2017-04-01

The Dynamics of Social Media Interaction in a Free-Choice Religious Education Experience

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Religious Education Experience

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A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

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This Grounded Theory study explores how the use of social media influenced the dynamics of interaction in a free-choice religious education experience between a world religious leader and young adult learners. Results indicate that social media (a) enhanced proxy group interaction due to the increased visibility of leader-learner interactions to the entire group and the ability of learners to comment on, like, mention other learners, and share leader-learner interactions; (b) enabled active non-verbal interaction which allowed for social curation, peer validation, community reaction, and the non-verbal pushing of posts into the social media streams of those not participating in the event; (c) greatly enhanced dialogic interaction between learners and allowed for a safe hashtag-bound space for religious expression to occur online; and (d) enabled a theoretically infinite amount of learner-learner interactions on single comment nodes, referred to as multilogic interactions.

Grounded Theory was also used to derive patterns from the data generated in this experience which were then abstracted and reconstituted into an explanatory and predictive theoretical framework referred to as Orbital Interaction Theory (OIT). OIT, as a design theory, predicts that three types or tiers of interaction will occur when three essential pedagogical design elements are used together—namely, a question and answer session with a highly respected and sought-after leader within a social media-bound context. Furthermore, I posit that three essential learner conditions are required for the success of OIT—namely, learner trust in the leader, a high degree of learner homogeneity, and high levels of civility. The preexistent nature of these learner conditions in religious education experiences makes them the most natural contexts for an OIT approach to be successful. It is precisely because of the challenge of achieving these three factors at comparable levels in non-religious free-choice learning contexts that makes the transferability of OIT into these contexts difficult. Finally, I posit that when the essential pedagogical design elements of OIT are combined with the essential learner conditions of OIT, the Optimum Conditions for Interaction (OCI) in OIT will be achieved with highly predictable results.

ACKNOWLEDGMENTS

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Chapter 1: Introduction

Social media adoption has burgeoned over the last decade in every age group and within every demographic throughout the United States, but among no group as readily as among young adults, ages 18-29. According to the Pew Research Center, 90% of American young adults regularly use some form of social media, and that number is rising (Perrin, 2015). This nearly ubiquitous use of social media among young adults has major implications for 21st century educators as well as religious leaders who seek to connect with this demographic.

Context of This Study

In terms of implications for formal educational instructors, Selwyn (2007) notes that social media "applications are seen to form an important element of the digital landscape of many learners, which is decidedly outside the control of the education institution" (p. 3). This rapid migration of learners into the informal digital learning landscape has begun to threaten more traditional approaches of formal education. Thus, some researchers suggest that integrating technologies such as social media into formal learning contexts will become increasingly crucial if formal educational institutions desire to retain relevancy, authenticity, and legitimacy to their learners. Davidson and Goldberg (2012), for example, described a growing "mismatch between the excitement generated by informal learning" on digital peer-to-peer social media technologies, and the drab "routinization of learning common to many of our institutions of formal education [which] tend to be passive, lecture driven, hierarchical, and largely unidirectional from instructor to student" (pp. 249-250). Winterwood (2010) lamented the irony that the social media with which students engage so eagerly outside of school "are often ignored, devalued, or even prohibited within U.S. schools" (p. 19). Lotherington and Jenson (2011) cautioned that "reducing . . . learning to the flat literacies of paper-based resources in the classroom raises

questions of authenticity" (p. 228) in the minds of students. They further stated that "if teachers are to meaningfully engage . . . learners in communication as it exists in the social world, these brave new dimensions of literacy must be woven into classroom learning" (p. 228). Otherwise a "digital disconnect" (Levin & Arafeh, 2002, p. v) between students and schools will continue to grow, creating a genuine "legitimacy crisis" (Kenway & Bullen, 2001, n.p.) in which institutions of formal learning are increasingly viewed as illegitimate in their ability to meet students' emerging needs.

In addition to formal educators, religious leaders are also feeling the "burdens of legitimization'' (Kertcher & Margalit, 2006, p. 2) brought on by technological shifts. The potential legitimacy and relevancy crisis for religious leaders and organizations in this digitally mediated context lies most directly at the level of their epistemic authority—that is, in their authority as teachers of salvific knowledge or interpreters "of the ultimate questions of human existence" (Cheong, Huang, & Poon, 2011, p. 939). This is so because of the rise of "instant experts" who "have an online influence through perceived expertise, thwarting the time-honored religious training or prescribed initiation rites that would traditionally establish their position offline" (Campbell, 2012, p. 688; see also Turner, 2007). The ever increasing use of digital media in society facilitates "the contestation of leaders' claim to expertise and religious performances . . . by encouraging more networked forms of interactions" (Cheong, Huang, & Poon, 2011, p. 953). This is especially true of religious organizations and communities "whose location of epistemic power . . . [is] embedded organizationally in social relations that [are] traditionally structured by . . . hierarchical communication" (Cheong, Huang, & Poon, 2011, p. 953). In other words, the more top-down the religious structure, the more vulnerable it is to disruption by or attacks from social media contestation. Social media can thus have a

democratizing effect on religious authority, pushing the locus of religious epistemic control away from the few elite authorities at the top while pulling it toward the masses of digitally interconnected laity at the bottom. Researchers suggest that this movement away from epistemic religious authority actually began centuries ago with the invention of the printing press (Kertcher & Margalit, 2006), but the advent of the internet and social media have greatly accelerated this process in our day.

Thus, the advent of social media has created the need for both religious leaders and formal educators to adapt to the shifting learning preferences and digital literacies of their constituencies in order to gain, maintain, or reclaim relevancy and legitimacy. Many on both fronts have done so successfully. The literature indicates that when social media is incorporated into a formal learning environment student satisfaction increases and overall learning can be enhanced (Cao, Ajjan, & Hong, 2013; Cao & Hong, 2011; Churcher, Downs, & Tewksbury, 2014; Krutka & Milton, 2013; West, Moore, & Barry, 2015). This is so because the methods used are relevant to students' day-to-day experiences, authentic to the socially mediated ways in which they are accustomed to learning informally, and perceived as legitimate in equipping them to thrive in our digitally interconnected world. Likewise, research overwhelmingly confirms the importance of teacher-learner and learner-learner interaction in education, especially in distance education and online learning settings (Abrami, Bernard, Bures, Borokhovski, & Tamim, 2011; Bernard et al., 2009). Additionally, research has shown that religious leaders and organizations who integrate social media into their own ministerial approaches and global outreach can mitigate the threat social media may pose to their epistemic authority by establishing their authoritative voice within the digital landscape of this new medium (Cheong, Huang, & Poon, 2011). A review of current practice suggests that the majority of world religious leaders using

social media for this purpose use it only as a monologic broadcast platform where dialogic interaction with their followers—especially pedagogic interaction—is very rare. The literature does not, therefore, specifically address the influence social media have on interaction-dynamics when used by world religious authorities to engage learners in dialogic learning experiences.

The Research Question

Elder Jeffrey R. Holland is a member of the Quorum of the Twelve Apostles of The Church of Jesus Christ of Latter-day Saints (the LDS Church), the second highest governing body of this global religious organization. On March 8, 2016, Elder Holland, accompanied by two other Church leaders, participated in the first-ever social media-based broadcast in which an LDS apostle fielded questions submitted via social media by LDS young adults ages 18-30. The nearly two hour broadcast was an internet based video broadcast delivered through social media platforms such as Facebook, Twitter, and Instagram (Prescott, 2015). The questions were submitted using the hashtag #LDSface2face and/or posted directly to Elder Holland's Facebook page. Some questions were submitted weeks in advance, others were submitted during the video broadcast, and still others after the broadcast was over. Elder Holland (and the two other Church leaders) personally engaged dialogically with the young adult learners on Facebook prior to and following the video broadcast. During the video broadcast, Elder Holland and his companions verbally responded to some of the more commonly submitted or broadly relevant questions, including a few that were asked by audience members present in the studio or connected via Skype-type technology.

Using data from this episode with Elder Holland, this study specifically seeks to answer the following question: *How does the use of social media influence the dynamics of interaction in the context of a free-choice religious education experience between a world religious leader*

and young adult learners? In pursuing an answer to this question it is anticipated that greater insight will be gained not only into the particulars of this episode, but also in relation to potential implications this experience has for other religious leaders who may attempt a similar approach. That said, however, this study will focus specifically on only one experience with primarily one world religious leader and may not therefore be immediately transferable to other contexts.

Because the main question of this research study is very broad, additional secondary research questions will also be asked in order to elucidate an answer to the primary research question. These secondary research questions include:

- How did Elder Holland interact with learners' posted questions and comments in writing?

- How did Elder Holland interact with learners' posted questions and comments in verbal responses during the broadcast?

- How did the learners interact with Elder Holland?

- How did the learners interact with one another in this context?

- What are the core factors that explain the interactions that occurred during this experience?

These secondary research questions will serve to guide the research and drive data analysis back to the primary research question.

Chapter 2: Literature Review

In order to properly understand how social media might influence the dynamics of interaction between young adult learners and a world religious leader in a free-choice religious education experience, I will seek to situate such an experience within the more general body of literature relative to integrating social media—a natively informal learning tool—into other learning environments. This review will focus largely on social media integration into formal learning environments because most of the relevant research has historically focused on this more formal learning context. The relevant preliminary questions for this review include: What are the theoretical underpinnings which justify the use of social media in formal or nonformal learning contexts? What are the differences between formal, informal, nonformal, and free-choice learning? How are the terms digital literacy and social media defined in the literature? And, how widespread are social media used informally by young adults?

Once the groundwork has been laid by answers to these questions, this review will address the more central questions which include: How have social media been successfully integrated into the formal learning contexts and what impact does such an approach have on learning? Conversely, how does social media use in formal learning contexts influence informal learning? What are the concerns or risks of incorporating social media into the formal classroom context? And what, if any, recommendations does the literature have for educators who desire to incorporate social media into formal learning contexts? For the purposes of this research, the body of literature most closely scrutinized will be that which deals with college and university level learners. Also, to more specifically situate the main question of this study, I will provide an overview of how major world religious leaders are using social media to reach out to and engage their constituencies, which social media platforms they are using, and how they are using them.

Methods

The questions above guided my search for relevant literature. In my initial search using the ERIC database, I entered various keyword searches which returned 307 articles as listed below:

- 119 results using the terms "social networking" AND "informal education"

- 64 results using the terms "informal education" AND "web 2.0"

- 33 results using the terms "social media" AND "informal education"

- 22 results using the terms "social media" AND "informal learning"

- 46 results from "classroom environment" (an ERIC Thesaurus recommendation for "classroom" AND "social networking"

- 23 results from "classroom environment" AND "social networking" AND "higher education"

From these initial results I selected only those articles relevant to my questions above. My sifting criteria consisted of including articles if they spoke of social media's influence on learning (formal or informal) or about how to incorporate social media into the classroom. I also searched Google scholar for additional articles using the terms "social media" and "classroom," which produced 12 additional relevant results. After this initial sifting through the articles, I ended with 48 relevant articles with the majority of them coming from peer-reviewed journals. To find additional research, I looked up many of the publications cited within these initial 48 articles using the same sifting criteria that resulted in approximately 20 additional articles and publications relevant to my research questions. I also searched magazines and media outlets and the Facebook and Twitter pages of world religious leaders for the number of their followers and to evaluate their monologic and/or dialogic uses of social media.

Theoretical Underpinnings

Before exploring specific instances of social media integration into formal educational curriculum, it is helpful to understand the theoretical underpinnings which explain why such an approach might be prudent. Consequently, a mesh of three theoretical frameworks help us to see and explain the value of merging students' socially mediated, digital, informal learning tools with their formal learning environments. These theories are social constructivism, connectivism, and learning ecology theory.

Social constructivism is a learning theory based upon the research and philosophy of Vygotsky (1978), which posits that cognitive development is socially situated and that knowledge is constructed through social interaction. Hence, (according to social constructivism) instructional designs which incorporate teacher-learner and learner-learner interactions into the learning experience will increase student learning as compared to instructional designs which do not (Bernard et al., 2009).

A related theory, Connectivism theory, developed by Siemens (2005), builds upon social constructivism and specifically proposes to integrate social media within the social learning environment. It concludes that:

> [I]n the world of social media proliferation, learning is not an internal, individualistic activity. Rather, learners gather information from connecting to others' knowledge using [social media] platforms. . . . The responsibility of a teacher is not just to define, generate, or assign content, but it is to help learners build learning paths and make connections with existing and new knowledge resources. (Chen & Bryer, 2012, p. 88-89)

Finally, learning ecology theory, developed by Barron (2006), helps us to "conceptualize and bridge learning across the spaces of home, school, work, and community" (Greenhow & Robelia, 2009, p. 122). The four major assertions of learning ecology theory are:

> (1) adolescents are simultaneously involved in many settings; (2) they create learning contexts for themselves within and across settings; (3) the boundaries between settings can be permeable; and (4) interest-driven activities can span contextual boundaries and be self-sustaining given adequate time, freedom, and resources. (Greenhow & Robelia, 2009, p. 122)

Because social media is (a) socially interactive, (b) digitally connected with other learners, and (c) used across multiple learning spaces, these three learning theories can be woven together in a single framework to theoretically justify the use of social media in education and to highlight the potential value of doing so. Before reviewing specific cases in which social media have been successfully integrated into formal learning contexts (thus validating this tri-part theoretical framework), it will be important to define the key terms that are germane to this phenomenon and briefly survey how widespread social media are used by young adults.

Definitions and Contexts

In order to minimize misunderstandings about the meaning of terms as used in this literature review, I will in this section define the terms *informal learning*, *nonformal and free-choice learning*, *digital literacy*, and *social media*. After defining these terms, I will briefly survey how widespread social media are used by young adults in their informal, nonformal, and free-choice learning in order to illustrate the latent digital literacies that students typically bring with them to formal learning settings.

Informal learning. In 1966, Dewey conceived the term *informal learning* as a contrast to the learning which occurs in formal learning contexts such as school settings that are guided by a curriculum and because of which students receive credit or certification (Dewey, 1966). Since Dewey's day, informal learning has become a term used in a variety of ways and with various meanings in educational literature, all of which generally fall somewhere on the spectrum of learning that includes self-direction, independence from a formal instructor, and exploration (Aspden & Thorpe, 2009; Jamieson, 2009; Sloep, 2012; Sockett & Toffoli, 2012). On one end of this spectrum (furthest from formal learning), informal learning is defined as having no connection to a formal classroom setting whatsoever and is completely "open-ended, non-threatening, enjoyable, and explorative" (Boekaerts & Minnaert, 1999, p. 536). Others, such as Kassens-Noor (2012), want to move the needle a little closer toward the other side of the spectrum by tying informal learning more closely to the formal learning context, suggesting that it includes any "course-related activity outside the classroom that centers around students' self-directed and independent learning activities including peer-to-peer interactions" (p. 10).

For the purposes of this review, informal learning is broadly defined as learning which is self-directed, independent, intrinsically motivated, and exploratory. According to this definition, informal learning can occur within or without a formal learning environment, but is always independent of formal direction from an instructor. Although an instructor might provide the setting and conditions for informal learning to occur, by definition there is no way to formalize informal learning (Ebner, Lienhardt, Rohs, & Meyer, 2010; Wenger & Snyder, 2000).

Nonformal and free-choice learning. Some have suggested other categories closely related to informal learning such as nonformal learning and free-choice learning. Proponents of nonformal learning suggest it accounts for the type of learning which does not fit neatly into

either formal or informal categories. For example, nonformal learning, according to its advocates, can have learning objectives and be organized, but it always occurs outside of the formal learning system and is often associated with community groups or some other organization. Some countries place all adult learning or deliberate lifelong learning in this category (Coombs, Prosser, & Ahmed, 1973; "Recognition of Non-Formal," n.d.). Free-choice learning, according to Falk and Dierking (2002), "is the learning people do when they get to control what to learn, when to learn, where to learn, and with whom to learn" (p. 6). People engage in this kind of learning in such contexts as museums, libraries, zoos, parks, gardens, and aquariums; at tourist attractions, theaters, concerts, youth centers, and churches. With the digital landscape opening wider and wider in our day, free-choice learning is occurring in "ever-increasing numbers on the Internet" (p. 6). In essence, "choice and control are at the heart of free-choice learning. When choice and control exist, the experience is free-choice learning; when they are absent, the learning experience falls somewhat short of being free-choice" (p. 18).

Digital literacy. Digital literacy is a term created to be contrasted with print literacy (Dobson & Willinsky, 2009). Whereas print literacy deals with words on the printed page, digital literacy deals with that which is viewed and created on the screens of personal computers, laptops, tablets, and phones. Martin (2008) defined digital literacy as the ability to "identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others . . . in order to enable constructive social action; and to reflect upon this process" (p. 166-167). Lankshear and Knoebel (2008) characterized the term digital literacies as "shorthand for the myriad social practices and conceptions of engaging in meaning making mediated by texts that are produced, received, distributed, exchanged, etc. via digital codification" (p. 5). The term "texts" within the

digital literacy context is conceived quite broadly and may include multiple modalities such as images, videos, blogs, podcasts, posts, and tweets (Lotherington & Jenson, 2011). The attraction of these multimodal texts lies in their capacity to convey knowledge with greater meaning and richness than the more traditional printed texts (Kress, 2009). Additionally, Lotherington and Jenson (2011) pointed out that these digital texts cause learners to "encode knowledge very differently" from paper-based texts, "and both what is produced and how one knows and comes to know are different from these processes in traditional print-based literacies" (p. 230).

Hence, as 21st century learners are accustomed to engaging in meaning making and meaning creation within the vast online, digitally-mediated, informal learning landscapes of their lives, it is reasonable that they might hope for, find relevance in, and thrive within educational settings in which they are encouraged to put these informally developed digital literacies to use in a more formal way (Winterwood, 2010).

Social media. "Social media," according to Dabbagh and Kitsantas (2012), is:

a 21st century term used to broadly define a variety of networked tools or technologies that emphasize the social aspects of the Internet as a channel for communication, collaboration, and creative expression, and is often interchangeable with the terms Web 2.0 and social software. (p. 3)

Various types of social media technologies (SMT) have been created to achieve different communicative, collaborative, or creative ends—and sometimes multiple ends at once. Examples of SMTs include YouTube, Flickr, and Instagram which enable media sharing and social tagging; Facebook, Google+, and LinkedIn, which facilitate social and professional networking and media sharing; collaborative spaces such as Wikipedia and Wikispaces, as well as web-based software such as Google Apps, which allow for group-sourced collaboration and

knowledge creation; blogging platforms such as WordPress and Blogger that enable social commentary and feedback; platforms such as Pinterest and Fancy which facilitate the social curation of web content; and micro-blogging platforms such as Twitter and App.net that enable rapid resource sharing and newsfeed streaming (Dabbagh & Reo, 2011; Kitsantas & Dabbagh, 2010; Solis, 2016).

According to the Pew Research Center, 90% of young adults (ages 18-29) in the U.S. regularly use some form of social media, and that number is rising (Perrin, 2015). As Selwyn (2007) notes, "these Web 2.0 applications are seen to form an important element of the digital landscape of many learners, which is decidedly outside the control of the education institution" (p. 3). Such applications have effectively decreased "the investment of skills and money required to meaningfully shape our culture, and thus have paved the way for more voices to be heard" (Clinton, Jenkins, & McWilliams, 2013). Indeed, these social-media-liberated voices are being heard at astonishing rates today as they pump a massive amount of content into the digital landscape. Consider, for example, that every 60 seconds:

- 293,000 statuses are updated and 136,000 photos are posted on Facebook (https://zephoria.com/top-15-valuable-facebook-statistics)

- Nearly 350,000 tweets are produced on Twitter (http://www.internetlivestats.com/twitter-statistics),

- And a staggering 400 hours of video are uploaded onto YouTube (http://www.statista.com/topics/2019/youtube)

While the numbers for these three social media platforms include the global sum of content creation on them and are not limited to young adult users alone, nevertheless the amount of content creation in the digitally mediated world in which students actively create, consume,

and share content is astounding. But what implications do these highly participatory, read-write, informal social media spaces have for formal educational contexts?

Discussion

Having defined key terms and surveyed the widespread use of social media among young adults, I will now review the literature relative to the questions at the heart of this review. Jenkins, Purushotma, Weigel, Clinton, and Robison (2009) characterized social media spaces as potential "ideal learning environments" (p. 10). Many researchers agree and suggest that educators actively leverage the digital literacies young people are beginning to tacitly develop in these informal environments by incorporating them into the formal classroom and curriculum (Krutka & Milton, 2013). Winterwood (2010), for example, recommended that educators tap "into the literacies many of their students and other youth who are active online have been cultivating through their self-directed online activities within digital popular culture" and integrate the "strategies students have been developing [informally] . . . into [their] more formal online curricula" (p. 19). This section, therefore, will explore research relative to the following questions: How have social media been successfully integrated into the formal learning contexts and what impact does such an approach have on learning? Conversely, how does social media use in formal learning contexts influence informal learning? What are the concerns or risks of incorporating social media into the formal classroom context? And what, if any, recommendations does the literature have for educators who desire to incorporate social media into formal learning contexts?

Incorporating social media literacies into formal learning contexts. Many instructors have made efforts to integrate social media into their classrooms and curricula and have experienced varying degrees of success in doing so. For example, a high school social studies

teacher sought to teach his students about Enlightenment philosophers using the social media tools Blogger and Twitter (Krutka & Milton, 2013). In small groups, his students, who each had a school supplied iPad, were assigned a philosopher such as John Locke, Voltaire, Baron De Montesquieu, and Jean Jacques Rousseau. Students were instructed to assume the identity of this philosopher and to reintroduce themselves to the world on a blog post wherein they also articulated how their ideas influenced United States culture and government. Links to these blog posts were then shared via Twitter using a class hashtag where students interacted and debated with one another from their assigned philosopher's perspective. Additionally, to make the experience more authentic, the instructor invited some of his other social studies colleagues with whom he was professionally connected via Twitter (he had over 1,000 followers) to ask his students questions via Twitter about modern social issues to which the students would respond from the perspective of their philosopher. "Students received questions such as: What would Montesquieu think about the filibuster? Would Rousseau be for the U.S. Patriot Act? How can we ensure that there is more gender balance in our Congress?" (Krutka & Milton, 2013, p. 26). The instructor noticed that student engagement, which was already high throughout the activity, increased even more as students realized they were engaging with a much broader audience from multiple states in the U.S. and even from Australia.

In terms of learning outcomes, throughout the activity these students "went well beyond memorizing facts about Enlightenment philosophers" as they "actively engaged in participatory activities appropriate for a digital age" (Krutka & Milton, 2013, p. 27), such as researching, collaboration, content creation, and clearly articulating ideas online. Thus, by assuming his students already had basic literacies in using Blogger and Twitter, the instructor was able to integrate these social media tools into his curriculum in a way that created an engaging, digitally

mediated, and socially situated learning experience which helped him successfully achieve key learning outcomes for his course. Additionally, such a focused use of social media in the classroom also helped students further develop their digital literacies as they experienced ways to use them for more deliberately education uses.

Another example occurred in a college freshman-level Media Literacy course consisting of 36 students in which the instructor used Facebook to overcome the challenge of time-constrained class discussions which were often stymied when they became either too jargon-specific on the one hand or too basic and watered down on the other (Churcher, et al., 2014). Facebook was the social media platform selected by the instructor to address this challenge because there was an assumption "that students would be familiar with it and could navigate it with ease, thus eliminating a potential learning curve" (p. 38). This assumption was validated as the instructor learned that all 36 students already had a personal Facebook account. The students were assigned to (a) respond on their class Facebook page to a question asked during the class period, (b) discuss more advanced comments with one another in the asynchronous Facebook environment, and (c) to post examples of content that exemplified terms and concepts discussed in class. Students were then graded on their Facebook participation. In a survey given at the end of the course, many students indicated that they participated more than in traditional courses, learned more from other students than in traditional courses, and gained more overall from the course due to the Facebook assignments. This provides another intriguing example of an instructor tapping into the pre-existent digital literacies of students by incorporating assignments into the curriculum which were embedded within an already familiar social media platform. It is also apparent from the self-report survey that student engagement and learning was enhanced.

In another study at a large university, 411 undergraduate students who were enrolled in either a first-year Marketing or Fashion course, were required to tweet at least 10 times during the semester using a specified course hashtag and to submit a reflective paper near the end of the semester describing their Twitter activity and their personal learning outcomes resulting from their Twitter use (West, et al., 2015). A brief overview of how to use Twitter in an educational setting was provided by the instructors at the beginning of the courses and additional training was offered on an as-needed basis. However, most students self-reported being already at least "modestly confident in their Twitter proficiency" (p. 163). Students were encouraged to tweet both during and outside of class. The instructors used various tactics to encourage students to engage during class. For example, they sometimes invited students to tweet in examples of particular concepts being discussed in class; at other times they would have live tweet sessions in which a screen displayed the live Twitter feed of class members which were then used to spark class discussions. Finally, a self-report Likert-scale questionnaire was developed from a review of the literature to assess student perceptions of their experience, engagement, and success in using Twitter in the course.

The results of this questionnaire were very positive and generally evinced that students felt "using Twitter in their course helped improve interaction within this learning community, both during and outside of the actual class lectures" (West, et al., p. 164). Specifically, students reported that they "felt a greater sense of connection to not only the professor but also to their classmates and to members of the professional community" (p. 164). Additionally, they felt Twitter helped them "learn the course materials more effectively, perhaps by offering more ways to connect the course concepts to real-life applications" (p. 164). Students also disagreed with the idea that "Twitter was a learning distraction or a waste of time, but they strongly reported

having enjoyed using Twitter as a learning tool and would consider using it as part of their learning process in future" (p. 164).

From the above examples we can see that when the digital literacies learners have begun to develop informally on social media are incorporated into course curricula, learning is enhanced and course outcomes are achieved in ways that are more engaging and enjoyable to students. Additionally, by leveraging the affordances of social media in their classrooms, instructors are helping students further develop the increasingly essential digital literacies needed to navigate and meaningfully participate in the digitally interconnected world into which they are moving (Winterwood, 2010). As illustrated in the above examples, these include such literacies as communicating, participating, collaborating, analyzing, synthesizing, creating, and sharing digital texts. We can conclude from this research that, since the development of these literacies in their students is already among the aims of instructors and formal educational institutions generally (Greenhow & Robelia, 2009; NCTE, 2008), they would be well served to learn how to effectively integrate social media into their formal learning environments to enhance or otherwise foster these outcomes.

How social media use in formal contexts influences informal learning. The above research suggests that integrating social media literacies developed in informal learning contexts can influence and enhance learning in formal contexts, though more rigorous research is needed to strengthen this assertion. If there is a true correlation flowing in the direction of informal to formal, we could also ask how this correlation might flow in the reverse direction. That is, how might integrating social media into formal learning contexts influence and enhance the learning that occurs in informal contexts? Though informal learning is particularly difficult to measure, the following research illustrates how social media use in formal contexts influences and

encourages learning to continue between students in ways which extend beyond the requirements of the course (i.e., informal learning).

For example, Hall (2009) evaluated how student learning was impacted when Web 2.0 tools were fused into personal learning environments in the curriculum of one university in the United Kingdom. Using thematic content analysis, Hall captured themes from in-depth interviews and online focus groups with 129 students from both the undergraduate and postgraduate levels over a four-year period, as well as from in-depth interviews with 11 university staff before, during, and after they introduced web 2.0 into their curricula. Hall found that students highly valued the wider informal formative feedback and peer validation received from fellow classmates when posting ideas and knowledge artifacts, instead of only receiving formal summative feedback from the instructor. He also found that staff often encouraged but did not formally require students to share learning resources with each other via wikis and other open applications. As students chose to do so, they created trust between themselves and added peer validation to the knowledge created by one another. Additionally (and this is the point), Hall found that in the Web 2.0 environment, some students would extend their learning and discussions beyond the required amounts of the course. For example, some students who said they needed "social engagement and debates about practice" actually created their own online discussion groups apart from teacher awareness to move to "total ownership of our learning" (p. 37). Hence, discussions that may have begun in the more formal teacher-mediated setting transitioned to a more invested informal learning experience beyond the requirements of the curriculum.

Hall concluded that when social media tools are fused with personal learning environments "students gain control over their learning experiences … [and] are able to . . .

connect their informal educational lives to their formal, institutional work" (p. 38). Hall's conclusions are consistent with other studies in his assertion that as instructors fuse the use of social media tools into their curriculum, there is often a fostering of both formal and informal learning which takes place (e.g., Ebner et al., 2010).

In another study, Tan (2013) investigated how students who were enrolled in an introductory Anthropology course used, evaluated, and shared YouTube videos outside of the formal classroom setting to support their own independent learning and informal interactions with fellow students. Three separate focus groups were conducted with these students, during which questions were posed in a semi-structured format on how they used, evaluated, and shared YouTube videos. These focus groups were recorded, transcribed, and thematically analyzed using a grounded theory approach, letting the themes emerge from the data collected. From these focus groups Tan not only confirmed that using YouTube videos outside of class is a widespread practice, but also that peer posting gave a sort of tacit, peer-reviewed, social credibility to the videos. Indeed, the perceptions of peer-connectedness heavily influenced the credibility students give to the videos shared with one another. Parenthetically, this finding underscores the theoretical point made earlier that learning and social connectedness go hand-in-hand (Siemens, 2005). Additionally, Tan found that both educational and entertainment videos were shared by students with each other on multiple platforms (such as Facebook) "to provide a kind of social glue" (p. 475) to help form and build student communities, "stimulating comments, discussion and supporting development of social bonds extending the activities from the formal classroom setting into the informality of the online social spaces" (p. 475). Thus, here again we see that learning which began in the formal context was nearly seamlessly extended

and enhanced beyond course requirements as students interacted within informal learning contexts mediated by social media platforms.

While more research needs to be conducted evaluating this relationship specifically, what is suggested from the examples cited above is that when social media is involved, there is a positive relationship between formal classroom learning and informal learning outside of the classroom. That is, when social media is allowed to be part of the formal learning environment there is a likelihood that the content assigned in the formal context will be further explored by students informally on social media beyond the requirements of the class. This is another persuasive benefit of classroom incorporation of social media.

Concerns and risks of incorporating social media into the classroom. Despite the generally positive results and feedback involved with incorporating social media into the classroom, there are also some regularly expressed risks and concerns involved with doing so. These can be divided into the categories of e-safety, classroom distraction, and discomfort in blending one's private and public life.

E-safety. Ybarra, Mitchell, Finkelhor, and Wolak (2007) summarized the major concerns of e-safety as centering around such potentially risky online behaviors as disclosing personal information; aggressive or abusive behavior; sexual behavior, such as predatory activity or receiving unwanted sexual solicitation; and abusing file-sharing programs by sharing copyrighted material. With such potential challenges some faculty and administrators may wonder if the benefits outweigh the risks involved with bringing these technologies into the classroom. Yet other researchers have shown that young people have a keen sense of these potential hazards online and for the most part exhibit a nuanced and judicious avoidance of these hazards (Greehow & Robelia, 2009).

Classroom distraction. The use of students' personal laptops and smartphones in class have concerned many instructors in main part because of the high probability that such devices will be used not as productivity tools but as instruments of distraction. And of course, the larger the classroom and the more students in that classroom, the less likely the instructor will be able to know for certain whether a student is taking focused notes on the lecture or checking Facebook or his Twitter feed (Elavsky, Mislan, & Elavsky, 2011). So the thought of actually encouraging every student in class to actively use social media as part of the course is a highly undesirable idea in the minds of many faculty (Moran, Seaman, & Tinti-Kane, 2011). Yet others argue that the inevitability of social media in the classroom (whether encouraged by the instructor or not) only underscores further the need to harness it and incorporate its affordances into the curriculum to advance, rather than distract from, course outcomes (Abe & Jordan, 2013).

Discomfort in blending one's private and public life. Lockyer and Patterson (2008) described the discomfort many faculty feel because of the way in which social media creates a "blurring of the lines between the personal and professional roles of the lecturer and students" (p. 533). Whereas the relationship between faculty and students has historically been viewed as formal and professional, Martínez-Alemán (2014) pointed out that "the very essence and objectives of social media (especially social networking) are quite the opposite," connecting "individuals through an informal, relaxed, and colloquial sharing of information" (n.p.). Thus, Martínez-Alemán concluded:

> [M]any faculty still do not want to share with students many aspects of their private lives or know about their students'. . . . Having access to faculty's personal online profiles ostensibly makes students "friends" with faculty, which many faculty feel disrupts their

real-world authority (friends do not grade friends) and weakens their professional

legitimacy. (n.p.)

Some students have also expressed a level of discomfort about giving their instructor

access to their personal social media profiles (Cao, Ajjan, & Hong, 2013; Churcher, et al., 2014;

Martínez-Alemán & Wartman, 2009). One concern among some students is "that faculty would

use their Facebook to 'get gossip or spy' on them" (Abe & Jordan, 2013, p. 19). Such students

therefore prefer more bounded communications with faculty, such as via email or a course

learning management system (Martínez-Alemán, 2014). This concern certainly needs to be

addressed if social media integration is to be successful. One instructor, for example, addressed

this concern by allowing the students to collectively create rules of acceptable behavior that

guided their coursework on Facebook (Churcher, et al., 2014). This approach created buy-in

among students and established community-based rules of online behavior all were expected to

follow.

Recommendations for Incorporating Social Media Into Formal Contexts

This section will review the literature relative to (a) current faculty use of social media;

(b) the need for faculty to learn to use social media, including recommended practices for

successfully incorporating social media into the formal learning curriculum; and (c) the need for

student training, including recommendations for doing so.

Current faculty use of social media. In 2011, Moran, et al. conducted a survey in

which 1,920 teaching faculty from universities throughout the United States reported their use of

social media. Specifically, they were asked about using social media in class, posting content on

a social media platform for student use outside of class, and using social media as part of out-of-

class assignments. They found that "80% of faculty report using social media for some aspect of

a course they are teaching" (p. 12). However, "of the 80% of faculty who've made any use of social media as part of their courses, virtually all include some form of online video use," such as YouTube (p. 12), whereas such platforms as Facebook and Twitter were used in class by a mere 4% and 2% of faculty respectively. This same trend is evident in what and where faculty post content for viewing outside of class and in the platforms selected for out-of-class student assignments involving social media (see Table 1). Thus, what at first blush seems like large-scale adoption of social media in higher education classrooms—80%—turns out to be little more than the use of YouTube videos in class with only a very modest adoption of other forms of social media.

Table 1

Ways Faculty Use Various Social Media In and Out of Class

Faculty Use	YouTube	Podcasts	Blogs	Wikis	Facebook	Twitter
Use in class	61%	13%	10%	9%	4%	2%
Use to post class content	21%	9%	8%	6%	3%	2%
Assign students to read/view	32%	15%	14%	11%	3%	2%
Assign students to post	10%	4%	8%	7%	2%	1%

Adapted from Moran, et al. (2011)

In this same survey, when asked specifically about the value of Facebook and Twitter "a large proportion of faculty say Facebook (53%) and Twitter (46%) have 'negative' value for use in class" (Moran, et al., 2011, p. 16). This negative view stems in part from the concerns about social media mentioned earlier (i.e., privacy concerns, distractibility, etc.), yet "lack of training" and "institutional support" were also mentioned as major barriers (p. 16). Such feedback suggests that training is needed (a) to increase faculty willingness to incorporate social media into their classrooms by overcoming their negative views about such classroom use, and (b) to

equip them with the skills and best practices necessary to succeed in doing so in ways that are most likely to result in more engaging learning for students and improved learning outcomes (Junco, Heigberger, & Loken, 2010).

Faculty must learn to use social media. To help faculty overcome their concerns and challenges with social media, training is needed. As instructors recognize that "the use of social media positively influences both student satisfaction and learning outcomes, and [that] these increase the more that instructors" use it (Cao, Ajjan, & Hong, 2013; Cao & Hong, 2011), many will likely be convinced of their need to incorporate social media into their classrooms in some way. But where should such an instructor, untutored in social media use as a pedagogical tool, begin? Alvermann and Hutchins (2012) suggested that "a teacher's first step . . . [is] to become acquainted with the digital literacy practices that her or his students already possess" (p. 41). Second, the teacher must do the hard work of dedicating time to learn how to use these various social media as instructional tools (Martínez-Alemán, 2014). Both of these steps might best be achieved through some type of faculty training. Bull et al. (2008) suggested that faculty members be trained by the younger, more digitally immersed teachers through inservice trainings and/or one on one tutoring.

Among the most fundamental practices teachers must master to successfully integrate social media into their classrooms, is to correctly select the appropriate social media tool which will best achieve the intended learning outcome (Sylvia, 2014). Many researchers warn teachers against haphazardly introducing social media into the classroom in an effort to be trendy or to relate with students (Lankshear & Knoebel, 2004; Lohnes & Kinzer, 2007; Selwyn, 2007). Selwyn (2008) cautioned that "the affordances of each social media modality should be carefully

understood" before they are introduced into the classroom (p. 6; see also Churcher, et al., 2014; Krutka & Milton, 2013). For this reason Sylvia (2014) suggests that:

> [I]nstructors stop thinking in terms of "social media" as a whole, and instead start thinking about individual tools, such as Facebook, YouTube, Twitter, etc. Task-technology compatibility is one of the greatest predictors of social media success in the classroom setting, but this compatibility is best determined on the level of the individual tool. (p. 54)

Thus as teachers become increasingly familiar with the affordances of each social media tool they will more clearly see how each tool may be incorporated into the formal course curriculum to achieve their predetermined learning outcomes. Poore (2015) stated, "Only when you have established what it is that you want students to achieve, do, or understand can you go about finding the best way for them to accomplish that" (n.p.). Poore continues, "If you decide that using social media does best support your purposes, you then need to move on to planning your teaching and learning episode, scaffolding student learning, and writing up rubrics to clarify your expectations" (n.p.). Poore offers the following three questions teachers can ask themselves as they consider whether or not social media would best support a given learning experience:

1. What is the intellectual or conceptual focus of the episode for students? (Is it comprehension, visualisation, application, analysis, critique, or something else?)

2. What types of 'exchanges' should students be involved in? (Should it be knowledge sharing, collaboration, networking, dissemination of opinion?)

3. How can students best accomplish this? (Is it via social media or some other means?) (n.p.)

To help identify and clarify task-technology alignment, Table 2 summarizes some of the best fits between learning outcomes or activities and some of the more mainstream social media tools which might be used to achieve those ends.

Table 2

Aligning Learning Outcomes with Social Media Tools

Learning Outcome/Activity	Potential Social Media Tools
Analysis, Synthesis, Evaluation	- Blogs - Wikis - Podcasting - YouTube Video Creation
Brainstorming	- Facebook - Google+ - Pinterest - Twitter
Collaboration	- Wikis - Google Docs - Podcasting - Facebook - Google+ - Podcasting - YouTube Video Creation
Communication and Knowledge Sharing	- Blogs - Delicious - Pinterest - Facebook - Google+ - Twitter - Google Docs - YouTube Video Creation
Feedback and Opinion Sharing	- Twitter - Facebook - Google+ - Blogs
Social Curation of Information	- Pinterest - Delicious
Networking	- Twitter - Facebook - Google+ - LinkedIn

Adapted from Poore (2015) *Using Social Media in the Classroom*, 2nd Edition

Student training is needed. Although instructors may safely assume that students are using social media as part of their daily experience (Greenhow & Robelia, 2009), it does not follow that students intuitively recognize how to utilize social media as an educational tool. Thus, as Churcher, et al. (2014) explained, "Just as the classroom needs its teacher, social media spaces require a skilled moderator for effective learning to occur during the collaborative knowledge creation process" (p. 36; see also Lazonder, Wilhelm, & Ootes, 2003). Indeed, research confirms that students need pedagogical scaffolding and guidance in the classroom to successfully use social media to support their formal learning (Cigognini, Pettenati, & Edirisingha, 2011; Dabbagh & Kitsantas, 2012). The guidance they require is less about technical know-how (though some of that may be needed) and more about understanding how social media connects to the formal learning outcomes desired by the teacher (Beetham & White, 2013).

Additionally, it is important to keep in mind that, although young people have begun to tacitly develop digital literacies with social media technology in their informal contexts, "there is nothing innate about knowing how to apply those acquired skills to the processes of civil society, scientific or scholarly innovation, or economic production" (Rheingold, 2008, p. 2). Hence the importance of the instructor's role in the formal context to ensure that students "develop a critical vocabulary for thinking about the place of media in their lives and engage in meaningful reflection about the ethical choices they make as media producers and participants in online communities" (Jenkins, 2007, n.p.). Some have referred to this broader aspect of ethical decision-making and online social responsibility as digital citizenship (Greenhow & Robelia, 2009; Ribble, Bailey, & Ross, 2004).

Thus, the instructor's role is both to help students understand how specific social media uses connect to formal learning goals and to assist them in developing good digital citizenship. To accomplish these ends, successful instructors will provide clear modeling of best practices in their own uses of social media and give their students meaningful assignments which align with these outcomes. For example, since students in higher education don't always recognize the affordances of social media for academic and career networking (Erstad, Gilje, & de Lange 2007; Greenhow & Robelia, 2009), an instructor could model how to do this by showing students which scholars they follow on Twitter and then assigning students to identify who the leading scholars are in their fields and to follow them via Twitter (Abe & Jordan, 2013).

We conclude from this section's survey of the literature that current faculty adoption of social media in their higher education courses is generally low, with the exception of sharing videos in class from social media sites such as YouTube (Moran, et. al., 2011). Yet, given the tremendous potential of social media to improve student satisfaction and increase learning outcomes, we have underscored the need for both faculty and student training in this regard and have offered the most relevant recommendations from the literature for doing so.

How Some Key Religious Leaders are Using Social Media Today

Research has shown that religious leaders and organizations can mitigate the threats social media may pose to their epistemic authority by integrating social media into their own ministries and outreach (Cheong, Huang, & Poon, 2011). Hence, religious organizations and leaders, like formal educational institutions, are beginning to rethink and renegotiate how they engage with their digitally saturated constituents in order to retain (or reclaim) legitimacy and relevancy in the eyes of those people. Pope Francis, for example, "has been doing his best to bridge the gap between the church and the people" through the use of Twitter (McAfee, 2015).

He has over 22 million followers on Twitter and averages over 9,929 retweets for every tweet he sends, making him the most influential world leader on social media (using retweets as the measure of influence) according to a study by Twiplomacy (Twiplomacy Study 2015, n.d.). For perspective, Pope Francis' tweets are retweeted eight times more frequently than those of Barack Obama (McAfee, 2015). "Pope Francis tries to meet millennials where they are," a CBS article states, "and take them on a faith journey to where they need to be, and social media is part of that journey" (Bagley, 2015, para. 13).

The Dalai Lama, a world renowned Buddhist monk based in Tibet, is very active on social media, often posting several times per week to his 12.8 million followers on Twitter (Dalai Lama, 2016a) and 13.3 million followers on Facebook (Dalai Lama, 2016b). His posts and tweets consist primarily of maxims for living as well as links to news articles involving his global travels and speaking engagements. The Dalai Lama's tweets regularly garner over 7,000 retweets, and his Facebook posts receive even more than that. A Facebook post on April 25, 2016, for example, garnered over 202,000 likes and more than 34,000 shares.

The Jewish rabbi in America with the largest social media following is Rabbi Shmuley Boteach, who has 242,000 followers on Twitter (Boteach, 2016a) and over 911,000 on Facebook (Boteach, 2016b). While not considered a world religious authority on the level of the Pope or Dalai Lama, Boteach's presence as a Jewish rabbi on social media is well established. His posts frequently consist of thoughts on Israel, reactions and responses to modern events, and the occasional moral axiom, all of which garner few likes, shares, or retweets.

Thomas S. Monson, president of the LDS Church, has over 557,000 followers on Facebook (Monson, 2016a) and 177,000 on Twitter (Monson, 2016b). President Monson's posts and tweets consist primarily of succinct hope-filled teachings and assertions of his faith in God.

His tweets regularly garner over 700 retweets and his Facebook posts often more than double

that. For example, a Facebook post on April 22, 2016 garnered over 13,000 likes and more than

2,000 shares.

The common thread in the social media approaches of Pope Francis, the Dalai Lama,

Rabbi Schmuley, and President Monson is their use of social media as a monologic (one-way)

broadcast medium—a platform from which they send regular one-way messages to their

followers (double entendre intended). With the exception of Rabbi Schmuley, the social media

followers of these world religious leaders help significantly in spreading their words by liking,

sharing, and retweeting their messages by the thousands. While this use of social media may

help to establish their epistemic religious authority with their followers on the social media

landscape, it does not utilize the dialogic (two-way) affordances of social media. That is, these

religious leaders do not personally interact with their followers on social media by, for example,

publicly answering questions their followers may have for them. This observation is merely a

description of their social media use, rather than a criticism of it. For such world religious

leaders to utilize social media in a dialogical manner given the massive numbers of followers

each has, would not only be unwieldy and impractical, but perhaps impossible.

There are, however, some high profile religious leaders who attempt to leverage the

dialogical nature of social media in their ministries. For example, Joel Osteen, senior pastor of

the largest Protestant church in America, is known as a very successful evangelist on social

media, or, as one writer called him, a "digivangelist" (Bosker, 2013, para. 21). Osteen has a

following of 4.5 million on Twitter (Osteen, 2016a) and 13.6 million on Facebook (Osteen,

2016b). He employs a social media team to manage his accounts, which consists of posting and

tweeting daily inspirational messages from Osteen in traditional monologic fashion.

Additionally, however, his team is employed in responding on his behalf to comments his followers make on his social media accounts. Osteen also holds monthly "Night of Hope" events throughout the world during which he delivers inspirational sermons and has his social media team busily working behind the scenes to respond to and interact with as many of those who engage with the event via social media as possible, the majority of which consist of requests to be prayed for (Bosker, 2013). While this team of Osteen social media respondents represents a considerable effort to utilize the dialogic affordances of social media to connect with an otherwise unmanageably large number of followers, it would be difficult to argue that this constitutes educational use, as the interactions are nearly always emotionally supportive rather than pedagogic in nature, and Osteen himself—the authority figure—is rarely, if ever, the one giving the responses.

Conclusion

From this review of the literature, several things have become apparent. First, due to the nearly ubiquitous use of social media among young people there is an increasing interest in incorporating it into the formal learning environment. Indeed, as time moves on, instructors may increasingly need to integrate some form of social media use into their formal classrooms and curricula if for no other reasons than to retain relevancy, authenticity, and legitimacy in the minds of their students. Yet this is no meaningless accommodation and need not be viewed as acquiescence or capitulation to trendy technology. Rather it can be understood as wisely adapting one's pedagogy to meet the needs of emergent learners. Everyone is served—both students and teachers—if what is taught is done using methods that are relevant to students' day-to-day experiences, authentic to the socially mediated ways in which they are accustomed to learning informally, and legitimate in equipping them to thrive in our digitally interconnected

world. Indeed, not only is it likely that student satisfaction will increase but learning overall may be enhanced (Cao, Ajjan, & Hong, 2013; Cao & Hong, 2011; Churcher, Downs, & Tewksbury, 2014; Krutka & Milton, 2013; West, Moore, & Barry, 2015). The literature suggests that the benefits of social media use on education are two-fold: (a) as young people engage with social media in informal learning contexts they are tacitly equipped with digital literacies which can be profitably integrated into formal learning contexts to achieve learning outcomes; (b) when social media is successfully integrated into formal learning contexts learners are likely to extend their learning into informal learning contexts by continuing to engage with fellow learners via social media beyond the stipulations and requirements of a given assignment or learning episode. To successfully achieve these ends, the literature recommends that faculty be trained through inservice trainings and personal mentoring from those faculty who are already successfully integrating social media into their classrooms. The literature likewise recommends that training be implemented to help students (a) learn to use social media to achieve formal learning goals and (b) develop digital citizenship for ethical and socially responsible decision-making online.

Second, the literature suggests that religious leaders who integrate social media into their own ministerial approaches and global outreach can mitigate the threat social media may pose to their epistemic authority due to the cacophony of competing voices in the digital marketplace of ideas (Cheong, Huang, & Poon, 2011). Utilizing social media allows religious authorities to establish their influential voices within the digital landscape of this new medium. A survey of current practice suggests that key world religious leaders using social media for this purpose are doing so, for the most part, in a monologic rather than dialogic way. In other words, they are not personally engaging in dialogue with their followers' questions and concerns—at least not publicly—but are using social media as broadcasting platforms. The one major religious leader

that was found to engage with his followers dialogically on social media (via a social media team) did not do so with pedagogic intent, but with the intent to offer moral and emotional support.

Third, the literature surveyed does not specifically address how the dynamics of interaction between young adult learners and world religious authorities are influenced by social media in free-choice learning contexts. This specific gap in the literature constitutes the justification for the current study.

Chapter 3: Methodology

The guiding question of this research study is: *How does the use of social media influence the dynamics of interaction in the context of a free-choice religious education experience between a world religious leader and young adult learners*? A Grounded Theory approach was used for this study in order to (a) understand how the dynamics of interaction were influenced by embedding a large-scale free-choice religious education experience into social media, and to (b) derive patterns from the data generated in this experience which could be abstracted and reconstituted into an explanatory and predictive theoretical framework to inform the design of future large-scale free-choice learning experiences.

In contrast to other qualitative methods which aim to describe and explore various phenomenon, grounded theory methods seek to generate a theory that can explain the sometimes complex phenomenon of the study (Birks & Mills, 2011). Indeed, grounded theory was developed by Glaser and Strauss in 1967 to "move qualitative inquiry beyond descriptive studies into the realm of explanatory theoretical frameworks" (Charmaz, 2006, p. 6). Grounded theory is decidedly not intended to be used to confirm existing theories; rather, it is most useful when little or nothing is known about a particular social phenomenon or when a fresh perspective is sought on present knowledge (Goulding, 1998). Grounded theory is an especially apt methodological fit for this study particularly because little is known about this specific phenomenon and greater power is being sought to explain it.

To facilitate the generation of fresh theories, some grounded theorists discourage a review of relevant literature prior to a study in order "to prevent the researcher imposing existing theories or knowledge on the study processes and outcomes" (Birks & Mills, 2011, p. 22). However, when a literature review is required for a study (such as with the present study) the

grounded theory researcher is encouraged to "contain the depth and breadth of your exploration of the literature to the minimum necessary to meet such requirements," or to treat the literature review as data (Birks & Mills, 2011, p. 22). Once a theory begins to emerge from the data, the researcher is then encouraged to consult additional literature which can prove useful in the constant comparative process and in improving theoretical sensitivity. This was done for this study in chapter 5 to theoretically situate my emergent theory.

Grounded Theory

The methodologies of grounded theory "consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' in the data themselves" (Charmaz, 2006, p. 2). Such methodologies are designed to add rigor to qualitative research "by building systematic checks into both data collection and analysis" (Charmaz, 2006, p. 23). For the purposes of the current study, I drew heavily upon the methodological approaches outlined by grounded theorists Birks and Mills (2011) and Charmaz (2006) to construct an interpretive theoretical framework which addresses my guiding research question (see Figure 1). I will proceed by explaining each aspect of this methodological approach which includes data collection, coding, and categorizing; theoretical saturation; memoing; constant comparative analysis; creation of theoretical concepts, memo integration, and diagramming; and drafting the final paper.

Data collection, coding, and categorizing. Grounded theory begins with an almost simultaneous collection and codification of the data. The collected data is generally coded in a line-by-line or idea by idea manner by giving them a label often consisting primarily of keywords used by the participants themselves. This manner of qualitative coding, not unique to grounded theory alone, is referred to as *in vivo* coding. This first-level coding of data segments

is done in an effort to get at the essence of what is being said and conveyed in the written text

(e.g. interview transcripts, Facebook posts, etc.). Once this first-level groundwork has been laid,

a second level of coding can be added which consists of applying a tentative category to each

first-level *in vivo* code. This is done for the purpose of raising the data into slightly more

abstract analytical thought chunks that can be more easily compared to and categorized together

with other related thought chunks. These processes of *in vivo* coding and categorizing continue

until the data has reached the point of theoretical saturation, which occurs when "new data

analysis only returns codes that fit within existing categories, and these categories are

sufficiently explained in terms of their properties and dimensions" (Birks & Mills, 2011, p. 10).
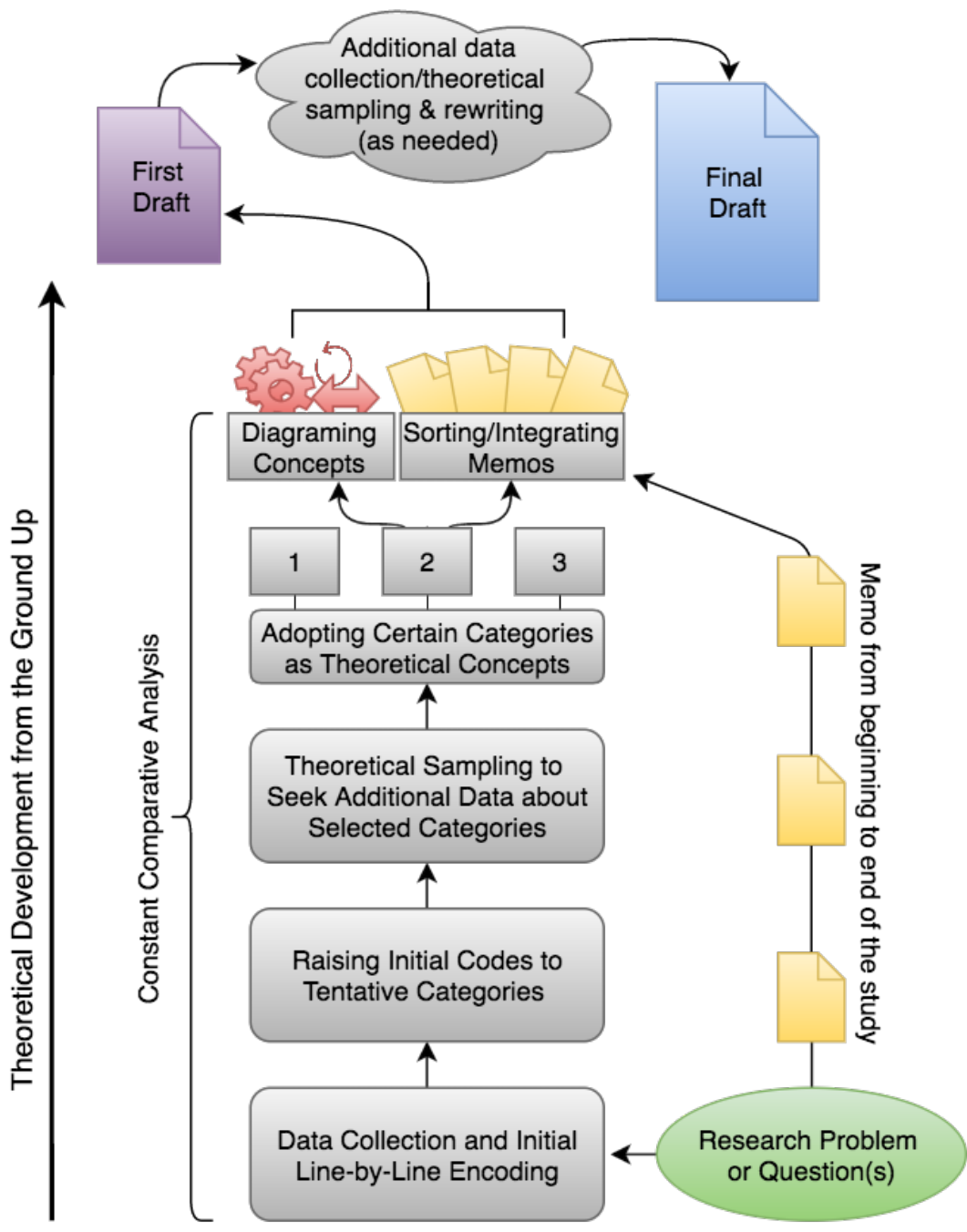
Figure 1. Grounded theory methodology. Adapted from Birks and Mills (2011) and Charmaz (2006)

Theoretical sampling. As researchers compare data and seek to achieve theoretical

saturation within each emergent category, it may become apparent during this iterative process

that more information is needed to more fully understand the properties and/or dimensions of

certain categories, the conditions under which a category exists, or how one category relates with another category. At such junctures the researcher must make strategic decisions about where to obtain the most relevant and rich information to learn what needs to be learned in order to achieve categorical saturation. This process is referred to as theoretical sampling (Birks & Mills, 2011; Charmaz, 2006). Memoing during this process, which will be discussed next, allows the researcher to lay out potential sources of information from which to sample and will create an audit trail of the decisions made by the researcher which may prove useful later on (Birks & Mills, 2011).

Memoing. Writing memos in a grounded theory approach has been likened to investing "intellectual capital in the bank" (Clark, 2005, p. 85). The researcher is encouraged to begin this investment from the very beginning of the study and is to continue doing so to the end. Memos are defined as "written records of a researcher's thinking during the process of undertaking a grounded theory study" (Birks & Mills, 2011, p. 10). Memos may include the researcher's reflections, analysis of the data, exploration of ideas, theoretical musings, potential angles and avenues to explore, and the like. The more copious the memoing throughout the research, the more rich the supply of intellectual assets the researcher may draw from as ideas coalesce and a theoretical framework develops. Indeed, it is from the soil of the researcher's memos that his theoretical findings will ultimately be harvested. As he sows, so shall he reap—the greater the memoing, the greater the theoretical harvest.

Constant comparative analysis. Like memoing, constant comparative analysis is another ongoing methodological approach which occurs iteratively throughout a grounded theory study. This means that there is a constant cross-comparison of data at varying levels of abstraction: raw data to codes, "codes to codes, codes to categories, and categories to categories"

(Birks & Mills, 2011, p. 11). It is a moving back and forth, to and fro, between data collection, code and category comparison, and memoing. Both inductive and abductive logic are employed at every level of this analysis in order to build a theory both from the data itself and from implications and inferences extrapolated from that data. Inductive logic, or reasoning from specific instances to generalizations, is employed throughout the analysis, but especially at the raw data to code, code to code, and code to category levels. This is so because inductive logic is very useful in fitting specific qualitative data into general, already-known categories. Induction is limited, however, in its ability to generate new knowledge. Abductive logic, on the other hand, has been found to be extremely useful in generating new knowledge (Reichertz, 2007).

Abduction is defined as "assembling or discovering, on the basis of an interpretation of collected data, such combinations of features for which there is no appropriate explanation or rule in the store of knowledge that already exists" (Reichertz, 2007, p. 219). When the researcher engages in abduction, therefore, he "has decided … to no longer adhere to the conventional view of things." Rather, he is engaging in "a cerebral process, an intellectual act, a mental leap, that brings together things which one had never associated with one another: A cognitive logic of discovery" (Reichertz, 2007, p. 219-220). Abductive logic, although employed throughout the constant comparative analysis, is especially useful at the level of comparing categories to categories, as this tends to be the level where theoretical development and integration occurs (Birks & Mills, 2011).

Nevertheless, as Reichertz (2007) points out, abductive insight can prove to be elusive as it is "dependent either on pure chance, a benevolent God, a favorable evolution, or a particularly well-endowed brain" (p. 220). In other words, one cannot force abductive insight on-demand, nor systematically create new theories simply by following some kind of multi-step process. Yet

elusive though abductive insight may be, it is possible, Reichertz (2007) argues, to have an abductive mindset as a grounded theory researcher which can increase the likelihood for abductive lightning to strike, so to speak. Such a mindset includes taking the research data seriously while at the same time questioning to some degree the validity of previously discovered knowledge. "It is a state of preparedness for being taken unprepared" (p. 221). This mindset also encourages the researcher, after saturating his mind with the data, to then "let his mind wander with no specific goal" in a condition "of meditation, or daydreaming" (p. 221). Thus it can be said that the grounded theory researcher is both expectant of theoretical insight as he moves to and fro between data collection, coding, and memoing, and unsure of exactly when such conceptual insights and theoretical connections will occur.

Creation of theoretical concepts, memo integration, and diagramming. Charmaz (2006) compared coding and categorizing data to generating the bones of a grounded theory study; whereas theoretical integration consists of assembling those bones "into a working skeleton" (p. 45). At some point during the processes of analyzing the data, coding and categorizing it, thoughtfully comparing codes and categories with one another, and consistently memoing thoughts and insights about these processes, the categorical "bones" will begin to coalesce and become more and more of a theoretical skeleton. Diagramming the conceptual relationships between these increasingly abstract categories may assist the researcher in discovering which are the major structural bones in the data and which are only the minor supportive ones. At this point the researcher will likely want to adopt these few emerging major categories as the governing theoretical concepts of the study. This phase in grounded theory research represents a major move toward theoretical integration. Birks and Mills (2011) suggest that the researcher may even want to select only one core category which "encapsulates and

explains the grounded theory as a whole" (p. 12). When either one or a few major categories are selected as the major theoretical concepts for the study, "full theoretical saturation of both the core category [or categories] and its subsidiary categories, subcategories and their properties" (p. 12) needs to be conducted to ensure rigor.

From first draft to final draft. If coding, categorizing, and selecting the major categories to become theoretical concepts are like creating and structuring the bones and skeletal system of one's research, then perhaps writing the first draft represents the researcher's initial attempt to put flesh and skin on that structure and to breath life into the overall study. This typically involves the technique of using a narrative storyline to integrate and present the grounded theory. The written theory—full of life—will offer "a comprehensive explanation of a process or scheme apparent in relation to a particular phenomenon. It is comprehensive because it includes variation rather than a rigid one-size-fits-all answer to a research question" (Birks & Mills, 2011, p. 12). Indeed, a living theory "explains the studied process in new theoretical terms, explicates the properties of the theoretical categories, and often demonstrates the causes and conditions under which the process emerges and varies, and delineates its consequences" (Charmaz, 2006, p. 7-8). To produce the final draft of such a theory may require additional data collection and theoretical sampling to add to the explanatory power of the theory by situating it "in relation to the the current theoretical body of knowledge" (Birks & Mills, 2011, p. 12).

Using Grounded Theory for This Study

My appropriation of Birks and Mills' (2011) and Charmaz's (2006) methodology reflects a measured and pragmatic use as those methods fit the research question of this study. The purposes of this study were to (a) understand how the dynamics of interaction were influenced by embedding a large-scale free-choice religious education experience into social media, and to

(b) create an interpretive theoretical framework to inform the design of future large-scale free-choice learning experiences. Thus, the methods and practices used in this study were highly interpretive (as grounded theory requires) and made no attempts at neutral objectivity. Yet, it is hoped that the fruits and findings of this study will be transferable, dependable, and reliable to those interested in both this and related phenomena (Sikolia, Biros, Mason, & Weiser, 2013).

Context for This Study

Over the past few years, the top leadership of The Church of Jesus Christ of Latter-day Saints (the LDS Church or the Church) has been engaging their members and other interested social media followers via Facebook and Twitter (Bednar, 2014). In May 2015, Elder David A. Bednar of the Quorum of the Twelve Apostles (the second highest governing body of the LDS Church) and his wife Susan participated in the first social media-based broadcast in which an apostle of the Church fielded questions that were submitted by LDS youth ages 12-17 (some of the questions were submitted weeks in advance) using the hashtag #LDSface2face. This broadcast was exclusively an internet based video broadcast delivered through social media platforms such as Facebook, Twitter, and Instagram (Prescott, 2015). A nearly identical event was held again in January 2016 with Elder Ronald A. Rasband of the Quorum of the Twelve Apostles and two other Church leaders, with questions submitted using the same hashtag and the broadcast occurring in the same way ("Watch: Elder Rasband," 2016). Two months later, on March 8, 2016, Elder Jeffrey R. Holland of the Quorum of the Twelve Apostles, accompanied by two other Church leaders, followed a similar format and used the same hashtag, only this time the participating audience was the Church's young single adult (YSA) members, ages 18-30 years old (Prescott, 2016). Taken together, these three social media based "Face to Face" events represent a symbolic, if not significant, effort on the part of LDS Church leadership to connect

dialogically with the 12-30 year old segment of church membership within their native social media environment.

The present study focused on the third of these Face to Face events—that involving Elder Jeffrey R. Holland and the YSA membership. This particular event was singled out as the focus of the research question of this study for two primary reasons: (a) because of my interests in the 18-30 year old segment of the LDS Church, and (b) because a deep analysis of one self-contained episode (rather than a broad cross-comparison of analogous occurrences) is sufficient for my purposes of understanding the dynamics of interaction in a free-choice religious education experience between learners and a world religious leader.

Data Collection for This Study

Participants in the Face to Face event with Elder Holland actively submitted questions and made comments on both Twitter and Facebook. For the purposes of this study, both the Facebook and Twitter data were the primary sources of data analysis. All of the primary data necessary to be collected for this study was housed on Elder Holland's public Facebook page (Holland, 2016) and on the Twitter hashtag #LDSFace2Face. This data was extracted from Elder Holland's Facebook page using Facepager (Keyling & Jünger, 2016), a program designed to extract such data. A webscript command was then applied to the data to break every post question and comment down to the sentence level and then load it into a Google Sheet for ease of coding, resulting in 6,951 individual sentences. A similar process was followed for the Twitter data. Thus, this data was pulled entirely from publicly available data with no additional data solicited from anyone.

Limitations in the Data

Although the data for this study is rich, it has a few limitations. For example, the Facebook and Twitter posts of this study are productions of individuals whose personal contexts are vague or completely indiscernible to the public. This limited my ability as the researcher to member check, or to have my interpretations of the data validated by those who made the comments or asked the questions. Furthermore, it was not always apparent from their questions or comments, for example, how favorably or unfavorably participants feel about Elder Holland or the church he represents. Knowing this could potentially have added important context to their posts and changed the hue and tint of the hermeneutic lens through which those posts were interpreted. Thus, since the Facebook and Twitter posts themselves are the only data available for analysis and qualitative scrutiny for this study, the personal contexts of the individuals who posted were only as clear as such persons made it known in their posts. Additionally, due to the text-only format of the posts analyzed in this study, tone of voice and/or facial expression were unknowable. Thus sarcasm, for example, was more difficult to detect, making it more likely to misinterpret a snide remark as a legitimate concern, for example.

From Coding the Data to Final Draft

Following the grounded theory approach outlined above in Figure 1, I began coding the collected data in a line-by-line or thought-by-thought manner by giving each idea its own *in vivo* code/label. This was followed by a second level of categorical coding in which each *in vivo* code was labeled with a tentative category code or codes (see Table 3). Again, this was done to raise the data into more abstract analytical thought chunks so they could be easily compared to and categorized with other similar thought chunks in preparation for theoretical integration.

Table 3

Coding Sample

Facebook Text	In Vivo Code	Category Code(s)
"I've lost about six different jobs since then, because of how hard it has been to get out of bed and into the unforgiving, horrible, unloving world."	Lost six jobs; unforgiving, horrible, unloving world	Depression; hopelessness
"I am a recent convert and I'm wondering how to help my family still feel involved in my life? There are many things such as my sealing and church on Sundays that they can't or do not wish to attend. Our lives are so different now, with different standards and I don't know what to say or do to relieve the tension that my conversion has caused. I love them so very much, any advice would be a blessing."	Recent convert; how to help [non-member] family feel involved in my life; different standards; tension my conversion has caused	Family issues; relationships
"I am a young woman who is very passionate about her education and pursuing a career. While I do want to be a mother, and understand the sacred and divine nature of motherhood, I often receive discouragement when I tell other church members of my career plans. How can I be at peace with my desire for both work and home?"	Woman passionate about education and career; want to be a mother; discouraged by church members when I tell them career plans; desire work and home	Careers; women's issues; judgment from other members; seeking peace

As categories formed, I continued to follow the grounded theory methodological process of theoretical sampling (from the Facebook data, the Twitter data, and the archived video broadcast of the event) in order to solidify and add theoretically density and saturation to each category, and of raising certain categories to theoretical concepts that offered explanatory power which could be brought to bear on the research question of this study. Throughout this process—particularly early on—I wrote memos of my thoughts, reflections, questions, perceived obstacles or dead ends, and theoretical musings as I cross compared chunks of data at various levels of abstraction and as I let my abductive mind meaningfully meander and purposefully wander toward theoretical insight. These memos, together with a few diagrams of conceptual relationships that helped elucidate my research question, were brought together and written up in

a final draft which include the detailed results of this study, a discussion of the implications of these results, and a conclusion (see chapters 4-6 in the current study).

Rigor

Good qualitative research uses methods and produces findings that are trustworthy (Birks & Mills, 2011; Marshall & Rossman, 2016; Rolfe, 2006). Measures taken by the researcher to ensure that the methods employed and the conclusions reached are in fact trustworthy constitute the rigor of a study. The four major dimensions of trustworthiness in grounded theory research include credibility, transferability, dependability, and confirmability (Sikolia et al., 2013). I will define each of these dimensions below and explain what measures I took to ensure that each of these criteria were satisfied in this study.

Credibility. Credibility in qualitative research is something akin to internal validity in quantitative research (Morrow, 2005). A grounded theory study is credible to the degree the theoretical constructs are reliable, the data collected "accurately reflects the multiple realities of the phenomenon" (Sikolia et al., 2013, p. 2), and the conclusions reached can be justified by the data collected. In accordance with best practices, I ensured the credibility of this study in the following ways:

Constant comparative analysis. In grounded theory, constant comparative analysis is a built-in check and balance to ensure credibility in the research. Constant comparative analysis can be defined as "concurrent data collection, data analysis and 'checking' of emerging categories" and theoretical concepts against the data (Cooley, 2011, p. 19). Such an approach ensures that the findings and conclusions of the researcher are grounded in and emerge from the data itself. One way in which to ensure that my findings emerged from the data itself was to check my conclusions against the exact words participants used and by quoting them directly and

often in my results section. Using verbatim quotations from the participants as often as possible in my results ensured that I did not read into nor distort the meaning participants intended to convey (Cooney, 2011). Another way in which constant comparative analysis helped me to ensure rigor was the way in which doing so allowed me as the researcher to identify data that challenged, defied, or violated my emerging theory. This was particularly helpful in guarding against positivity bias (i.e., ignoring certain data in favor of only that data which confirms my biases and resonates with my own theoretical whims). Thus, throughout my constant comparative analysis, when data was detected which contradicted or did not fit within my emerging theory, such data was used to adjust and mitigate the claims my theory could make. For example, as I analyzed hundreds of interactions between learners on Facebook and Twitter I was inclined to say that interactions were nearly always positive. Yet by going back to the data again and again, I recognized that I had been overlooking the repeated posts (especially on Twitter) of those individuals whose sole purpose in the event seemed to be to disturb, provoke, and deride Elder Holland and other Church members (such behavior is often referred to as internet trolling). The existence of such trolling behavior not only tempered the positivity claims I could make but also influenced the degree to which I might recommend that religious leaders use social media in worldwide learning experiences specifically.

Additionally, as the theoretical concepts began to form and my theory began to emerge I was hopeful that this theory would have the predictive power to inform more than religious education contexts. As I continued to pour over the data and analyze the nature and probable causes of the interactions, however, I recognized that the elements which made this particular free-choice learning event successful to the degree it was successful, were largely accounted for by factors which were naturally germane to the religious education context (such as trust

between learners and the leader, learner homogeneity, and civility norms). While acknowledging that such factors are not impossible to achieve in non-religious contexts, such abductive findings in my research led me to mitigate the claims I was willing to make about the transferability of my theory to such contexts.

    Theoretical sampling. Another built-in check and balance to ensure credibility in grounded theory research is theoretical sampling. Theoretical sampling is the process in which researchers check their emerging categories and conclusions against other information outside of the primary data set in order to add to the density of the core categories until they have reached the point of theoretical saturation (Breckenridge & Jones, 2009). This process ensures that the categories truly represent what is observed in the data and can be explained in greater detail and deeper dimension. I conducted theoretical sampling throughout this study by comparing written and video Facebook data with Twitter data with the video broadcast of the event. The amount, frequency, and degree of theoretical sampling was guided by theoretical need.

    Peer debriefing. I used a peer debriefer to help keep my research honest and my conclusions sound. This consisted of having an undergraduate research assistant, Kristin McGuire, review my transcripts, check my coding decisions, otherwise act as a sounding board, and offer perspectives on the data I was theorizing about. We met periodically throughout the process of constant comparative analysis to discuss my findings. This disinterested debriefer offered yet one more check and balance on the rigor of my findings (Brown, Stevens, Troiano, & Schneider, 2002).

    Transferability. Transferability in grounded theory research is roughly comparable to external validity or generalizability in quantitative research. In other words, a grounded theory study is said to be transferable to the degree that a "reader is able to generalize the findings of a

study to her or his own context" (Morrow, 2005, p. 252). Note, however, that in qualitative research (unlike quantitative) the researcher should not claim nor imply that the study can be generalized to larger populations or to other settings. Rather, to achieve transferability in qualitative research, the researcher provides a sufficiently rich and thick description of the information (about research contexts, the participants involved, the data source, and the researcher's own involvement) that the reader is able to make the transfer to their own contexts themselves (Morrow, 2005). Thus, to achieve transferability in this study I provided the reader with rich and detailed information about myself as a research instrument—including my biases and assumptions, as well as how I approached, thought about, and codified the data—about the research context and participants involved, and about the data source itself. In sum, I provided sufficiently rich and thick detail about myself, the research context, and my procurement and uses of the data to enable the reader to make transfer to their own contexts possible.

Dependability. Dependability in qualitative research refers to the reliability of the processes and methodological approaches of a study. A grounded theory study is considered dependable to the degree in which the way the study is conducted—that is its methods, processes, and techniques—is consistent across time and researchers (Morrow, 2005). Thus, the approach and processes by which the findings are developed "should be explicit and repeatable as much as possible" (Morrow, 2005, p. 252). Dependability is provided for in this study by my appropriation of the grounded theory methodology of Birks and Mills (2011) and Charmaz (2006), whose grounded theory scholarship is highly respected and widely cited in the field. My use of their methodology for this study has been explained in this chapter and outlined in Figure 1. My memoing process documented the movement and progression of my study, including some of my analytical and methodological decisions. The process of theoretical distillation

during this study is apparent from my memos, my coding, and my final write-up, thus laying bare as much as possible the entire theoretical evolution to external scrutiny and investigation.

Confirmability. Confirmability in qualitative research refers to the idea that, although no research study is objective, its findings should be able to be confirmed by outside auditors. The concept of confirmability "is based on the perspective that the integrity of findings lies in the data and that the researcher must adequately tie together the data, analytic processes, and findings in such a way that the reader is able to confirm the adequacy of the findings" (Morrow, 2005, p. 252). To ensure confirmability in this study, as with dependability, I was transparent in my decision making through my memoing as well as coding. While coding in grounded theory is acknowledged to be a highly interpretive process, yet there is in the logic of my coding methodology a sort of built-in quality check in the data trail that is created. That is, even though in qualitative research generally, and in grounded theory specifically, the emergence of codes, categories, and thematic concepts is influenced by the researcher's own biases, interpretations, induction, and abduction, yet the presence of a documented emergence trail makes the interpretive logic of the researcher subject to the scrutiny of outside auditors.

Reflexivity in My Research

Reflexivity in qualitative research involves the consistent self-reflection of the researcher. It is not merely a one-time disclosure of the assumptions, biases, and preconceptions of the researcher at the beginning of a study, but also a frank acceptance of the fact that, try as one might, the researcher can never really be divorced from the research. Reflexivity acknowledges that the researcher is actively located within and influences the research setting, requiring the researcher to be self-aware of how they might affect the outcome of the research. Strauss, one of the founders of Grounded Theory, indicated that "researchers' biographies exert influence on

[their] use of . . . grounded theory methods and . . . need . . . to be accounted for during the research process" (Birks & Mills, 2011, p. 53). Recognizing my need to be unendingly reflexive and to account for my "biography" throughout this research, I nevertheless feel that some initial self-disclosure and autobiographical reflexivity at the outset of this study may be appropriate considering the nature of the topic and my vested interest in it.

In a study involving an analysis of the interactions between Elder Jeffrey R. Holland and LDS young adults and those young adults with each other, it should be known that I am a believing, practicing member of The Church of Jesus Christ of Latter-day Saints. I believe that Elder Jeffrey R. Holland is a genuine, bonafide prophet of God. I personally thrill to hear him teach and preach the doctrine of the LDS Church, and I sense in him a vibrancy and greatness of soul matched by few men in the history of this world as far as I know it. Furthermore, I am professionally employed by the LDS Church as a religious educator of 14-30 year old students and have been so employed for the past 12 years. In other words, I'm not only invested in this Church generally, but also in this demographic of the Church particularly. I do not believe that anything about my beliefs or background weakened this study nor disqualified me from conducting it; rather, I believe the intimate familiarity I have with Elder Holland and the demographic of this study allowed me to read and analyze their words with the kind of insight and understanding that is borne of extended acquaintance. In short, I not only have no doubt that my faith and my profession informed this study, I expect the study is better for it.

Recognizing, of course, that my faith and profession could color and taint my interpretation of the data in an indefensibly biased way—a way not justified by the data—I therefore sought to guard against such unwarranted interpretations by following the standards of rigor outlined above in the previous section.

Because this study also involves the use of social media, I should also disclose that I have very little experience with and almost no entrenchment of belief about social media when compared to my experience and belief about Elder Holland and the LDS Church. As an educator on both secondary and university levels, I have never used social media in any way in my own classroom or curriculum. I feel neither comfortable nor qualified to do so. Yet, at times I honestly wonder what would happen if I did use it. I wonder if I might be missing out on an opportunity to extend the learning of my students into the informal learning space and to help them create communities of learning there. As a PhD candidate who has studied this space where technology and pedagogy intersect for several years now, I am intrigued and fascinated by the educational opportunities and possibilities that may be latent within the affordances of social media. This study itself constitutes one way in which I am personally probing the pedagogic possibilities of social media.

Chapter 4: Results

Elder Jeffrey R. Holland, an apostle and top leader in the LDS Church, and his marketing team invited 18-30 year old LDS single adult learners—referred to as Young Single Adults (YSAs) in the Church—to submit questions that they desired Elder Holland to answer during a specified broadcast event on March 8, 2016. This solicitation of learner-generated questions began about one month in advance of the broadcast event and occurred on the Church's home webpage at lds.org, on social media, and through posters and verbal announcements in church buildings. In this manner it was communicated that this was not to be a traditional religious education or worship experience where a church leader stands at a pulpit and reads a fully prepared address from teleprompters to an audience of attentive learners who passively take in the message. Rather, it was signaled to learners that they would have the opportunity to actively shape the messages Elder Holland would share.

One example of Elder Holland inviting learner questions directly occurred about 11 days before the broadcast event when he posted a brief video on his Facebook page personally inviting YSAs around the world to participate in this first Face-to-Face event. In this video he said:

> We know that you have questions of great consequence in your life and we want to help
> you find the answer to those questions…. Submit the questions … and we'll try to
> respond as best we can when we see you on March 8…. We'll be with you soon and be
> ready, as best we can, to answer those questions. Bless you. (Holland, 2016a)

Again, one day before the broadcast event, Elder Holland posted another video on his Facebook page where he expressed excitement for the next day's event and proceeded to take a few minutes to answer one of the many questions that had already been submitted. After doing

so Elder Holland said to the viewing audience, "Now, that's an example of some of the questions that we're going to try and wrestle with tomorrow. We look forward to being with you…. Keep those questions coming!" (Holland, 2016b). Such a straightforward appeal seemed to achieve the desired result as this video post itself garnered over 500 follow-up questions submitted in the comments section.

The event itself was a live stream broadcast that originated from the campus of Utah Valley University in Orem, Utah and had a few hundred YSA participants in the studio audience. Elder Holland brought two guests with him from among the general leadership of the Church to help him answer questions: Elder Donald L. Hallstrom, a member of the LDS Church's Presidency of the Seventy—the third highest governing body in the Church—and Sister Carol M. Stephens, first counselor in the general Relief Society presidency—the highest governing women's organization in the Church. Two YSA (one male and one female) moderated the event by welcoming viewers, announcing musical numbers, directing participants in satellite locations and the studio audience to ask questions, and asking the majority of the questions to Elder Holland and his guests as these questions were fed to their iPads during the event. These YSA moderators invited viewers to continue to submit their questions via social media throughout the duration of the event and encouraged them at the end of the broadcast to join the ongoing conversation on Elder Holland's Facebook page once the event concluded. Following the live broadcast, Elder Holland answered or responded to additional questions and comments on Facebook and Twitter with his personal account.

The approach employed by Elder Holland and his team for facilitating this religious education experience can be summarized as (a) establishing a specific broadcast day and time for the event; (b) advertising about one month in advance through multiple media outlets the details

of the event including how the learners could participate by submitting questions beforehand; (c) giving two separate personal appeals to YSA to submit their questions via Facebook; (d) having two YSAs moderate the event and ask some of the submitted questions to Elder Holland and his two guests; and (e) engaging dialogically with learners in writing after the event on Facebook and Twitter.

In this chapter I will review my findings to the primary research question: How does the use of social media drive dynamics of interaction in the context of a free-choice religious education experience between a world religious leader and young adult learners? First, I will analyze the interactions involved in this experience. Then I will explore how social media directly influenced the dynamics of interaction in this experience. Finally, I will offer a theoretical model of interaction based upon my findings in hopes of providing some explanatory and predictive power to the complexities of such phenomena.

Analysis of Interactions

There were two major types of interactions observed in this Q&A experience with Elder Holland. The first type of interaction I will call leader-learner interactions wherein Elder Holland responded to or interacted (verbally or in writing) with a question or comment from a learner as well as when learners interacted with or respond directly to Elder Holland. The second type of interaction I will refer to as learner-learner interactions wherein learners responded to or otherwise interacted with questions and/or comments from other learners or in any way sought to directly engage their peers rather than the established leader. In this section we will analyze both types of interactions as they occurred in this experience.

Leader-learner interactions. The first genuine interaction of this experience between Elder Holland and a learner occurred the day before the broadcast event when Elder Holland posted a video on his Facebook page responding to a learner who said:

> I returned from my mission early due to mental health problems. It's really difficult not to feel like a failure. I'm not even sure if it was my fault. What do I do? How can I look at my short mission the way I should?

> Elder Holland spent six minutes in his response, beginning by complementing the honesty of the question and then offering perspective about the arbitrariness of length of LDS missions, commenting that there is no true "eternal length of missions." This was followed by some specific counsel to not apologize for coming home early, to consider himself an honorable returned missionary who served faithfully, and to move forward and continue to serve the Lord throughout his life.

After this initial interaction, the majority of Elder Holland's verbal and written interactions occurred during and just following the nearly two-hour broadcast on March 8, 2016. The questions he responded to verbally were primarily asked to him by two YSA moderators who read them off of their iPads. There were also a few questions Skyped in from other countries and others asked by audience members in-studio. The nature of the questions Elder Holland responded to generally centered around presumably collective struggles relevant to YSA. He responded at length, for example, to the questions, "Is it really possible to have a happy marriage?" and "Could you share with us principles that you and Sister Holland have held to as a couple that have allowed you to have a happy marriage?" In his response he emphasized that "happy marriages are the rule, they are not the exception." He laid some "theological groundwork" describing the "ideal celestial world" as "a world of marriage and family,"

underscoring why this is addressed so much in the LDS Church, and why it will continue to be talked about. He went on to then give some practical advice, saying, "You don't have to be hasty and you don't have to get peptic ulcers over getting married, but you also should not hang back on a good thing. You go for a good thing and don't wait."

To the questions, "How can we help girls who haven't gone on missions remember that they are not any less than those who did serve?" and "I know it is not my duty to serve a full-time mission, and I feel at peace with the Lord about my decision, but the social rejection is sometimes unbearable. What am I to do?" Elder Holland responded with firmness and clarity that there should be no judgment on this issue and that a young woman's returned missionary status certainly should not affect the dating decisions of young men. To the question, "How can we regain the faith and hope of the gospel when we are confronted with the vortex of suffering and cynicism in the world?" Elder Holland described how he personally deals with the "fear and frustration and concern and anxiety and the troubles of the world." When asked by a studio audience member, "How can we decipher the difference between our own thoughts and feelings versus the promptings and the voice of the Holy Ghost?" Elder Holland cautioned young adults to not "get paralyzed" about this but to remember that all good things come from God. "If it's a good thing, go with it," he said. "It's from Him. It comes some way from Him and it can come in a wide variety of ways…. I'd have people relax and go after good things."

When asked what message of hope he would have for "those who experience same-gender attraction [and] feel alone in the Church … [and are] not sure how they fit into the Lord's kingdom," Elder Holland first acknowledged that this is a complex and sensitive issue and that the leaders of the Church "don't know why" some people are attracted to the same gender. "We don't make any attempt to say why that happened or how that happened. It might be as

individual as there are those circumstances out across the Church." "We do not make a judgment about someone's attraction." Therefore, he went on to suggest, it would help everybody if we "shift the discourse" to chastity rather than attraction. "I think we've talked altogether too much about gender and altogether too little about chastity. The issue is chastity. The issue is not gender," he said. "What we ask for those inclined to a homosexual feeling is exactly what we ask for those with heterosexual feelings … and that is, be faithful. Be clean. Be chaste. And for you, every blessing of this church is available in terms of the sacraments, the ordinances, [and] going to the temple…. Those blessings are available to the chaste." He wanted to be clear that "we are not passing judgment … [on] somebody who has a feeling, [on] somebody who has an attraction, [on] somebody who has some complexity in their makeup that I guess neither they nor we fully understand." He wanted everyone to understand that "we're not making them second-class citizens…. We're just talking about a single standard of devotion to the Lord and keeping the commandments." Elder Holland concluded his response to this question by saying:

> I think a lot of steam can come out of the kettle, and I hope some of the pain can come out of the conversation, if we could talk more fundamentally just about the divine standards of chastity and stop talking quite so much about whether that's a heterosexual application or a homosexual application. We're just talking about chastity. And we'll issue all of our love and all of our help, and everything we know to do to help people meet that standard, whomever they are, and wherever they are. I hope that can help anybody out there who is struggling.

Thus, during the video broadcast of the event itself, Elder Holland was able to respond verbally to several questions on a wide variety of topics that were completely generated from the

YSA themselves. At the end of the video broadcast one of the moderators invited interested learners to join them on Elder Holland's Facebook page immediately after the event where Elder Holland would be answering additional questions.

Following the broadcast event Elder Holland went on to his Facebook page and responded to nine additional questions in writing. These questions consisted of the following:

- About self-comparison: "How do I stop belittling myself? I am always comparing myself to others, especially on dating"

- About depression: "How do I ever see the light again when everything is so dark and how can I ever be happy when I am this miserable?"

- About fulfilling Church duties: "How can I be a better, more motivated home teacher, and love it?"

- About overcoming general challenges: "What kind of problems or difficulties did you have when you were our age between 20's and 30's? What helped you to overcome those trials?"

- About rekindling the spirit felt while serving a mission: "If you could give me (and others struggling like me) one piece of advice, what would it be?"

- About helping a homosexual brother who has left the Church and attacks his sister's faith: "Even if unable to change his feelings, how can I soften his heart and bring him unto Christ as he once had been?"

- About determining when civil disobedience (in Ukraine) might be okay and knowing whether or not members should stay in the country of their birth or if it is okay to move to another country.

- About transitioning from full-time missionary work to normal life: "how can I turn my focus off my mission and on my everyday life?"

- About lowering dating standards to find a husband: (a woman who has ended eight relationships because of the pornography addiction and abuse of her partners asked) "How can we better develop the gift of discernment to avoid abusive and codependent relationships? Will we need to lower our moral standards regarding pornography addictions in order to marry? How can those of us females who are 'waxing older' in years maintain hope and confidence that the Lord will keep His promises of roles as wives and mothers when it is increasingly difficult to find someone who is worthy to marry in the Temple?"

From the above examples we can see that in both his verbal and written responses Elder Holland expressed empathy to the learner, underscored existing doctrines of the Church, offered practical counsel, and encouraged those who made themselves vulnerable by asking their personal questions on sensitive issues. These constitute the major themes of Elder Holland's interactions with learners.

About half way through the video broadcast, Elder Holland provided a dialogic invitation to all learners in the worldwide audience by saying, "I want to toss out a question for you to answer on social media: What do you do as single adults in difficult times and you need to restore hope and find your way through difficult moments? Sometime in the next hour we want you to respond to that. Okay?" This single question garnered over 500 hundred responses, primarily on Twitter. Examples of learner responses include the following:

- "I think of the Savior in the garden, or on the cross or the empty tomb. If he didn't give up through that I can do anything."

- "I find peace in a tumultuous world by shutting off distractions and getting outside to enjoy God's creation. #LDSface2face"

- "In difficult times I try to keep an eternal perspective, and remind myself that everything happens for a reason. #LDSface2face"

- "When I feel like I can't anymore, I do Family History! Then I learn some others had it harder then I ever have! #begrateful #LDSface2face"

- "When I need to rejuvenate and find balance in life (aka peace & joy) I hang out with my family; they lift me up #LDSface2face"

- "When I'm feeling especially depressed, I find that listening to @HollandJeffreyR talks brings me peace and hope. #LDSface2face"

- "To find peace in times of trial, I reflect on the things I'm grateful for. They help me to gain perspective and understanding"

- "When I am down, I listen to music that uplifts me and reminds me of where & to whom I belong. That renews my hope. #LDSface2face"

- "I have depression & anxiety, so I listen to uplifting music & be with people who make me happy & make me want to be better. #LDSface2face"

- "Reading my Patriarchal Blessing gives me courage, peace and strength during trials. It helps me see things as God sees them #LDSface2face"

- "Answer: I turn to prayer. I know that God is there to listen and I know He will provide comfort, help and an answer. #LDSface2face #Miami"

- "I open up the Book of Mormon and begin reading with a prayer to God seeking His will."

- "Receiving a priesthood blessing always brings me peace and reminds me of my Heavenly Father & Savior's love for me."

- "I thank Him for the trails [sic] He has given me. #BlessingsInDisguise #LDSface2face"

- "In answer to your Q, @HollandJeffreyR, I find that focusing on the Sabbath day gives me a huge boost!"

Following the broadcast event Elder Holland also went onto Twitter and commented on four of the learners' responses to this dialogic invitation. For example, one learner had tweeted, "After I'm done crying when trials hit, I remind myself that I am a child of God and that he has a plan for me! #LDSface2face". Elder Holland responded, "We all know what it's like to cry when trials hit. We love your honesty and you have the right answer." Another learner tweeted, "I turn to the Book of Mormon and pray to gain hope through trails [sic]," to which Elder Holland replied, "You can tell from this evening that the Book of Mormon is my strength too." And to a third learner who tweeted the three word response, "Be more grateful," Elder Holland tweeted, "Perhaps nothing helps me more than this.... We all have so much to be grateful for."

Elder Holland's final interaction with learners relating to this event occurred one week after the broadcast. On his Facebook page Elder Holland wrote the following:

Last week on our Face to Face broadcast, I invited you to ask questions on my Facebook page. I answered a few during the event, and several more on Facebook later that evening. Please rest assured that I have read hundreds of your questions. I understand that you face serious issues and you deserve serious answers. Please know that I pray for you.

After this introduction he went on to briefly offer a message in response to something of a collective question submitted by multiple learners that "centered around depression, anxiety,

mental illness, and even suicide." He said that those who are experiencing these struggles "simply have to fight through those periods and trust things will improve. They will!" He compared them to old sailing ships which "had periods when the wind did not blow" and they were "dead in the water." "But," he reassured, "the wind will return. The sails will fill. You will come into port." Elder Holland concluded this post—and his interactions with the learners of the Face to Face event generally—by saying, "If I had the ability to answer all of your questions individually, I would. But the reality of the matter is that I cannot. However, I plead with you to continue to seek help from those around you who care" such as parents, Church leaders, or trusted friends. "I love you. The Church loves you. And most importantly, God loves you. No matter the trial or struggle you face now, I promise you there is hope and happiness ahead."

Learner responses to Elder Holland's interactions were consistently positive. There were, however, occasional posts sprinkled throughout the #LDSFace2Face Twitter feed asking him offensive questions (such as if he is gay, or about how many suicides he could have prevented with a different LGBT policy, or whether or not it was true that his fellow apostle charged an escort agency, etc.), calling Elder Holland a false prophet, or using vulgar, crude, sarcastic, or patronizing language. Such posts also occasionally contained links to other websites critical of the LDS Church. This act of sowing discord on social media by starting arguments or by posting inflammatory messages with the intent to disrupt and provoke readers has been referred to as "trolling" and those who do so as "trolls" (Moreau, 2016, December). Such trolling behavior was a reality in this event and may have had a more negative effect on the experience of learners or Elder Holland than can be assessed from the available data.

Aside from the infrequent derogatory remarks from those trolling this event, learner responses to Elder Holland's spoken and written comments were respectful and positive, consisting of expressions of love, gratitude, and satisfaction. Examples of typical responses included the following:

- "Thank you so much #ElderHolland I needed those comforting wise words"

- "I came to hear profound answers to my question and I have"

- "Okay, how awesome is it that @HollandJeffreyR is answering people's questions directly on his Facebook page? #LDSface2face"

- "This brings me so much peace and I'm so thankful for modern technology so people can have there many questions answered. Thank you for you time and we love you Elder Holland!"

- "I have felt the love of God this night stronger than ever. Thank you @HollandJeffreyR for your words and example"

- "Gotta love technology when you can have this kind of experience with an apostle of the Lord. Thank you Elder Jeffrey R Holland. We love you."

- "Just got Hollandized at the #LDSface2face"

One young woman to whom Elder Holland directly responded in writing on Facebook vowed to Elder Holland that she would "tell my children that an Apostle of the Lord took the time to listen to and answer one my life's most challenging questions." Another learner wrote, "Elder Jeffrey R Holland, thank you for taking the time to respond to my friend Sofia. I've always had a testimony that the Apostles have an immense love for the members of the church, but seeing you take the time to directly respond to a concern of someone I love has further confirmed this to me."

Learner interactions with one another. Although interaction between learners was not explicitly encouraged for this event, learner-learner interaction occurred easily and frequently due to the affordances of the social media in which the event was embedded (more on this in the next section under dialogic surplus). It was a very common occurrence, especially on Facebook, for a learner who posted a question intended for Elder Holland to have other learners take upon themselves the role of respondent by commenting on the question. Overall, learners were civil with one another, with negligible occurrences of negativity toward one another. Perhaps this high level of civility can be explained by the homogeneity of the group involved. Or maybe it was due to the sincerity and self-disclosing nature of the questions involved. Or perhaps both. In any case, these unsolicited responses from other learners to questions intended for Elder Holland consistently fell into one of three major categories: sharing advice and perspective, offering emotional support, or giving validation.

Sharing advice and perspective. Learners frequently shared advice, gave their opinion, or offered their perspective when the nature of the question dealt with a behavioral decision (their advice taking the form of "here's what I think you should do"), a doctrinal clarification ("here's what I think the doctrine is"), or a personal struggle ("here's how I like to think of it"). This was the most common type of learner-learner interaction. From the data itself it is generally difficult to evaluate how useful the original learner found such sharing from their peers, but in the cases where the learner who originally asked the question responded to the learner(s) who shared advice, responses were positive, showing no discernible signs of being upset or annoyed that a peer responded to their question rather than (or in addition to) Elder Holland. For instance, one learner named Alison told Elder Holland about her homosexual brother who had left the Church and who "attacks" her faith. She asked, "Even if unable to change his feelings, how can

I soften his heart and bring him unto Christ as he once had been?" In addition to Elder Holland's response, another learner named Joanna responded to Alison with her own counsel, perspective, and advice having had a similar experience with her own brother. Alison responded, "Thank you Joanna! That means so much to me! :)". Here the unexpected advice was met with gratitude. Additionally, a learner named Robin responded to a question from Lisa addressed to Elder Holland about whether or not Church members in one country should be looked down upon for moving to other countries instead of staying to strengthen the Church in their native land. Lisa then responded to Robin's answer by saying, "This is something I was thinking about as well," and then asked Robin a follow-up question to which Robin responded. Again, there was no indication that Lisa was annoyed that Robin had jumped in and answered her question, rather a very cordial, though unanticipated, interaction occurred between learners.

Perhaps the best example of unsolicited learner-learner interaction in terms of sharing advice and perspective occurred when a learner named Amber wrote on Elder Holland's Facebook page asking him about Heavenly Mother and how she could come to know her better. This attracted over 70 peer responses in an explosion of comments, perspectives, and suggested reading materials shared among learners. Throughout this thread Amber responded by saying such things as, "Thanks very much, Austin! I love that article, and I appreciate you linking it here. :D" and "Thanks for this very heartfelt response, Alyssa." To another learner she said, "Thanks, David…. My aim was to submit the question to Elder Holland, because I figured that in my personal quest to understand these things it couldn't hurt to ask an apostle. :D The public discussion that is emerging is a complete surprise." At the end of the thread Amber wrote to all those learners who had responded to her question as follows:

Hi everyone! While I'm a little bummed that this topic didn't come up in the

#LDSFace2Face broadcast this evening, I'll be just fine…. I'll find the peace and the

answers I need eventually. I have read all of your numerous responses, and wanted to say

thanks for all those that came from the heart, and were written with the intention to help

me…. Love you all and grateful to have had this interaction with you!

From the above examples we can conclude that although the learner-learner interactions

often came as a "complete surprise" to the original asker of the question, they generally were not

unwelcome nor unappreciated. Such interactions are significant for this study because such

meaningful unintended, unsolicited interactions are only made possible by the social media-

based nature of the pedagogical approach.

Offering emotional support. Learners frequently offered emotional support, such as in

sharing sympathy, empathy, and encouragement when a challenging personal issue was

disclosed in the original question to Elder Holland, such as mental and emotional health issues.

Those who had never experienced the issue often shared sympathy in the form of, "I'm so sorry

this is happening to you." But frequently those who commented on such sensitive issues had

themselves experienced a similar challenge. These expressions usually took the form of, "I was

like you," and were then followed by "and this is what I did or still do/this is what helped me in a

similar circumstance." It was also common in such instances to offer to connect and give

ongoing support ("I'd be happy to help. Message me."). There were also those in this category

who simply shared encouraging expressions of testimony, taking the form of, "The Lord is aware

of your need. I know you'll get through this."

One example of this type of learner-learner interaction occurred when a learner named

Anne asked Elder Holland on his Facebook page, "When battling depression … how do you face

the spiritual side-effects? I haven't been able to feel the spirit in quite awhile…. What can I do when all I want to do and all I have strength for is laying down and admitting defeat? How do I go on? How do I keep fighting to keep the faith?" Elder Holland never directly responded to Anne but learners named Krista, Melisa, Ginny, Maddi, Ann-Charlotte, Nancy, Kaylie, Amanda, Dina, Mckenzie, Ashley, Sharon, Mimi, Tarryn, Beth, Elizabeth, and Sarah did. In their empathetic comments they said such things as the following:

- "Hi Anne, I just wanted you to know that you are not alone. And I wanted to answer your question through sharing my experience."

- "I also can relate."

- "Been there in such a real way…. Love you Anne. It did eventually get better. With lots of professional help and journaling!"

- "So relatable!! Anne, I know exactly how you feel. I went through something similar regarding depression and not feeling the spirit…. Read your scriptures every day, pray with a humble heart and the true desires you have, and never give up. At the end of every hard trial is a great reward."

- "I've been struggling as well…. You are so valuable. Please keep going. If you'd ever like to talk, I love to listen."

- "You are not alone. I have and do feel this way."

- "You are definitely not alone. I read this article on lds.org a couple of weeks ago. I added the link below. "

- "When my depression was so severe that I couldn't feel the spirit, I thought God had abandoned me…. There is a wonderful book that has been a lifeline for me for many years: Reaching for Hope: An LDS Perspective on Recovering From Depression. That is

when I first learned that during depression it is hard to feel the spirit. Before then I thought I had done something wrong. I highly recommend it."

- "Im battling depression/anxiety as well…. One thing that has helped me no matter what is knowing that you are Child of God."

- "Anne let's be friends. :) I have struggled with depression since I was a teenager…. The thing that helped me the most was therapy and psychiatry. And validation…. I went to a cognitive behavioral therapist, which I absolutely recommend…. I also listened to Elder Holland's 'Like a Broken Vessel' talk obsessively. I memorized my favorite scriptures and hymns. And I listened to the advice of professionals…. I wasn't kidding about the let's be friends part... Please. Message me anytime. :) I get it, and I'm always willing to listen!!"

- "I don't know what your efforts have consisted of but I testify that professional therapy and medication are the God given answer for many many people, including myself, when it comes to mental illness. Love and light your way."

We see from the above phenomenon that although Anne's question was addressed solely to Elder Holland, many learners were eager to jump in and share their own experiences with a similar struggle and to offer emotional support. Again we see that the social media-based nature of this learning experience—especially the Facebook environment—made such emotional support possible due, it seems, to the transparency of the questions involved to the whole learning community, the connection of the question to a real person with a real need, and the ability of the community to respond.

Giving validation. Throughout this learning experience learners were also able to validate the questions of other learners by briefly complimenting them or expressing agreement. Several examples of this occurring on Facebook include the following:

- "Super good question! I hope he answers it!"

- "I am happy that Ukraine has a temple. You saints are so faithful."

- "Amen! I agree!"

- "Jacque, I love this question! :)"

- "Excellent question! I hope he answers this one for you. There are many who share this concern."

- "I love this question. I agree that all we truly need is to follow Jesus. But I have also felt these same questions and feelings."

Hundreds of learner-learner interactions occurred in connection with this Face to Face event which, again, were not overtly encouraged by Elder Holland nor his assistants. The three major ways in which learners voluntarily interacted with one another—sharing advice and perspective, offering emotional support, and giving validation—were entirely made possible by the affordances of the social media in which the event was embedded—particularly Facebook. In the next section we will more fully explore how the embedding of this Face to Face experience into a social media context affected the dynamics of interaction.

How Social Media Influenced Interaction Dynamics

In this Face to Face event, Elder Holland's total interactions with learners consisted of one question answered via video a day before the broadcast, seven questions answered verbally during the broadcast, nine questions answered in writing on his Facebook page, four comments posted on learners' tweets immediately following the broadcast, and one written answer given a

week after the broadcast—numbering 22 total interactions. Four of the learners he interacted with on Facebook directly interacted back with him, making a grand total of 26 leader-learner interactions in all. By comparison, there were 589 written learner-learner interactions on Facebook alone. This is a fascinating and an important phenomenon given that interactions between learners were not encouraged before, during, or after the event in any discernable way. This event was advertised as an event where learners could come together to ask Elder Holland questions and receive answers *from him*. While this ostensible purpose certainly was achieved, there was also (as discussed in the previous section) a proliferation of unsolicited learner-learner interactions that were enabled by virtue of the experience being embedded within a social media context. This section will explore how embedding this experience in social media enabled an expansion of the degrees to which interactions occurred. We will begin by considering the lowest degree of interaction and continue to the highest. I will define these degrees of interaction as Proxy Group Interaction, active non-verbal interaction, dialogic interaction, and multilogic interaction.

Proxy group interactions. The lowest degree of interaction which occurred during this event (and likely the most common) is what I will call *Proxy Group Interaction* (PGI). PGI occurs when an individual in a group is interacted with by a teacher or leader in front of the whole group, and group members perceive the interaction as if done to them personally. As this concept plays out, individuals in the group who are interacted with directly by the authority figure act as informal proxies for other group members who observe the interaction. In PGI the group shares in the experience of the individual. For instance, at the beginning of the Face to Face broadcast, Elder Holland took a few minutes to frame the entire learning experience as a

symbolic expression of love to what he called the "legions" and "millions" of young single

adults all over the world. He said:

> We want you to know that you are dearly loved and that this [broadcast] is a gesture. We
>
> hope it's a successful one. But whether it is or isn't able to meet every one of your needs
>
> or answer every one of your questions, we hope that you'll know that there is in this the
>
> love of the leaders of your church for you, and we represent the love of your Father in
>
> Heaven."

What is striking about this idea is that Elder Holland ended up only answering seven

specific questions from the YSA during the broadcast, yet he hoped that in doing so the

"legions" and "millions" of YSA throughout the world would take this as an expression of love

for them personally. The love and attention expressed to the few (by interacting with their

questions) was to be received and interpreted as love and attention expressed to all. Thus, there

seems to have been an empathetic element in the pedagogical design of this experience,

providing an opportunity for YSA to feel loved, understood, and responded to, if not

individually, then at least by proxy through those with whom he did interact.

But did it work? Was it successful? While it is impossible from the available data to

gain a complete picture of how many learners benefitted by proxy from the learning experience,

the data is highly suggestive that this was certainly the case for many—both in terms of feeling

loved and in terms of feeling that their own questions were answered and needs met. In terms of

feeling loved—Elder Holland's hoped for outcome—many learners on Twitter tweeted such

things as:

- "I just was able to finish this amazing broadcast. Oh how loved I feel thank you
  #LDSface2face"

- "Watched #LDSFace2face with Elder Holland. Been crying the whole time! Realized how much Heavenly Father loves each and every one of us!"

- "I've felt so much of God's love for me during #LDSface2face"

- "Feeling Elder Holland's love for the Savior, and love for the YSA of the Church, and love for me personally is so real"

- "I have felt the love of God this night stronger than ever. Thank you @HollandJeffreyR for your words and example"

- "So grateful for a meeting focused on the young people of the church, how individually we are loved!!"

Learners also expressed the same sentiment regarding Elder Holland's written responses to additional questions on Facebook after the broadcast. One learner named Chloe, for example, posted on Elder Holland's Facebook page:

Elder Holland I admire your desire to answer every question. I went on your Facebook page after the Face to Face and was astounded at how many questions there were and how many you were responding to. It is a testimony to me of the truthfulness of the church as it successfully uses the internet and other modern technologies available, and that our leaders can understand any situation through the help of God! Thank you for sharing your strong testimony and caring for the young single adults.

Another learner, in response to reading one of Elder Holland's answers on Facebook, said, "Brother Holland, I need you to know that I just had one of my most spiritual experiences reading this post…. I truly felt a sudden rush of love and arms around me when I read this…. Thank you so much!"

Several days after the broadcast, one learner posted the following on Elder Holland's Facebook page:

Dear Elder Jeffrey R Holland, I just want to share with you that, that evening [of the broadcast] the first and deepest impression I had was that GOD LOVES ME! As the broadcast was starting and the initial music was playing, I had that deep impression in my soul. Then, when you give the introductory words I had a reassurance of that impression. I think I wasn't the only one who felt that way.

It is clear from such self expressions that as the "legions" of learners witnessed Elder Holland interact with the questions of seven learners during the video broadcast and another ten in writing on Facebook, they too felt interacted with, validated, and loved. Yet learners' experience with PGI in this Face to Face event extended beyond feeling loved to also include a sense that Elder Holland was answering their personal questions and thereby meeting their individual needs. For instance, several learners expressed their feeling that Elder Holland had answered their questions by saying such things as:

- "So many questions I didn't even know I had were answered! Thank you! #LDSface2face"

- "#LDSface2face So grateful for this event, my questions are all answered, what a Spirit!"

- "So many answers to things I didn't even know I needed. #LDSface2face"

- "Many of my questions and prayer has been answered and really open my eyes in such a positive and loving way thank you! #LDSface2face"

- "#LDSface2face made me want to jump up and down bc it literally answered ALL my questions!"

- "This #LDSface2face is so wonderful and is answering more of my questions than I ever imagined possible."

- "#LDSface2face That was a very very good meeting. Even the questions I didn't knew I had were answered. Thank you."

Expressing that they felt this experience met their needs, several learners tweeted such things as:

- "I wasn't going to watch tonight but so glad I did. Thank You Elder Holland for saying what I needed to hear. @HollandJeffreyR #LDSFace2Face"

- "#LDSface2face is seriously exactly what I've been needing to hear. If you haven't watched it you should."

- "The #LDSface2face tonight was one of the most faith building experiences I've ever had."

- "Thank you so much @HollandJeffreyR those words were eveything I needed! #LDSface2face".

The perceived sharedness between the larger group and the individual learners who were interacted with directly is at the core of the PGI concept. I posit therefore that the more homogenous the demographic of the group and the more they share a collective identity, the more powerfully this concept operates. I suggest this is so because the higher the shared identity the easier it is for learners in the group to find and identify with their own proxies among those who are interacted with directly. Thus within this ideologically homogenous group of LDS YSAs, the gestures of love and thoughtful answers given by Elder Holland to the few were easily received and personalized by the many. Indeed, the data bears out a real sense in which the learners perceived that Elder Holland was answering "our questions," not merely disparate questions from this or that person who were from this or that part of the world. For instance, one

learner tweeted, "I'm so grateful for the chance I had to watch the #LDSface2face event. Thank you for taking the time to answer questions close to our hearts." Note the collective "our hearts." Another tweeted, "So thankful for … those who took the time to answer our questions and spend time with us." An international tweet read, "So grateful for the … answers you have given us :) Greetings from Ecuador. Thanks!!" Another learner felt that Elder Holland was "literally speaking to me." In the perception of such learners, Elder Holland wasn't merely giving answers to seven people on a broadcast and ten people in writing on Facebook, rather he was, as one learner put it, teaching "me and every other young adult of the church." In a declarative summary one learner tweeted, "The YSA family across the world has been united by this broadcast. Thank you … for answering our questions." Note how the authentic feeling of YSA group identity and connectedness facilitated the operation of PGI.

The concept of PGI does not, of course, depend upon social media to be operative—all that is needed is homogeneity between a proxy and an observer and an authority figure who interacts with the proxy in front of the observer. I posit that this can happen in any sized group with no technological connection required. Yet the affordances of social media are particularly well adapted to facilitate PGI in at least three ways. First, the interactions between the authority figure and the individuals of the group are visible by the entire group on social media, making it relatively easy for any member of the group to find a proxy among the various transparent interactions. Second, the asynchronous nature of both written and video interactions on social media and the ability to comment, like, and share provides learners with a chance to interact with those posts to which they feel the strongest connection. Indeed, the very act of one learner commenting on, liking, or sharing a post where the leader interacts with another learner is strongly suggestive that some level of proxy benefit has occurred. Finally, social media's

mentioning or tagging function is a particularly powerful tool that enables learners to notify other learners about posts they feel those others will benefit from. For example, if the leader interacts with learner A's question on social media, learners B, C, and D can mention the names of learners E, F, G, and H in the comments of that post, which then notifies them and allows them to link directly to that specific interaction. In this way, even though Elder Holland only interacted directly with learner A, learners B-D benefitted by proxy and then invited learners E-H to do the same. One clear instance of this occurred on a video post from Elder Holland where he responded to a learner's question about coming home early from his LDS mission due to mental health problems. This brief post alone elicited more than 90 mentions, suggesting that more than 90 people were invited by friends to benefit by proxy from this interaction. Thus social media can be used to easily magnify the number of learners who are exposed to a given interaction that may benefit them by proxy.

Active non-verbal interaction. The second level of interaction demonstrated frequently throughout this Face to Face experience was *active non-verbal interaction*. One of the unique affordances social media offers learners is the ability to engage and interact with a written or video post non-verbally through the functions of "liking" on Facebook and Twitter, sharing (on Facebook) and retweeting (on Twitter), and mentioning (on Facebook). This ability of YSA learners to actively, but non-verbally, interact with the posts of both Elder Holland and other learners added a social curation dynamic to this learning experience, indicating which questions, statements, and responses learners resonated with collectively. Many of Elder Holland's written posts on Facebook, for example, garnered hundreds of likes and mentions. For instance, Elder Holland's response to the young woman who asked about comparing herself to others garnered 82 likes, and his response to the woman with the homosexual brother who left the Church and

belittles her faith garnered 125 likes. A question from a learner named Ottavio asking for advice on how to rekindle the spirit he felt on his mission garnered 71 likes from his fellow learners, while Elder Holland's response to this question garnered 314 likes. A question from a woman named Amber asking how she can learn more about Heavenly Mother and why less is discussed about her garnered 323 likes. This ability to "like" a fellow learner's question affords a non-verbal form of learner-learner validation unique to social media. Interestingly, such non-verbal peer validation could be interpreted as being indicative of which questions such learners feel are representative of their own undisclosed questions, thus indicating which questions may act as their own proxy-questions as discussed in the PGI concept earlier.

Meanwhile, on Twitter, learner liking and/or retweeting of posts provided an additional form of social curation wherein learners non-verbally interacted with various statements of both Elder Holland and other learners. Regarding Elder Holland's statements, there were several instances during and after the Face to Face broadcast when a quotable statement made by Elder Holland during the broadcast was tweeted by a learner or a church entity and was then liked and/or retweeted by hundreds of other learners, the top five of which are provided as examples in Table 4.

Table 4

The Top 5 Most Liked and Retweeted Statements of Elder Holland on Twitter

Tweeted Elder Holland Statement	Likes	Retweets
"Whatever the question, the answer is the gospel of Jesus Christ."	726	289
"Every word that God has ever uttered will be honored and fulfilled."	642	180
"If it's a good thing, go with it. It's from Him."	587	164
"Happy marriages are the rule. They are not the exception."	580	175

"Everything I have, everything that matters to me, I have because of the Gospel of Jesus Christ."	422	127

Similarly, there were many instances in which a single tweet from a learner was liked by other learners hundreds of times and/or retweeted dozens of times, the top five examples of which are shown in Table 5.

Table 5

The Top 5 Most Liked and Retweeted Statements of Learners on Twitter

Tweeted Learner Statement	Likes	Retweets
When you literally cry because they read your question on #LDSface2face and the spirit is so strong in your heart, thank you Elder Holland.	386	16
Love Elder Holland's idea to take Doctrine and Covenants Section 4 and replace missionary work with marriage. #LDSface2face	219	41
I love the way that Elder Holland talks about marriage, and especially about his wife!	214	22
This #LDSface2face is so wonderful and is answering more of my questions than I ever imagined possible. The Spirit is so strong	179	24
Reading everyone's amazing words in #LDSface2face makes this recent convert feel so honored to be a part of such a loving church	119	12

In sum, this non-verbal interaction capability enabled on Facebook and Twitter added several facets to this Face to Face experience. First, the acts of liking, sharing, and retweeting learner questions represented a sort of informal social curation of questions that matter to learners, a collective signaling as to which questions might represent their own unexpressed questions. Second, such interactions also acted as a form of positive non-verbal feedback and peer validation between learners. Third, the acts of liking, sharing, and retweeting responses and quotations from Elder Holland were clear non-verbal representations of community approval of Elder Holland's words amongst learners. Such community approval could represent one form of valuable feedback to Elder Holland and other interested parties in terms of how his teachings

resonated with learners and to what degree. Finally, by liking, sharing, or retweeting posts

during this Face to Face experience, learners tapped into perhaps the most powerful affordance

of social media, namely the causing of those posts to be pushed into the Facebook or Twitter

feeds of those who "follow" them, thus increasing the visibility and exposure of not only the

individual posts but of the Face to Face event itself.

       Dialogic interaction. The third level of interaction enabled by embedding this event in a

social media environment was *dialogic interaction*, which occurs when one person responds

verbally (whether spoken or written) to a question or comment of another. Examples of Elder

Holland responding verbally to learners' questions and learners responding in kind to Elder

Holland have already been provided throughout this chapter. This section will instead report two

additional findings and offer some reflections relevant to the dialogic interactions of this learning

experience: the first regarding online religious expression and the second regarding dialogic

surplus.

       Online religious expression. When Elder Holland issued his dialogic invitation to

learners during the broadcast to express what they do during difficult times to restore hope, he

effectively created a safe hashtag-bound space for authentic religious expression to occur for

those who may otherwise not be prone to do so on social media, which allowed learners to be the

"experts" for a moment about one aspect of their own religiosity. What is remarkable about this

phenomenon is that it counteracts recent research that has found that people may feel reluctant to

share their religiosity on Twitter because of fear of reprisal, isolation, or inappropriateness

(Kimmons, et al., in press). Elder Holland's approach illustrates one way to break through this

reluctance. It appears that people are more likely to openly express their religiosity on social

media when they are specifically invited by their religious leader to do so within a bounded faith

community and in response to a specific question. In this instance the hashtag #LDSFace2Face created a perceived safe online space for learners to express their religiosity, and Elder Holland's dialogic invitation gave them a reason to do so. Their tweets, of course, were no less visible on their account and they were not technically any safer than they otherwise would have been tweeting religious expressions, but the perception of safety seems to have made all the difference. When such faith-based expressions were fully expected due to a specific invitation for dialogic response and were completely congruent with the community norms within that space, an explosion of religious expression occurred.

Dialogic surplus. The amount of dialogic interaction which occurred surrounding this event was massively enhanced due to social media. Of these interactions, those between learners and other learners vastly outnumbered those between the leader and individual learners. To illustrate, of the 545 total questions submitted by learners on Facebook, only 18 were directly answered by Elder Holland. Thus only 3% of learners' questions were interacted with dialogically by Elder Holland. On the other hand, 118 of the 545 learner questions on Facebook—22%—were dialogically interacted with by other learners. What is fascinating about this phenomenon is that leader-learner interaction was directly encouraged for this event while learner-learner interaction was not. All such dialogic interactions which are extraneous to the stated purpose of the learning experience might be referred to as *dialogic surplus*. In the case of this Face to Face event, all learner-learner dialogic interactions can thus be considered dialogic surplus. The affordances of social media, particularly Facebook, directly contributed to the immense amount of dialogic surplus made possible during this Face to Face event because Facebook (a) makes the questions of other learners highly visible to fellow learners and (b) allows learners to very easily reply to or comment on any post they can see.

As noted earlier in this chapter, these extraneous interactions, though uninvited, in no way appeared to be unwelcomed by the learners who asked the original questions. On the contrary, appreciation was frequently expressed by learners toward such dialogic surplus, indicating that there was perceived value by learners in such unanticipated interactions. Indeed, perhaps one major benefit of dialogic surplus in a question/answer learning experience lies in its potential to alleviate what would otherwise be a communicative bottleneck, wherein hundreds of learners respond to hundreds of questions which would otherwise have remained unanswered by the leader to whom they were originally addressed. Additionally, a secondary benefit to dialogic surplus seems to be the satisfaction some learners receive from responding to the challenging questions and concerns of their peers. Perhaps the basic human need to feel helpful by sharing advice and perspective, offering emotional support, or giving validation to one's peers accounts for the massive amounts of dialogic surplus extant in this learning experience.

Multilogic interaction. The fourth level of interaction which was uniquely enabled by embedding this experience in a social media environment I will refer to as *multilogic interaction*. This term refers to the phenomenon which occurs on social media when multiple dialogic interactions exist within a single question node. Multilogic interaction occurs, for instance, when one learner submits a question on Facebook to which twelve other learners respond in the comments and then several of these responses are in turn replied to, which leads to multiple learner-learner interactions going on under the same question node and in several directions. Thus, rather than a simple two-way interaction happening between leader and learner, the affordances of many social media enable multiple learners to react and respond to both the original learner's question and other learners' responses to the same question in a network of

dialogic interactions. Such multilogic interactions, which occurred frequently during this Face to Face event, always constitute dialogic surplus.

One of the best examples of multilogic interaction during this experience occurred when scores of learners were drawn in by a single question asked to Elder Holland by a learner named Amber regarding the nature and mystery of Heavenly Mother. Not only did 62 unique learners respond to Amber's question (the highest amount of learners to respond to any single question), in many instances these learners responded to other learners' responses, both confirming and questioning one another's doctrinal views on the topic, occasionally including some respectful disagreement. Amber, the original question asker, likewise jumped into the fray and interacted frequently with several learners within this post, offering her own views, clarifying the issue, and thanking all sincere responses to her question.

This multilogic interaction enabled by the asynchronicity and endless comment-ability of Facebook can dramatically influence the dynamics of learning experiences embedded in Facebook because of the allowance for a theoretically endless amount of interaction between learners on a single question node.

From the above findings we can conclude that the dynamics of interaction in a free-choice religious learning experience are decisively influenced when embedded within a social media environment in at least four major ways. First, proxy group interaction is enhanced due to the increased visibility of leader-learner interactions to the entire group, the ability of learners to comment on, like, or share leader-learner interactions which resonate with them, and the ability of learners to mention other learners on posts which they feel such learners will benefit from by proxy. Second, active non-verbal interaction allows for social curation, peer validation, community approval, and the non-verbal pushing of posts from the event into the social media

streams of others who are not participating in the event. Third, social media's dialogic affordances can be leveraged to help learners feel both safe and willing to engage in online religious expression when those expressions are couched as dialogic responses to a religious leader's question within a specific hashtag bound space. Additionally, such dialogic affordances allow for an abundance of two-way interaction among learners well beyond the stated purposes of the free-choice learning experience, thus allowing learners to engage with one another's questions in uninvited but welcome ways. Finally, social media—especially Facebook—allows for a theoretically infinite amount of learner-learner interactions on a single question node, creating networks within nodes which I called multilogic interactions.

Toward a Theoretical Framework

The purpose of Grounded Theory is not only to describe a particular phenomenon but to create a theoretical framework which makes sense of that phenomenon and offers some explanatory and predictive power to similar phenomena in the future. A Grounded Theory, according to Charmaz (2006), "explains the studied process in new theoretical terms, explicates the properties of the theoretical categories, and often demonstrates the causes and conditions under which the process emerges and varies, and delineates its consequences" (p. 7-8). Birks and Mills (2011) remind us that the fathers of Grounded Theory, Glaser and Strauss, "originally defined theory as that which has explanatory or predictive ability," and that later Grounded Theory experts have emphasized the point that "original grounded theories need not be speculative or universally explanatory; rather, they are contextually constrained, awaiting further development" (p. 113). To create such an "explanatory scheme" or theoretical framework for this study, I will (a) briefly describe the three tiers of learner interactions involved in this learning experience, (b) explain at a "high level of abstraction" (Birks & Mills, 2011, p. 113) the

three core factors which are essential for such an experience to be successful, and (c) offer a metaphor for organizing our understanding of both what interactions occur and why they occur when each of these core factors are in place. Finally, I will briefly discuss the implications of these findings for instructional design.

Three tiers of learner interaction. When social media are used in a question and answer approach in a free-choice religious education experience, three tiers of learner interaction naturally emerge. Tier one (T1) interactions occur when a learner seeks interaction directly with the leader. In this study T1 learner interactions involve learners asking Elder Holland a question. Tier two (T2) interactions occur when learners interact verbally with other learners, rather than seeking interaction with the central leader. In this study T2 interactions were frequently exhibited by learners who commented on or otherwise verbally interacted with a question posed to Elder Holland by another learner, but who did not ask Elder Holland a question directly. Finally, tier three (T3) interactions are exhibited by learners who may be referred to as "likers," "lurkers," and "blurters"—that is, learners whose interactions consist only of active non-verbal interactions, PGI, or verbal expressions not aimed at anyone in particular. In this study T3 interactions occurred when learners (a) liked, retweeted, mentioned, or shared written posts by Elder Holland and/or other learners, (b) read the posts of or listened to Elder Holland and felt peripherally interacted with by proxy, or (c) monologically broadcasted a post or tweet not directed at other learners or Elder Holland (for example, a tweet such as, "Just got Hollandized at the #LDSface2face," is considered a T3 interaction since such a tweet does not constitute a direct interaction with either Elder Holland or other learners).

The three core factors. The convergence of three core factors account for the amount, variety, and quality of interactions which occurred during this free-choice learning experience.

These factors can be effectively abstracted from this specific context to provide a pragmatic predictive framework for the fundamental dynamics of such an experience to be replicated in similar experiences in the future. These three core factors are described in the following paragraphs.

The right person. Part of the definition of free-choice learning is that learners can decide to engage or not engage in a given learning experience with no institutional academic benefit or negative repercussions. Thus, to persuade potential learners to want to engage in a large-scale free-choice learning experience there must be some pull or draw that piques their interest sufficiently to do so. For this reason it is vital to such an experience that the main person/teacher/leader is sufficiently well known and sought after, otherwise there will not be enough pull to attract the critical mass of learners needed for such an experience to succeed. Indeed, I maintain that it is precisely because Elder Holland was sufficiently well-known, widely-respected, and highly-sought-after in the LDS community that he was able to attract learners en masse from across the globe. Additionally, the questions learners asked to Elder Holland were often very sincere and often highly self-disclosing. I postulate that this was so not only because he is highly respected as a man, but also because LDS Church members trust that Elder Holland is close to God and can at times speak for him. Thus, the fact that he is a well-known and trusted world religious leader had the double effect of (a) drawing a sufficient mass of free-choice learners to participate and (b) raising the questions to a level of high sincerity and self-disclosure.

The right method. To achieve the richness of interactions which occurred in this study the pedagogical method must involve a question and answer approach. When learners are encouraged to engage a highly sought after leader in what could potentially develop into a

dialogic exchange, the right environment is cultivated in which a consistently high level of personal, sincere, and self-disclosing questions will be asked. Without these types of questions interactions will be limited and superficial. Elder Holland frequently speaks from a pulpit and gives lengthy monologic sermons. One potential limitation of this approach is that it encourages little to no interaction. Simply adding a broadcast hashtag to his monologic sermon (like a conference backchannel) would fail to achieve rich interactions and would merely encourage a level of minimal interaction among learners characterized by relatively brief and superficial posts. This already happens during the LDS Church's General Conferences, for example, wherein learners are able to post to the hashtag #ldsconf during monologic sermons. This method achieves no T1 interactions and fails to achieve meaningful levels of T2 interactions. Thus, I repeat, the pedagogical method must involve a question and answer approach.

The right medium. While a question and answer session with a well known and highly respected leader will predictably produce high quality questions with meaningful T1 interactions between the leader and the learners, interactions between the learners themselves (T2) will be minimal to non-existent if such an approach is not conducted within the right medium. Social media are optimal means through which such learner interactions can naturally occur. Because social media such as Facebook and Twitter are tools designed for peer-to-peer interactions, and because of their high familiarity and ubiquitous use among young adult learners, they are the ideal media within which to use a question and answer method with a well known and highly sought after leader at large scale. The transparency of the questions submitted to the leader on social media allow learners to react to and comment on one another's questions. This fosters a climate in which learners can share advice, offer emotional support, and give validation to one another. This learner-learner plane of interaction vanishes when social media is removed. Not

all social media are equal, however. In this learning event with Elder Holland, Twitter was the preferred medium for learners to respond to Elder Holland's dialogic invitation to explain what gives them peace during difficult times (568 T1 interactions on Twitter compared to a few dozen on Facebook), whereas Facebook was almost the exclusive medium used by learners to interact verbally with one another (589 T2 interactions) and to ask in-depth questions to Elder Holland (545 T1 questions on Facebook compared to only 25 on Twitter). Additionally, Elder Holland responded in writing to learner questions exclusively on Facebook. Thus, although Twitter works well for short learner responses to a specific leader question, Facebook—with its highly visible posts and allowance of comments of unlimited character length—proved to be more ideally suited to foster rich T1 and T2 interactions.

Thus, for the fundamental dynamics of this free-choice learning experience to occur, there needed to be the right person (a well-known and highly sought after religious leader), the right pedagogical method (a question and answer session), and the right medium (social media). These three factors constitute the essential pedagogic design elements (EPD) for this type of interaction to be achieved in a free-choice learning experience. These three elements act as interdependent, cross-supportive, and mutually necessary design components of a highly interactive and engaging learning experience. If one or more of these three core elements does not exist then the fundamental interaction dynamics will be insufficient to foster the rich T1, T2, and T3 interactions achieved in this free-choice learning experience.

Orbital interaction theory. One way to visualize the dynamics generated when these three core factors converge is to compare them loosely to the dynamics of a large solar system. We know that in a solar system, due to powerful but invisible gravitational forces, many planets orbit one massive central star. Each planet likewise exerts a gravitational tug which can attract

the orbit of multiple moons. Multiple moons orbiting many planets which are all orbiting a central star—this familiar solar system model provides a metaphor for the interactions which occur in the type of free-choice learning on social media I have been describing. I will therefore refer to my theoretical model of interaction bound up in this metaphor as the *orbital interaction theory in free-choice learning* (OIT). The theory states that when a sufficiently interesting and trustworthy personality—such as a world religious leader—invites free-choice interaction through a question and answer session on social media, many learners will voluntarily submit questions directly to the leader (T1 questions) as they are pulled in by the excitement and singularity of the opportunity to interact directly with this central figure. As learners continue to gravitate toward this central "star" and post their questions, additional learners will be attracted by the pull of the T1 questions themselves and will therefore begin to interact with the learners asking the T1 questions rather than directly with the central figure, thus eliciting a second-level flurry of T2 interactions surrounding the T1 questions. These T2 interactions are like moons orbiting the more planet-like T1 questions which swirl around the central star-like figure. Hence those planet-like T1 interactions encircling the central figure and those moon-like T2 interactions revolving around the T1 questions can be termed T1 and T2 orbital interactions respectively. Meanwhile, social media networks act as both the space in which these interactions occur and the means by which learners interact at the level in which they feel pulled in. Those T3 interactions of liking, lurking, and blurting are, in this solar system metaphor, perhaps something akin to space stations which are not necessarily pulled in at the T1 or T2 orbital interaction lever per se, but who are nonetheless under the general gravitational influence of the central star.

The ability to attract and exert a pull upon free-choice learners might be referred to as *social gravity* and is the core principle underlying orbital interaction theory in free-choice

learning. This crucial concept must be understood in order to make a social media-based free-choice learning event successful. This operates in a few ways. First, the more well known, respected, and sought after the central figure of the event is, the more social gravity they will exert throughout social media space and thus the higher numbers of free-choice learners they will attract to engage at the T1 orbital interaction level. Then, as explained above, some learners will be drawn in by the T1 questions to engage at the T2 orbital interaction level. It is important to note, however, that not all T1 questions exert the same amount of social gravity. Some questions in this event with Elder Holland, for example, attracted dozens of T2 learner interactions, while others attracted few if any. The types of questions with high social gravity in this event (high = 15+ T2 interactions) centered around a sincere question on the controversial doctrinal topic of Heavenly Mother (80 T2 interactions), the deeply personal and sensitive topics of how to treat a gay brother (15 T2 interactions) and depression and suicide (73 T2 interactions), the widely relevant topics (for YSA) of dating and marriage (17 T2 interactions), and the seeking of miscellaneous advice (38 T2 interactions) and the posing of hypothetical "what-if" questions (37 T2 interactions). We can thus summarize that—generally speaking—the more sincere, vulnerable, and/or self-disclosing the question the greater the social gravity that will be exerted by the question upon learners and the more likely such questions will therefore be to attract T2 orbital interactions.

I postulate that there is a positive relationship between how highly respected and trusted the central figure is and how much sincerity, vulnerability, and self-disclosure is present in T1 questions. This likely accounts for the high degree of these elements in the questions which were asked to Elder Holland in this event as a highly respected and trusted religious leader. Furthermore, I hypothesize that there is a positive relationship between the degree of self-

disclosure in T1 questions and the degree of social gravity those questions have to pull in T2 interactions. Thus, OIT predicts that the degree of sincerity, vulnerability, and self-disclosure in T1 questions will (a) likely be proportionate to the trust learners have in the leader, and (b) be the major factor behind the amount and quality of T2 interactions in the learning experience. Stated another way, OIT predicts that learners are much more likely to reach out to and try to help one another via T2 interactions when the T1 questions submitted to the leader are sincere, vulnerable, and self-disclosing—which T1 question types are much more likely if learners trust and respect the central leader.

      Implications of OIT for instructional design. So, in what way might OIT be useful? Gibbons and Bunderson (2005) described three types of theory used in research: explore, explain, and design. *Explore* theory, they note, seeks to define, categorize, and answer "what is there and what are possible groupings and relationships among what is there" (p. 927). *Explain* theory is the more traditionally scientific approach which seeks to "explain why and explain how" by "experimental inquiry into cause" (p. 927, 929). *Design* theory, on the other hand, is goal oriented and outcome based. That is, the purpose of design theory is to describe how to achieve a desired outcome by articulating the specific variables, interventions, and/or principles involved in doing so and describing how these elements are to be brought together to produce the desired effect (Gibbons & Bunderson, 2005). The theory of OIT proposed in this study is a design theory.

      As a design theory, the usefulness of OIT lies precisely in its ability to inform the instructional design of large scale free-choice learning experiences—particularly those in religious education contexts—which seek to maximize interaction on multiple levels. Indeed, if one of the goals or desired outcomes of a free-choice learning experience is to increase the

likelihood of what is herein referred to as T1, T2, and T3 interactions, then OIT provides the theoretical scaffolding needed to design instruction in a way that is most likely to achieve that end. Thus OIT explains certain processes behind various interaction types and predicts the most likely outcomes based upon those processes. OIT's ability to accurately and repeatedly predict those outcomes, however, remains subject to further research.

Chapter 5: Discussion

In my review of the literature in chapter 2 I found that there is an increase in incorporating social media into formal, informal, and free-choice learning contexts due to the nearly ubiquitous use of social media among young people. The majority of the literature focuses on social media's incorporation into formal learning contexts—particularly in higher education—and suggests that teachers who do this are better able to retain classroom (a) relevancy to students' day-to-day experiences, (b) authenticity by tapping into the socially mediated ways students are accustomed to learning informally, and (c) legitimacy in helping to equip students to thrive in a digitally interconnected world (e.g., Krutka & Milton, 2013; West, Moore, & Barry, 2015).

I also found in the literature that religious leaders who integrate social media into their own ministerial approaches can establish their influential voices within the landscape of this digital medium and thereby mitigate the threat social media may pose to their epistemic authority due to the clamor of competing voices in the digital marketplace of ideas (e.g., Cheong, Huang, & Poon, 2011). Yet an overview of current practice among world religious leaders revealed a nearly exclusive use of social media as a monologic broadcast platform where dialogic interaction with their followers is practically non-existent, especially in terms of pedagogic interaction. Subsequently there was nothing in the literature to suggest how social media might influence the dynamics of such interactions were they to occur in a pedagogical setting with a world religious leader. This paucity of relevant data in the literature is precisely the gap that the current study has endeavored to fill. Rich amounts of data recently became available to enable researchers to answer just such a question when world religious leader Elder Jeffrey R. Holland broke from the monologic use of social media and interacted dialogically with followers

worldwide in an overtly pedagogic experience embedded in social media. In this study we have

seen that the dynamics of interaction were profoundly influenced by embedding this pedagogical

experience within social media.

In this chapter I will first explore the implications of my findings in chapter 4 by

discussing how embedding a Q&A religious education experience into a social media context

compares to other approaches a world religious leader might use in a large-scale religious

education setting and how the dynamics of interaction would be affected differently by each

approach. Second, I will examine Orbital Interaction Theory (OIT) in relation to existing theory

by discussing how it is impacted by and has potential impacts upon current theory. Third, I will

discuss OIT's particularly good fit in religious education contexts as well as explore potential

obstacles to the transferability of OIT into non-religious contexts. Finally, I will outline the

limitations of this study and offer several questions for future research.

Four Approaches to a Large-Scale Religious Education Experience

I hypothesize that Elder Holland's approach in his Face to Face experience demonstrates

one of four major pedagogical approaches a world religious leader might use in a large-scale

religious educational experience with their devotees. (There may certainly be more approaches

than these, but these four seem most likely and will serve as useful comparisons in terms of the

degrees of interaction afforded by each.) The most traditional approach a leader might take is to

deliver a prepared speech or sermon with no use of social media. This fairly common monologic

broadcast approach allows a leader to deliver a specific message to a wide audience, yet it

neither encourages nor facilitates any level of interaction (either leader-learner or learner-

learner). In essence, this approach, by nature, allows for only minimal T3 learner behavior.

With only the slightest variation, that same leader might deliver the same monologic message to

the same audience of learners while also assigning a specific hashtag to the broadcast event to which learners may post and share on social media before, during, and/or after the event (see #ldsconf, #nightofhope, and #nacc2016 for examples). While this second approach still does not enable T1 leader-learner interactions, the use of a broadcast or conference specific hashtag creates a semi-official space on social media wherein learners can retweet leader quotations, tweet reactions, post reflections, like tweets and posts, and share relevant photos and/or short video clips to the hashtag. Although these types of posts are typically very brief (a necessity on Twitter) and often posted to no one in particular, they at least represent a minimal level of "liker-lurker-blurter" interaction between learners. Thus, even with a broadcast hashtag, this approach allows only for T3 learner behavior.

Rather than the traditional monologic sermon approach, a religious leader might instead conduct a dialogic question and answer session wherein learners are encouraged to ask the leader questions. Learner questions may be submitted without the use of social media in a variety of ways, such as via a floating mic passed to in-studio audience learners, via Skype during the meeting from a remote location, through texting in questions during the meeting via a SMS audience response system (such as polleverywhere.com or pigeonholelive.com), or by learners submitting questions beforehand via email or a "submit a question" type of prompt on a central website. This third approach enables high levels of T1 leader-learner interaction. Even those learners who do not submit a question to the leader may still feel a strong sense of being interacted with by proxy through learners with whom the leader interacts directly (recall the PGI principle discussed in chapter 4). When social media is not used in such an approach, however, all interactions remain squarely centered at the leader-learner level with virtually no affordances

for T2 learner-learner interaction. Thus both T1 and T3 learner behaviors are enabled through this approach.

When social media is incorporated into the Q&A approach, however—such as when Elder Holland encouraged questions to be submitted to him on his Facebook or Twitter page—the dynamics of interaction between learners shift noticeably as T2 learner behavior is enabled. Indeed, with such an approach all of the affordances of social media are brought to bare on the experience, enabling learners to see one another's questions to the leader, to engage in asynchronous discussion over time, and to react to (rather than merely observe) and interact with the leader and other learners to the degree each learner feels comfortable. Thus, using a dialogic Q&A approach within the social media space makes learner questions more transparent and widens the range of possible interactions for every learner in the audience, including all T1, T2, and T3 interactions. This fourth approach incorporates all of the essential pedagogic design elements (EPD) needed to achieve all three tiers of interaction. And when EPD is used, OIT becomes very useful in predicting how interactions will play out. In fact, OIT could be defined as a theory that both describes how to design a large scale learning experience (using EPD) and predicts what will happen in terms of interaction on all three tiers.

The purpose of comparing these four approaches is not to suggest that one approach is inherently superior to another approach pedagogically. Rather, it is to suggest that interactions between the leader and learners and between the learners themselves increase as social media is introduced into the approach. But this may or may not be what a leader or instructional designer wants. The purpose of OIT is simply to facilitate the design of a free-choice learning experience to achieve the interaction outcomes it predicts if (and only if) that is the result desired by the leader or instructional designer. If, for example, the leader desires high control over the message

she shares—such as in delivering a sermon on a complex topic which requires extensive development—a monologic approach would be the preferred approach (with or without the broadcast hashtag). If, on the other hand, the leader wants to probe and discern what challenges and concerns learners have and seek to respond to those challenges and concerns, the dialogic approach is best suited to achieve this outcome. In such an approach power is given to learners to directly influence the content of the messages shared by the leader. As social media are used as the means for learners to submit their questions an asynchronous element is introduced into the experience which can increase the number of learners with whom the leader is able to interact. To illustrate, only 32% of Elder Holland's interactions with learners occurred during the synchronous broadcast compared to 68% which occurred asynchronously on Facebook and Twitter before and after the broadcast. Thus the asynchronous nature of social media allowed Elder Holland to more than double his leader-learner interactions as compared to those in the synchronous broadcast alone. This affordance of social media should also be considered by leaders as they decide which approach will best suit their intended outcomes. Additionally, embedding the dialogic experience within social media expands the number of people who can respond to learner questions, including questions to which the leader did not respond, thus enabling other learners to teach and support one another beyond the efforts of the leader alone. If this is a desired outcome then OIT is useful.

However, leaders must also be aware that not all uses of social media in large-scale religious education experiences promise to be positive. For example, these four approaches are not equal when compared in terms of difficulty of management. Dialogic approaches have higher technical complexity and thus are likely to be more difficult to manage than monologic approaches. Another possible unintended consequence and potential hazard of inviting learners

to interact on social media is the likelihood of attracting internet trolls who deliberately sow discord and post provocative or insulting material in order to elicit emotional responses from the religious leader or other learners on the broadcast hashtag or social media thread. Such trolling behavior is out of the designer's control once social media is introduced and has the potential to significantly disrupt and distract from the pedagogical intent of the learning experience. Both of these factors—management difficulty and potential for trolling behavior—ought to be seriously considered against the potentially positive outcomes of using social media as a pedagogical approach is being selected.

In summary, whether or not the leader elects to use social media in a large-scale free-choice learning experience—and how they choose to do so—will directly influence the degree to which T1, T2, and T3 levels of interaction are enabled in that experience, the extent to which learners are allowed to influence the messages shared by the leader (and how many learners can do so), the number of potential leader-learner interactions, the degree to which learners are positioned to teach and support one another, the difficulty of managing the technical complexities of the learning experience, and the potential for disruption or interference by internet trolls (see Table 6). Ultimately, the leader and/or the instructional designers of the event must decide what the pedagogical purposes of the broadcast are and then select an approach which will best achieve those purposes.

Table 6

Various Dynamics Impacted by Different Pedagogical Approaches

	Monologic (no social media)	Monologic (w/ social media)	Dialogic (no social media)	Dialogic (w/ social media)
Leader-learner interactions (T1)	None	Low	High	High
Learner-learner interactions (T2)	Low	Low	Low	High
Liker, Lurker, Blurter interactions (T3)	None	Medium	Low	High
Leader control over message	High	High	Low	Low
Learner influencing leader's message	Low	Low	High	High
Number of potential leader-learner interactions	None	None	Medium	High
Number of learners influencing leader's message	None	None	Medium	High
Learners teach/ support learners (T2)	None	None	Low	High
Management difficulty	Low	Low	Medium	Medium
Opportunity for disruption /trolls	None	High	None	High

Theoretically Situating Orbital Interaction Theory

In this section I will examine Orbital Interaction Theory (OIT) in relation to existing theory by discussing how it is impacted by and may have an impact upon current theory. I will first discuss the relationship between OIT and social constructivism. Next, I will examine how the learning theory of connectivism may be useful in describing the phenomenon of OIT. Finally, I will describe the suitability of the community of inquiry conceptual framework in explicating the pedagogical benefit of OIT.

Social constructivism. Research overwhelmingly confirms the importance of interaction in education, especially in distance education and online learning settings (Abrami et al., 2011; Bernard et al., 2009). Moore (1997) distinguished between three types of interactions in such

settings including teacher-learner, learner-learner, and learner-content interactions. One theoretical explanation as to why such interactions are positively impactful on student learning is the theory of social constructivism. Social constructivism is a learning theory based off of the sociocultural research of Vygotsky (1978), which posits that cognitive development is socially situated and that knowledge is constructed through social interaction. Hence, (according to social constructivism) instructional designs which incorporate teacher-learner and learner-learner interactions into the learning experience will increase student learning as compared to instructional designs which do not (Bernard et al., 2009).

If knowledge is constructed through interaction with others, as social constructivism posits, then OIT, as a theory of social interaction in a free-choice learning context, is both highly related and very relevant. OIT predicts that when EPD is used in the instructional design, three interaction types (T1, T2, & T3) will naturally emerge through which knowledge can be exchanged and socially constructed. Thus, OIT fits perfectly within the theoretical framework of social constructivism. Moreover, OIT may offer nuanced insight into social constructivism which has only relatively recently become possible with the advent of social media. That is to say, because a large-scale free-choice learning experience embedded in social media was an impossible learning scenario during the years social constructivist principles were first elaborated, OIT may offer fresh insights into both the settings and ways in which those principles may be applied. For instance, OIT reveals that when social media is involved in such a learning setting three tiers of social interaction are enabled—not the standard single classroom tier which social constructivism typically assumes. To illustrate, not only do T1 interactions enable learners to construct knowledge through direct social interaction with the teacher, but the T1 questions themselves, being visible to all learners on social media, are precisely the catalysts

which enable a cascade of socially constructed knowledge among learners through distinctive T2 interactions. Different still are the T3 interactions consisting of the nonverbal social curation of T1 and T2 interactions through liking and sharing, the peripheral lurker participation through PGI, and the monologic verbal reactions and expressions on social media addressed to no one in particular. Each of these tiers of interaction enable a different but potentially valuable benefit from a social constructivism perspective. An instructional designer who understands these nuances of interaction might design certain aspects of a learning experience differently with specific tiers in mind in order to maximize the likelihood of the social construction of knowledge among the greatest amount of learners.

Connectivism. Building upon social constructivism, Siemens (2005) developed the theory of connectivism which proposed, among other things, that "learning is a process of connecting . . . information sources," that "learning can reside outside of ourselves" (including within databases such as Twitter feeds and Facebook posts), and that "nurturing and maintaining connections is needed to facilitate continual learning" (n.p.). Researchers considering how learning on social media is informed by the theory of connectivism have concluded that, "in the world of social media proliferation, learning is not an internal, individualistic activity. Rather, learners gather information from connecting to others' knowledge using [social media] platforms" (Chen & Bryer, 2012, p. 88-89). While such knowledge creation via connecting to other learners on social media can happen in structured formal learning environments, it occurs most organically and frequently in the informal learning space.

The intersection between OIT and connectivism is substantial in at least two ways. First, Siemens (2005) defines "hubs" in social networks as "well-connected people who are able to foster and maintain knowledge flow" (n.p.). In this study we have seen how Elder Holland's

Facebook page was the primary place that fostered and maintained knowledge flow between learners. As their connection to Elder Holland was the common bond between all learners, it was only natural for his Facebook page to become the major hub of interaction where learners could connect to one another and exchange knowledge (and serve as the repository for that knowledge). Indeed, to invoke the metaphor of OIT, as Elder Holland was the central star of this learning experience, his Facebook page became a central pivot point around which all learners could gravitate to learn from him and to network and share knowledge with one another (the hashtag #ldsface2face being another hub). Second, connectivism also suggests that social networking can leverage "the small efforts of many with the large efforts of few" (Siemens, 2005, n.p.). In the case of this *Face2Face* event, the small efforts of the hundreds of learners who interacted with one another supported and intensified the large efforts of Elder Holland and his team. OIT predicts this behavior at the T2 level of interaction especially. Thus, OIT benefits from the explanatory power of connectivism to explain the singular way in which knowledge is gathered, shared, and stored among learners within the social media context OIT assumes. Conversely, OIT offers value to connectivism by providing a framework which ensures a connected network of collaborative learning will take place (thus validating this relatively new theory).

Community of inquiry. Related to both social constructivism and connectivism is the conceptual framework of the community of inquiry (CoI), which "describes critical prerequisite factors for deep and meaningful learning in online environments" (Olpak, Yağci, & Başarmak, 2016, p. 1085). One of the underlying assumptions of CoI is that knowledge is of necessity embedded in a social context (Gillow-Wiles & Niess, 2015). Canadian researchers Garrison, Anderson, and Archer (2000) found that there are three essential factors needed in order to

achieve effective learning in an online community, namely cognitive presence (the extent to which learners can construct meaning via ongoing communication in the community), social presence (the ability of learners to project themselves as real people into the online community), and teaching presence (the structure and pedagogic design which facilitates and directs both social and cognitive processes to achieve meaningful learning within the community). As these three factors are present, deep and meaningful learning can occur.

I believe there is meaningful overlap between the CoI conceptual framework and OIT. For example, OIT posits that an ad hoc CoI will emerge when the EPD is used to design the experience. Specifically, OIT predicts that when a world religious leader invites learners to engage with him or her in a question and answer free-choice learning experience within a social media environment, three levels or types of interaction will organically occur (T1, T1, & T3 interactions) within the emergent ad hoc CoI. During such an experience learners are allowed and empowered to "be themselves" online (social presence), have sustained communication with other learners in T2 interactions (cognitive presence), and do so in an environment specifically structured to facilitate focused and meaningful learning (teaching presence). Thus, when viewed within the CoI framework, it is easy to see why meaningful learning can take place when EPD is used to design the free-choice learning experience.

Furthermore, the CoI framework predicts that meaningful learning will occur when all three pedagogical design elements exist in an online environment, but is silent about the types of interactions that will occur within that environment. OIT, on the other hand, predicts that certain types of interaction will occur when EPD is used, but is silent about the meaningfulness of the learning which might occur within those interactions. Thus OIT and the CoI framework may be mutually benefitted when each is brought to bear on the phenomenon of the other.

In summary, the value of OIT as a theory of social interaction in free-choice learning contexts can be justified by three theoretical frameworks. First, by social constructivism's theoretical premise that knowledge is constructed through social interaction. Next, because one of the core factors for OIT to be operational is the social media context, the theory of connectivism adds explanatory power to the distinctive way in which knowledge is shared, stored, and gathered in such socially mediated learning contexts. Finally, as OIT asserts that an ad hoc learning community will form in any given Q&A experience with a world religious leader on social media, the CoI conceptual framework offers valuable predictive and explanatory power as to why meaningful learning is likely to occur within the community thus formed. We can therefore postulate that when OIT is connected to the explanatory and predictive frameworks of social constructivism, connectivism, and CoI, its pedagogic viability is more clearly ascertained and explained.

Applicability and Transferability of OIT

Because OIT was born from a grounded theory examination of a free-choice religious education experience between a world religious leader and 18-30 year olds, it could be said that the religious education context is OIT's native habitat. In this section I will briefly suggest three factors which I believe make OIT a particularly natural fit for religious education contexts. I will explore the transferability of those factors into non-religious educational contexts and discuss the potential obstacles inherent in such non-religious applications of OIT.

The first key factor—no doubt the single greatest factor—influencing the success and quality of interactions in OIT is the trust learners have in the leader and, to some extent, the trust the leader has in the learners. Trust in the leader is essential for the success and quality of the interactions in OIT for a few reasons. To begin with, it is almost axiomatic to say that it is

human nature to be more willingly vulnerable and self-disclosing toward those whom we trust. Therefore, in a Q&A experience, the level of trust a learner has in the leader will directly influence the level of sincerity, vulnerability, and self-disclosure in the questions they are willing to ask. Trust can close the psychological and communications space between learner and leader which Moore (1997) refers to as transactional distance. This matters at least because T2 learner interactions are more likely to occur when learners sense higher levels of authenticity and sincerity in their fellow learners' T1 questions. Perhaps this is so because such questions evoke empathy in other learners and kindle a desire to be helpful by responding to the questions. To summarize this relationship: learner trust in the leader (a) initially draws learners to the leader and (b) evokes more highly vulnerable and self-disclosing questions asked to the leader at the T1 level, which (c) has the effect of drawing in other learners to meaningfully engage with those questions at the T2 level.

One of the reasons a religious education experience with a world religious leader is a natural fit for OIT is because learners' trust in the leader is, by and large, already pre-existent going into the experience. This is one significant reason why transferability of OIT into a non-religious free-choice learning experience may present significant challenges. If the learner does not already have preexisting trust in the leader the transactional distance will be greater and they will be (a) less likely to be drawn into a free-choice learning experience, (b) much more likely to be guarded or even combative in their questions, which will (c) not draw in the same level of meaningful T2 interactions. If a national political figure were to hold a free-choice Q&A broadcast on social media, for example, it would almost certainly not draw learners in who would ask sincere, vulnerable, and self-disclosing questions which in turn lead to a community of learners coming together to teach and support one another. It is more likely, precisely because

of the lack of trust in the leader, that such an experience would take a more polemical turn and lead to combative interactions both at the T1 and T2 levels. In like manner, if a well-known celebrity were to sponsor a similar free-choice learning experience, the T1 interactions would likely be abundant (and less combative than with the political figure), but would likely be of a much different character than the vulnerable, self-disclosing type posed to a world religious leader. As a result of this reduction in vulnerable self-disclosure it is much less likely that such T1 questions would draw out a community of meaningful T2 interactions.

On a related point, if the leader does not also have some level of trust in the learners, she is not likely to engage in a Q&A approach wherein much of the control of the messages shared is relinquished to those learners. Indeed the very act of choosing to engage with learners in the Q&A approach embedded in social media conveys a certain level of trust from the leader to the learners. The approach itself connotes an implicit expression of confidence in the learners that they will come through with good questions and will act civilly with one another in the social media space. Thus a bidirectional trust between the learners and the leader is necessary to ensure the success and quality of interactions in OIT.

The second key factor influencing the success of OIT is the degree of homogeneity between the learners. In this study, the high degree of learner homogeneity in such things as culture, ideologies, religious beliefs, stage of life, and marital status played a particularly important role in the success of Elder Holland's learning experience. This was so, I posit, because learners in a similar stage of life and who share similar values are more likely to share similar struggles, challenges, and questions. Thus the higher the homogeneity of the learners in these specific characteristics, the more likely they are to find the questions asked to the central figure relevant, which in turn increases the overall sense learners have that the learning

experience is beneficial and worthwhile. Stated another way, the more homogenous the learners the greater the likelihood that learners will (a) be able to find one or more proxies in the group (thus facilitating PGI) and (b) feel they have something to contribute to learner questions (thus encouraging meaningful T2 interactions). Thus, the more homogenous the learners the more naturally learners will "get" each other and can therefore empathize and support one another in the ad hoc T2 learner communities which form during such experiences.

Learner homogeneity in free-choice religious education experiences may be much easier to achieve than in equivalent nonreligious experiences for at least two reasons. First—and this is related to the element of learner trust in the leader—it is much more probable that those who gravitate toward a free-choice religious education experience with a world religious leader will share more in common than a simple interest in the world religious leader. Indeed, a world religious leader is most likely to attract learners who are also homogenous in a high degree in their core religious beliefs, ideologies, and church culture. Second, it is highly probable that, because most religions have some level of universal behavioral expectations and codes of conduct, the religious lives of learners within the same religion will intersect with societal norms in similar ways which produce similar challenges as learners strive to live their religion in a pluralistic society. Thus the questions asked to the central leader are more likely to be relevant to all. This is especially true of those who are in a similar stage of life. So when Elder Holland invited not just LDS people but specifically LDS people who were also single and aged 18-30 to join him in a Face to Face broadcast, this provided the ideal conditions for learner homogeneity to be achieved with its attendant benefits. It seems unlikely that such high levels of learner homogeneity can be achieved in equivalent non-religious free-choice education settings.

The third key factor influencing the success of OIT is civility. Higher civility in online interactions, I argue, leads to greater feelings of learner safety and therefore fosters more favorable conditions for self-disclosure, which, as discussed previously, contributes significantly to the quality and meaningfulness of T2 interactions. This is closely related to the previous idea of homogeneity in that a more homogenous group of learners would be more likely to share cultural norms and expectations regarding the civility of interactions. Recent research has shown that there is a much higher likelihood of civility in social media interactions from those who self-identify as religious compared to those who do not (Kimmons, et al., in press). As Clifton (1999) said of learning communities, "when people do not . . . share norms, obligations, and expectations . . . the community is not likely to develop" (n.p.). Such shared norms, obligations, and expectations of civility are often implicit within religious communities.

These three elements—trust between learners and the leader, a high degree of learner homogeneity, and a high level of civility—constitute the essential learner conditions of OIT. I posit that without these learner conditions OIT will not be able to successfully predict the type and quality of interactions that occur in the free-choice learning experience. Conversely, when these three learner conditions exist and are combined with the three pedagogical design elements (EPD) outlined in chapter 4, the optimum conditions for interaction (OCI) in OIT are fully achieved (see Figure 2). When OCI is achieved the resultant interaction types and quality are highly predictable. I maintain therefore—especially due to the three essential learner conditions—that free-choice religious education experiences are the most natural contexts for an OIT approach to be successful. It is precisely because of the challenge of achieving these three factors at comparable levels in non-religious free-choice learning contexts that makes the transferability of OIT into these contexts difficult.
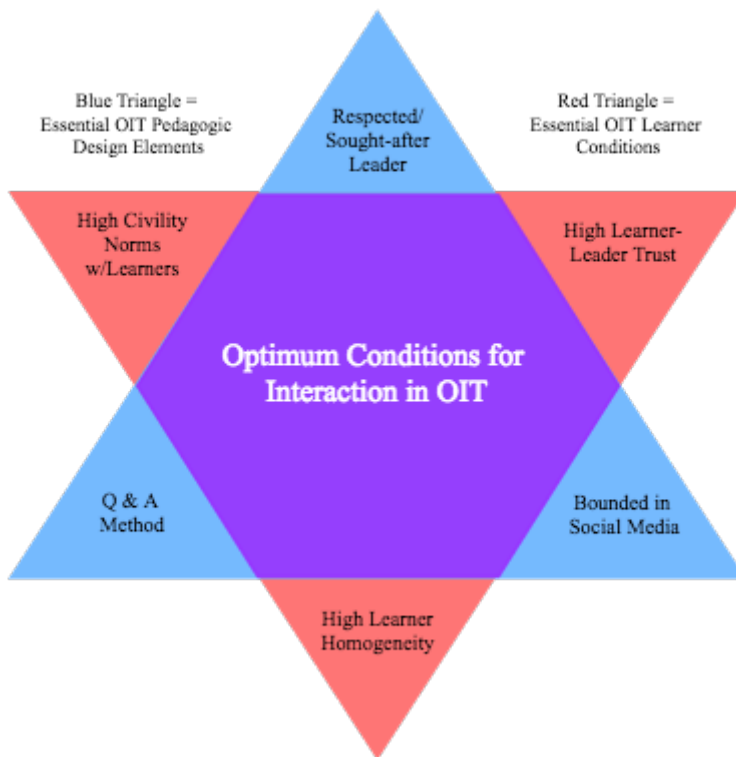
Figure 2. Optimum Conditions for Interaction (OCI) in OIT. These occur when the essential pedagogical design elements of OIT are combined with the essential learner conditions of OIT, which is most likely to occur within a religious education free-choice learning context.

Limitations of This Study

Typical of Grounded Theory studies, this study is "contextually constrained" and "awaiting further development" (Burks & Mills, 2011, p. 113). That is to say, notwithstanding a thorough analysis of the data for this study, this study is, in the final analysis, only a single study. Also, only data from Facebook and Twitter were analyzed for this event. The viability of other social media platforms for success in OIT was not considered due to a lack of data. And as with all theoretical development, the theory developed in this study—OIT—requires testing and further qualitative exploration through more independent studies in order to be considered theoretically robust. Indeed, OIT's ability to accurately and repeatedly predict the outcomes it claims to be able to do remains subject to further research.

Questions for Future Research

The following questions seem to be the logical next steps in exploring the claims and implications of OIT:

- How well could (or to what degree could) the principles of OIT apply to formal learning settings, such as tertiary learning environments of higher education? For example, could an instructor design her online course with the three tiers of interaction in mind? What would be the limitations of doing so in a formal setting?

- As many religious people are averse to expressions of religiosity in social media environments, what other ways (in addition to Elder Holland's approach in this study) are there to create communities of faith within social media which create safe places for people to express their religiosity?

- How viable are other social media platforms such as Instagram or YouTube for the successful implementation of the principles of OIT?

- How can the peripheral interaction at the PGI level be more studied and understood more directly? Also, what makes a good proxy in PGI? Is homogeneity as described in this study the only factor?

- What implication does this study have for more localized religious education opportunities, such as local church services, conferences, or seminars?

- What implications might this theoretical model have for political and civic leaders? Given the polemical climate which so often typifies online political interactions, could such an approach ever work? Perhaps within political parties? Are political parties homogenous enough for such interactions to succeed at a meaningful level?

- Do interactions in a social media context reflect the connectivist principle of sustained access to the learning resource? To what extent are the archived posts of social media interactions accessed by learners once the event has concluded? Do learners return to the repository of those interactions to continue to learn?

Chapter 6: Conclusion

The advent of social media and its nearly ubiquitous use among young adults has created both potential challenges and opportunities for formal educators and religious leaders worldwide. The potential challenges for formal educators lie primarily at the level of retaining relevancy, authenticity, and legitimacy in the eyes of learners if social media are not somehow incorporated into the learning experience. Likewise for religious leaders—especially at the worldwide level— the challenge of not incorporating social media into their ministries and outreach lies in potentially compromising their epistemic authority in that digital space, thus making their voices less relevant and legitimate in the abundant networked exchange of ideas online. One opportunity thus afforded to both formal educators and religious leaders by social media is that it can be used to help them gain, maintain, or reclaim relevancy and legitimacy in the eyes of their constituencies. Another significant opportunity enabled by the dialogic affordances of social media at the learning level is the leader's ability to fundamentally change the dynamics of interaction in a learning experience. This interaction-altering aspect of social media in religious education experiences was the focus of this study. Specifically, this study sought to answer the question: How does the use of social media influence the dynamics of interaction in the context of a free-choice religious education experience between a world religious leader and young adult learners?

Research overwhelmingly confirms the importance of interaction in education, especially in online learning settings. Yet a review of current practice among world religious leaders' use of social media revealed a nearly exclusive use of social media as monologic broadcast platforms where dialogic interaction with their followers—especially pedagogic interaction—was very rare. As a result, there was nothing in the literature to suggest what influence social media might

have on the dynamics of such interactions were they to occur in a pedagogical setting with a world religious leader. However, when Latter-day Saint leader Elder Jeffrey R. Holland recently broke from the typical monologic use of social media and interacted dialogically with young adult religious followers worldwide in an overtly pedagogic experience embedded in social media, rich amounts of data became available to enable researchers to discover the answer to this question.

A Grounded Theory approach was used for this study in order (a) to understand how the dynamics of interaction were influenced by embedding Elder Holland's *Face2Face* experience into social media and (b) to derive patterns from the data generated in this experience which could be abstracted and reconstituted into an explanatory and predictive theoretical framework to inform the design of future large-scale free-choice learning experiences.

In terms of how interaction-dynamics were influenced by embedding Elder Holland's event into social media contexts, I found first that proxy group interaction is enabled due to the increased visibility of leader-learner interactions to the entire group, the ability of learners to comment on, like, or share leader-learner interactions, and the ability of learners to mention other learners on posts. Second, I found that active non-verbal interaction allows for social curation, peer validation, community approval, and the non-verbal pushing of posts from the event into the social media streams of non-participants in the event. Third, I discovered that social media's dialogic affordances can be leveraged to help learners feel both safe and willing to engage in online religious expression when those expressions are couched as dialogic responses to a religious leader's questions within a specific hashtag-bound space. Additionally, I observed that social media's dialogic affordances allow for an abundance of two-way interaction among learners beyond the stated purposes of the free-choice learning experience, thus allowing learners

to engage with one another's questions in uninvited but welcome ways. Finally, I recognized that social media—especially Facebook—allows for a theoretically infinite amount of learner-learner interactions on a single comment node, creating networks within nodes which I referred to as multilogic interactions.

In terms of abstracted patterns derived from the data itself, I discovered that there are three types or tiers of interaction enabled when social media is incorporated into this type of learning experience, namely, leader-learner (T1); learner-learner (T2); and liker, lurker, blurter (T3). Additionally, I found that there are three core design factors which account for the amount, variety, and quality of interactions which occurred in this experience, namely (a) the right person (i.e., one who is sufficiently well-known, well-respected, and sought after); (b) the right pedagogical method (i.e., a Q&A approach); and (c) the right medium (i.e., within a social media context; preferrably Facebook and/or Twitter). I theorized that only when these three essential pedagogical design elements (EPD) exist will such rich T1, T2, and T3 interactions occur. Once these EPD were abstracted from the data, they were brought together again and reconstructed into an explanatory scheme/theoretical framework which I entitled Orbital Interaction Theory (OIT), utilizing a solar system metaphor of orbital bodies drawn toward one another by a concept I called social gravity. I asserted that OIT is a design theory of social interaction which describes how to design a large scale learning experience with the intent to achieve all three tiers of interaction. I proposed that an understanding of the nuances of interaction articulated in OIT could assist an instructional designer to be more deliberate and intentional in designing meaningful instruction on the basis of social constructivist principles.

Furthermore, I compared the approach articulated in OIT with three other hypothetical approaches a world religious leader might use in a large-scale religious education experience and

concluded that whether or not the leader elects to use social media in a large-scale free-choice learning experience—and how they do so—will directly influence (a) the degree to which T1, T2, and T3 levels of interaction are enabled in that experience, (b) the extent to which and the number of learners who influence the leader's messages, (c) the number of potential leader-learner interactions, (d) the degree to which learners are positioned to teach and support one another, (e) the difficulty of managing the technical complexities of the learning experience, and (f) the potential for disruption or interference by internet trolls. The OIT approach was not recommended as the best option in every scenario. Rather, it was recommended that the leader and/or the instructional designer(s) of the event determine what the pedagogical purposes of the learning experience are and then select an approach which will best meet those purposes.

Additionally, I assessed the theoretical strength and value of OIT as a theory of social interaction in large-scale free-choice learning contexts by situating it within the theoretical frameworks of social constructivism, connectivism, and community of inquiry (CoI). In doing so I found that OIT gains valuable predictive and explanatory power in terms of its pedagogic viability. This is so due to (a) social constructivism's theoretical premise that knowledge is constructed through social interaction, (b) connectivism's explanations about the distinctive way in which knowledge is shared, stored, and gathered in socially mediated learning contexts, and (c) CoI's conceptual explanatory and predictive power as to why meaningful learning is likely to occur within the type of *ad hoc* community which forms when an OIT approach is used.

Moreover, I concluded that an OIT design approach is a more natural fit for religious education contexts as compared to non-religious education contexts due to the ease with which religious education experiences can attract learners who have the three essential learner conditions necessary for the success of OIT. The first essential learner condition I identified is

learners' trust of the leader, which (a) initially draws learners to the leader and (b) evokes more highly vulnerable and self-disclosing questions asked to the leader, which (c) has the effect of drawing in other learners to meaningfully engage with those questions. Similarly, a leader is not likely to relinquish control over the messages shared to the learners without also trusting them to ask quality questions and engage civilly with one another. I argued that the level of trust between the leader and learners needed for an OIT approach to succeed is largely a preexistent condition in religious education contexts. This is not so in non-religious education contexts. The second essential learner condition I identified was high levels of learner homogeneity in such things as culture, ideology, religious beliefs, stage of life, and marital status. This condition is crucial for an OIT approach to succeed because learners in a similar stage of life who share similar values are more likely to "get" one another and are therefore more likely to find the questions asked to and the answers received from the central figure more relevant; they are also better situated to empathize and support one another in the *ad hoc* communities which form during such experiences. I contended that religious rather than non-religious free-choice educational contexts are much more likely to achieve the critical level of learner homogeneity needed for success primarily because a world religious leader is much more likely to attract learners who are homogenous in their core religious beliefs, ideologies, and church culture than is a non-religious one. I argued that the third essential learner condition essential for the success of OIT is a high degree of civility because it helps learners feel safe online and therefore fosters more favorable conditions for self-disclosure, which contribute significantly to the quality and meaningfulness of T2 interactions. Religious communities are more likely (especially online) to have higher levels of civility than are non-religious ones. It is precisely because of the challenge

of achieving leader-learner trust, learner homogeneity, and high levels of civility in non-religious free-choice learning contexts that makes transferability of OIT into these contexts difficult.

Finally, I posited that when the essential pedagogical design elements of OIT are combined with the essential learner conditions of OIT, the Optimum Conditions for Interaction (OCI) in OIT will be achieved with highly predictable results.

I believe that as social media is increasingly utilized in formal, informal, and free-choice learning, there will continue to be a rising need to develop theories that explain what influence such use is having and can have on the dynamics of various learning contexts. This study represents one such effort toward that end in which a Grounded Theory approach was used to both understand the phenomenon of interaction dynamics in a free-choice learning context and to create a theoretical framework with predictive ability. While this specific study analyzed only one of scores of educational contexts in which social media is or can be employed, it nevertheless represents a fertile context in which the learning dynamic was significantly shaped by the use of social media and may offer insight for other contexts.

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