Evaluating an Online Module:
Using Social Media as a Professional Development Tool for Graduate Students in the Learning Design and Technology Department at the University of Hawai‘i at Mānoa

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Abstract: The Learning Design and Technology (LTEC) program at the University of Hawai‘i at Mānoa focuses on integrating and evaluating educational technology in various learning environments. With the increase of online technologies, social media can be utilized as a professional tool to connect, network, and collaborate with peers, colleagues, and other professionals, especially within the professional world of learning design and development. Currently, the LTEC Department has yet to provide instruction and guidance for LTEC graduate students on why and how to use social media effectively for professional purposes. The purpose of this learning assessment is to evaluate the impact of the online module on the interest and willingness of LTEC graduate students to use social media as a professional development tool within and beyond the LTEC Department. The project was designed using Krathwohl’s Affective Domain Taxonomy and the Keller’s ARCS Model and tested through asynchronous retrospective surveys and one-on-one interviews. Results show a positive change in interest and willingness to utilize social media for professional purposes within and beyond the LTEC Department. Recommendations for further research include implementing higher level educational objectives, incorporating active participation strategies to observe behavior changes, and widening the target audience to encourage cross-departmental buy-in.

Statement of the Problem

The Learning Design and Technology (LTEC) Department in the College of Education (COE) at the University of Hawai‘i at Mānoa (UH Mānoa) offers several graduate level programs that aim to develop effective instructors and instructional designers by offering the knowledge and skills required to design, develop, implement, and evaluate contemporary and emerging technology, educational resources, and learning methods. With the use of technology, LTEC graduate students are prepared to apply educational technologies and learning principles to various professions and career fields, such as K-12, post-secondary education, military, library, museums, businesses and non-profit organizations (LTEC Master’s Degree, Program Overview, n.d.).

An online presence through social media can allow students to pursue their career interests by engaging and contributing within their professional community of practice (Lowenthal and Dunlap, 2012). According to Mark Carrigan (2020), social media can and should be utilized within higher education in order to increase academic visibility, develop and maintain academic and professional relationships, collaborate globally and cross-departmentally, and curate a
personal and professional research archive. Lowenthal and Dunlap (2012) state that “building a web presence…can make the difference in an academic's visibility to the desired audience and opportunities for new projects and collaborations” (para. 3). Social media presents a unique social learning environment and engagement that is also emerging in other fields; digital networking, scholarship, and collaboration are increasing in business (Sameen, 2013), politics (Bode, 2015), and healthcare (Alexander, 2016) and library sciences (Rossman & Young, 2016). Social networking can also supplement publications, resumes, and business cards. Lowenthal et al. (2016) explains that it is extremely important for individuals in technology-focused careers to have social media in order to validate their expertise and existence. In order to be competitive and recognized in today’s job market, LTEC students should understand the importance of using social media as a professional development tool.

Whether students are just starting their career in an LTEC-related field or completing a degree for professional development, it is important for LTEC students to develop and maintain professional relationships within their graduate program to help navigate the opportunities and developments within the program and in their current or future professional career. By developing a professional online presence and utilizing social media platforms, LTEC graduate students can build a foundation to their professional community and network that will them build their career after graduation.

Although the LTEC programs are technology-focused, LTEC graduate students lack the guidance and preparation on how to use social technologies effectively to develop, connect, and collaborate broadly with colleague and peers within the LTEC Department and beyond into the LTEC-related professional sphere. Through a brief system analysis of the LTEC Department illustrated in Appendix A, there are different strengths of communication and relationships between groups in the LTEC Department. The LTEC Department suprasystem consists of the LTEC Department, the LTEC faculty and staff, other COE Departments, UH Mānoa, other universities, and learning design professionals; the system includes the LTEC master’s students, LTEC Ph.D. students, and LTEC alumni; and the subsystem encompass the LTEC students’ educational background, career trajectory, job experience, technology familiarity, and social media familiarity. Communication from the suprasystem to the LTEC system is strong, primarily facilitated through email, listservs, direct communication through class, and a few social media platforms. In contrast, relationship between the groups within the system and the different cohort years are weak and under facilitated; the online and campus-based master’s cohorts, master’s students to doctoral students, and master’s and doctoral students to alumni do not have a reliable form of communication or connection. In addition, communication between some LTEC students to the learning design professionals in the suprasystem are weak, creating a disconnect between graduate school and the professional learning design-related world.

As a department, LTEC uses Facebook, YouTube, and LinkedIn as their primary social media platforms to help promote the department to prospective students and connect current students, faculty, staff, and alumni. The LTEC Facebook account, UHM Learning Design and Technology, is used update followers on upcoming events and recent alumni accomplishments and publications (UHM Learning Design and Technology, n.d.); however, as a Facebook Page it only allows for one-way communication from the organization to the followers of the page (Facebook, n.d.). Similarly, the LTEC YouTube channel is another one-way communication
method to visually promote the department’s programs and future opportunities through videos, which are embedded on LTEC Home website (Department of Learning Design & Technology UHM, n.d.; LTEC Learning Design and Technology, n.d.). However, LTEC has not uploaded a new video since 2019 and relies on individual instructors to upload resources and materials. The LTEC Department LinkedIn account (LTEC Department, n.d.) is another platform used to promote the LTEC programs but also provides an opportunity for students, faculty, staff, and other learning design community members to help establish and maintain connections in a public online network. Recently, Slack has also been added as a tool for internal communication for the department, which provides a private collaborative workspace for the whole department where LTEC students, faculty, and staff can create groups called “channels” in order to organize themed conversations. Due to its recent implementation, Slack has yet to be fully utilized.

Similar to other instructional design graduate programs across the US (Romero-Hall et al., 2018), the LTEC Department utilizes social media to externally broadcast instructional design-related information, resources, and updates and does not promote open conversation, networking, or collaboration. Furthermore, there is a lack of instruction, guidance, and resources for the graduate students on how to utilize social media effectively to build and maintain professional relationships internal and external of the department during the LTEC program. Currently, the LTEC Department offers one undergraduate 400-level course that graduates can choose to take as an elective called “Social Media: Links to Lifelong Learning,” which analyzes and evaluates the impacts of social media and ethical implications. This course focuses on the use of social media within a learning environment or a course context but does not expand on the potential professional development opportunities of social media that specifically impact professionals in the learning design field. There is even less information about why and how expanding a network outside the department can broaden perspective and create opportunities. Moreover, building a solid social network outside the department can strengthen the credibility and visibility of the LTEC program and department at UH Mānoa. The use of social media could be used to build a sense of community to collaborate, network, and continuously learn even after graduation.

The purpose of this learning assessment is to evaluate the impact of the online module on the interest and willingness of LTEC graduate students to use social media as a professional development tool within and beyond the LTEC Department. This module is an open online resource for current LTEC graduate students and alumni to help them build interest, motivation and confidence in using social media as a professional tool to connect with the LTEC community, LTEC alumni, and other professionals in the learning design related world.

**Literature Review**

Current data on social media track an overall increase in usage globally and research have shown a steady increase in utilization of social media for professional purposes in several social circles. To increase acceptance and willingness to practice social media for professional development, literature on social media implementation and instructional design and evaluation focusing on the affective domain were reviewed.
Social Media Usage

Today, there are approximately 4.8 billion internet users (Internet Live Stats, 2020), 3.8 billion social media users (Kemp, 2020), and in 2019, approximately 72% of Americans in the US used some type of social media (Pew Research Center, 2019). Broken down by age, 90% of people between ages 18-29, 82% between ages 30-49, 69% of between 50-64, and 40% of people 65 and older use at least one social media platform (Pew Research Center, 2019). Interestingly, reasons for using social media between these generations vary, including staying in touch with family and friends, getting advice, ideas, and inspiration, entertainment, and expanding professional network (Cox, 2019). With a growing population of online users worldwide, there is a shift towards embracing the use of social media to establish a curated and intentional professional online presence (Carrigan, 2020).

Large corporations, businesses, and non-profit organization have utilized social media to advertise their products and services for some time. Universities and colleges are also utilizing social media to market their educational programs to prospective students around the world (Martin, 2015). For example, Yale University promotes their school on many major social media platforms such as Facebook, Twitter, Instagram, and LinkedIn (Yale University, 2020). Many ivy league colleges such as Brown University even encourage the use of social media by faculty, staff, and students and provide policy guidelines and best practices when using it for personal or professional purposes (Brown University, 2020). Within library sciences, Rossman & Young (2016) published detailed guidelines and principles on how to build and engage the community the benefit libraries and library users.

A study by Rosenberg et al. (2017) focused on the use of social media as a communication and support tool to build a professional learning community among instructors at the University of Michigan within the STEM Program. By analyzing how social media platforms were used, specifically Facebook, Twitter, and blogs, it was concluded that a variety of platforms should be implemented to provide an opportunity for community discussion and learning. In addition, the design and structure of professional development programs should encourage scaffolded learning between different cohort years.

Because social media is described to have four commonalities: persistence, visibility, spreadability, and searchability (boyd, 2015). This means social presence is conveniently accessible, discoverable, and everlasting. Lowenthal and Dunlap (2012) emphasizes the importance of searchability on Google declaring:

> If Google cannot find a faculty scholar's work or the work of the scholar's colleagues, department, or institution, then it is essentially irrelevant — even nonexistent — because people will not find, read, apply, or build on the work if they cannot locate it via a quick Google search. (para. 2)

In addition to academic contribution, it can be assumed that a Google search applies to the search of a specific individual. According to Segal (n.d.), approximately 77% of companies in a Society for Human Resources Management survey use social media to hire and recruit applicants, particularly technology focused companies (CareerBuilder, 2009). As early as 2014, it was found that approximately 80% of employers use Google to casually screen applicants for an interview.
(Joyce 2014; Mathews, 2014). Although the results indicated that social media profiles do not make or break the hiring process in the business world, having an incomplete profile can make an applicant seem “out-of-date and/or lazy, has nothing to share, or worse, has something to hide” (Lowenthal, 2016) and can be counterproductive to building a career (Peregrin, 2012).

Within Social Media in Academia: Networked Scholars (2016), Veletsianos describes “networked scholarship” as a way for institutions, individual scholars and doctoral students to connect and share information and research with a broader audience. Social media platforms such as Twitter, encourages an open form for scholarly collaboration by sharing resources and experiences, providing feedback, recommending practices and forming social and professional connections (Veletsianos, 2011). He explains how being an active online contributor helps maintain relationships across geographical boundaries and enhance learning within the community. Similarly, within Social Media for Academics 2nd Edition, Carrigan (2020) describes the ways in which social media and digital scholarship can expand individual publication opportunities, professional network, public engagement, while highlighting the pitfalls and concerns to consider when using social media. Some known drawbacks to social media include the online harassment, addiction, algorithmic influence, and unequal participation, success or popularity (Carrigan, 2020).

Many articles present information on how to use social media for professional development however, there is a lack of information and research that focus on the attitudes, interest, and willingness to use social media in this way, specifically for the learning design and technology community.

**Affective Domain**

Because social media is a controversial topic with both benefits and pitfalls, this project focuses on the affective domain, or attitudes, towards social media as a professional development tool. This online will provide information on why and how to effectively use social media for professional purposes in order to change learners’ perceptions towards the positive possibilities.

Similar to the Bloom’s taxonomy for the cognitive domain, Krathwohl et al. (1973) classifies educational objectives specifically for the affective domain. In order to organize education goals and outcomes that describe the affective domain in terms such as interests, attitudes, values, appreciation, and adjustment, Krathwohl categorizes the affective domain into five levels, from lowest to highest: receiving, responding, valuing, organization, and characterization. Each level includes subcategories that further define the affective taxonomy:

- **Receiving**: The learner shows awareness, willingness and controlled or selected attention to certain information, idea or behavior.
- **Responding**: The learner actively participates by showing willingness and satisfaction, motivation, or enjoyment in responding to the information, idea or behavior.
- **Valuing**: The learner attaches value to the information, idea or behavior through acceptance, preference or commitment of the information, idea or behavior. This can be seen through seeking more information, showing involvement and appreciation.
- **Organization**: The learner conceptualizes and organizes the worth or value of the information, idea or behavior into higher order priorities.
• **Characterization:** The learner adjusts their behavior based on the information, idea or behavior.

Appendix B illustrates Krathwohl’s Affective Taxonomy and sub-categories in relation to the terms commonly used to describe the affective domain (Krathwohl, 1973).

**Instructional Design Models**

Two instructional models were used as the framework to evaluate the affective domain. John Keller’s ARCS Model (1979) is an instructional design model that focuses on the affective domain by incorporating motivational components within the learning environment. Keller’s categorizes four motivational components: attention (A), relevance (R), confidence (C), and satisfaction (S). Each category includes subcategories based on psychological concepts of human motivation. Appendix C includes guiding questions for integrating each subcategory of ARCS within the instructional design (Longfield, 2015).

The Dick & Carey Model (2015) is a process model of the complete instructional design process starting with identifying the instructional goals, conducting an instructional analysis, analyzing the learners, writing performance objectives, developing instructional strategies, developing and selecting instructional materials, and conducting formative and summative evaluations. This model incorporates “revising the instruction” as an important step of this assessment that other process models, such as the ADDIE Model, do not have.

**Methodology**

This learning module will be intended as a supplement to the department and distributed to faculty who may want to use it in their courses. It will be an open resource for LTEC students and alumni to learn the importance of using social media for professional purposes to enhance their career. The learning assessment will be conducted to research the following questions:

**Research Questions**

1. How does this online module impact the interest and willingness to use social media as a professional development tool to connect, network, and collaborate with students and alumni within the LTEC Department?
2. How does this online module impact the interest and willingness to use social media as a professional development tool to connect, collaborate, and network with professionals in the learning design related fields beyond the UH Mānoa LTEC community?

**Content Analysis**

This learning assessment will evaluate the effectiveness of the online module in the affective domain. In order to impact the affective domain, the educational objectives were structured through Krathwohl’s Affective Domain Taxonomy (1973) shown in Appendix D and the content of the online module was designed based on the ARCS Model. Within the Dick & Carey Instructional Design Model, Krathwohl’s affective educational objectives were implemented when writing “performance objectives” and the ARCS Model was integrated into the “development of instructional strategies” (Appendix E).
Instead of focusing on particular social media platforms, the online module content is based on the common professional themes found in the literature and simplified to focus on the practical uses for individuals with different levels of social media experience and different LTEC-related careers. The learning module starts with an introduction to provides context to how social media is defined and used and how it can play a part in professional development within the graduate level and the learning design field. After the introduction, the three core content sections describe advantages of using social media as an LTEC professional: community, networking, and collaboration. Through Keller’s ARCS Model, the three content sections elaborate on why it is relevant for learning design and development professionals and how to use social media aligned with the section benefit through thoughtful questions and activities shown in a hierarchy chart in Appendix F.

It should be noted that this learning assessment focuses on the interest and willingness of using social media as a professional development tool therefore, the objectives measures the first three levels of Krathwohl’s Affective Taxonomy: receiving, responding, and valuing. Krathwohl (1973) explains that assessment of “organization” requires long-term observation of behavioral changes which is not measurable during this timeframe and that “characterization” rarely has educational objectives because it is difficult to measure and “unrealistic.”

**Recruitment and Participants**
The target audience for this learning module and participants for this learning assessment are current LTEC master’s, doctoral students, and alumni. These individuals have diverse educational backgrounds, professional experience, and social media familiarity. Because the LTEC program offers foundations and skills that can be applied to different fields and positions, LTEC students may have different career interests and goals ranging from K-12 teachers, instructional designer, web designers, or corporate training. Some LTEC students are looking to start or transition into a learning design and development career or build an instructional design foundation to professionally develop within their current career. Course content was presented to be relevant to various types of career options and focused on the importance of using social media with those professions without focusing on specific social media platforms. Because this study looks at participants’ attitudes towards social media, participants were not required to have any social media experience, have active social media accounts, or create accounts during the learning module.

Participants were recruited through the LTEC Department email listservs, direct emails, LTEC courses and one LTEC social media platform, LinkedIn (Appendix G; Appendix H). The recruitment emails were sent broadly to capture up to 30 participants according to IRB approval. A total of 33 participants completed the consent form; only 25 participants were counted with the full completion of the demographic pre-survey, online module, and exit survey. Three participants from each category of the target audience were emailed directly to participate in a synchronous one-on-one screen-recorded session to gather feedback on the content, process, and format of the online module.

Results from the demographic pre-survey show that out of 25 participants, 15 were master’s students (60%), 7 were doctoral students (28%), 2 were alumni (8%), and 1 was specified as an “unclassified, LTEC graduate” (4%) (Table I1, Appendix I). Participant age generation ranged
from 4 Boomers (born 1945-1964), 7 Gen Xers (born 1964-1976), 12 Millennials (born 1977-1995), and 2 Gen Zs (born 1996-early 2000s). When asked about their frequency of social media usage, 22 participants (88%) use it daily and two participants (8%) use it monthly; one participant specified “not applicable” but did not report a specific reason. The open-responses for participants’ reason and purpose for using social media were coded into three categories; 22 participants responded using it for personal connections and entertainment (45%), 15 participants mentioned using it for work, school and research-related purposes (31%), and 12 participants indicated using it for professional networking and development (24%).

Participant characteristics were also divided by the two iterations of the exit survey (Table I, Appendix I). Between the two iterations, there were 10 master’s students (40%), two Ph.D. students (8%) and no alumni in the first; whereas the second consisted of five master’s students (20%), five Ph.D. students (20%), two alumni (8%), and one unclassified LTEC graduate student (4%). The noteworthy difference between the two iterations was participants’ purpose for using social media, particularly responses concerning professional development and networking, where four comments (17%) were made by the first group and eight comments (31%) were made by the second group. Although this may suggest that Ph.D. students and alumni utilize social media to enrich their current professional career, out of the 12 participants (24%) who mentioned using social media for professional purposes (Table I, Appendix I), eight were master’s students (67%), two were Ph.D. students (17%), one was an alumnus (8%), and one was unclassified LTEC graduate (8%) (Table II, Appendix I). Table II also shows that 11 out of the 12 participants (92%) who use social media for professional purposes use it daily.

Appendix J illustrates which social media platforms are currently being used during this research project, the top four include YouTube, LinkedIn, Google Scholar, and Twitter.

**Evaluation Instruments**

A pre-survey questionnaire created through Survey Monkey was given at the beginning of the module to determine the demographics and current social media usage of the participants (Appendix K). The pre-survey questions include academic track, age, affiliated associations, organization, or groups, career focus, current social media platforms, purposes for the chosen platforms, and frequency of use. The pre-survey stayed the same throughout the research study.

Two iterations of an exit survey were embedded at the end of the online module. Both iterations of the exit survey collected data on the interest, willingness, and current and potential behaviors based on the educational objectives designed using Krathwohl’s Affective Taxonomy (Appendix D). First iteration exit survey included questions types such as multiple choice, complete the sentence, ranking, 5-point Likert scale, and free responses. Because of the question limit of the Survey Monkey free account, the first iteration of the exit survey contained 18 questions divided into two parts, 9 questions each (Appendix L).

After data analysis on the first exit survey iteration, it was concluded that additional questions needed to be added in order to answer the two research questions of the study. After IRB modification approval, the second iteration of the exit survey included specific pre-then-post retrospective 5-point Likert scale questions to capture the change in attitudes comparing before and after the completion of the module (Appendix M). Retrospective questions asked in one
survey at the end of the module help decrease the chances of participants overestimating their starting attitudes and interests before the module (Geldhof et al., 2019). This evaluation design allows participants to properly reflect on their own change in attitude. In addition, optional free response comment areas were added after each pre-then-post retrospective Likert scale question for participants to explain their selections. The second iteration of the exit survey was developed on the paid version of Survey Monkey in order to consolidate a total of 27 questions in one survey. Appendix N illustrates a side-by-side comparison of the two exit survey iterations.

During the synchronous one-on-one sessions, an observation protocol was used to gather feedback on the online module content in the context of Keller’s ARCS categories; process including activities, sequencing, technology and pacing; and format concerning the layout and media choices of the sections (Appendix O). The recorded sessions were transcribed through Otter.ai and coded for one of the four categories of ARCS to see how far the design went through ARCS model and which category impacted learners to change their attitudes. Each category was also coded for positive and negative sentiment as well as neutral or suggestive comments.

Because the study focused on the affective domain and this online module will be offered as an optional open resource website for LTEC graduate students, this learning assessment did not incorporate embedded tests or summative evaluation of content and relied on the retrospective surveys as formative evaluation for the improvement of the online module.

Project Design Strategies
The learning module was developed on a free subscription to Wix.com, a simple and clean web builder that easily embeds third-party videos and surveys. The website layout was designed to guide learners in a specific order starting with the pre-survey, module home page, content sections in a recommended order, and exit survey. The website utilized colors of popular social media platforms such as Facebook and YouTube and simple buttons to simulate a social media feel (Appendix P).

The online module was designed to be completed asynchronously with the pre-survey and exit survey embedded on webpages at the beginning and end of the online module. The exit survey evolved during the two iterations: however, the content did not change in order to accurately compare the results of the affective learning domain during the span of the research study. Based on the ARCS Model, each section starts with a general overview of the topic, specific information relevant to the learning design community, and an embedded video of an LTEC faculty or alumni giving a quick story of their experience using social media for professional purposes. Activities with thoughtful questions and best practice recommendations are listed within each section as a resource to increase confidence and satisfaction (Figure 1). The first three levels of Krathwohl’s educational objectives, receiving, responding, and valuing, determined the extent of participation. Incorporating activities and assessment for Krathwohl’s organization and characterization would involve participants to use or create social media account that this research study did not require.
Procedures

Two types of testing were conducted to evaluate the impact of the online learning module: asynchronous sessions, where participants completed the pre-survey, went through the online module, and complete the exit survey without the researcher; and synchronous one-on-one recorded sessions, where participants walked through the module with the researcher to provide feedback. Two different consent forms were given to the two groups of participants; both consent forms were signed electronically (Appendix Q; Appendix R).

Asynchronous participants first completed a consent form through Google Forms requiring an email and consent through the form submission, and were provided instructions on how to complete the pre-survey, online module, and exit survey. IP addresses were used to compare demographic responses to the exit survey responses of the asynchronous participants to ensure anonymity. Participants were asked to go through as much of the module as possible, however, encouraged to spend 1-hour maximum to complete the module.

For one-on-one sessions, participants emailed the electronically signed consent form to the researcher at the beginning of the session after which the researcher read an interview script to explain the goals, procedure, and expectations of the participant during the session (Appendix S). For confidentiality purposes, the researcher only recorded the audio and participants’ screen. The participant was encouraged to think out loud throughout the module and point out areas of the module that stood out to them in terms content, process, and format (Appendix O). The one-on-one sessions were scheduled based on the participants’ schedule and took approximately 1 hour.

In order to be approved for participant interviews and surveys, the researcher completed two CITI Program courses on Human Subject Research and Information Privacy & Security (Appendix T) and submitted an electronic protocol to the UH Mānoa IRB Office.
Results

Asynchronous Survey Results

Within the retrospective exit survey, participant described their feelings about social media before and after the online module in two free response questions. Most participants mentioned a shift in awareness and interest from using social media for personal purposes to include professional practices; other described neutral or no change because they do not have the time or already use it for professional reasons (Appendix U). These descriptions were further analyzed to count the frequency of words compare the change in feeling of using social media before and after the online module. Table 1 shows the top five words used before the module which included “media”, “social”, “time”, “personal”, and “entertainment”; whereas after the module, the top five words included “media”, “social”, “module”, “professional” and “positive”. Both the weight of the words and the actual descriptions show a positive change and shift towards the interest, willingness, and valuing of using social media for professional purposes in the learning design field.

Table 1.

Top Five Words Used to Describe Feeling About Social Media Before and After Online Module

<table>
<thead>
<tr>
<th>Before Online Module</th>
<th>After Online Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>media 29</td>
<td>media 21</td>
</tr>
<tr>
<td>social 26</td>
<td>social 19</td>
</tr>
<tr>
<td>time 10</td>
<td>module 11</td>
</tr>
<tr>
<td>personal 6</td>
<td>professional 8</td>
</tr>
<tr>
<td>entertainment 3</td>
<td>positive 4</td>
</tr>
</tbody>
</table>

Note. Non-descriptive words that did not describe feelings such as “use”, “can” and “feeling” were removed.

Four pre-then-post retrospective survey questions specifically targeted research questions 1 and 2. When asked a general question about using social media for professional purposes, the mean score before and after were 3.77 to 4.31, an increase of 0.54, or a 11% change (Table 2). In the second question pair narrowing use of social media to connect, network, and collaborate with students and alumni within the LTEC Department, the mean was 3.25 before to 4.00 after, a mean change of 0.75, or 15%. Similarly, the third question pair asking about using social media within the learning design community beyond the LTEC department was 2.67 before to 3.75 after, a 1.08 mean shift, or 22%. Lastly, the fourth question pair measuring the interest and willingness to stay up-to-date with educational technology and instructional design changed from 3.08 to 3.75, an increase in 0.67, or 13%. All four pre-then-post question pairs show a reduction in standard deviation between before and after taking the online module.

One participant was removed in the retrospective results as an outlier as they reported disinterest in using social media while also stating they already use social media for professional connection and networking. In the free response questions given after the pre-then-post retrospective questions, one participant explained, “The module sections helped me devise a plan to
revamp/revise my social media into more professionally-oriented profiles. I'm pretty much over the use of social media for personal reasons, but I do see the value and power in utilizing social media for a professional community, collaboration and networking.”

Table 2.

Basic Statistics of Iteration 2 Retrospective Pre-then-Post Survey Questions

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before this module, I used social media for professional purposes.</td>
<td>12</td>
<td>3.77</td>
<td>1.17</td>
</tr>
<tr>
<td>After this module, I will use social media for professional purposes.</td>
<td>12</td>
<td>4.31</td>
<td>0.63</td>
</tr>
<tr>
<td>Before this module, I used social media to connect, network, and collaborate with students and alumni within the LTEC Department.</td>
<td>12</td>
<td>3.25</td>
<td>0.97</td>
</tr>
<tr>
<td>After this module, I am interested in using social media to connect, network, and collaborate with students and alumni within the LTEC Department.</td>
<td>12</td>
<td>4.00</td>
<td>0.60</td>
</tr>
<tr>
<td>Before this module, I used social media to connect, network, and collaborate with professionals in the learning design-related fields.</td>
<td>12</td>
<td>2.67</td>
<td>1.44</td>
</tr>
<tr>
<td>After this module, I am interested in using social media to connect, network, and collaborate with professionals in the learning design-related fields.</td>
<td>12</td>
<td>3.75</td>
<td>0.97</td>
</tr>
<tr>
<td>Before this module, I used social media to stay up-to-date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.</td>
<td>12</td>
<td>3.08</td>
<td>1.08</td>
</tr>
<tr>
<td>After this module, I will use social media to stay up-to-date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.</td>
<td>12</td>
<td>3.75</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Note. Bolded values highlight the higher weighted averages and smaller standard deviations between paired pre-then-post questions.

When asked to rank the content sections in terms of importance, 52% of participants ranked community as most important, 48% ranked networking as second, and 60% ranked collaboration as least important (Appendix V).

Figure W1 in Appendix W shows that students sought out publications by an interesting author or research but did not pursue further through following on social media. After the online module, students showed willingness to follow authors and researchers on social media; however, this does not consider whether the author or researcher has social media themselves.
There was a higher interest and willingness change within alumni (Figure W2, Appendix W) however, this is most likely due to the small sample size of the alumni population.

One-one-One Interview Results

Three participants were interviewed for the one-on-one sessions: one alum who currently works as a Senior Instructional Designer, one current master’s student who is a corporate trainer and one current doctoral student who is a K-12 teacher (Table 3).

Table 3.

One-on-One Participants’ Academic Track and Current Occupation.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Academic Track</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>LTEC Alumnus</td>
<td>Senior Instructional Designer</td>
</tr>
<tr>
<td>Participant 2</td>
<td>Current LTEC Master’s student</td>
<td>Corporate Training Manager</td>
</tr>
<tr>
<td>Participant 3</td>
<td>Current LTEC Ph.D. student</td>
<td>K-12 Teacher</td>
</tr>
</tbody>
</table>

During the one-on-one interviews, participants were encouraged to explain their thoughts about the content, process, and format. For content, participants mentioned 15 statements about attention, 45 about relevance, 20 about confidence, and 5 on satisfaction. Most comments were positive; however, eight comments were not relevant to the participants and four comments did not increase confidence (Table 4). One example of a negative comment on confidence stated, “I did click on all of [the links] and I do wish that LTEC had kept up with all of them. I think when I looked at YouTube, it seemed like some of the videos were older.” Some of the comments, three of relevance, three of confidence, and one of satisfaction, were neutral. One example of a neutral comment suggested, “I almost wished you talked a little bit more about [the academic social media] part just because on ResearchGate, I've found people's articles on there that they post for free. I'm like, "Yes, I don't have to pay for it." That was kind of one thing that I slightly wish that was a little bit more expanded.” Based on actual comments, participants described that they particularly liked the videos because the people in the video were related to the LTEC department, provided stories about how social media impacted their professional career, and gave advice on how to start. This illustrates that the online module currently focuses on the relevance category of ARCS through videos and quote, however this means the current design needs more strategies within confidence and satisfaction categories of ARCS.

Table 4.

Sentiment Coding on One-on-One Participant Comments About Content

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Positive</th>
<th>Negative</th>
<th>Neutral/Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Relevance</td>
<td>45</td>
<td>34</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Confidence</td>
<td>20</td>
<td>13</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
One reason why the attention category was not mentioned as much is possibly due to the fact that all participants are within the learning design field, which could imply that some features that were relevant could’ve been what captured their attention as well.

All participants commented on the layout and reported that the design of the online module was pleasing to the eye; participant 2 specifically noticed a common theme with social media colors which seems relevant to this topic. In addition, all participants reported they liked the media choices, specifically the videos and the highlighted quotes. The participants mentioned the stories of the LTEC faculty and staff were very relevant and applicable to the learning design field and felt “inspired” by knowing it can be done simply. One participant stated, “regardless of your age or experience, [it’s] something you can do, no problem. [The LTEC student in the video] was like, ‘this is awesome and totally doable. You can totally network with people and make it professional,’ which was great. I love how [the LTEC faculty] was like, ‘I teach this course in it and this is how we use it.’ This is it actualized, and this is it making a difference in the world.”

When participants completed the thoughtful questions and activities, comments ranged greatly from being very relevant and satisfying to not being relevant at all. Participant 3 stated that the thoughtful questions made them realize their lack of a professional online presence and began to consider creating separate social media platforms for personal and professional purposes. Some activities were not complete them because they were not relevant to the participants’ professional goals.

**Discussion**

The purpose of this study was to evaluate the impact of an online module on the attitudes, specifically the interest and willingness, of LTEC students and alumni towards using social media as a professional development tool. The results showed a shift of interest from personal to professional use and expressed willingness to start or restart professional digital profiles. Both research questions were answers within the second iteration of the pre-then-post retrospective exit survey.

One study developed and evaluated affective change within students in a nine-week massive open online course on social entrepreneurship (Wu el at., 2019). Within this study, course evaluation on Krathwohl-based educational objectives were conducted through open-ended questions after each week of class and follow-up interviews. The open-ended answers were coded to categorize actions verbs to Krathwohl’s taxonomy levels. By organizing the course content week-by-week to target specific Krathwohl taxonomy levels, results indicated a gradual transition from lower taxonomy level verbs to higher level taxonomy verbs as the students progressed within the course. This allowed students to formulate authentic affective opinions of their own thinking and feeling towards the content presented without priming with survey questions. Further design studies on the evaluation of the affective domain for social media professional development could pursue a structured instruction with a locus of control and incorporate the open-ended questionnaire and interview process.
This study has several implications for future research related to implementing formal instruction on social media professional development within the LTEC Department. First, by increasing the length and depth of content to include information and strategies to counter disadvantages, misinformation, and insecurities towards using social media could further impact the affective domain. Furthermore, the online module should include higher level educational objectives of Krathwohl’s taxonomy at the “organization” and “characterization” level by incorporating design strategies and activities that target the confidence and satisfaction categories of ARCS. This would include intrinsic and extrinsic rewards systems with opportunities for learners to apply and develop professional social media accounts to observe the behavioral changes and adjustment. Based on the rankings of social media benefits found in the demographic pre-survey (Appendix V), further research can target the most important aspect of social media such as community building or even investigate the least important aspect, collaboration. This would require a longer implementation and observation period of the online module and research study and a project-based summative evaluation to observe assess successful affective change.

Conclusion

This research study reveals that an online module focusing on the affective domain can effectively influence a change in attitudes, at least in interest and willingness. Although the learning assessment showed positive changes in interest and willingness to use social media to connect within and beyond the LTEC community, it is unknown if the online module impacted the behaviors.

Based on the results, the current design of the online module emphasizes the attention and relevance, particularly through the videos and layout. The module could be further improved with more examples of LTEC or learning design professionals using social media in this manner, which would increase confidence and satisfaction through a role model; activities and best practices to target specific types of learning design careers; and discussion forum prompts to promote active participation, community learning and scaffolding.

In addition, this online module should expand the target audience to other members of the LTEC community, including LTEC faculty and staff and other COE Departments. Buy-in these stakeholders could influence the expansion and utilization of current social media platforms (Appendix J). The LTEC faculty can incorporate this online module to help develop LTEC students’ social media competencies and apply technology-based professional development skills throughout the program. Including other COE Departments through social media can promote cross-departmental professional support and increase student collaboration and networking beyond the LTEC system.
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https://doi.org/10.14742/ajet.3817


https://doi.org/10.14742/ajet.3817


Yale University. (2020, August 13). *Stay Connected to Yale University*. Yale University. [https://www.yale.edu/social-media](https://www.yale.edu/social-media).
Appendix A

Systems Analysis Chart of Communication and Relationships within the LTEC Department
Appendix B

Krathwohl's Affective Domain Taxonomy Categories
(Krathwohl et al., 1973)

Note. Krathwohl’s affective taxonomy is structured similarly to Bloom’s cognitive taxonomy where each level must be achieved to progress through the next category.
Appendix C

John Keller’s ARCS Categories and Subcategories with Guiding Questions for Instructional Design and Components Used in the Online Module

| Attention | 1. Capture Interest (Perceptual Arousal): What can I do to capture their interest?  
| | a. Images  
| | 2. Stimulate Inquiry (Inquiry Arousal): How can I stimulate an attitude of inquiry?  
| | a. Thoughtful questions  
| | 3. Maintain Attention (Variability): How can I use a variety of tactics to maintain their attention?  
| | a. Quotes and activities  
| Relevance | 1. Relate to Goals (Goal Orientation): How can I best meet my learner’s needs? (Do I know their needs?)  
| | a. LTEC-related career trajectory  
| | 2. Match Interests (Motive Matching): How and when can I provide my learners with appropriate choices, responsibilities, and influences?  
| | a. Activities, recommendations  
| | 3. Tie to Experiences (Familiarity): How can I tie the instruction to the learners’ experiences?  
| | a. Videos, activities  
| Confidence | 1. Success Expectations (Learning Requirements): How can I assist in building a positive expectation for success?  
| | a. Videos, activities  
| | 2. Success Opportunities (Learning Activities): How will the learning experience support or enhance the students’ beliefs in their competence?  
| | a. Activities  
| | 3. Personal Responsibility (Success Attributions): How will the learners clearly know their success is based upon their efforts and abilities?  
| | a. Formative evaluation  
| Satisfaction | 1. Intrinsic Satisfaction (Self-Reinforcement): How can I provide meaningful opportunities for learners to use their newly acquired knowledge/skill?  
| | a. Activities  
| | 2. Rewarding Outcomes (Extrinsic Rewards): What will provide reinforcement to the learners’ successes?  
| | a. N/A  
| | 3. Fair Treatment (Equity): How can I assist the students in anchoring a positive feeling about their accomplishments?  
| | a. N/A |
## Appendix D

Learning Objectives Based on Krathwohl’s Affective Taxonomy

<table>
<thead>
<tr>
<th>Receiving</th>
<th>Awareness</th>
<th>Defines social media.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to Receive</td>
<td>Describes categories and characteristics of social media.</td>
<td></td>
</tr>
<tr>
<td>Controlled or selected attention</td>
<td>Selects which social media to use and for what purpose.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responding</th>
<th>Acquiescence in Responding</th>
<th>Labels personal and professional communities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to Respond</td>
<td>Reports interest and willingness to reach out to communities and people through social media.</td>
<td></td>
</tr>
<tr>
<td>Satisfaction in Response</td>
<td>Reports satisfaction and confidence in using social media for professional purposes.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valuing</th>
<th>Acceptance of a Value</th>
<th>Demonstrates interest in new ways to network and collaborate with professionals in learning design fields.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference for a Value</td>
<td>Seeks opportunities to utilize social media in professional ways.</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>Invites others to use of social media for professional purposes.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Revised Dick & Carey Model (2015) including Krathwohl Taxonomy and ARCS Model
Appendix F

Online Module Content Hierarchy

1. Introduction
   - Define "social media"
   - Describe the four categories of "social media"
   - Describe the four characteristics of "social media"
   - Identify who uses social media and for what purposes
   - Set the foundation of different social media types
   - Provide information about social media usage

2. Community
   - Identify 3 subsections of professional community
   - Select which communities you are interested in
   - Describe how social media can be a professional learning environment
   - Can connect with:
     - Graduate cohort
     - LTEC Department
     - Career
   - PLC - Professional Learning Community is a team that shares ideas and scaffolds learning among the group, especially in the LTEC department
   - Join a community/curate PLC activity: school, company, organization, association, society, research method, author, hashtag, LTEC-related keywords, etc.

3. Networking
   - Describe your professional identity
   - Define a professional learning network
   - Describe ways to reach out to people through social media
   - Various LTEC professions: various LTEC skills, talents, affiliations, interests, etc.
   - PLN - Professional Learning Network connects professionals in LTEC-related fields

4. Collaboration
   - Identify 3 ways social media plays a part in online collaboration
   - Describe how to participate on social media
   - Diversifying perspectives, experiences, practices, and contributions
   - Empowering cross-subject, cross-departmental learning
   - Encouraging public engagement and coordination
   - Liking, tagging, reposting, direct messaging

Legend:
- Sections
- Objectives
- Why
- How - Activities
Appendix G

Recruitment Email via Direct Email and LTEC Courses

Aloha LTEC ___ students,

I hope this email finds you well!

My name is Elle and I’m in your LTEC ____ class. I'm currently working on my final LTEC masters project and looking to recruit current LTEC students (master’s and Ph.D.) and LTEC alumni for my research study. I have received approval from Dr. ______ to contact you all to see if you would be interested in participating in an asynchronous study.

I am conducting a learning assessment of an online course that I have created which teaches the benefits of social media as a professional development tool, specifically geared towards LTEC graduate students looking to work or currently working in learning design and development related fields. The purpose of the learning assessment is to evaluate the impact of the online module towards the attitudes and motivation of the use of social media for professional purposes within LTEC department and beyond.

This study will be conducted asynchronously and it will include a pre-survey, an online course consisting four content sections with interactive activities within each section, and an exit survey at the end of the online course to gather feedback about your attitudes and motivation using social media as a professional development tool. This should take approximately 1-hour. Your information and responses will also be kept confidential.

If you are interested in participating in my study, please complete this Consent Form through Google Forms (http://go.hawaii.edu/mrJ) and you will be given instructions on how to complete the pre-survey, online course, and exit survey. If you have any questions or concerns, please contact me at elle7@hawaii.edu.

Mahalo,
Elle Nakamura
Appendix H

Recruitment Email via LTEC Listservs and LinkedIn

Aloha LTEC Masters / Ph.D. students / LTEC Alumni,

I hope this email finds you well!

My name is Elle Nakamura and I’m an LTEC master’s student at the University of Hawai‘i at Mānoa. I’m currently working on my final LTEC master’s project and I’m looking to recruit current LTEC students (master’s and Ph.D. students) and LTEC/ETEC alumni who are interested in participating in my asynchronous research study. You are receiving this email because you belong to one of these categories.

I am conducting a learning assessment of an online course that I have created which teaches the benefits of social media as a professional development tool, specifically geared towards LTEC graduate students looking to work or currently working in learning design and development related fields. The purpose of the learning assessment is to evaluate the impact of the online module towards the attitudes and motivation of the use of social media for professional purposes within LTEC department and beyond.

This study will be conducted asynchronously and it will include a pre-survey, an online course consisting four content sections with interactive activities within each section, and an exit survey at the end of the online course to gather feedback about your attitudes and motivation using social media as a professional development tool. This should take approximately 1-hour. Your information and responses will also be kept confidential.

You may also be contacted via emailed in the future to provide additional.

If you are interested in participating in my study, please complete this Consent Form through Google Forms (http://go.hawaii.edu/mrj) and you will be given instructions on how to complete the pre-survey, online course, and exit survey. If you have any questions or concerns, please contact me at elle7@hawaii.edu.

Mahalo,
Elle Nakamura
## Appendices

### Table II.

**Total Participants Characteristics Divided by Exit Iteration 1 and 2**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (N=25)</th>
<th>Exit Iteration 1 (N=12)</th>
<th>Exit Iteration 2 (N=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Academic Track</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td>15</td>
<td>60%</td>
<td>10</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>7</td>
<td>28%</td>
<td>2</td>
</tr>
<tr>
<td>Alumni</td>
<td>2</td>
<td>8%</td>
<td>0</td>
</tr>
<tr>
<td>Other (specified as “Unclassified, LTEC graduate”)</td>
<td>1</td>
<td>4%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Age Generation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen Z (born 1996-early 2000s)</td>
<td>2</td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Millennials (born 1977-1995)</strong></td>
<td>12</td>
<td>48%</td>
<td>6</td>
</tr>
<tr>
<td>Gen X (born 1964-1976)</td>
<td>7</td>
<td>28%</td>
<td>3</td>
</tr>
<tr>
<td>Boomers (born 1945-1964)</td>
<td>4</td>
<td>16%</td>
<td>2</td>
</tr>
<tr>
<td><strong>Social Media Use Frequency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>22</td>
<td>88%</td>
<td>11</td>
</tr>
<tr>
<td>Weekly</td>
<td>2</td>
<td>8%</td>
<td>0</td>
</tr>
<tr>
<td>Monthly</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>N/A</td>
<td>1</td>
<td>4%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Social Media Use Purposes (open-ended response)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal connections &amp; entertainment</td>
<td>22</td>
<td>45%</td>
<td>11</td>
</tr>
<tr>
<td>Work &amp; school-related use / research</td>
<td>15</td>
<td>31%</td>
<td>8</td>
</tr>
<tr>
<td>Professional networking &amp; development</td>
<td>12</td>
<td>24%</td>
<td>4</td>
</tr>
</tbody>
</table>

Note. Bolded values in all but Social Media Use Purpose highlight the highest number and percent. Bolded values in Social Media Use Purpose highlight the lowest number and percent.
Table I2.

Characteristics of Participants Who Use Social Media for Professional Development and Networking.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Track</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
<td>67%</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>2</td>
<td>17%</td>
</tr>
<tr>
<td>Alumni</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td>Other (specified as “Unclassified, LTEC graduate”)</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Age Generation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen Z (born 1996-early 2000s)</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Millennials (born 1977-1995)</strong></td>
<td>4</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Gen X (born 1964-1976)</strong></td>
<td>4</td>
<td>33%</td>
</tr>
<tr>
<td>Boomers (born 1945-1964)</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Social Media Use Frequency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>11</td>
<td>92%</td>
</tr>
<tr>
<td>Weekly</td>
<td>1</td>
<td>8%</td>
</tr>
<tr>
<td>Monthly</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>N/A</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note. Bolded values highlight the highest number and percent.
Appendix J

Current Social Media Platforms Used by LTEC Students and Alumni

Which social media platforms do you currently use? Choose all that apply.
(n=25)

- YouTube
- Facebook
- Google Scholar
- Twitter
- Snapchat
- TikTok
- Personal Website / Blog
- Other: Class Dojo, Discord
- Academia.edu

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Appendix K

Pre-Survey Questions

Participants Pre-Survey

Demographics

Aloha!

Thank you so much for taking the time to participate in this learning module. The goal of this survey is to understand your current social media usage and participant demographics.

Your personal information will be completely confidential and will only be used to align responses from this survey to the post-survey given at the end of the learning module.

Mahalo,
Elle Nakamura

* 1. Academic track:
   - Master's
   - PhD
   - Alumni
   - LTEC instructor, faculty or staff
   - Other (please specify)

* 2. Age generation (Adobe, 2019):
   - Gen Z (born 1996-early 2000s)
   - Gen X (born 1964-1976)
   - Boomers (born 1945-1964)

* 3. Which career focus are you currently in or pursuing?
   - K-12
   - Academia (higher education, professor)
   - Training (i.e. corporate, governmental)
   - Web design / Graphic designer
   - Instructional Designer
   - Technology Specialist
   - Other (please specify)
4. Please list any associations, organizations, and/or societies (Example: AECT):

5. Which social media platforms do you currently use? (Choose all that apply)

- [ ] Academia.edu
- [ ] Facebook
- [ ] Flickr
- [ ] Google Scholar
- [ ] Instagram
- [ ] LinkedIn
- [ ] Mendeley
- [ ] Microsoft Teams
- [ ] Personal Website / Blog
- [ ] Pinterest
- [ ] Quora
- [ ] Reddit
- [ ] ResearchGate
- [ ] Slack
- [ ] Snapchat
- [ ] TikTok
- [ ] Twitter
- [ ] YouTube

Other or None (please specify)

6. What are your reasons/purposes for using the selected social media platforms? (If "None," explain why)

7. How frequently do you use social media?

   - [ ] Daily
   - [ ] Weekly
   - [ ] Monthly
   - [ ] Yearly
   - [ ] N/A
Appendix L
Iteration 1 Exit Survey Questions

Participant Exit Survey Part 1

* 1. **Before the module,** describe your feelings about social media.

* 2. **After the module,** describe your feelings about social media.

* 3. Which communities are you connected with the most in your **professional** community?

☐ Your LTEC cohort
☐ LTEC Department faculty and staff
☐ LTEC alumni
☐ Professionals in your career
☐ None of the above

* 4. **Before this module,** how do connect with other LTEC students, LTEC alumni, and learning design professionals? (Select all that apply)

☐ In-person events (LTEC Reunions, in-person conferences)
☐ Online events (virtual conferences)
☐ Elective courses
☐ Social media (LinkedIn, Facebook)
☐ Emails
☐ Faculty recommendation or introduction
☐ Other

* 5. Finish this statement: "**After taking this module,** ..."

☐ I am willing to consider using social media to connect within LTEC and beyond.”
☐ I am willing to consider using social media but, prefer in-persons connections and community.”
☐ I don’t care to consider using social media connect within LTEC and beyond.”
☐ I am not willing to consider using social media.”
* 6. Rank the following aspects of social media:
(1= "Most Important"; 3 = "Least Important")

| Community / Professional Learning Community (PLC) |
| Networking / Professional Learning Network (PLN) |
| Collaborating |

* 7. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

"Before this module, I used social media for personal reasons."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

* 8. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

"Before this module, I only used social media when I'm looking for a job."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

* 9. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

"Before this module, I only used social media for school projects/activities."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
### Participant Exit Survey Part 2

* 1. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

  "After this module, I am interested in connecting with peers, alumni, and other professionals in the learning design field through social media."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 2. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

  "After this module, I am interested in using social media as a means to communicate and collaborate with peers, alumni, and other professionals in the learning design field."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 3. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

  "After this module, I will use social media to stay up to date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

* 4. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

  "Watching the videos of alumni and faculty talk about their experiences using social make me feel confident about using it for my own professional purposes."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* 5. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

  "Before the module, after I have read an interesting article, I have looked at the other publications by the same author/researcher."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
* 6. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
"Before this module: after I have read an interesting article, I followed the author/researcher on social media platforms."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</table>


* 7. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
"After this module: after I have read an interesting article, I will follow the author/researcher on social media platforms."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

* 8. Finish the statement (select all that apply):
"After I meet someone at a networking event or view someone’s presentation at a conference, I will...

- [ ] connect / stay in touch with by giving my business cards and communicating through email.”
- [ ] connect / reach out to them through social media.”
- [ ] not connect with them through social media.”

* 9. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree"), how likely are you to encourage a peer use of social media for professional purposes?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Appendix M

Iteration 2 Exit Survey Questions

Participant Exit Survey

* 1. **Before the module**, describe your feelings about social media.

   

* 2. **After the module**, describe your feelings about social media.

   

* 3. Which communities are you connected with the most in your **professional** community?

   - [ ] Your LTEC cohort
   - [ ] LTEC Department faculty and staff
   - [ ] LTEC alumni
   - [ ] Professionals in your career
   - [ ] None of the above

* 4. **Before this module**, how do connect with other LTEC students, LTEC alumni, and learning design professionals? (Select all that apply)

   - [ ] In-person events (LTEC Reunions, in-person conferences)
   - [ ] Online events (virtual conferences)
   - [ ] Elective courses
   - [ ] Social media (LinkedIn, Facebook)
   - [ ] Emails
   - [ ] Faculty recommendation or introduction
   - [ ] Other (please specify)

* 5. Finish this statement: "**After taking this module**, ...

   - [ ] I am willing to consider using social media to connect within LTEC and beyond."
   - [ ] I am willing to consider using social media but, prefer in-persons connections and community."
   - [ ] I don't care to consider using social media connect within LTEC and beyond."
   - [ ] I am not willing to consider using social media."
* 6. Rank the following aspects of social media:
(1 = "Most Important", 3 = "Least Important")

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<tr>
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</thead>
<tbody>
<tr>
<td>Community / PLC</td>
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<td></td>
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<tr>
<td>Networking / PLN</td>
<td></td>
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<td></td>
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<tr>
<td>Collaborating</td>
<td></td>
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</table>

* 7. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
**Before this module**, I used social media for personal reasons.

<p>| | | | | |</p>
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<thead>
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<th></th>
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<tbody>
<tr>
<td>Strongly Disagree</td>
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<td>Disagree</td>
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<td>Agree</td>
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<tr>
<td>Strongly Agree</td>
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</tbody>
</table>

* 8. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
**Before this module**, I used social media for professional purposes.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
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<td>Disagree</td>
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<td>Agree</td>
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<tr>
<td>Strongly Agree</td>
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</tbody>
</table>

* 9. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
**After this module**, I will use social media for professional purposes.

<p>| | | | | |</p>
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<thead>
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<th></th>
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<tbody>
<tr>
<td>Strongly Disagree</td>
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<td>Disagree</td>
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<td>Agree</td>
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<tr>
<td>Strongly Agree</td>
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</tbody>
</table>

* 10. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
**Before this module**, I used social media to connect, network, and collaborate with students and alumni within the LTEC Department.

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Strongly Disagree</td>
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<tr>
<td>Disagree</td>
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<tr>
<td>Agree</td>
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<tr>
<td>Strongly Agree</td>
<td></td>
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<td>□</td>
</tr>
</tbody>
</table>
11. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

After this module, I am interested in using social media to connect, network, and collaborate with students and alumni within the LTEC Department.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
</table>

12. Please help us understand why you selected the answer above:

13. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

Before this module, I used social media to connect, network, and collaborate with professionals in the learning design related fields.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
</table>

14. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

After this module, I am interested in using social media to connect, network, and collaborate with professionals in the learning design related fields.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
</table>

15. Please help us understand why you selected the answer above:

16. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

Before this module, I used social media to stay up to date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.

17. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")

After this module, I will use social media to stay up to date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.
18. Please help us understand why you selected the answer above:

* 19. On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)  
Before the module, after I have read an interesting article, I looked at the other publications by the same author/researcher.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

* 20. On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)  
Before this module, after I have read an interesting article, I followed the author/researcher on social media platforms.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
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</table>

* 21. On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)  
After this module, after I have read an interesting article, I will follow the author/researcher on social media platforms.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
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</tbody>
</table>

22. Please help us understand why you selected the answer above:

* 23. Finish the statement (select all that apply):
"After I meet someone at a networking event or view someone’s presentation at a conference, I will...

- [ ] connect / stay in touch with by giving my business cards and communicating through email.”  
- [ ] connect / reach out to them through social media.”  
- [ ] not connect with them through social media.”

24. Please help us understand why you selected the answer above:
* 25. On a scale of 1 to 5 (1 = "Strongly Disagree" and 5 = "Strongly Agree")
Watching the videos of alumni and faculty talk about their experiences using social make me feel confident about using it for my own professional purposes.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>I did not watch the videos.</th>
</tr>
</thead>
</table>

* 26. On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”), how likely are you to encourage a peer use of social media for professional purposes?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

27. Please help us understand why you selected the answer above:

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# Appendix N

Comparison of Exit Survey Iterations

<table>
<thead>
<tr>
<th>Q</th>
<th>Iteration 1</th>
<th>Q</th>
<th>Iteration 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Before the module, describe your feelings about social media.</td>
<td>1</td>
<td>Before the module, describe your feelings about social media.</td>
</tr>
<tr>
<td>2</td>
<td>After the module, describe your feelings about social media.</td>
<td>2</td>
<td>After the module, describe your feelings about social media.</td>
</tr>
</tbody>
</table>
| 3 | Which communities are you connected with the most in your professional community?  
  - Your LTEC cohort  
  - LTEC Department faculty and staff  
  - LTEC Alumni  
  - Professionals in your career | 3 | Which communities are you connected with the most in your professional community?  
  - Your LTEC cohort  
  - LTEC Department faculty and staff  
  - LTEC Alumni  
  - Professionals in your career |
| 4 | Before this module, how do you connect with other LTEC students, LTEC alumni, and learning design professionals? (Select all that apply)  
  - In-person events (LTEC  
    - Reunions, in-person conferences)  
  - Online events (virtual conferences)  
  - Elective courses  
  - Social media (LinkedIn, Facebook)  
  - Emails  Faculty recommendation or introduction  
  - Other (please specify) | 4 | Before this module, how do you connect with other LTEC students, LTEC alumni, and learning design professionals? (Select all that apply)  
  - In-person events (LTEC  
    - Reunions, in-person conferences)  
  - Online events (virtual conferences)  
  - Elective courses  
  - Social media (LinkedIn, Facebook)  
  - Emails  Faculty recommendation or introduction  
  - Other (please specify) |
| 5 | Finish this statement: "After taking this module, ...  
  - I am willing to consider using social media to connect within LTEC and beyond."  
  - I am willing to consider using social media but, prefer in-persons connections and community."  
  - I don’t care to consider using social media connect within LTEC and beyond."  
  - I am not willing to consider using social media." | 5 | Finish this statement: "After taking this module, ...  
  - I am willing to consider using social media to connect within LTEC and beyond."  
  - I am willing to consider using social media but, prefer in-persons connections and community."  
  - I don’t care to consider using social media connect within LTEC and beyond."  
  - I am not willing to consider using social media." |
<p>| 6 | Rank the following aspects of social media: (1 = “Most Important”; 3 = “Least Important”) | 6 | Rank the following aspects of social media: (1 = “Most Important”; 3 = “Least Important”) |</p>
<table>
<thead>
<tr>
<th></th>
<th>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)</th>
<th></th>
<th>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Before this module, I used social media for personal reasons.</td>
<td>7</td>
<td>Before this module, I used social media for personal reasons.</td>
</tr>
<tr>
<td>8</td>
<td>Before this module, I only used social media when I’m looking for a job.</td>
<td>8</td>
<td>Before this module, I used social media for professional purposes.</td>
</tr>
<tr>
<td>9</td>
<td>Before this module, I only used social media for school projects/activities.</td>
<td>9</td>
<td>After this module, I will use social media for professional purposes.</td>
</tr>
<tr>
<td>10</td>
<td>After this module, I am interested in connecting with peers, alumni, and other professionals in the learning design field through social media.</td>
<td>10</td>
<td>After this module, I am interested in using social media to connect, network, and collaborate with students and alumni within the LTEC Department.</td>
</tr>
<tr>
<td>11</td>
<td>After this module, I am interested in using social media as a means to communicate and collaborate with peers, alumni, and other professionals in the learning design field.</td>
<td>11</td>
<td>After this module, I am interested in using social media to connect, network, and collaborate with students and alumni within the LTEC Department.</td>
</tr>
<tr>
<td>12</td>
<td>Please help us understand why you selected the answer above:</td>
<td>12</td>
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<tr>
<td>13</td>
<td>Before this module, I used social media to connect, network, and collaborate</td>
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<td></td>
<td>with professionals in the learning design related fields.</td>
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<tr>
<td>14</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) After this module, I am interested in using social media to connect, network, and collaborate with professionals in the learning design related fields.</td>
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<tr>
<td>15</td>
<td>Please help us understand why you selected the answer above:</td>
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<td>12</td>
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<tr>
<td>16</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before this module, I used social media to stay up to date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.</td>
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<tr>
<td>17</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) After this module, I will use social media to stay up to date with current issues in educational technology and instructional design locally and internationally through voluntary reading and discussion.</td>
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<td>18</td>
<td>Please help us understand why you selected the answer above:</td>
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<tr>
<td>14</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before the module, after I have read an interesting article, I have looked at the other publications by the same author/researcher.</td>
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<tr>
<td>19</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before the module, after I have read an interesting article, I looked at the other publications by the same author/researcher.</td>
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</tr>
<tr>
<td>15</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before this module: after I have read an interesting article, I followed the author/researcher on social media platforms.</td>
<td></td>
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</tr>
<tr>
<td>20</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before this module, after I have read an interesting article, I followed the author/researcher on social media platforms.</td>
<td></td>
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<tr>
<td>16</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) After this module: after I have read an interesting article, I will follow the author/researcher on social media platforms.</td>
<td></td>
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<tr>
<td></td>
<td>follow the author/researcher on social media platforms.</td>
<td>author/researcher on social media platforms.</td>
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<tr>
<td>22</td>
<td>Please help us understand why you selected the answer above:</td>
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</tr>
<tr>
<td>17</td>
<td>Finish the statement (select all that apply):&quot;After I meet someone at a networking event or view someone’s presentation at a conference, I will... • connect / stay in touch with by giving my business cards and communicating through email.&quot; • connect / reach out to them through social media.&quot; not connect with them through social media.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Finish the statement (select all that apply):&quot;After I meet someone at a networking event or view someone’s presentation at a conference, I will… • connect / stay in touch with by giving my business cards and communicating through email.&quot; • connect / reach out to them through social media.&quot; not connect with them through social media.&quot;</td>
<td></td>
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</tr>
<tr>
<td>24</td>
<td>Please help us understand why you selected the answer above:</td>
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</tr>
<tr>
<td>13</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)&quot;Watching the videos of alumni and faculty talk about their experiences using social make me feel confident about using it for my own professional purposes.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Watching the videos of alumni and faculty talk about their experiences using social make me feel confident about using it for my own professional purposes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”), how likely are you to encourage a peer use of social media for professional purposes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”), how likely are you to encourage a peer use of social media for professional purposes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Please help us understand why you selected the answer above:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The colored boxes highlight questions that are different from iteration 1 and iteration 2.
## Appendix O

**One-on-One Interview Observation Protocol**

<table>
<thead>
<tr>
<th>Evaluation Items</th>
<th>Observation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
</tr>
<tr>
<td>Attention:</td>
<td></td>
</tr>
<tr>
<td>Relevance:</td>
<td></td>
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<tr>
<td>Confidence:</td>
<td></td>
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<tr>
<td><em>Attitudes:</em> difficulty</td>
<td></td>
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<tr>
<td><em>Attitudes:</em> quantity</td>
<td></td>
</tr>
<tr>
<td><strong>Process</strong></td>
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</tr>
<tr>
<td>Activities</td>
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<td>Sequencing</td>
<td></td>
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<tr>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>Pacing</td>
<td></td>
</tr>
<tr>
<td><em>Attitudes:</em> work/not work</td>
<td></td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td></td>
</tr>
<tr>
<td>Layout</td>
<td></td>
</tr>
<tr>
<td>Media choices</td>
<td></td>
</tr>
<tr>
<td><em>Attitudes:</em> like/dislike</td>
<td></td>
</tr>
</tbody>
</table>
Appendix P

Screenshots of Online Module

Home page:

Course Sections page:

Introduction:

---

**Course Description**

The Learning Design and Technology Department (LTDC) in the College of Education at the University of Maine focuses on emerging education technologies and the implementation within any learning environment. Social media is a useful education technology and learning tool which is taught as a 400-level elective within the LTDC graduate program to explore the uses and ethics of social media within a classroom setting. This online course explores the importance of utilizing social media as a professional development tool, specifically for LTDC graduate student entering the learning design and development field.

**Objectives**

- Identify what social media is and the different purposes of utilizing social media.
- Identify your online identity, professional community, and professional network.
- Describe how to create a professional learning community and professional learning network.
- Understand the benefits to using social media as a professional development tool in the LTDC Department and in the learning design and development related fields.

---

**Course Sections**

This online course is divided into sections that highlight the benefits of using social media that are relevant in the learning design and development world. Each section will include videos, examples, activities and resources that will help you understand why and how to use social media for professional purposes.

It is highly encouraged following the sections in order:

- **Section 1**: Introduction
- **Section 2**: Community
- **Section 3**: Networking
- **Section 4**: Collaboration
- **Section 5**: Exit Survey

---

**Introduction**

**Learning Outcomes:**

1. Define “social media”.
2. Describe the four categories of “social media”.
3. Describe the four characteristics of “social media”.
4. Identify who uses social media and for what reasons.

---

**What is Social Media?**

The definition of “social media” is based directly on media, which describes “something that is transmitted”. Social media can broadly defined as the interaction between users, sharing data and information, social media and communication, and collaboration (Park, 2014).

According to Chen (2010) and detailed in Social Media for Academia, Second Edition by Nita Lugg, social media are divided into four categories:

- **Social Network Sites**: "friendship-oriented, user-generated social networks, which allow users to create and develop social relationships with other users of the site.
- **User Generated Content**: "support created by open-source model, including the exchange of stories or professional expertise.
- **Trading and Marketing Sites**: "business-oriented, e-commerce sites that allow users to formulate interactions and purchase products.
- **Play and Game Sites**: "non-commercial websites are commercially focused.

---
Communication:

---

**Community**

Learning Outcomes:
1. Identify three subsections of your professional community
2. Describe how social media can be a professional learning environment
3. Select which communities you are interested in

---

**General Overview**

 Belonging to a community is important for personal and professional growth and development. A community allows you to share ideas, information, and experiences which gives you an opportunity to learn about the world outside of your own.

- Group of people living in the same place or having a particular characteristic in common (Google definition)

You belong to two major communities: you have a personal community, which may include your internal and external family members, friends, and the people you meet through your social hobbies, and you have a professional community, which may include colleagues, coworkers, mentors, and acquaintances.

In this section, we will talk about the subsections of your professional community and explore the advantages of creating a professional learning community.

---

**Networking video and quote:**

---

**Professional Learning Network**

 Similar to a professional learning community (PLC), a professional learning network (PLN) can help you get connected with professionals in LTEC-related fields. By building relationships with people in different fields and different job titles, you have the ability to gain insight, inspiration, share experiences and practices, and learn from your peers and mentors.

Below is a 6-minute video of Natalie Perez, a third-year Ph.D. student in the LTEC Department, describing her experience developing a PLN.

---

“Many teachers on digital platforms start out as recipients of ideas and resources. As they begin to interact online and become comfortable doing so, they also begin sharing their own experience and resources, and before they know it, they’ve become an inspiration to others.”

- Ryokan Gohy (2019)

---

**Community video and Activity:**

---

**Professional Learning Community (PLC)**

 Also known as a professional learning environment (PLE), a professional learning community (PLC) is a team that shares ideas and scaffolds learning among the group (Serviss, 2020). This can be achieved in any of the subsections of your professional community and it is particularly effective to create your own PLC by using social media (Goodeas, 2019). It is possible to engage, share best practices and support professional development by using social media platforms such as Twitter.

Below is a 6-minute video of Dr. Bert Kimura, a lecturer in the LTEC Department, talking about his own experience in creating his own PLC / PLC.

---

**Activity - How do you join a community?**

 Without tagging a specific social media platform, you can create your PLC by following:

- a school, department, and/or cohort that you are a part of
- a company, corporation, industry and/or market you are a part of or want to be a part of
- an organization, association, society, etc. (Association for Educational Communications and Technology - AECT, International Society for Technology in Education - SITE)
- a learning design and development method or technology that you are interested in
- a particular “hashing” to get updates on particular keywords (if you don’t know what a hashtag is, watch this video called “What is a hashtag?” on YouTube)
- keywords of LTEC-related fields and common LTEC alumni Careers listed below (current list on LTEC website: "life after LTEC"

---

**Embedded pre-survey:**

---

**Pre-Survey**

 If you have not done so already, please fill out the consent form by going to http://go.hawaii.edu/aUOtL.

 Below is an embedded pre-survey with a total of 7 questions to information about you such as your academic track, age, generation, and current social media usage. Please answer the questions as best as you can and click “Done” to submit your survey responses.

 Once you have finished, please click on the START! button at the bottom of the page.

 Mahalo,
 Elle Natamura

---

**Participants Pre-Survey**

**Demographics**

Thank you so much for taking the time to participate in this learning module. The goal of this survey is to understand your current social media usage and participant demographics.

Your personal information will be completely confidential and will only be used to align responses from this survey with the pre-survey given at the end of the learning module.

Mahalo,
Elle Natamura
Embedded exit survey:

Exit Survey

Thank you for completing the online course! If you have not completed the consent form for this research study or the pre-survey before completing the online course, please stop here.

Below is an embedded exit survey with a total of 20 questions to evaluate your attitudes of using social media before and after the online course. Please answer the questions as best as you can. Your participation will help me improve the learning module in the future.

Note: Click "Done" to submit.

Metals,
Elia Nakamura

Participant Exit Survey

1. Before the module, describe your feelings about social media.

2. After the module, describe your feelings about social media.

Appendix Q

Asynchronous Participation Consent Form

Aloha! My name is Elle Nakamura and you are invited to take part in a research study. I am a graduate student at the University of Hawai‘I at Mānoa in the Department of Learning Design and Technology (LTEC). As part of the requirements for earning my graduate degree, I am doing a research project.

What am I being asked to do?
If you participate in this project, you will be asked to fill out a survey.

Taking part in this study is your choice.
Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you.

Why is this study being done?
The purpose of my project is to evaluate the impact of an online module on the attitudes of using social media as a tool for community building, collaboration, networking, and professional development inside and outside of the LTEC department for LTEC master’s and Ph.D. students. I am asking you to participate because you are a current LTEC student or LTEC alumnus or alumna.

What will happen if I decide to take part in this study?
There will be two surveys: a pre-survey and an exit survey. The pre-survey will consist of 7 multiple choice and open-ended questions and will take 3. The exit survey will be a total of 18 multiple choice and open-ended questions, it will take 6-10 minutes, and will be embedded on the website at the end of the online module.

The pre-survey questions consist of demographic questions which will include questions about age and academic track. The exit survey questions will include questions like, “Before the module, describe your feelings about social media.” “After the module, describe your feelings about social media.” “On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) Before the module, after I have read an interesting article, I have looked at the other publications by the same author/ researcher.” “On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”) After the module, after I have read an interesting article, I have looked at the other publications by the same author/researcher.”

You may also be contacted in the future via email that you provide in this consent to provide any additional feedback about the online course.

What are the risks and benefits of taking part in this study?
I believe there is little risk to you for participating in this research project. You may become stressed or uncomfortable answering any of the survey questions. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop taking the survey or you can withdraw from the project altogether.
There will be no direct benefit to you for participating in this interview. The results of this project may help improve the sense of community in the LTEC department to benefit future students.

**Confidentiality and Privacy:**
I will not ask you for any personal information, such as your name or address. Please do not include any personal information in your survey responses. I will keep all study data secure in a locked filing cabinet in a locked office/encrypted on a password-protected computer. Only my University of Hawai‘i advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawai‘i Human Studies Program has the right to review research records for this study.

**Compensation:**
You will not receive any compensation for participating in this research project.

**Future Research Studies:**
Even after removing identifiers, the data from this study collected for this study will not be used or distributed for future research studies.

**Questions:**
If you have any questions about this study, please call or email me at elle7@hawaii.edu. You may also contact my advisor, Dr. Catherine Fulford, at 808-956-3905 and fulford@hawaii.edu. You may contact the UH Human Studies Program at 808-956-5007 or uhirb@hawaii.edu to discuss problems, concerns and questions; obtain information; or offer input with an informed individual who is unaffiliated with the specific research protocol. Please visit http://go.hawaii.edu/jRd for more information on your rights as a research participant.

**To Access the Pre-Survey and Online Module:**
You will find a link and instructions for the pre-survey after completing this consent form. Clicking “Submit” to this form implies your consent to participate in this study and possibly contacted in the future for further feedback.

Please print or save a copy of this page for your reference.

Mahalo!
Appendix R

One-on-One Participation Consent Form

Aloha! My name is Elle Nakamura and you are invited to take part in a research study. I am a graduate student at the University of Hawai’I at Mānoa in the Department of Learning Design and Technology (LTEC). As part of the requirements for earning my graduate degree, I am doing a research project.

What am I being asked to do?
If you participate in this project, I will meet with you for an interview online through video conferencing.

Taking part in this study is your choice.
Your participation in this project is completely voluntary. You may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you.

Why is this study being done?
The purpose of my project is to evaluate the impact of an online module towards the attitudes of using social media as a tool for community building, collaboration, networking, and professional development inside and outside of the LTEC department for LTEC master’s and Ph.D. students. I am asking you to participate because you are a current LTEC student or LTEC alumnu.

What will happen if I decide to take part in this study?
The interview will consist of 10-15 open ended questions. It will take 45 minutes to an hour. The interview questions will include questions like, “How did this learning module change your attitude towards using social media as a graduate student in the LTEC department?” “How did this learning module change your attitude towards using social media professionally outside of the department?”

Only you and I will be present during the interview. With your permission, I will audio-record the interview so that I can later transcribe the interview and analyze the responses. You will be one of about 15 people I will interview for this study. With your permission, I will also video-record the screen so that I can analyze what you are particularly responding to during the interview.

What are the risks and benefits of taking part in this study?
I believe there is little risk to you for participating in this research project. You may become stressed or uncomfortable answering any of the interview questions or discussing topics with me during the interview. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop the interview or you can withdraw from the project altogether.

There will be no direct benefit to you for participating in this interview. The results of this project may help improve the sense of community in the LTEC department to benefit future students.
Privacy and Confidentiality:
I will keep all study data secure on a password-protected computer. Only my University of Hawai‘I advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawai‘I Human Studies Program has the right to review research records for this study.

After I write a copy of the interviews, I will erase or destroy the audio-recordings and the screen-recordings. When I report the results of my research project, I will not use your name. I will not use any other personal identifying information that can identify you. I will use pseudonyms (fake names) and report my findings in a way that protects your privacy and confidentiality to the extent allowed by law.

Compensation:
You will not receive any compensation for participating in this research project.

Future Research Studies:
Even after removing identifiers, the data from this study collected for this study will not be used or distributed for future research studies.

Questions:
If you have any questions about this study, please call or email me at 808.351.1306 and elle7@hawaii.edu. You may also contact my advisor, Dr. Catherine Fulford, at 808.956.3905 and fulford@hawaii.edu. You may contact the UH Human Studies Program at 808.956.5007 or uhirb@hawaii.edu to discuss problems, concerns and questions; obtain information; or offer input with an informed individual who is unaffiliated with the specific research protocol. Please visit http://go.hawaii.edu/jRd for more information on your rights as a research participant.

If you agree to participate in this project, please sign and date the signature page and return it to elle7@hawaii.edu. Electronic signatures are acceptable.

Keep a copy of the informed consent for your records and reference.
Signature(s) for Consent:

I give permission to join the research project entitled, “Evaluating an Online Module: Using Social Media Professionally as Learning Design and Technology Graduate Students at UH Manoa.”

Please initial next to either “Yes” or “No” to the following:

_____ Yes  _____ No  I consent to be audio-recorded for the interview portion of this research.

_____ Yes  _____ No  I consent to screen-recorded for the interview portion of this research.

Name of Participant (Print): ________________________________

Participant’s Signature: ________________________________

Signature of the Person Obtaining Consent: ________________________________

Date: ________________________________

Mahalo!
Appendix S

One-on-One Interview Script

Hi ____.

My name is Elle Nakamura and thank you so much for participating in this study. I would like your help in evaluating a learning module I’ve created to change the attitudes towards using social media as a tool for community building, collaboration, networking, and professional development. My goal here is to measure how well the module succeeds in conveying the intended message, so your honest interpretations will help us revise our design and improve the learning outcomes. One thing we’d like to make clear is that any mistake you make is probably because of a deficiency in our module and not because of you, so please feel at ease and share with us as openly as you can any thoughts you have about the learning material and the tests associated with it.

At this time, I would like to share that you are free to stop participating at any time. I would like to assure you that your information will be kept confidential. One thing I would like ask is your consent for me to record this session so that I can refer to the session at a later time. Do I have your consent to record during this session?

Thank you!

Before we start with the module, going to ask you to complete a quick online survey to help me interpret your responses at the end of the module. I will put the link in the chat box. Please complete that now and feel free to ask if you have any questions.

Thank you for completing the background survey. Now, there are several things, I’d like you to do. First, please think out loud; I would like to hear what you are looking at, thinking, and interpreting from the module. If something doesn’t make sense to you, please feel free to ask me. Second, please consider which areas were most and least impactful in the module. I am particularly interested in what impact this module has on your attitudes about the subject. Finally, after each section of the module, we’ll stop to hear your thoughts in a brief interview about what you’re feeling at that moment about the flow of the content and how well it conveyed the message.

Do you have any questions before we begin?
Appendix T

CITI Training Certificates

This is to certify that:

Elle Nakamura

Has completed the following CITI Program course:

Information Privacy & Security (IPS) (Curriculum Group)
Exempt Researchers and Key Personnel (Course Learner Group) (Stage)

Under requirements set by:

University of Hawaii

Verify at www.citiprogram.org/verify?w0132b21a-52c9-4d32-8739-dcb9a7af7497-31197380
## Appendix U

### Participant Responses on Feeling of Social Media Before and After the Online Module

<table>
<thead>
<tr>
<th>Before the module, describe your feelings about social media.</th>
<th>After the module, describe your feelings about social media.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I considered myself an avid social media user. I love it, a lot.</td>
<td>After the module, my feelings about social media is the same.</td>
</tr>
<tr>
<td>Social media connects me to family and friends.</td>
<td>There are many other uses for social media such as collaboration, networking, and news (fake or real).</td>
</tr>
<tr>
<td>Before the module, I believed that social media’s main purpose was to communicate with others, share content, and blog about your interests. I did not realize the complexities behind social media. I was aware of the existence of algorithms in social media. In fact, I did not consider myself an avid user of social media. As much as I love using social media apps, I had always feared of the consequences for using it too much.</td>
<td>After the module, I realize how complex social media really is. I did not realize that there were four different types or categories of social media. More specifically, I was not aware that websites such as Google Scholar, ResearchGate, Amazon, and Angry Birds were examples of social media. The module also allowed me to take a look at social media from a different, more educational and professional perspective. Social media, if used appropriately for the right purposes, can be an effective academic and professional tool.</td>
</tr>
<tr>
<td>I was skeptical about social media because of the amount of bad publicity it gets (e.g., privacy issues, trolling, spam).</td>
<td>The modules were great in that it opens your eyes to the positive uses of social media especially when it comes to networking.</td>
</tr>
<tr>
<td>Before I thought of social media as simply for personal entertainment and keeping in touch with friends and family.</td>
<td>After I see more potential for social media in the professional context.</td>
</tr>
<tr>
<td>On a personal level, I have always enjoyed the limited social media outlets that I utilize to socialize with my personal community. Having taught Gen Z students for many years, I knew this media could/should be used to better communicate my lessons but, to-date, I’ve not had time to research and design ways with which to improve upon the androgyyny of delivering content to my young, adult learners. Upon completion of the M.Ed. program, I intend to do just that.</td>
<td>In particular, I appreciate how it can build/reinforce one’s professional community as well as establish beneficial teacher-student relationships outside of the classroom.</td>
</tr>
<tr>
<td>Social media is used for personal reasons and is overall flawed – people generally only share what they are comfortable and confident in</td>
<td>Social media can be used to communicate professionally and academically. There are more tools than I was aware of.</td>
</tr>
<tr>
<td>I perceived social media has a great potential in fostering a professional learning community/network. It’s just me that I don’t have time to commit to engage.</td>
<td>No changes compared to my previous feelings. But I do appreciate these learning modules that help me learn more about the history of social media.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I was aware of it’s power and influence. I miss Google+. I thought it was better suited to created learning communities.</td>
<td>Much the same, but I am more enthusiastic about the opportunities they present have gone through your module.</td>
</tr>
<tr>
<td>Useful if heavily moderated. If you have a determined goal or theme, they tend to become trivial and/or tribal without the ability to screen or eliminate participants.</td>
<td>Unchanged.</td>
</tr>
<tr>
<td>Positive. It’s part of my daily life.</td>
<td>Still positive. But more hopeful for further evolution of social media.</td>
</tr>
<tr>
<td>I generally see social media as a dark capitalistic monster. Its sole purpose is [to] maximize time on screen and collect thousands of insights on your likes, dislikes, behaviors, interests, in order to sell that data to non-social media type companies who benefit even more from the power of knowing the intricate details of one’s life for the sake of profit and soon perhaps policing.</td>
<td>I feel there are clear benefits in a professional context to using social media to “pop the bubble” of ones work environment.</td>
</tr>
<tr>
<td>Great for learning new things, but easy to get distracted by pointless drama.</td>
<td>After this module it made me wonder realize that I can use the social media platforms we use for our students for more than disbursing information about our program, but I can also use it share information that is relevant to our students.</td>
</tr>
<tr>
<td>What’s in it for me. Everybody wants something. I’ve generally stayed away from social media. I subscribe to NY Times online. Catch news on YouTube sometimes. But my biggest outlet is LinkedIn for education in context.</td>
<td>No change.</td>
</tr>
<tr>
<td>Though I saw the benefits of it as a tool to connect, social media can be a distraction and I try to limit my time on the platform because I want to focus my time on raising my small children in the time that I have after working full time. I recently became disillusioned with social media for personal usage and had curtailed my usage sharply.</td>
<td>After the module. My thoughts about utilizing social media more for professional use is rekindled. The module sections have provided me with a plan to revamp my professional social media profile. Have a suggested plan as outlined by the modules is helpful for me because my “me” time is limited as a working single parent and educator. I can use all the guidance I can get.</td>
</tr>
</tbody>
</table>
Before, I viewed social media as a dynamic realm to not only socialize with friends and family, but could also be used to pursue other paths including business marketing and sharing information. After this module, I have a higher respect for social media and understand that there are even more ways to utilize it. Although there will always be a lot of silly and/or fake content out there, Dr. Kimura and Dr. Watts highlighted its massive benefits.

Ambivalent. Could be used for good, or entertainment, or a variety of other uses. Largely the same, though I was glad to see some of the positive uses that social media could achieve.

I was aware of the ability of social media to be used for professional purposes. However, I mainly view social media as something for entertainment or a more informal context as I don’t view certain platforms as social media (e.g. Slack). I had many aha moments in seeing the professional side of social media. The module solidified a lot of what I naturally witnessed or experienced but never really put much thought to.

Neutral. I tend to not favor it. Good, I think that some good points were made about learning communities and how they can be fostered online both personally and professionally.

For the most part, I don’t feel like I have time to “do social media right.” I know that having a “bad” social media presence can be detrimental, and the time required to carefully construct a beneficial presence doesn’t seem like a good use of my time. It’s clear to me that the time investment is worth it. I’ll just go at it a little bit at a time.

My feelings prior to the module were very satisfied with the platforms and activities that social media provides. My feelings were the same very satisfied with the platforms and activities that social media provides.

In moderation, social media is a wonderful tool to engage with others. Amid political, environmental, and public health uncertainties, it is best to log out more often. About the same. I already did use social media as a tool for fostering PLN.

I have an active presence on social media and utilize a variety of platforms for a variety of reasons on a daily basis. I appreciated reading about several platforms I haven’t investigated thoroughly. My feelings before and after the module remained positive.

I already use social media for my education and career development. The same

I feel that social media was a powerful tool that could be used for personal and professional reasons. I also feel that social media can have its downfalls. My feelings are the same as before I did the module.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambivalent</td>
<td>Largely the same</td>
</tr>
<tr>
<td>Neutral</td>
<td>Good</td>
</tr>
<tr>
<td>Ambivalent</td>
<td>Largely the same</td>
</tr>
<tr>
<td>Neutral</td>
<td>Good</td>
</tr>
<tr>
<td>Ambivalent</td>
<td>Largely the same</td>
</tr>
<tr>
<td>Neutral</td>
<td>Good</td>
</tr>
<tr>
<td>Ambivalent</td>
<td>Largely the same</td>
</tr>
<tr>
<td>Neutral</td>
<td>Good</td>
</tr>
</tbody>
</table>

Note. Red to green boxes indicates positive change; green to green boxes indicate positive sentiment and no change; yellow to green boxes highlight neutral to positive change; yellow to yellow boxes indicate neutral and no change; red to red boxes indicate negative and no change.
Appendix V

Ranking Professional Social Media Benefits in Order of Importance

Ranking of Professional Social Media Benefits in Order of Importance (n=25)
Appendix W

Figure W1.

Following Authors and Researchers on Social Media

On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)
After this module: after I have read an interesting article,

- I have looked at the other publications by the same author/researcher. 3.56
- I followed the author/researcher on social media platforms. 2.84
- I will follow the author/researcher on social media platforms. 3.4

Figure W2.

Following Authors and Researchers on Social Media by Academic Track

On a scale of 1 to 5 (1 = “Strongly Disagree” and 5 = “Strongly Agree”)
After this module: after I have read an interesting article,

- I have looked at the other publications by the same author/researcher. 3.50
- I followed the author/researcher on social media platforms. 3.71
- I will follow the author/researcher on social media platforms. 4.50

- Master's (n=16) 3.50 3.31
- PhD (n=7) 2.81 2.71 3.29
- Alumni (n=2) 3.50 3.50