professionals in the voluntary or nonprofit sectors. The method of education or preparation should not matter as long as educators are purposeful with incorporating relevant technological content into their courses.

Research is beginning to emerge with respect to using social media in the classroom, and many other disciplines have examined the concept of *digital literacy*, which is essentially an umbrella term that encompasses many forms of media literacy (Considine, Horton, & Moorman, 2009). Media literacy generally refers to “the ability to access, analyze, evaluate, and communicate messages in a wide variety of forms” (Hobbs, 1998, p. 16). The emphasis of media literacy is learning and teaching skills related to the process of critically analyzing and creating one’s own messages in a variety of print or digital forms (Hobbs, 1998). This paper uses the broader concept of digital literacies to represent the use of critical thinking skills not only to access, analyze, evaluate, and communicate throughout the educational process but also to incorporate the social and cultural competencies necessary to participate in and understand the digital world. Recognizing and infusing digital literacies into the curriculum will prepare students to respond to new and diverse challenges of the 21st century. The following evaluation describes how digital literacies were incorporated into a course focused on communication, marketing, and digital activism in the nonprofit and voluntary sector. The evaluation is embedded in the conceptual framework of new media literacies and

participatory culture, which is described further below, and highlights the challenge of teaching online versus in the traditional classroom. Specifically, the evaluation tests (1) whether a student's level of digital literacy can increase through participation in the course and (2) whether there is a difference in the levels of digital literacies among students who participated in the online or traditional method of instruction.

Literature Review

The use of digital technologies in higher education has been increasing for decades. The U.S. Department of Education (2009) cited online learning as one of the fastest growing trends, and programs across a variety of disciplines have only increased their use of technology in educational offerings. Research suggests that 5.8 million students participated in an online course and that the growth of online enrollments continues to trend higher (Allen & Seaman, 2016). Considering the movement to incorporate more online offerings, some have highlighted the shortcomings of online education (Brown & Liedholm, 2004; Xu & Jaggars, 2013; York, 2008). The debate over whether online courses yield the same if not better learning outcomes as traditional courses continues to evolve, and much research has been done to test the no-significant-difference hypothesis of online education, with generally mixed results (Lack, 2013; Nguyen, 2015). The reality is that online education works well for some and the traditional face-to-face format works well for others. The number of factors involved in deciding to teach online or face-to-face is beyond the scope of this paper and instead the focus remains on digital literacies, no matter the delivery format of instruction.

The literature on digital literacy skills of students is well developed in the media studies and communications disciplines (Hobbs, 1998; Jenkins, 2006; Potter, 2013; Rheingold, 2013; Schmidt, 2013). Over the past decade, the number of disciplines (e.g., social work) that focus on preparing future nonprofit professionals has steadily increased (Fang, Mishna, Zhang, Van Wert, & Bogo, 2014; Holmes, Hermann, & Kozlowski, 2014; Perron, Taylor, Glass, & Margerum-Leys, 2010; Quinn & Fitch, 2014; Young, 2015). Additionally, the nonprofit literature has seen an explosion of studies related to the use of digital technologies and social media in professional practice (Barnes, 2014; Campbell, Lambright, & Wells, 2014; Guo & Saxton, 2014; Hill & Ferguson, 2014; Waters & Jamal, 2011; Young, 2017). It is becoming increasingly clear that the nonprofit and voluntary sector has been transformed because of digital technologies, and future nonprofit professionals will need assistance in utilizing these tools effectively and appropriately. This goes beyond simple data entry jobs, word processing, or working with simple software, as it is more important for students to be able to find, sort, analyze, share, discuss, critique, and create information (Wesch, 2009). Indeed, curriculum needs to involve a focus on teaching literacy skills that are going to be used in a professional setting to facilitate the progression from data to information to knowledge to communication of that knowledge (Quinn & Fitch, 2014, p. 146).

A critical examination of whether technological tools, such as social media or mobile devices, prepare students for their professional life is warranted, and more research is needed to fully answer that question. However, incorporating digital literacies can have the effect of increasing competence, and it does not matter what digital technologies are available to help enhance digital literacies, because it matters more what stu-

dents and educators choose to do with those tools. Simply relying on the next hot tech tool will be a disservice to students, and educators may become overwhelmed trying to keep up with the constant change of technology (Young, 2015). Instead, a thoughtful and purposeful selection of various digital tools will yield better learning outcomes and provide ample time for educators to help enhance the digital literacies of their students.

The conceptual framework of new media literacies and participatory culture (Jenkins et al., 2009) is particularly relevant for this study because it provides a unique way of understanding that social media and digital consumption today is multifaceted and more complex than it has been in the past. New media literacies are digital literacies that build upon the traditional research skills and critical analysis skills taught in the classroom, but extend the definition to include social skills, cultural competencies, and methods of interaction within larger communities (Jenkins et al., 2009). Table 1 shows the skills identified in the new media literacies framework.

A major aspect of this framework is the idea of participatory culture, which is a “culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing creations, and some type of informal mentorship whereby experienced participants pass along knowledge to novices” (Jenkins et al., 2009, p. 3). The participatory properties of digital technologies build on the foundation of traditional research and technical skills as well as critical analysis taught in the classroom (Jenkins et al., 2009). It is important to note that participatory culture is not social media and participatory culture has existed in and outside of the classroom for decades. The difference is that digital technologies transform the way students participate in their learning. The resistance to digitally mediated education comes because the focus on technology often surrounds what the tools do and do not allow, but the conversation on digital technology and learning needs should also include a focus on the participatory aspects of the new digital culture and how increasing knowledge around digital literacies can help prepare future nonprofit professionals with digital literacies for the 21st century (Young, 2015). By recognizing that we have become a participatory culture and that digital interactions and exchanges have inevitably worked their way into various aspects of organizational practice in nonprofit and voluntary settings, how can we prepare students to engage appropriately in these digital spaces?

Table 1

New Media Literacy Skills

Skill	Description
Appropriation	The ability to meaningfully sample and remix media content
Performance	The ability to adopt alternative identities for the purpose of improvisation and discovery
Judgment	The ability to evaluate the reliability and credibility of different information sources
Collective Intelligence	The ability to pool knowledge and compare notes with others toward a common goal

Table 1 (cont.)

Skill	Description
Play	The capacity to experiment with one's surroundings as a form of problem solving
Simulation	The ability to interpret and construct dynamic models of real-world processes
Multitasking	The ability to scan one's environment and shift focus as needed to salient details
Distributed Cognition	The ability to interact meaningfully with tools that expand mental capacities
Transmedia Navigation	The ability to follow the flow of stories and information across multiple modalities
Networking	The ability to search for, synthesize, and disseminate information
Negotiation	The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms
Visualization	The ability to translate information into visual models and understand the information that visual models are communicating, as a key method for coping with large data sets and making sense of the complexity of our environment

Note. Adapted from *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, by H. Jenkins, K. Clinton, R. Purushotma, A. J. Robison, M. Weigel, 2009 (https://www.macfound.org/media/article_pdfs/JENKINS_WHITE_PAPER.PDF).

Method

The purpose of this evaluation was to demonstrate how to increase students' digital literacies by incorporating relevant technological content into the educational non-profit curriculum. Specifically, the evaluation looked at the pre- and posttest scores of students participating in a multidisciplinary course on nonprofit marketing, communication, and advocacy. The purpose of the course was to examine the role of social media in the nonprofit sector and how to utilize social media and various digital tools. The course took place over four semesters, and the participants were grouped into two groups, online and traditional face-to-face courses. This was done to examine the no-significant-difference hypothesis regarding online education delivery formats. Additionally, the main hypothesis for the study was that a student's level of digital literacies would increase after participating in a course infused with social media, digital

technologies, and content related to new media literacies and participatory culture. The purpose of this increase in digital literacy was to prepare the students with the skills needed for ethical and appropriate interaction and professional practice in the 21st century.

Survey Design

The study was approved by the institutional review board and utilized a newly developed instrument for self-reported media literacy levels (Literat, 2014; Young, 2015). Strategic changes were made to the survey to include basic demographic information such as age, gender, and ethnicity, but the sections on media use habits and new media literacies were not changed to ensure continued reliability and validity of the psychometric properties of the instrument. The section on new media literacies skills presented participants with a randomized series of 60 statements about their personality, social cultural modes of engagement, online and off-line peer interaction, learning styles, and media consumption and creation patterns (Literat, 2014, p. 17). The statements were conceptually built around the new media literacies framework (Jenkins et al., 2009) and it is important to note that the statements include technology-related and non-technology-related behaviors in accordance with the understanding that new media literacies skills are social and cultural competencies (Literat, 2014; Jenkins et al., 2009). The questions utilized a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) as identified in the original study (Literat, 2014).

Sample and Data Collection

The sample consisted of 111 students in an undergraduate program in the Midwest who were given the un-incentivized option to participate. They were drawn over a four-semester period from four sections of the same course taught by the same instructor. Eighty-four students participated in pre- and postsurveys, which yielded a 76% response rate. The mean participant age was 22.42 years old ($SD = 5.005$), and the sample was predominantly female (81.5%) and Caucasian (83.9%), although minority (16.1%) and male (18.5%) students also participated. Data were collected using Qualtrics Web-based survey software, and a link was provided at the beginning and the end of the term. Following the original study (Literat, 2014), the survey was formatted as an interactive quiz for which participants were given a personalized digital literacies score based upon their responses to the survey. The scores range from 0 to 300 and are broken down into four categories, and participants are provided with a description of the score.

Analysis

Statistical analysis was conducted using SPSS software with a reliability analysis being conducted to demonstrate the validity and reliability of the instrument used in the evaluation. Descriptive statistics were analyzed to gain a better understanding of the characteristics of the sample in terms of digital literacy. Inferential statistical analysis, including a *t* test analysis of group mean scores from pre- to posttest, along with an analysis of variance (ANOVA) across category means, was utilized to determine if students participating in a course focused on nonprofit organizations and infused with digital technology content and practice skills would show significant increases in their overall digital literacy competency. A *t*-test comparison of means was used to test the no-significant-difference hypothesis between delivery formats of the course, online versus traditional face-to-face.

Results

Overall, the survey showed a solid reliability with an alpha of .723 (Nunnally, 1978). Multiple scores were developed from the survey. Among them was the overall digital literacy score, which summed all possible items and allowed them to be compared broadly from pre- to posttest. As Table 2 shows, statistically significant improvements were observed in digital literacy across the sample from pre- to posttest. The effect size of these improvements was large and suggests high practical significance ($d = -0.79$). A *t*-test comparison of means shows roughly a 16% improvement in digital literacy scores as a result of course participation.

Table 2

t Test: Course Effects on Student Digital Literacy Scores (Overall)

	Score		<i>df</i>	<i>t</i>	<i>p</i>
	Pretest <i>M</i> (<i>SD</i>)	Posttest <i>M</i> (<i>SD</i>)			
Pre-Post	217.79 (17.44)	233.85 (23.15)	166	-5.08	<.000

Additionally, scores were developed that measured the improvement of participants in each of the 12 digital literacy domains. An ANOVA procedure was used to assess mean score changes along each of these domains from pre- to posttest, and Table 3 shows how statistically significant differences were observed among students with increases in skill levels across all 12 domains.

Table 3

ANOVA: Course Effects on Student Digital Literacy Domains

Source	Score		<i>M</i> _{diff}	<i>F</i>	<i>p</i>
	Pretest <i>M</i> (<i>SD</i>)	Posttest <i>M</i> (<i>SD</i>)			
Appropriation	15.20 (2.71)	17.18 (3.05)	1.98	19.70	< .000
Performance	14.60 (2.87)	15.70 (2.72)	1.10	6.58	.011
Judgment	19.89 (2.40)	21.35 (2.31)	1.46	16.00	< .000
Collective Intelligence	19.14 (2.17)	20.04 (2.41)	.90	6.37	.013
Play	19.07 (2.33)	20.05 (2.87)	.98	5.85	.017
Simulation	17.76 (2.57)	18.94 (2.93)	1.18	7.70	.006
Multitasking	17.67 (3.07)	19.77 (2.94)	2.10	20.65	< .000
Distributed Cognition	19.70 (2.01)	20.30 (2.12)	.60	3.48	.064
Transmedia Navigation	18.01 (2.70)	19.32 (3.13)	1.31	8.44	.004
Networking	17.68 (3.09)	19.50 (3.15)	1.82	14.30	< .000
Negotiation	19.04 (2.79)	20.57 (2.93)	1.53	12.13	.001
Visualization	20.02 (2.12)	21.13 (2.44)	1.11	9.85	.002

Note. degrees of freedom = 167; *M*_{diff} = amount of score increase from pre- to posttest.

Findings from the data suggest that through participation in the course students experienced growth in digital literacy across all literacy domains over the course of the four semesters. It appears that the course activities promoted a significant impact on increasing digital literacies among student participants. Additionally, an independent samples *t* test with equal variances assumed ($F = .599, p = .441$) to assess the hypothesis of impact of course delivery method showed no significant difference between the online (= 235.89) and traditional face-to-face (= 232.23) delivery methods in terms of enhancing students' levels of digital literacy ($t = .717, df = 82, p = .475$). The effect size of this test is also small, indicating low practical significance ($d = 0.16$). Table 4 further demonstrates the online versus face-to-face delivery formats and the increases in digital literacies from pre- to posttest. There was a significant difference in the levels of digital literacies among students in both formats from pre- to posttest.

Table 4

t Test: Delivery Method Effects on Student Digital Literacy Scores

Format	Score		<i>df</i>	<i>t</i>	<i>p</i>
	Pretest <i>M</i> (<i>SD</i>)	Posttest <i>M</i> (<i>SD</i>)			
Online	222.00 (19.81)	235.89 (23.91)	72	-2.722	.008
Face-to-Face	214.47 (14.70)	232.23 (22.66)	79	-4.510	< .000

Discussion

The main objective of this study was to examine levels of digital literacies after students participated in a course infused with social media, digital technologies, and content related to digital skill development. Second, the study examined the hypothesis regarding mode of course delivery to assess whether online or traditional face-to-face courses affect the levels of digital literacies. The results support the first hypothesis, with a statistically significant difference in participants' levels of digital literacies from pre- to posttest ($t = -5.08, p < .000$). Providing students with specific content, knowledge, and skills regarding digital literacies can positively affect their overall competence. The four skills with the largest difference between pre- and posttest were Multitasking (2.10), Appropriation (1.98), Networking (1.82), and Negotiation (1.53), and these scores show that students attained a higher degree of critical thinking and application of these digital literacies. However, students in both delivery modes attained higher levels of digital literacies from pre- to posttest across all 12 skills. This finding supports the no-significant-difference hypothesis about courses being delivered online or in the traditional face-to-face format.

These skills were developed through an assignment that required them to scan their environment and shift their focus as needed (Multitasking) to obtain possible research articles and other salient details on social media websites that they could use as examples in their presentations. Multitasking as a skill is not about distraction, but rather attention and being able to focus on details when there are increasingly many data sources such as blogs, the library, news media, and more from which students can draw to raise awareness, advocate for a cause, or promote a specific nonprofit or-

ganization. Students had to be able to use the information from social media and the Internet (Appropriation) to create engaging content such as infographics and videos to raise awareness of those in the class (Networking) and online, where students often shared their projects in the participatory culture of social media. The act of sharing is critical in participatory culture and as students begin to understand that social media is more than creating content, retweeting, or commenting, and that it involves social and cultural competencies that help them to travel across diverse communities online or off and respect multiple perspectives (Negotiate) so that they can connect and interact with others successfully.

Implications

Students as future nonprofit professionals will undoubtedly face many potential challenges as they move into the modern digital world. Devoid of any specific training on digital literacies, nonprofit professionals could become susceptible to failure as they move to interact or to utilize available digital or technological resources without fully understanding the implications of their use. To be effective, efficient, or innovative, many professionals across organizational settings are relying more on digital technologies. As educators, we must ensure that students are prepared for the modern professional world. By integrating digital literacies into our classes, and by ensuring they have access to the knowledge, skills, and experiences they need to be fully competent professionals, we can help students address the challenges they will face.

This evaluation is one of the first to assess the digital literacies of future nonprofit professionals using a technology-enhanced course, but clearly more research is needed. Future studies would benefit from a larger sample size and a more rigorous design, such as using a comparison group of students who do not receive knowledge and training on digital technologies. Despite the finding of no significant difference between delivery modes, it is possible that students in the online course were more adept at using technology, which could account for the higher scores at pre- and posttest compared with the traditional face-to-face scores at pre- and posttest. However, the mean difference between pre- and posttest was higher for the traditional format (17.76) than the online course (13.89). This may or may not suggest a higher level of critical thought and application of the course principles, and more research is needed. Additional limitations of this evaluation include the length and content of the survey, which included 80 questions. Perhaps a more concise instrument could capture the most important measurement of digital literacy.

Conclusion

It is impossible to know exactly what to expect of the future, but educators hold a unique position on the front row in educating these future professionals and influencing their behaviors and interactions as they prepare for a world that is more complex and ever changing. As humans begin to interact at dizzying speeds across the globe, and as access to information is instant, preparation is critically important. We do not necessarily need to remove the basic building blocks of education or professional training, but we can now leverage the mechanisms that people use to interact with one another and can evolve to become more engaging, innovative, strategic, thoughtful, and

purposeful educators. Enlarging our view of what is possible will help ensure students are ready for the modern technologically infused world that awaits.

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