An Examination of Student Perceptions of Teacher Social Media Use in the Classroom

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ABSTRACT

Equipping students with knowledge, skills, and abilities in social media requires incorporating social media into communication classes. This study explores how teachers are adopting social media and the impact classroom adoption of social media is having on students' perceptions of their teacher's technological coolness and credibility. Survey data was collected from students at three U.S. universities. Data revealed using social media platforms that are not widely adopted in communication classrooms (i.e., Instagram, Snapchat, Pinterest, LinkedIn, etc.) positively influences perceptions of technological coolness (originality and attractiveness) more than the mainstream social media platforms students are accustomed to teachers integrating into the curriculum (i.e., Facebook, YouTube, and Twitter). Additionally, adopting non-mainstream social media platforms positively impacts teacher credibility (trustworthiness and goodwill) among students who use these platforms more frequently. Findings suggest students positively evaluate teachers who stay up-to-date on social media and experiment with newer platforms in their classes.

Keywords: Social media use, teacher credibility, technological coolness, pedagogy

Public relations professors often talk about being models for students (e.g., Remund & Freberg, 2013). However, changes in communication technology (Daniels, 2018; USC Annenberg Center for Public Relations, 2019; The Plank Center for Leadership in Public Relations, 2019; Wright & Hinson, 2017) and in the generational expectations of students (Kim, 2018) make it difficult for public relations educators to stay on top of new technology trends and simultaneously master them to the point that they can teach their students how to use them effectively. Nevertheless, public relations practitioners and academics recognize that new technologies, including social media, must now be an integral part of the public relations curriculum (Commission on Public Relations Education, 2018). In fact, The Commission on Public Relations Education's (2018) latest report on undergraduate education recommends that "as much as possible, technology tools should be incorporated into courses" (p. 94) in order to "equip students with the needed knowledge, skills, and abilities (KSAs) to best serve the practice of public relations" (p. 85).

From a practitioner perspective, social media has widespread implications for organizations particularly in terms of organizational reputation (Agozzino, 2012; Floreddu et al., 2014). Social media is defined as "open source (i.e. publicly accessible) media sites on the internet that accept user-generated content and foster social interaction" (Stacks & Bowen, 2013, p. 30). Scholars have argued that public relations professionals view social media use as a means of credibility building, as well as a venue for sharing transparent and accurate information on behalf of clients (Wright & Hinson, 2012). As a result, how public relations professors teach up-and-coming professionals about social media may have a significant impact in social media use for the public relations industry. A variety of studies have been conducted to understand how public relations educators are using social media in their undergraduate classrooms (e.g., Ewing et al., 2018; Zhang & Freberg, 2018) from the

instructors' perspective. Similar to research conducted by Tatone et al. (2017), this study examines students' perspectives about teacher adoption and use of social media for educational purposes. Specifically, this study assesses student perceptions of social media use in the classroom and the effect of those perceptions on how students evaluate teachers in terms of technological coolness and credibility to offer practical and theoretical implications as a means of informing social media pedagogy.

Literature Review

This study is situated at the intersection of social media classroom trends, teacher credibility, and the technological coolness literature.

Social Media Classroom Trends

In a national survey of higher education faculty ($N = 7,969$), Seaman and Tinti-Kane (2013) found respondents who reported using social media as a teaching tool (41%) lagged behind respondents' professional (55%) and personal (70.3%) social media use. Among the faculty respondents who used social media in their teaching, middle-aged faculty members, ages 35-54, had higher rates of using social media for teaching purposes than younger faculty (under 35). Additionally, faculty in the disciplines of arts and humanities as well as applied sciences used social media as a teaching tool at a higher rate than faculty in other disciplines. The most frequently used social media platforms for teaching were: (1) Blogs and wikis (26.9%), (2) podcasts (16.3%), (3) LinkedIn (11.1%), (4) Facebook (8.4%), and (5) Twitter (4.1%).

Seaman and Tinti-Kane (2013) explained lower adoption rates of social media in teaching is likely due to the concerns of faculty. Two of the top faculty concerns about these publicly accessible platforms included integrity of student submissions and privacy.

Researchers have observed similar trends among mass communication faculty. McCorkindale (2013) found that only a third of the public relations professors who had a Facebook or Twitter account

used those social media platforms in their classes. She also reported public relations professors were divided about whether it was appropriate to become "friends" with students on Facebook or connect with students on Twitter because of concerns about professionalism and privacy. However, according to Kothari and Hickerson (2016), nearly three-quarters of journalism faculty said they used Twitter in the classroom, while 42% reported using Facebook, to teach students about recruiting sources, crowd-sourcing ideas and promoting stories.

Remund and Freberg (2013) suggested public relations professors should embrace the role of social connector as they prepare students for an increasingly interconnected, digital world. According to these scholars (Remund & Freberg, 2013), becoming a social connector requires professors to "[build] and [leverage] social networks to implement pedagogical methods much richer and dynamic than the traditional classroom experience" (p. 2). As a result, public relations professors must become active users of social media channels, model online reputation management, and facilitate collaboration between students and professionals.

Studies have evaluated the use of Twitter in public relations classrooms. Fraustino et al. (2015) conducted Twitter chat discussions and found that students reported learning about public relations concepts including professionalism, media influence, crisis communication, social media campaigns, and best practices. They also noted Twitter facilitated experiential learning because students were able to see learning as a process, as constructing and deconstructing knowledge and as conversation. Similarly, Tatone et al. (2017) tested Twitter use in a large lecture class. Subsequent focus groups with students revealed that using Twitter created a sense of classroom community and allowed them to learn from a variety of opinions. However, students also noted Twitter use during class could turn into a distraction because of the temptation to use

their smartphones for non-academic purposes. Additionally, they noted this distraction sometimes caused some students to compete to be the most entertaining with their posts.

Teacher Credibility and Social Media

One of the most important concepts affecting the student-teacher relationship in the instructional literature is teacher credibility (Carr et al., 2013). Teacher credibility was originally derived from the rhetorical research on source credibility, which was defined as "the attitude toward a source of communication held at a given time by a communicator" (McCroskey & Young, 1981, p. 24). Building on this definition, scholars have defined teacher credibility as student attitudes toward a teacher that are based on observations of the teacher's communication behavior (Schrodt et al., 2009; Teven & McCroskey, 1997). Also, researchers have identified three dimensions of teacher credibility: competence, trustworthiness and caring (DeGroot et al., 2015; McCroskey & Teven, 1999; Teven & McCroskey, 1997). Competence relates to the instructor's perceived expertise in a given subject area. Trustworthiness describes a teacher's perceived character and sincerity. Caring has been described as the degree to which an instructor shows concern for his/her students' welfare.

Finn and colleagues' (2009) meta-analysis found that teacher credibility was related to a variety of student learning outcomes and teaching behaviors. For instance, student learning outcomes that have been shown to be related to teacher credibility include enhanced motivation to learn and improved cognitive learning. Additionally, teaching strategies, such as affinity-seeking, and teaching behaviors, including immediacy, assertiveness and humor, also have relationships with teacher credibility. Interestingly, moderate technology use has been shown to increase teacher credibility (Schrodt & Turman, 2005; Schrodt & Witt, 2006).

With the proliferation of publicly accessible social media channels

and their potential as learning and communication tools (Junco et al., 2011; Waters & Bortree, 2011), scholars have investigated the impact of instructors' use of these channels and its impact on teacher credibility. For example, Johnson's (2011) experimental study found that an instructor's Twitter profile with socially-oriented posts produced higher perceived teacher credibility among student participants than a profile with only scholarly posts. The results also showed perceptions of teacher credibility were moderated by students' level of comfort viewing a Twitter profile and whether students thought it was a good idea for a college professor to have a publicly accessible Twitter account. Her findings also showed that students were split on the question of whether professors should have a Twitter account that students can see. Those who thought it was a bad idea (47%) reported that the professor's account may display unprofessional content, it may eliminate social boundaries, and it might decrease students' respect for the professor. Those who felt that it was a good idea noted that the Twitter account could help the professor seem more approachable, more human, and up-to-date on the latest technology.

However, in a related experiment, DeGroot et al.(2015) reported students scored an instructor's Twitter profile higher on teacher credibility when the tweets were strictly professional. Additionally, they found students were more likely to give the instructor higher credibility ratings when the students thought it was a good idea for instructors to use Twitter. As a result, DeGroot and colleagues identified three core reasons a professor should use Twitter: (1) to extend the classroom; (2) to improve student–instructor relationships; and (3) to teach students how to use Twitter in a professional manner. They also provided two reasons professors should not have a public Twitter account: (1) It can violate typical classroom and time expectations, and (2) the boundaries between students and instructors might be broken down in a negative way.

McArthur and Bostedo-Conway (2012) conducted a study of

student-instructor interaction on Twitter. They operationalized this interaction as the student-reported frequency of reading instructor tweets and writing their own tweets. They reported that student perceptions of teacher credibility were related to student frequency of Twitter use. They explained, "students did not perceive greater feelings of character, competence, or caring from instructors using Twitter unless they used Twitter themselves" (p. 289).

Technological Coolness in the Classroom

Research shows beliefs, attitudes and subjective norms lead to behavior (Ajzen, 1991; Bean & Eaton, 2000). Likewise, students' perceptions of their educational environment, including perceptions of their teacher, play a pivotal role in how receptive students are to learning (Carr et al., 2013; McCormick et al., 2013). These perceptions also influence students' educational satisfaction, learning outcomes and the educational path they choose (Finn et al., 2009; Schrodt et al., 2009).

One aspect of the educational environment is the technology instructors employ for teaching students. With public relations practitioners and scholars (Commission on Public Relations Education, 2018) encouraging professors to stay up-to-date with and incorporate communication technologies, including social media, into the curriculum, it becomes increasingly important to understand the influence these technologies are having on perceptions of teachers. Current research about pedagogy in public relations does not specify the impact of teachers incorporating newer versus older forms of communication technologies in the classroom on student perceptions. In order to examine perceptions of teachers who adopt different types of social media channels, this study adopts the concept of coolness from the consumer marketing literature and applies it to student perceptions of teacher's technology use.

While teachers don't necessarily seek or even desire to be perceived by their students as a cool person, students formulate

perceptions about their teacher's use of technology. In general, coolness is a positive evaluation attributed to either a person, a thing (e.g., product or technology), or a brand that deviates from the norm and in doing so provides a unique or hip socially desirable contribution to the social environment (Dar-Nimrod et al., 2012; Sundar et al., 2014). Specifically, the focus of coolness in this research is centered on a thing (i.e., a social media platform) rather than on a person (i.e., the professor). Student perceptions of a teacher's technology use, which are referred to in this study as perceived technological coolness, result from teachers adopting newer communication technologies (i.e., social media) in their classrooms. Students associate new technologies in the classroom as being attractive, hip, or unique. For example, Sundar and colleagues (2014) found users considered communication technology devices cool if they were "novel, attractive and capable of building a subculture around it" (p. 179). In other words, technological coolness is not a popularity contest, nor is it about liking the technology or its degree of usefulness (Dar-Nimrod et al., 2012; Sundar et al., 2014).

Student perceptions of classroom technology use can heighten expectations and can lead to negative evaluations, particularly when expectations are not met. Such is the case when cool communication technology devices come on the market and underwhelm consumers by not performing to expectations or meeting expectations (Sundar et al., 2014; Sundar, 2008).

As new technology ages and more teachers adopt it for classroom use, student perceptions of the coolness of the technology evolve (Dar-Nimrod et al., 2012; Sundar et al., 2014). The more widespread a trend, the less autonomous it becomes and the less cool it is perceived (Berger, 2008; Warren & Campbell, 2014; Sundar et al., 2014). Through a series of experiments Warren and Campbell (2014) explored the relationship between autonomy and coolness. In their research, consumers perceived a

product design that deviated from the norm as being cooler than a typical product design that reflected the norm. However, deviating too far from the norm did not necessarily influence perceptions positively. Researchers found a curvilinear relationship between the level of autonomy and perceptions of coolness, with those ideas that deviated too far from the norm influencing perceptions negatively (Warren & Campbell, 2014). Essentially, when a trend or technology is widely adopted, it loses its coolness (Berger, 2008; Sundar et al., 2014; Warren & Campbell, 2014).

Anik (2018) suggests one challenge of maintaining the perception of being cool is "keeping up with ever-changing trends and fads while still being perceived as autonomous, authentic and having an attitude" (para. 19). The same could be argued for faculty who aim to engage with students in meaningful ways and strive to enhance student learning by using newer social media platforms as pedagogical tools. Much like evaluations of cool technology, student's perceptions of technological coolness (i.e., perceptions of teachers' use of communication technology—social media—in the classroom) are likely to evolve, making it difficult for teachers to remain perceptively cool without adopting the latest technology trends within their classrooms (Anik, 2018; Sundar et al., 2014).

Research Questions

Literature reviewed for this study presented opportunities for further research regarding students' perceptions of teacher credibility, technological coolness, and social media use in communication classrooms. The following research questions are offered:

RQ1. How do students report that teachers use social media platforms for teaching purposes in communication courses?

RQ2: To what extent does teacher use of social media platforms in communication classes affect student perceptions of technological coolness?

RQ3: To what extent does teacher use of social media platforms in communication classes affect student perceptions of teacher credibility?

RQ4: To what extent are student perceptions of technological coolness related to their perceptions of teacher credibility?

Methodology

Participants

Participants were college students (N=330) enrolled in communication programs at one of three universities across the United States. Communication students were recruited at universities ranging in size from 10,000 to 35,000 students, with two of the universities enrolling 30,000 to 35,000 students per year. Within the sample, 24% of the participants were male (n =78), 62% (n = 206) were female, and 14% (n = 45) did not self-identify. Students ranged from 19 to 46 years in age (M=22.36; SD = 3.05). A majority of the students were seniors (47%; n = 154) and juniors (33%; n = 108). Because students had to be taking classes within their major (i.e., public relations, journalism, advertising, etc.), students were more likely to be upperclassmen opposed to freshmen (0.3%; n =1) and sophomores (7%; n = 22).

As shown in Table 1, data collected from students in this study are reflective of national social media platform trends. Students primarily use Facebook (94%), Instagram (91%), YouTube (89%), and Snapchat (72%) at least one or more days per week. Students also reported their teachers are using Facebook (49%) and YouTube (19%) more than any other platform in their classes. A national study conducted by the Pew Research Center (Perrin & Anderson, 2019) revealed people 18-24 years old use YouTube (90%), Facebook (76%), Instagram (75%), and Snapchat (73%) the most, with U.S. adults using YouTube (73%) and Facebook (69%) more than any other platform.

Table 1

Use of Social Media Platforms Identified in this Study and from a National Study

	U.S. Adult Use		Study's Sample	
	U.S. Adults	18-24-year-olds	Teacher Use	Student Use
Social Media Platform	%	%	*n* (%)	*n* (%)
Facebook	69%	76%	163 (49.4%)	269 (94.4%)
YouTube	73%	90%	64 (19.4%)	254 (89.1%)
Twitter	22%	44%	44 (13.3%)	186 (65.3%)
Instagram	37%	75%	23 (7%)	260 (91.2%)
LinkedIn	27%	17%	19 (5.8%)	200 (70.2%)
Other	N/A	N/A	9 (2.7%)	N/A
Snapchat	24%	73%	6 (1.8%)	204 (71.6%)
Pinterest	28%	38%	2 (0.6%)	174 (70.2%)

Note. Data from U.S. adults reflects those people who said they have ever used the social media platform. This national survey data was collected by Pew Research Center from Jan. 8 to Feb. 7, 2019 (Perrin & Anderson, 2019). Data from the study's sample reflects students' typical use of these platforms at least one or more days per week as well as the social media platforms students reported their communication's professor used most recently for teaching one of their classes. Other social media platforms reflect student reports of faculty use of Vimeo, Blogger, and Slack.

Procedures

Data for this study was collected from college students enrolled in communications programs at three universities in the western, eastern, and southeastern part of the United States. Students minoring in communications and pre-majors were not included in the study. The online survey was sent to a purposive sample of students majoring in communications at each of the respective universities. The survey was distributed to students after Institutional Review Board approval. As an

incentive, participants were entered into a drawing for one of four $25 Amazon gift cards.

Measures

Only students who indicated they had a communications professor who used social media for teaching purposes were allowed to participate in the study. Before completing the survey, students were told to "think about the communications professor who most recently used social media for teaching one of your classes" and then indicate which platform their professor used the most: Facebook, Instagram, Twitter, Snapchat, Instagram, YouTube, and LinkedIn. Afterwards, students described how the social media platform was used in class. As part of the qualitative analysis of the open-ended question, common topics and ideas were identified when they were repeated throughout student comments. The topics and ideas were grouped into themes and then reported by social media platform.

Teacher Credibility. To measure student evaluations of teacher credibility, this study adopted McCroskey and Teven's (1999) 18-item teacher credibility scale. This scale consists of three subscales that measure the three dimensions of teacher credibility: competence, trustworthiness (McCroskey & Young, 1981) and goodwill (Teven & McCroskey, 1997). Each subscale consists of six indicators that use seven-point semantic differential response scales. For example, indicators of trustworthiness are: (1) honest/dishonest, (2) untrustworthy/trustworthy, (3) honorable/dishonorable, (4) moral/immoral, (5) unethical/ethical, and (6) phony/genuine. The competence indicators are: (1) intelligent/unintelligent, (2) untrained/trained, (3) inexpert/expert, (4) informed/uninformed, (5) incompetent/competent, and (6) bright/stupid. The goodwill indicators are: (1) cares about me/doesn't care about me, (2) has my interests at heart/doesn't have my interests at heart, (3) self-centered/not self-centered, (4) concerned with me/unconcerned with me, (5)

insensitive/sensitive, and (6) not understanding/understanding. The teacher credibility scale has been found to be valid and reliable (e.g., Teven & McCroskey, 1997; Thweatt & McCroskey, 1998) and has been used to evaluate teacher credibility in a variety of teaching contexts (e.g., DeGroot et al., 2015; Johnson, 2011; Schrodt & Turman, 2005). All items were measured on seven-point Likert scales ranging from strongly disagree (1) to strongly agree (5). Cronbach's alpha for each factor was satisfactory: competence ($\alpha = 0.91$; $M = 6.22$, $SD = 1.02$), trustworthiness ($\alpha = 0.86$; $M = 6.40$, $SD = 0.90$), and goodwill ($\alpha = 0.91$; $M = 5.99$, $SD = 1.15$).

Technological Coolness. To gauge the impact of teachers' social media use in the classroom on student's perceptions, this study adapted the three-factor coolness measures (originality, attractiveness and subculture) from Sundar et al. (2014). These measures were originally developed for assessing perceptions of technology products. However, they are useful for gauging student perceptions of teachers' pedagogical use of social media as they have the potential to reveal the impact of adopting different forms of communication technology on individuals, or what is referred to in this study as technological coolness. Specifically, researchers adapted the five-item originality scale to measure college student perceptions about whether or not they felt their professor who used social media in the classroom was original, unique, out of the ordinary, stood apart from other communication professors, and was novel.

To gauge whether or not students perceived teachers who employed social media within the classroom as being up-to-date and leveraging modern communication technologies, researchers employed two attractiveness measures identified by Sundar et al. (2014). After participants were prompted to think about the communications professor who most recently used social media in the classroom, students assessed whether they considered that professor's use of social media to be hip or cutting edge. The other three attractiveness measures used by Sundar and

colleagues (2014) were not employed as they were more likely to produce evaluations of the teacher's personal appearance (e.g., this instructor is stylish, sexy, and hot) rather than the teacher's technology use (i.e. social media).

Assessments of the subculture surrounding classroom social media use was assessed using five items. Specifically, students were asked if instructors who use social media for teaching purposes are *different* from instructors who do not use it for teaching purposes. Students also indicated if instructors who use social media for teaching stand apart from other communication instructors as well as whether or not these instructors stand out from other instructors outside communications. The last two questions assessed whether or not instructors who use social media for teaching are unique and if students consider them to be better instructors than those who do not use social media for teaching purposes. All items were measured on five-point Likert scales ranging from strongly disagree (1) to strongly agree (5). Cronbach's alpha for each factor was satisfactory: originality ($\alpha = 0.90$; $M = 5.49$, $SD = 1.15$), attractiveness ($\alpha = 0.87$; $M = 5.15$, $SD = 1.51$), and subculture ($\alpha = 0.88$; $M = 5.23$, $SD = 1.18$).

Findings

RQ1. Student Reports of Social Media Platform Use

Table 2 outlines the various ways students explained how teachers incorporated social media into their communication classes. These themes emerged from the analysis of qualitative data.

Facebook*.* Half of the respondents said their instructors asked them to use Facebook to submit assignments. Additionally, students said their professors used Facebook for discussion prompts, receiving feedback, gathering assignments, and providing examples of concepts that were taught in class. Most students said they "loved" this, but a couple noted that it was just one more place to check notifications. One

student said, "I hated it because along with all the million other things I had to keep tabs on, I then had to keep tabs on Facebook, too. Which I honestly don't have time nor care to do." Eight percent of respondents also said their professors used Facebook as a teaching aid to help students understand its features, such as Facebook ads, algorithms, insights and analytics, and live streaming.

Twitter. More than half of the time (54%) students reported professors were leveraging Twitter for individual or in-class assignments. In addition, when used as a teaching aid, students praised the use of this interactive platform and liked it when professors used Twitter for illustrating concepts. One student shared, "We were assigned to tweet at a company to see how fast they responded! An experiment that taught us the power of social media…Making time for it showed that this professor was actually experienced in the field and prioritized an effective application activity like this over book work."

Twenty one percent of students who identified their professor used Twitter mentioned their professor used the platform to provide some kind of "how-to" lesson. These lessons included best practices for writing tweets, conducting research, and using analytics. For example, in one class, students had to write weekly tweets. Each week the student with the best tweet would win a prize. Some students said their professors use Twitter as a form of communication with them and one respondent said their professor took attendance via Twitter by using a specific hashtag.

Snapchat. Students who responded to the survey did not provide much input about their professors' use of Snapchat, but when they did provide more details, students indicated professors use the platform as a means of faculty-student communication. For example, one student said their professor held "Snapchat office hours" where the professor was available to provide students with out-of-class help while traveling for work.

Instagram. Thirty-six percent of respondents noted Instagram as being used as part of bigger assignments, such as campaign analytics or research projects. Students said their professors also used Instagram to show them how to create a personal branding page and how to do an Instagram story. One student shared, "I've had an art professor who has used Instagram to portray an artist's layout and I've had professors use it to teach us about personal brands and your online image as well."

Pinterest. Little information was provided by students about their professors' use of Pinterest; it was only mentioned briefly as being used to show students the basics on the nature of the platform.

LinkedIn. Respondents (67%) said their professors used LinkedIn primarily to teach students about career development, job hunting, and networking. Students said their professors required them to create profiles and upload portfolios of their work. The respondents also said their professors taught them how to properly communicate with others on LinkedIn. Students found this helpful and worth their time. One respondent said, "I had not been familiar with the social media outlet before, and it turned out to be extremely helpful for networking."

YouTube. Students overwhelmingly (77%) said their professors used YouTube as a teaching aid to show examples of concepts being taught. For example, respondents indicated they watched videos to see good and bad examples of advertisements, public relations, and visual concepts related to what they were discussing. Additionally, a few respondents said their professors had them upload video projects to YouTube, and then, the students would watch these video assignments in class and discuss.

Other. Students mentioned three additional digital platforms used by their professors: Slack, blog platforms, and Vimeo. Slack was used to communicate with students and upload assignments, in particular writing assignments. The blog platform was used to have students submit

Table 2

Student Explanations of How Teachers Use Social Media in Communication Classes

	Social Media Platform						
	Facebook	Twitter	Snapchat	Instagram	Pinterest	LinkedIn	YouTube
Reason for Using Platform	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Assignment submission / Replacement for class management system	138 (50%)	28 (54%)	0 (0%)	9 (36%)	0 (0%)	4 (22%)	10 (14%)
How-to use it/Best practices	12 (4%)	3 (6%)	0 (0%)	3 (12%)	1 (100%)	0 (0%)	5 (7%)
For faculty-student communication	22 (8%)	3 (6%)	4 (100%)	1 (4%)	0 (0%)	0 (0%)	0 (0%)
Networking/Career development/Personal branding	3 (1%)	0 (0%)	0 (0%)	1 (4%)	0 (0%)	12 (67%)	0 (0%)
Out of class teaching aid	19 (7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (3%)
Teaching aid to show examples /In-class interactive/workshop type activity	23 (8%)	11 (21%)	0 (0%)	2 (8%)	0 (0%)	1 (6%)	56 (77%)
Class discussion	32 (12%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)	1 (6%)	0 (0%)
For student-to-student communication (e. g. asking each other questions, giving each other feedback)	16 (6%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

As part of a larger assignment (e.g. analytics for a campaign, research for a client)	7 (3%)	5 (10%)	0 (0%)	9 (36%)	0 (0%)	0 (0%)	0 (0%)
Weekly live stream discussion/Q&As	5 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Attendance	0 (0%)	1 (1.9%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total *N* per Column	277	52	4	25	1	18	73

Note. Students were asked, "Which social media platform did your communication's professor use the most for your class?" This was followed up with a question about "How did he/she use the social media platform for your class?" Percentages in each column represent the frequency of students' mentions of how their professors used each social media platform. The number of responses vary depending upon how many people responded and also because some people gave multiple examples of how the social media platform was used.

writing assignments. Similar to YouTube, Vimeo was used to upload video assignments and watch examples in class. Half of respondents who mentioned these platforms noted assignment submission as a reason for using it.

RQ2. Student Perceptions of Technological Coolness

One-way ANCOVAs were run to determine whether students' perceptions of technological coolness differed based upon the type of social media platform teachers used in the classroom whilst controlling for perceived credibility. Perceived credibility was used as a covariate because research suggests (DeGroot et al., 2015) credibility influences student perceptions of teachers, which for purposes of this study is perceptions of technological coolness. The data revealed significant correlations between the three dimensions of coolness and credibility (see RQ4, Table 3). In

order to run credibility as a covariate, credibility was reduced to a single dimension ($M = 6.20$, $SD = 0.91$).

For the independent variable, social media platforms were divided into two groups. Researchers based these groups on the social media platforms students reported teachers using more and less frequently in the classroom. These groups were created because research suggests perceptions of coolness among technology devices are often diminished as technology adoption becomes more mainstream and widely adopted in society (Warren & Campbell, 2014). It was anticipated the same would be true for perceptions of teachers who use more mainstream social media channels. Therefore, social media that students perceived to be used more frequently in their communication classes were thereby considered mainstream.

Mainstream platforms were then compared with those platforms students reported teachers using less frequently. The mainstream social media platforms students reported teachers using more frequently than any other included Facebook, YouTube, and Twitter. The non-mainstream social media platforms teachers used less often in the classroom included Instagram, Snapchat, Pinterest, LinkedIn, and few other self-reported channels. Table 1 shows the prevalence of each social media platform students identified communication teachers were using in their classes. The researchers did not report or examine differences among each platform individually as the prevalence of each platform differed so widely. For example, students reported half of the teachers (49.4%) were using Facebook compared to 1.8% who were using Snapchat.

Originality. After adjustment for perceived teacher credibility, there was a statistically significant difference in perceptions of originality among teachers who use different social media platforms, $F(1, 280) = 7.09$, $p < .01$, partial $\eta^2 = .025$. The data provided includes the adjusted mean ± standard error. Teachers who used non-mainstream social media

(5.83 ± 0.14), were perceived to be significantly cooler than those who used mainstream social media (5.42 ± 0.06), a mean difference of 0.41 (95% CI, 5.29/5.56 to 5.55/6.11), $p < .05$.

Attractiveness. After adjustment for perceived teacher credibility, there was a statistically significant difference in perceived attractiveness among teachers who use mainstream vs. non-mainstream social media platforms, $F(1, 280) = 9.48$, $p < .01$, partial $\eta^2 = .033$. The data provided includes the adjusted mean ± standard error. Teachers who used non-mainstream social media (5.68 ± 0.19), were perceived to be significantly cooler than those who use mainstream social media (5.05 ± 0.08), a mean difference of 0.63 (95% CI, 4.88/5.31 to 5.21/6.04), $p < .05$.

Subculture. After adjustment for perceived teacher credibility, there was not a statistically significant difference in the cool subculture created by teachers who use mainstream versus non-mainstream platforms, $F(1, 281) = 1.63$, $p > .05$, partial $\eta^2 = .006$. The data provided includes the adjusted mean ± standard error. Teachers who used non-mainstream social media (5.42 ± 0.16) were not perceived to be significantly cooler than those who use mainstream social media (5.19 ± 0.07), a mean difference of 0.23 (95% CI, 5.05/5.10 to 5.34/5.74), $p > .05$.

RQ3. Student Perceptions of Teacher Credibility

For each dimension of credibility, a three-way (2 x 2 x 2) ANOVA was run to determine whether or not the type of social media teachers used (mainstream vs. non-mainstream) and the frequency with which students used mainstream (light users vs. heavy users) and non-mainstream (light users vs. heavy users) social media sites, influenced perceptions of teacher credibility. Frequency scores were calculated by adding the number of days a week students reported using each of the mainstream (Facebook, Twitter, and YouTube) and non-mainstream (Instagram, Snapchat, Pinterest, and LinkedIn) social media sites. Scores were then divided in half, with light users accessing the specified social media sites an average

of zero to three days per week and heavy users accessing the sites an average of four to seven days per week.

For goodwill, the omnibus test revealed a statistically significant simple two-way interaction between the type of social media teachers use and students who are heavy/light users of non-mainstream social media platforms, $F(1, 278) = 5.89$, $p < .05$, partial $\eta^2 = .021$, but not for mainstream social media platforms, $F(1, 279) = .67$, $p > .05$. The main effects as well as the other two-way and three-way interactions were not significant. One potential reason for the lack of significance among the additional interactions might be due to the fact that the sample did not include students who were both light users of mainstream social media and heavy users of non-mainstream social media sites.

For trustworthiness, data showed a statistically significant simple two-way interaction between the type of social media teachers use and students who are heavy/light users of non-mainstream social media platforms, $F(1, 279) = 5.41$, $p < .05$, partial $\eta^2 = .019$, but not for mainstream social media platforms, $F(1, 279) = 1.41$, $p > .05$. The main effects as well as the other two-way and three-way interactions were not significant.

For competence the omnibus test did not reveal any significant main effects or interactions.

Goodwill. To further investigate the significant one-way interaction for goodwill (teacher use of mainstream/non-mainstream social media and student use of non-mainstream social media platforms), a two-way ANOVA was run. The data revealed a significant interaction, $F(1, 280) = 5.63$, $p < .05$. Students who are light users of non-mainstream social media platforms consider teachers who use mainstream platforms to have more goodwill ($M = 6.13$, $SE = 0.10$) than students who use these platforms more often ($M = 5.75$, $SE = 0.12$). The opposite was true for teachers who use non-mainstream social media platforms. Teachers were perceived to

have more goodwill by students who use non-mainstream social media platforms more frequently (M = 6.45, SE = 0.26) opposed to students who did not use these platforms very much (M = 5.95, SE = 0.22).

   Trust. A similar two-way ANOVA was used to further investigate the significant one-way interaction for trust (teacher use of mainstream/ non-mainstream social media and student use of non-mainstream social media platforms). The data revealed a significant interaction, $F(1, 281)$ = 3.99, $p < .05$. Students who are light users of non-mainstream social media platforms consider teachers who use mainstream platforms to be more trustworthy (M = 6.49, SE = 0.08) than those students who use non-mainstream platforms more often (M = 6.29, SE = 0.09). The opposite was true for teachers who use non-mainstream social media platforms. These teachers were perceived as more trustworthy by students who frequently use non-mainstream social media platforms (M = 6.61, SE = 0.21) opposed to those who do not use these platforms very much (M = 6.21, SE = 0.17).

RQ4. Perceptions of Technological Coolness and Teacher Credibility

   A Pearson product-moment correlation coefficient was run to assess the relationship between technological coolness and teacher credibility. The data revealed a positive and relatively strong/moderate

Table 3

Relationship between Teacher Credibility and Technological Coolness

Credibility	Coolness: Originality r (*N*)	Coolness: Attractiveness r (*N*)	Coolness: Subculture r (*N*)
Competence	.526** (*284*)	.568** (*284*)	.338** (*285*)
Goodwill	.460** (*284*)	.427** (*284*)	.321** (*285*)
Trust	.414** (*285*)	.366** (*285*)	.299** (*286*)

**p<0.01 (2-tailed)

relationship between each dimension of credibility (competence, goodwill, and trust) and technological coolness (originality, attractiveness, and subculture). Table 3 shows the variables with the strongest relationships as being competence and attractiveness ($r =.568$) and competence and originality ($r =.526$).

Discussion

This study examined student perceptions of social media use in the classroom and technological coolness and their effect on teacher credibility. While some teachers may struggle with the topic of coolness as it relates to the classroom, it should be remembered that technological coolness is a measure of student perceptions of social media technology that has been adopted for classroom use. As seen in Table l, more than three-fourths of all teachers adopted one of the current mainstream social media platforms in their classrooms: Facebook, YouTube, and Twitter. Facebook was the teacher's preferred social media platform as half of the students reported teachers using it within the classroom.

Collectively, YouTube or Twitter was adopted by a third of the teachers. Primarily, they used YouTube to show curriculum-related videos in class and Twitter for one-off, in-class assignments. However, less than a fourth of teachers adopted one of the current non-mainstream platforms, even though these platforms were used by nearly two-thirds of the student sample. Of the few teachers who did adopt newer platforms, students reported these teachers were using Instagram as part of larger social media research projects, LinkedIn for career development, Snapchat for teacher-student communication, and Pinterest to teach students how to use the platform. Students also reported a small minority of professors using Slack, blog platforms, and Vimeo.

These findings reveal a disconnect between the social media platforms students report teachers using and the social media platforms students use most often. For example, Twitter ranked third on the list

of platforms used most often by teachers, but it was last on the list of platforms used by students. Moreover, Instagram, LinkedIn, Snapchat, and Pinterest were platforms that students reported teachers using the least, but students' use of these platforms was high in comparison. Instagram in particular ranked second on the list of platforms used by students. Additionally, comparison of the student social media usage data in this study with the recent Pew data (Perrin & Anderson, 2019) show that a greater percentage of communication students use almost all of the social media platforms (except Snapchat) more frequently than the general population of U.S. adults and their 18-24 year-old cohort (see Table 1).

Study findings also demonstrate that teacher use of social media in the classroom has a positive effect on student perceptions of teacher credibility and technological coolness. When teachers adopted social media platforms that were not widely used in the classroom by other professors (i.e., Instagram, LinkedIn, Snapchat, Pinterest, etc.), the perceived technological coolness of the instructor increased. This finding is not surprising considering when a trend or technology is widely adopted it loses its coolness (Warren & Campbell, 2014).

Leveraging social media platforms that are not widely adopted helped communication professors' classroom experiences stand apart from the classroom experiences of other communication professors. This occurred because the social media technologies that are not widely used were perceived as being more original, unique and novel and they were seen as considerably more hip and cutting edge (i.e., attractive). But, using different types of social media, whether or not they are widely adopted by other teachers is not necessarily going to create a unique subculture in the classroom. That is, students did not think the experiences with technology in communications classrooms assessed in this sample were different or unique from the classroom technology experiences of those who teach other subjects inside or outside communications. To create a subculture,

teachers have to do something that is totally different and outside student's expectations within the classroom. Even adopting newer social media channels doesn't help professors create a classroom experience with technology that stands apart because these channels are the same options that everyone has (Sundar et al., 2014).

While practitioners and educators agree that "staying up-to-date on technology is the single most important credential public relations educators can focus on" (Commission on Public Relations Education, 2018, p. 108), deviating from the norm or expected social media platforms most other teachers are using can result in positive perceptions of technological coolness. Like other socially constructed concepts, perceptions of technological coolness evolve and change (Sundar et al., 2014). Therefore, teachers should continually work to stay current on social media and find innovative ways for incorporating newer platforms into the curriculum. Much like brands and products that appropriately diverge from the norm in an effort to be cool (Warren & Campbell, 2014), this study shows teachers who deviate from the norm or expected social media platforms within the classroom can positively influence perceptions of technological coolness.

When examining the impact of social media use on teacher credibility, the findings confirm and expand research by McArthur and Bostedo-Conway (2012) who found perceptions of teacher credibility were related to the instructor's Twitter use. This study found that students who frequently use newer social media platforms evaluate teachers who use these same platforms as being more trustworthy and as having more goodwill than teachers who do not use these platforms in their classes. If professors do not use these newer platforms, then they run the risk of losing an opportunity to increase trust and goodwill among students who use these newer platforms. But, there is really no loss (or gain) of credibility for using social media that has become more ubiquitous.

Finally, this study revealed that there is a significant, positive correlation between teacher credibility and technological coolness, as it relates to instructor use of social media in the classroom. As this finding highlights, these two student perceptions do not exist in isolation, but they vary together. While the data do not support a cause-effect relationship, they do provide evidence that, no matter what teachers may think about students' perceptions of technological coolness, perceptions of faculty member credibility seem to be intertwined with perceptions of technological coolness.

Pedagogical Implications. Examinations of teacher social media platform use in the classroom provide opportunities for all teachers to: 1) see what other professors are using to engage and communicate with students, 2) learn new, best practices, and 3) experiment with social media platforms that students taking communication courses are currently using. Given this study's findings, professors shouldn't be afraid to experiment with platforms that are not mainstream among the general population but are widely adopted by students. Professors who were evaluated by students in this study are considered highly credible. By experimenting with different social media platforms, professors will not lose credibility; but by strategically choosing platforms that students frequently use, they can gain credibility in the classroom. Also, understanding what social media platforms students are using can help illuminate the dichotomy between teacher social media use and student use. Potential social media platforms for professors to consider including in pedagogical practices can be found in Table 1. The study's qualitative data also provides insight into how professors can use these social media platforms (see Table 2).

Limitations. While this study provides a thorough statistical analysis of the data, more data from professors who use non-mainstream social media platforms would allow for broader statistical analyses and comparisons. Additionally, students were asked to respond about only one

platform that one of their communication professors used, which limits data analysis regarding professors who used more than one social media platform in the classroom. Furthermore, students may not have understood the distinction between digital media and social media as they offered Blogger and Slack as other social media platforms in the open-ended question of the survey instrument.

Future Research. Future research should examine when and how professors ought to adopt novel social media platforms as teaching tools, given that professors must make a significant investment of time and effort to learn how to incorporate these platforms into their classrooms to improve students' perceptions of their credibility and technological coolness. In addition, while this study found evidence of a significant relationship between perceptions of teacher credibility and technological coolness, more research is needed to understand this correlation and the potential extraneous variables that could be contributing to the relationship. Also, future research should further examine the relevance of technological coolness by determining if it has an impact on learning outcomes, professor likability (e.g., official or informal student evaluations), course enrollment, and classroom engagement. Moreover, future research should explore whether technological coolness and credibility have implications for the professor's perceived authenticity. Finally, future research should examine how social media use in the classroom affects perceptions of teacher autonomy and privacy.

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