

Out-Of-Class Communication and Personal Learning Environments via Social Media: Students' Perceptions and Implications for Faculty Social Media Use

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Social media has been a growing influence in higher education throughout the past decade (Amador & Amador, 2014; Junco, 2012). The increased use of social technologies in education also brings implications for faculty credibility in the eyes of digital natives and questions about pedagogical value. This study examines the perceptions students have of faculty who use social media in terms of both credibility and academic success. Findings indicate that, while there are risks that need to be addressed, faculty have the opportunity to have unprecedented out-of-class communication (OCC) through use of social media, and the capacity to develop Personal Learning Environments (PLEs) that are uniquely appropriate to individual learners and styles.

Social media has been a growing influence in colleges and universities throughout the past decade (Amador & Amador, 2014; Junco, 2012; Hung & Yuen, 2010). From exploring social media's use as an educational tool within the classroom (Junco, Heibergert, & Loken, 2011; Mazer, Murphy, & Simonds, 2007) to understanding the benefits social media may hold for student adjustment and recruitment (DeAndrea, Ellison, LaRose, Steingfiel, & Fiore, 2012), universities have been grappling with the reality of the changing landscape brought through digital technology. As digital natives fill classrooms, engage with faculty and shape the future of education, it is not surprising that their perceptions

of faculty who use social media also influence a university experience. For faculty, it is important to understand the use of social media to enhance learning within education, as well as to understand the direct impact of social media on the credibility of faculty as educators, as they engage with students via social media (Dabbagh & Kitsantas, 2012; Roblyer, McDaniel, Webb, Herman, & Witty, 2010). In addition, as faculty increasingly use social media in higher education, there is a need to understand the larger pedagogical ramifications of this technology. This study examines the perceptions students have of faculty who use social media as well as the way students may experience greater academic success as

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a result of the implementation of social media in higher education.

LITERATURE REVIEW

Social Media in Higher Education

While research consistently confirms that students primarily use social media sites for personal uses like socializing and entertainment, research also indicates that students are increasingly using social media as an opportunity to gain knowledge about educational matters (Dabagh & Kitsantas, 2012; Mazer, Murphy, & Simonds, 2007). In light of this, Wodzicki, Schwämmlein, and Moskaliuk (2012) point out that “Social media provides multiple opportunities that may be exploited for learning and knowledge processes in general” (p.9). These opportunities give students the chance to participate in “learning on demand,” which is becoming a growing expectation of digital natives (Dabagh & Kitsantas, 2012, p. 3). In addition, to meeting an expectation of on-demand educational resources, Hung and Yuen (2010) identified “how social networking technology can be used to supplement face-to-face courses as a means of enhancing student’s sense of community and, thus, to promote classroom communities of practice in the context of higher education” (p. 703). In other words, social media is not simply an added component to communication but is also an influential tool in building class cohesion and community among students within an educational context.

There are other studies, however, that focus not only on the value that social media may add but also the risk for institutions and faculty. For example, DeGroot, Young, and VanSlette (2015) examined the role of Twitter in faculty credibility. While they examined one platform (versus social media use overall), they determined that the tool can be both “an asset and an obstacle” for instructors (p.1). They made this conclusion after finding that Twitter accounts from faculty who mainly tweeted professional content were viewed as most credible. This can be an asset

for faculty who regularly are sharing about their research, industry and specialties. But, for those who blend social and professional content or are largely social on Twitter, students may ultimately perceive the faculty member as less credible. The difficulty lies in the fact that social media has potential to be an educational asset, yet the reality shows that it also poses risks. This could be why Tess (2013) suggests that there are elusive conclusions to social media’s role in higher education:

Education likes to explore emerging technologies as new or improved tools to enhance instructions and learning. Social media has emerged as a highly useful personal communication technology. Can the same affordance of social networking sites that support individual level use, commend the integration of SNSs into higher education class? The jury is still out. (p. A66)

Tess goes on to state, “The trial is just beginning as researchers begin to gather evidence of social media’s position in the technology marketplace of the college classroom” (p. A66). Supporting Tess’ point, despite the wide use of social media by digital natives, many institutions still struggle with an effective adaptation of these communication technologies into the educational process of college students (Roblyer et al., 2010). Part of this may be due to the way faculty choose to adapt the technology and perceive the use of social media as a pedagogical tool.

Faculty Use of Social Media

As mentioned previously, in recent years, faculty have experienced a growing focus on personalized education, including on-demand resources and customization (Waldeck, 2006). Faculty in higher education institutions are adapting to using social media, but not at the same pace as many other professionals. In addition, the adaptation is significantly slower than that of the digital natives who fill university classrooms (Seaman

& Tinti-Kane, 2013). In a series of reports produced since 2009, Pearson studied faculty perceptions and use of social media, finding that “concerns about privacy, both for themselves and for their students, and about maintaining the class as a private space for free and open discussion, have been at the top of the list of concerns” among faculty (Seaman & Tinti-Kane, 2013, p. 3). In addition, the study also found that faculty noted increased accessibility by students who reach out via social media, and thus extended work hours for faculty, and the “large potential” for social technologies to be “more distracting than helpful to students” (p. 6) as main hesitations for adopting technology use within classes.

Despite these concerns, there has been an increase of social networking in higher education by faculty members over the past several years (Hung & Yuen, 2010; Seaman & Tinti-Kane, 2013; Roblyer et al., 2010). In support of this growth, Carpenter & Krutka (2014) found that educators use Twitter for a variety of purposes within education, including to combat isolation and to facilitate collaboration. In other words, faculty are beginning to recognize specific pedagogical values and uses for social platforms and applying them in certain contexts. One of the pedagogical values social media has provided is an increased capacity to communicate with students beyond set classroom hours, which has been shown to impact student academic performance (Swart, 2013; Jaasma & Koper, 2009). The powerful influence of this communication and the ability to enhance learning, affinity, and faculty credibility has been a growing focus for scholars.

Out-Of-Class Communication

This increased communication with students via social media would fall under the concept of “Out-Of-Class Communication” (OCC). Research has shown that OCC not only increases students’ academic development (Terenzini, Parscarella, & Blimling, 1996; Jaasma & Koper, 1999) but also students’ integration into

universities (Jaasma & Koper, 1999). OCC is not only beneficial for students, however. It has also been shown to influence higher teaching evaluations for faculty (Jaasma & Koper, 1999). Thus, OCC has benefits for both students and educators as communication becomes unbound from course schedules and more fluid.

One example of the dynamic impact of OCC is from Jaasma & Koper (1999), who found that increased frequency and length of OCC influences a student’s motivation and trust in the instructor, which influences course performance. In another study, which examined the effect of Twitter on student engagement and grades, Junco, Heiberger, & Loken (2011) found that OCC engagement with this micro-blogging social media platform resulted in students and faculty being “highly engaged in the learning process in ways that transcended traditional classroom activities” (p. 119). Thus, as a pedagogical approach, social media interaction has broken traditional barriers to faculty communication and fosters learning in a way that is unlike traditional models. In addition to the academic and faculty credibility benefits of OCC, students also experience the learning environment differently than a traditional classroom. Hung & Yuen (2010) found that students developed “strong feelings of social connectedness and expressed favorable feelings regarding their learning experiences in the classes where social networking sites were used as a supplementary tool” (p. 703). Social connection, engaged learning, and trust in faculty are all benefits of social media OCC. Perhaps one of the greatest benefits, however, that can result from social media in higher education is the formation of Personal Learning Environments (PLE).

Personal Learning Environments

Personal Learning Environments can be defined as places that “serve as platforms for both integrating formal and informal learning and fostering self-regulated learning in higher education contexts” (Dabbagh & Katsantas, 2012, p. 3). In

other words, PLEs are 1) platforms where students combine formal education, such as theories from a classroom, with 2) informal learning, such as interactions with peers, while 3) developing self-agency in pursuing concepts on their own. Dabbagh and Kitsantas (2012) posit that “there is strong evidence that social media can facilitate the creation of PLEs that help learners aggregate and share the results of learning achievements, participate in collective knowledge generation, and manage their own meaning making” (p. 3). Their findings support the idea that social media allows for informational learning to take place in numerous locations, rather than restricting pedagogical approaches to only incorporate formal learning in a classroom. Rather, PLEs have been shown to be influential in bridging formal and informal learning in a higher education context, empowering students to develop habits of lifelong learning (Dabbagh & Kitsantas, 2012).

Faculty who decide to integrate social media in an effort to develop Personal Learning Environments for students should approach the process in three tiers (Dabbagh & Kitsantas, 2012).

1) Faculty should first encourage students to use social media to *create* a PLE: This first step necessitates the establishment of social media into a course, the faculty member articulating the purpose of social media as a learning component in the course, and the support to allow students to individually develop profiles on the selected social media platform.

2) Next, faculty should encourage students to progress to interacting with peers and collaborating in a PLE: Beyond simply creating a platform, faculty who wish to develop PLEs for students need to create a mechanism in which students begin interacting and collaborating with their peers. In other words, faculty should explicitly provide instructions for the type, frequency and breadth of interaction expected among students within the social media platform during the course.

3) Finally, faculty should help students develop the capacity to aggregate information

into a customized PLE environment that helps students achieve learning goals: Within this final tier, faculty are encouraging students to not simply interact and collaborate, but to create original content and ideas based on information. This requires students to assess what kind of information is important, perhaps providing a recap or blog on certain topics. It also requires students to begin modifying their platform presence around topics that are particularly relevant to their individual learning. As students identify what areas they need to learn about, how to interact with peers around those topics and how to customize their social profile to facilitate greater understanding and articulation of those topics, students can thrive in PLEs.

Despite the indications of the potential capacity of social media to develop stronger connections between faculty and students through OCC, resulting in increased academic performance and appreciation for courses, and the potential to develop and optimize PLEs for students via social media, there are still significant concerns with faculty credibility, due to self-disclosure that occurs via social media sites (Mazer, Murphy, & Simonds, 2007).

Credibility and Social Media

Credibility research has a multitude of definitions for what actually composes *credibility* (Falcone, 1974; McCroskey, Holdridge, & Toomb, 1974; Singletary, 1976). Typically these definitions are combinations of various concepts that include dimensions such as reliability, trust, believability, accessibility, and openness (Tseng & Fogg, 1999; Hilligoss & Rieh, 2008). Hovland, a vanguard in credibility studies (Hovland, Lumsdaine, & Sheffield, 1949; Hovland & Weiss, 1951), suggested two dimensions as being central to credibility: expertise and trustworthiness (Kiousis, 2001; Hovland, Janis, & Kelley, 1953). As faculty seek to understand credibility and social media, however, they should not only consider source dimensions but also *medium* credibility dimensions, since the

interaction is happening in a mediated environment. Situations like this, which blend a source and medium, make the perfect case for why Moriarty (1996) argued that credibility should be considered as a construct of *both* a source (the faculty) and a medium (social media).

In order to fully explore the concept of credibility within social media by faculty, it is helpful to place parameters on what is considered to be *social media*. Boyd and Ellison (2007) defined social networking sites (social media) as:

Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. (p. 211)

Kaplan and Haenlein (2010) also suggest that social media is “a group of Internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of User Generated Content” (p. 61). The parameters regarding social media are that 1) content is user generated, 2) user controlled, 3) user shared, and 4) that this exchange takes place via a platform on an Internet site.

Part of this user development of content and sharing is precisely why faculty have concerns about OCC communication via social media with students. Faculty who are on social media often construct a profile that reveals personal information about them and/or connects into other networks that are not related to student interactions such as peers, family and friends. The world of social media is such that students who interact with faculty would then be able to see personal interactions by the faculty with others in their social networks, as well as learn personal details about the faculty member’s life. This disclosure of information has the potential

to influence students’ perceptions of faculty credibility and may also influence the active learning a student engages with inside of a class (Mazer, Murphy, & Simonds, 2007).

Faculty Credibility

While exploring the implications for faculty credibility of social media may be relatively new, due to the medium, the concept of teacher credibility has been a focus for communication scholars for several decades. In a formative study, Teven and McCroskey (1997) argued that, while many previous credibility source studies examined only trustworthiness and expertise, or competence and character (McCroskey and Young, 1981), there is, they suggest, actually a third dimension to the construct: good will. They found that the perception of a teacher’s credibility was influenced not only by the educator’s expertise and trustworthiness, but also by whether students perceived the educator as having good will toward them as students.

It is possible that previous studies rejected this third element due to difficulty in measuring the construct as separate from the dimension of character (McCroskey and Young, 1981). Tackling the concern of identifying trustworthiness and good will as separate dimensions instead of one dimension called “character,” Teven and McCroskey (1997) suggest that good will includes the perception of whether someone, in this case the faculty member, genuinely cares. The caring element is different from trustworthiness, in that someone can be a trustworthy individual but not actually have concern or care for the audience. The dimension of “good will” has three main elements: empathy, understanding, and responsiveness (Teven & McCroskey, 1997). This element of good will is, therefore, an important construct in the study of faculty credibility, as students are heavily influenced by the perception of whether faculty genuinely care for them. While the interpersonal component of social media seems like an ideal platform to communicate with students and build confidence in the

good will of instructors, faculty have regularly cited concerns over personal disclosure on the platform. The level of disclosure for faculty can, potentially, damage students' perceptions of the expertise or trustworthiness of instructors.

Faculty Self-Disclosure on Social Media

Faculty often use self-disclosure as a way to build a classroom culture (McBride & Wahl, 2005). In addition to building a classroom culture, research has shown that faculty self-disclosure has the potential to increase student learning and helps instructors to be perceived as more effectively explaining course content (Mazer, Murphy, & Simonds, 2007; Christophel, 1990). Fusani (1994) suggests that self-disclosure is a "rich personal source of student-faculty communication" (p. 249). Despite self-disclosure being linked so positively to classroom environments and student learning, there is the potential for negative association with faculty via social media (Mazer, Murphy, & Simonds, 2007). Concern for privacy and the boundaries of disclosure is a top concern for faculty on social media (Seaman & Tinti-Kane, 2013, p. 3). While disclosure in a classroom is very controlled and provided in the context of faculty to students, on social media disclosure can be second-hand, as when a faculty member is interacting with a friend or family member and students observe this interaction. This higher level of disclosure and exposure to more personal details of social lives of faculty has the potential to over-disclose and impact students' perceptions of faculty members. While more research is available on the quality and quantity of self-disclosure by faculty in classes, discussing limits and strategies for disclosure, there is limited research available on faculty disclosure through social media or the implications of that disclosure on faculty credibility and student learning.

Recognizing the need for faculty to understand the implications for credibility and student learning as a result of social media use, this study will explore the following research questions:

RQ1. In what ways, if any, do students perceive OCC via social media facilitating greater engagement with faculty?

RQ2. In what ways, if any, do students perceive the PLEs provided in social media as a connection point with faculty as being valuable for learning?

RQ3. In what ways, if any, does an educator's use of social media influence students' perceptions of faculty credibility?

METHODOLOGY

To address these questions, online surveys were employed at a small, private university campus in Southern California. Students were recruited via email and social media, from a variety of majors and classes, to participate. Students did not receive compensation or class credit. This study used a 32-item survey questionnaire that was provided via Survey Monkey, a well-known company that facilitates the creation and implementation of online research. There were 178 complete surveys, with an 85.6% completion rate. A purposive sample was used because this study was designed to specifically explore perceptions of undergraduate students, "rather than generalize results to a population, as in the case of random or representative sampling based on probability" (Isaac & Michael, 1995, p. 223).

The research instrument included a mix of Likert-scale questions and open-ended questions. This study opted to code the open-ended questions and used a quantitative content analysis due to the fact that this research technique is used for "the objective, systematic and quantitative description of the manifest content of communication" (Berelson, 1952, p. 18). This method is one that will allow for the identifying of specific "characteristics of messages" (Holsti, 1969, p. 14). In other words, the open-ended questions afforded the opportunity to look at the content provided and identify characteristics or commonalities in

responses. Due to the limited research that currently exists on this topic, this is an appropriate method to be able to identify themes and characteristics that have not previously been identified in studies. Maykut and Morehouse (1994) suggest that “words are the way that most people come to understand their situations; we create our world with words; we explain ourselves with words; we defend and hide ourselves with words” (p. 18). In light of this, it is the researcher’s task to “find patterns within those words and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it” (p. 18). Statistical analysis was performed using SPSS to offer additional insights into the research questions.

ANALYSIS

Descriptive Statistics

Descriptive statistics were first performed on the data to understand the population who participated in the study. Out of the 178 participants, 126 (70.8%) were female and 52 (29.2%) were male. Participants represented more than 20 majors and spanned all class ranks, including 15 freshman (8.5%), 37 sophomores (20.9%), 66 juniors (37.3%), and 59 seniors (33.3%). The majority of participants ($n=175$) used social media personally. Out of the participants, 116 students (67.0%) said that they did not use social media to interact with faculty.

RQ1: In what ways, if any, do students perceive OCC via social media facilitating greater engagement with faculty?

In order to understand what factors influenced students’ perception of connection with faculty via social media, four multivariate analysis of variance (MANOVA) were performed using categorical data and Likert-scale items from the survey.

The Likert-scale items included in the MANOVA that focused specifically on connection with faculty via social media were:

1. students will feel like they know faculty who use social media better than they know faculty who do not;
2. being connected with faculty through social media helps faculty know them more;
3. faculty perceptions of students are influenced by student social media profiles;
4. faculty who are on social media are more approachable.

These four Likert-scale items were used in a MANOVA as the dependent variables, with four categorical variables as the independent variables:

- A. spending time on social media;
- B. class rank;
- C. gender;
- D. required social media use in classes.

Four separate hypotheses were used to address the potential relationship of categorical variables to the construct of feeling known on social media. Time on social media has previously been shown to be a categorical variable that may influence participants’ perspective of connections via social media. Additionally, gender and class rank have been identified in previous student/faculty research to potentially influence research outcomes. Finally, due to the study specifically examining social media, there was the potential that required use of social media for a course influenced whether students felt connected.

H1: Students who A) spend more time on social media will be more likely to 1) feel more known by faculty, 2) feel that they know faculty more, 3) feel that faculty perceptions of students are influenced by social media and 4) feel that faculty who are on social media are more approachable. The hypothesis was supported: Wilks’ lambda=.83, $F(16,495.5) = 2$, $p < .05$.

H2: Students with B) a lower class rank will be more likely to 1) feel more known by faculty, 2) feel that they know faculty more, 3) feel that faculty perception of students is influenced by

social media and 4) feel that faculty who are on social media are more approachable. This hypothesis was not supported.

H3: Students who are C) Female will be more likely to 1) feel more known by faculty, 2) feel that they know faculty more, 3) feel that faculty perception of students is influenced by social media and 4) feel that faculty who are on social media are more approachable. This hypothesis was supported: Wilks' $\lambda = .94$, $F(4,168) = 2.6$, $p < .05$.

H4: Students who are D) required to use social media for class will be more likely to 1) feel more known by faculty, 2) feel that they know faculty more, 3) feel that faculty perception of students is influenced by social media and 4) feel that faculty who are on social media are more approachable. This hypothesis was supported: Wilks' $\lambda = .94$, $F(4,165) = 2.5$, $p < .05$.

RQ2: In what ways, if any, do students perceive the PLEs provided in social media as a connection point with faculty as being valuable for learning?

In order to understand what factors influenced students' perception that social media PLEs increased connection with faculty in social media, three multiple regression analyses were run to explore the relationship between communication and connection with faculty to perceived learning on social media.

The four items Likert-scale items related to connection with a professor due to social media were:

1. feeling that they know faculty who use social media better than they know faculty who do not;
2. being connected with faculty through social media helps faculty know them more;
3. faculty perceptions of students are influenced by student social media profiles;

4. that faculty who are on social media are more approachable.

These four items were used together as independent variables with a single dependent variable that focused on perceived learning. To fully address the kinds of perceived learning, three separate multiple regression analyses to measure perceptions of student learning used the following three Likert-items:

- A. Students feeling that they perform better in courses;
- B. Students asking questions pertaining to class via social media;
- C. Students feeling that what a faculty posts on social media encourages them to independently research topics in three separate hypotheses.

H5: Students who 1) feel that they know faculty who use social media better than they know faculty who do not, 2) feel that being connected with faculty through social media helps faculty know them more, 3) feel that faculty perceptions of students are influenced by student social media profiles, and 4) feel that faculty who are on social media are more approachable will result in A) students feeling that they perform better in classes that have faculty who use social media. This model proved to be significant: $F=63.1$, $df=4$, $p < .01$. The total variance explained by the model was 60.2%. The item of "feeling that being connected with faculty through social media helps them know a student more" was the strongest effect on whether students feel like they perform better in classes that have faculty who use social media ($\beta = .5$). Feeling that faculty members on social media are more approachable was the second greatest effect on the independent variable ($\beta = .24$).

H6. Students who 1) feel that they know faculty who use social media better than they know faculty who do not, 2) feel that being connected with faculty through social media helps faculty know them more, 3) feel that

faculty perceptions of students are influences by student social media profiles, and 4) feel that faculty who are on social media are more approachable will result in B) students asking professors questions pertaining to class on social media. This model proved significant: $F=18$, $df=4$, $p < .01$. The total variance explained by the model was 30.3%. The item “being connected with faculty through social media helps them know a student more” is, again, the strongest effect on the independent variable ($\beta=.3$). Feeling that students know faculty who use social media better than they know faculty who do not was the second-greatest effect on the independent variable ($\beta=.27$).

H7: Students who 1) feel that they know faculty who use social media better than they know faculty who do not, 2) feel that being connected with faculty through social media helps faculty know them more, 3) feel that faculty perceptions of students are influences by student social media profiles, and 4) feel that faculty who are on social media are more approachable will result in C) a student feeling that what a faculty posts on social media encourages them to independently research topics. This model was significant: $F=30.3$, $df=4$, $p < .01$, with the total variance explained by the model being 42.1%. The item “feeling that being connected with faculty through social media helps them know a student more” is, again, the strongest effect on the independent variable ($\beta=.28$). Feeling that students know faculty who use social media better than they know those who do not was the second-greatest effect on the independent variable ($\beta=.25$).

RQ3: In what ways, if any, does an educator’s use of social media influence students’ perceptions of faculty credibility?

To address this question, responses were collected from the two open-ended questions on the survey. The first question asked: What are things

that faculty do through social media that are particularly beneficial or effective in the academic setting?

As previously noted, responses were analyzed using quantitative content analysis in order to establish message characteristics. Due to limited research, no existing literature provided a framework on what categories should be established when coding, so the manifest content was coded by identifying similar characteristics among the comments. There were four large categories that emerged from the coding as being things faculty do on social media that are effective in an academic setting:

1. Sharing Resources ($n= 38$; 33.93%): This category was defined as comments related to professors sharing professional resources about their expertise or related to academic-specific situations, such as additional resources for classes that are not required but may be of interest.
2. Class Information ($n=34$; 30.36%): This category was defined as comments related to professors sharing class-specific information such as reminders on deadlines, answering homework questions and responding to student queries on assignments.
3. Engaging Students ($n=17$; 15.18%): This category was defined as comments related to professors interacting with students relating to issues that are outside of academic expertise (such as interactions around sharing resources) or related to class-specific questions.
4. Personal Information ($n=11$; 9.82%): This category was defined as comments related to professors providing personal information such as updates on recreational activities, family information, or personal opinions on topics such as politics, culture, and entertainment.

A fifth category was identified for responses that could not be categorized, did not provide any feedback on positive faculty use, or were incomplete ($n=17$; 15.2%).

Sharing resources. The highest category of responses was in “sharing resources.” One participant, for example, shared: “When faculty post links to articles and trustworthy news sites it helps me to broaden my perspectives by following that particular discussion.” Others included responses such as “Posting articles that are related to their course that students might be interested in” and “It’s easier to find links to videos that they recommend when they post it up on their wall or in a group page.” Participants repeatedly mentioned posting articles or resources that pertain either directly to a class or the discipline as a whole as something that they found helpful from faculty.

Class information. The second-highest category from this question was “class information.” Responses in the “class information” category included feedback such as: “Continuing class discussions on social media. Also, highlighting what classes are doing helps reaffirm important lessons from the class” “Maybe talk about current research or projects that they are working on that apply to the topic of discussion in their class” and “[They] are available to talk if you have a question more easily and the response time can be faster.”

Engaging students. The third most prominent category was students talking about faculty engaging or interacting with them through social media. One student mentioned that this “Aids in quicker response time of feedback. Faculty seem more approachable. I respect the faculty who use social media more because they are entering into the modern age where my peers and I are growing up in.” Students also identified the humanization of interaction with faculty being significant, with one student expressing appreciation for faculty who used social media to engage “on a human level, treating students as equal members of society.” Another student noted that when faculty engage students “They

can help encourage and give ideas beyond the classroom and beyond getting grades.”

Personal information. Personal information seems to heavily relate to disclosure in the context of social media. One student said “I really like just knowing about their lives through posts on social media. It’s encouraging to know that they care enough about me as a person to make themselves approachable as a person.” Another student mentioned “it is good when professors post their interests or just semi-personal things and it makes them more of a person instead of just a professor.” Students also identified the way personal disclosure helps with making faculty members more approachable: “I think social media build relationship and helps faculty members seem more approachable.”

The second open-ended question addressed what faculty do via social media that is ineffective or hinders students. Responses were coded as described above. The categories were identified that posed problems for faculty use of social media included:

1) Self-Disclosure ($n=46$; 45.54%): This category was defined as comments related to professors sharing personal information. While it is similar to the positive category of *personal information*, self-disclosure in this sense incorporated concepts such as when professors complain about situations, give personal updates on activities during social time that may impact perceptions of the professor, and provide opinions that students may not share and thus impact the professor’s credibility in the eyes of students.

2) Professional Boundaries ($n=16$; 15.84%): This category was defined as comments related to specifics of comments about the professors’ jobs, including negative statements about students or grading of assignments, posts that illustrate too personal of a relationship with other peers in the course or program, and efforts to be highly interpersonal via social media with students instead of maintaining a professional relationship when interacting.

3) Other responses ($n=39$; 38.6%). The interesting observation regarding responses that fell into the “other” category was the number that either did not identify any problem with social media usage by faculty or simply responded with N/A. A few commented on a lack of understanding by faculty about how to use social media and that proving to be problematic, or in the number of times a faculty person would post.

Self-disclosure. By far, the most prominent category was “self-disclosure” as an area that participants identified as problematic. Participants repeatedly shared comments such as: “It is weird when they complain about menial things on social media. it makes me look up to them less,” “There is a risk that students lose some of their respect for faculty when they post about personal experiences and opinions,” “Personal updates, anything which might taint my view of a professor’s professionalism. We’re not peers” and “If a student interacts with a teacher on social media, it can be hindering to the student. It blurs the lines between student and teacher, which can cause problems for both parties.”

Professional boundaries. The second category of “professional boundaries” was also mentioned frequently. Students mentioned things that impacted their view of faculty professionalism such as when faculty “Complain about classes they’re teaching/students, or post excessively. More unhelpful with they aren’t personable” or “When faculty develops a ‘casual’ relationship with a student, it undermines their authority in the class room, and can make it difficult for optimal learning to take place. It also becomes difficult for the faculty member to remain unbiased as they get to know the student more via social media. This is oftentimes unfair to the other students in the class, if not the specific student himself/herself” and “Trying too hard to be our friends instead of teacher.”

DISCUSSION

Students’ Perceptions of OCC via Social Media Facilitating Greater Engagement with Faculty

The first portion of this study examined whether OCC via social media facilitated the feeling of greater connection and engagement with faculty. While class rank was not a factor that influenced these perceptions by students, results indicate that there are certain factors that will play a role in students’ perceptions of connection. This study found that students who use social media more often or are required to use social media in class will tend to believe that they know faculty better as a result of OCC via social media. In addition, this study found that gender plays a part in the perception of connection to faculty through OCC via social media. While faculty often struggle with whether to integrate social media into a course (Junco, Heiberger, & Loken, 2011; Mazer, Murphy, & Simonds, 2007), these findings suggest that requiring use of social media, thereby giving parameters to the expectations of the student for the application and information on social media, may help build OCC between faculty and students in a positive way for learning environments. Additionally, as students continue to use social media for longer amounts of time in any given day, often frequently checking in and out, the influence of this OCC communication with a faculty member may have even larger influence on the students’ motivation and performance in a course (Jaasma & Koper, 1999).

Developing Personal Learning Environments Via Social Media

The second area of this study explored whether PLEs in digital technology were perceived as effective by students who have faculty who use social media. Previous studies support the idea that students who feel more connected to faculty and those who engage in OCC will be more likely to feel that they perform better in classes (DeAndrea, et al., 2012; Hung & Yuen, 2010). This study is built on the OCC construct by integrating

social media as pedagogical approach by developing PLEs in courses. This study found that students who have a high connection through social media with faculty believe they perform better in courses, are more willing to ask questions via social media regarding topics related to class content, and that faculty posts encourage students to independently research topics. This finding supports Dabbagh and Kitsantas (2012), who suggested that there are three levels of engagement by students with PLEs, as described earlier. The findings from this study suggest that when social media is clearly integrated into a course with set expectations of being a learning environment by both the faculty and students, there is a strong potential for faculty to develop all three levels of PLEs for students. This has the capacity for students to independently pursue learning goals in relation to course content as a result of social media, making formal and informal learning more dynamic.

Students' Perceptions of Faculty Credibility Social Media Interaction

The third research question explored the influence of social media communication with professors and students' perceptions of faculty credibility. As previously mentioned, there are some significant hesitations faculty hold regarding using social media for OCC and PLEs. This relates to many factors, including the potential for privacy breaches, learning distractions and blurring of professional lines (Seaman & Tinti-Kane, 2013). However, research also shows that social media use is only increasing in higher education (Amador & Amador, 2014; Junco, 2012). Faculty must grapple with the reality that this increasing use of social media seems to have a direct connection to their personal brands and credibility in the eyes of their students.

The results of this study indicate that there is a fine line which faculty must balance when using social media. While students appreciated learning more about faculty and their personal lives, they often expressed disappointment in faculty

who shared too many opinions, blurred the lines between faculty and friend, or posted too often. Students seemed to prefer a greater level of reflection by faculty prior to self-disclosure via social media. In some ways, students seemed to indicate an expectation that faculty would treat social media as they would a classroom environment, not sharing more details or opinions than they might in a face-to-face class setting.

Despite the hesitation and concerns expressed in regards to excessive self-disclosure, this study indicates that OCC and PLEs via social media were highly appreciated, even desired, by students. In fact, while the negative dimensions to faculty use of social media seems to have a strong capacity to hinder learning and faculty credibility, this study indicates that appropriate application of social media into the context of higher education has an equally strong potential to increase student learning and perception of faculty credibility. Faculty should approach social media with a professional brand in mind, considering the platforms as a public presence. The level of self-disclosure needs to be considered in the context of a professional setting, as social media has a wide reach and exposure for many audiences (from family members to students). Faculty should consider their social media use as a public presence due to the nature of online interaction. While this does not prohibit sharing personal information and concepts, it does affect the frequency and type of content that faculty may consider posting. In addition, this study supports the idea that students appreciate and learn from faculty who use social media strategically. They feel connected to faculty who use social media to share research interests and resources from class and who will engage and encourage students in their PLEs by interacting with them directly.

Ultimately, this study supports the idea that faculty credibility has the capacity to be built or harmed through self-disclosure on social media. Perhaps most significantly, the direct implications of a faculty members' credibility via social media also seems to impact whether students feel

they will have a robust learning experience in faculty members' courses.

Limitations

This study provided a foundation for understanding how OCC and PLEs via social media may influence students' perceptions of faculty credibility. However, a larger and more diverse sampling would be beneficial to support these findings. This study was contained to a small, private university in Southern California. A national sampling that includes both public and private, as well as multiple sizes of universities, would help in understanding this area of research more.

Future Research

In the future, studies that focus on more activities and actions that faculty do via social media in relation to students' PLEs would be beneficial. This study examined students' perceptions, but it would be beneficial to measure tangible outcomes of student learning in addition to perceptions. In addition, future studies might explore the relation between what students perceive as appropriate self-disclosure and inappropriate self-disclosure by a faculty member.

CONCLUSION

The integration of social media into university settings creates new prospects and potential threats for faculty. As classes become filled with digital natives, faculty are faced with managing increased accessibility of students, extended working hours, and potential privacy concerns. Yet this study indicates that, coupled with these potential obstacles, faculty have the opportunity to have unprecedented OCC due to the use of social media, and the capacity to develop PLEs that are uniquely appropriate to individual learners and styles. In addition, due to social media, there is the capacity for students to feel a deep connection with faculty and the opportunity for faculty to foster a credible, professional brand in ways that have yet to be fully understood within higher education. In the coming decades, as the

landscape of higher education changes in many ways, the method through which faculty choose to engage with students will have a significant impact on student learning and motivation within an academic setting.

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