

BLURRED LINES: STUDENTS' PERCEPTION OF TWITTER IN THE CLASSROOM: #PROFSBWARE

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Technology is stretching the bounds of law not only in its application but also in its instruction. Just as the law unties one Gordian knot such as property rights of pictures on Facebook¹, a new one presents itself, evidence the current controversies on privacy and rights of expression on social media.² Innovation is outpacing litigation.³ As the law plays catch up, educators are doing their best to ride the tsunami of technology.^{4,5} Some professors have built firewalls, prohibiting all social media and

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¹ Reynol Junco, C. Michael Elavsky and Greg Heiberger (2013) 44 British J. of Educ. Tech. 273, 273 (2013). (*hereinafter* Junco, et al) "While Facebook has been the most popular social networking site for college students, educators have been more willing to use Twitter as part of their college courses possibly because Twitter is primarily a microblogging platform and therefore more amenable to ongoing public dialogue." (internal citations omitted)

² Scott Jaschik, *Inside Higher Education* (visited Sept. 7, 2014) <<https://www.insidehighered.com/news/2014/08/25/u-illinois-officials-defend-decision-deny-job-scholar-documents-show-lobbying>> A professor's offer made by the University of Illinois was withdrawn at the last minute by the Board of Trustees due to the nature of the professor's tweets. It is anticipated that litigation involving detrimental reliance of contract and academic freedom will follow.

³ Eric D. Yordy, *Using Student Development Theory to Inform Our Curriculum and Pedagogy: A Response to the Secretary of Education's Commission on the Future of Higher Education*, JLSE, Volume 25, Issue 1, 51, 53 n. 7 (Winter/Spring 2008). "We have a responsibility to make sure our higher education system continues to meet our nation's needs for an educated and competitive workforce in the 21st century." (citing a press release from the Department of Education)

⁴ Matt Hlinak, *The Socratic Method 2.0*, 31 J. Legal Stud. Educ. 1, 9-10 (Winter 2014).

"(P)rofessors in face-to-face classes are increasingly using online course management systems and other web resources to augment more traditional means of instruction" ... "with more than two-thirds of faculty members regularly doing so."

⁵ Yordy, *supra* note 3. "The (Department of Education) report does not give direct examples or recommendations for universities and colleges to implement but is general in its approach. Two of the discussion points directly impact the teaching of legal topics in business:

technology from their classrooms. Others have fully embraced the newest technologies, maintaining Facebook and Twitter accounts that students are encouraged or even required to use for class work.^{6,7} And with the introduction of Massive Online Open Courses (MOOCs) it appears that social media may be the only way that some students will ever interact with professors and classmates.⁸

The dilemma remains how best to incorporate social media into daily classes. The many social media options allow professors significant discretion in how to reach out to students and colleagues to broaden the learning experience.⁹ Blogging, for example, typically involves a user creating what they believe is a fully formed argument before publication to the world.¹⁰ Facebook seems to encourage more sharing of photos and whimsical storytelling.¹¹ Pinterest allows for public homepages to “pin” or share interests with followers without the creation of significant new content.¹² Snapchat has been designed to protect users from later regrets by limiting photos from being shared, copied or forwarded, with varied success.¹³ Instagram provides online sharing of personal media through the platforms of Facebook, Twitter, Tumblr and

student learning and faculty innovation. (internal citations omitted)

⁶ Richard Van Noorden, *Nature* (visited Sept. 7, 2014) <<http://www.nature.com/news/online-collaboration-scientists-and-the-social-network-1.15711>> A study by the magazine *Nature* indicates academic researchers participate widely and actively on many different social networking sites including Facebook, Twitter, LinkedIn and ResearchGate.

⁷ Junco, et al, *supra* note 1 at 273. “(A) study of nearly 1400 faculty members found that 56% of faculty who were Twitter users used Twitter as a learning tool in the classroom.” (internal citations omitted)

⁸ Steve Bradt, *MIT News* (visited Sept 7, 2014) <http://newsoffice.mit.edu/2014/future-of-mit-education-0804> The Massachusetts Institute of Technology, for example, is “experimenting boldly” with the MOOC model in order to “extend () MIT’s educational impact, to teachers and learners well beyond its own campus” in order “to reinvent education for future generations of learners both on its campus and beyond.”

⁹ Van Noorden, *supra* note 6.

¹⁰ Junco, et al, *supra* note 1 at 273. Twitter is described as a “microblogging and social networking platform that allows users to post 140-character updates (that has) revolutionized the social media landscape.”

¹¹ See, e.g. <<http://www.washingtonpost.com/news/volokh-conspiracy/>> The Volokh Conspiracy was founded by Eugene Volokh of UCLA Law School and Alexander (Sasha) Volokh of Emory Law School. The Volokh Conspiracy partnered with *The Washington Post* but remains editorially independent (visited Sept 7, 2014).

¹² See, e.g. <<http://www.ala.org/acrl/pinterest>> for a discussion of the academic use of Pinterest.

¹³ Hiten Samtani, *The Digital Shift* (visited Sept. 7, 2014). <<http://www.thedigitalshift.com/2013/05/social-media/the-truth-about-snapchat/>> This article notes “a security loophole in the app, which allows one to permanently save a Snapchat file without notifying the sender. The expectation of privacy and impermanence that makes the app irresistible to young users is thus deeply flawed.”

Flickr. All of these technologies cater to the short attention spans, “listicles”¹⁴ and multitasking exhibited by today's students. Technological trends appear to be killing the traditional textbook-lecture formula of teaching,¹⁵ evidence the rise in “flipping” the classroom.¹⁶ Here students are expected to engage in hands on activities in the classroom and discover the subject matter through application, i.e. teach themselves.¹⁷ Although this paper does not purport to establish a preference for a mechanism of learning, its contribution as to how students perceive some mechanisms should assist all professors whether their classrooms are 'flipped' or not.

Obviously, professors are faced with many choices. Yet as new social media platforms emerge, limited information is available on the best way to incorporate them into respective classrooms.¹⁸ This may create some trepidation amongst professors who want to facilitate student learning but who may be unsure about the best way to reach students. Faculty commitment to student engagement has been found to relate to student achievement.¹⁹ Therefore, it is important to understand how professors can encourage student buy-in to social media engagement.²⁰ A first step in understanding

¹⁴ See <<http://www.urbandictionary.com/define.php?term=listicle>> which defines listicle as an “article comprised mainly of a list of something annoying.

They are easy for content producers to create or plagiarize, and unlike news content, they remain “relevant” for years.” (visited Sept. 7, 2014).

¹⁵ Hlinak, *supra* note 4 at p7. Hlinak argues “lecture is a relatively weak pedagogical tool in many situations.” This understanding informs the search for social media pedagogical research.

¹⁶ See, e.g. Washington University, *Flipping the Classroom* <<http://www.washington.edu/teaching/teaching-resources/flipping-the-classroom>> (visited Sept. 8, 2014) for a discussion of pedagogical reasons for flipping a classroom.

¹⁷ *Id.*

¹⁸ Junco, et al, *supra* note 1 at 273-274.

Little research exists examining the efficacy of Twitter as a classroom learning tool. Mirvis, Sales and Hackett (2006) found that the efficacy of new educational interventions, especially those involving technologies, are contingent upon a variety of factors including context, choice of technology, methods for implementation and how the particular platforms intersect with students' technology acumen/familiarity. Additionally, Johnson (2011) examined the effect that different types of Twitter posts had on instructor credibility, while Junco et al (2011) examined the effect of educational uses of Twitter on student engagement and grades.”

¹⁹ Junco, et al, *supra* note 1 at 283.

When students are required to use Twitter for a course and faculty engage with them regularly on the platform, there is an increase in student engagement and grades that was not seen when students were allowed to choose whether or not to use Twitter and when faculty rarely interacted with them on the platform.

²⁰ *Id.* at 283-284.

Specifically, faculty who are more engaged on the platform with their students will see greater gains in academic outcomes.

Junco et al (2011) suggested that future research take steps to

students is to explore their perceptions of available technologies; the literature is sparse in this area. This paper is one of the first efforts to explore how students react to the use of social media in the classroom.

In the literature much has been written on the constitutional questions applied to social media²¹. Some research has been devoted to the best pedagogical uses of ongoing, “real-life” examples – perfect subject matter for social media discussions.²² Further, research has been offered for the use of social media in the workplace²³. Most of these questions focus on the immediate utility to the intended audience of academic articles: other researchers and professors. Of equal benefit to researchers and professors should be the knowledge of how students perceive these efforts so that as educators move forward they can make informed choices about the use of technology in the classroom. Unfortunately, relatively little has been written on what students think about the desirability of social media use in the classroom.

Granted, the onslaught of technology has made it difficult for thoughtful deliberation and study on how best to use social media in the classroom, so we do not criticize those who have launched into its use. However it is clear that this line of study can prove instructive to those already using technology as well as to those contemplating its introduction. This study hopes to fill this important void in the legal

evaluate the proportion of the variance that is due to the technology and the proportion due to the instructor in outcomes--we have done so here and found evidence, albeit limited, that both how Twitter is integrated into a college course and how faculty interact with students on Twitter are important elements in such a design.

²¹ Robert H. Jerry & Lyrisa Lidsky, *Public Forum 2.1: Public Higher Education Institutions and Social Media*, 14 Fla. Coastal L. Rev. 55 (2012), available at <<http://scholarship.law.ufl.edu/facultypub/321>>.

(T)he importance of First Amendment jurisprudence as it may be applied in the higher education setting goes well beyond the statistics. Universities' dual missions of teaching and research (i.e., transmitting knowledge and adding to the reservoir of knowledge by discovering it) depend on robust encouragement of critical thinking and free expression of ideas. Social media can aid universities to fulfill these missions. Social media can promote critical discourse within the university community. (internal citations omitted)

²² Michael R. Koval, *Step Away from the Syllabus: Engaging Students on the First Day of Legal Environment*, 30 J. Legal Stud. Educ. 179 (Winter/Spring 2013).

Use of “real-life” legal problems” can “...demonstrat(e) expectations of participation, critical thinking and active debate, as well as provid(e) for group engagement and a platform for students to begin to get to know one another.” Social media is one forum by which these goals can be accomplished.

²³ See, e.g. Perry Binder and Nancy R. Mansfield, *Social Networks and Workplace Risk: Classroom Scenarios from a U.S. and EU Perspective*, 30 J. Legal Stud. Educ. 1 (2013) “The article focuses on social media's legal risks when used in the workplace that were introduced in Europe and in the U.S.”

studies literature. Rather than attempt to measure all social media or even to generalize all technology used in the classroom as social media, this study focuses on a single method of social media: Twitter.²⁴ This allows for a cleaner response and controls for the variable of the type of social media used by the student, a variable that could lead to 'noise' in the results diminishing the strength of the findings.

Twitter works in this way. Twitter users set up accounts and then post or follow other Twitter account holders.²⁵ Obviously famous people can boast large Twitter followings due to societies' fascination with the rich and famous.²⁶ The not so famous can boast increasing numbers of Twitter followers much like numbers of Facebook friends; numbers translate into relative popularity.²⁷

Twitter limits its posts to 140 characters which includes the 'subject' of the post or the 'hashtag'.²⁸ This hashtag serves as a search term for followers to find relevant posts or tweets.²⁹ Twitter is unique in that this limit per post demands pithiness and limits fully formed arguments. These limitations can lead to misunderstandings or miscommunication.

Links to and re-tweets of others' Twitter comments or to online newspaper content often operate as the backdrop for specific users' posts.³⁰ Twitter allows worldwide communication to any potential reader.³¹ However only registered users can post their own messages.³² Although not anonymous it can take significant effort to trace the usernames of those who wish to remain undiscovered.³³ Anonymity can be a

²⁴ Junco, et al, *supra* note 1. Twitter has been widely adopted for classroom use and reached a worldwide audience. The 140-character limit provides an opportunity to start and engage in conversations but also a constraint on the depth of an academic conversation.

²⁵ See, e.g. Jefferson Graham, *Twitter for Newbies: Top 10 Things to Know* <<http://www.usatoday.com/story/tech/columnist/talkingtech/2013/10/09/a-twitter-primer/2945867/>> (visited Sept. 8, 2014)

²⁶ See, e.g. Friend or Follow, *Top 100 Most Twitter Followers* <<http://friendorfollow.com/twitter/most-followers/>> (visited Sept. 8, 2014)

Katy Perry, who has the most followers, boasts 56 million Twitter followers just ahead of Justin Bieber and 11 million more than President Obama who is third overall.

²⁷ Graham, *supra*, note 25.

²⁸ Id.

²⁹ Id.

³⁰ Id.

³¹ See, e.g. Peter Beaumont, *The Truth about Twitter, Facebook and the Uprisings in the Arab World*

<<http://www.theguardian.com/world/2011/feb/25/twitter-facebook-uprisings-arab-libya>> which The Arab spring was attributed in part to the power and coverage of tweets worldwide. In some cases it was the only form of contact with the outside world. (visited Aug. 24, 2014).

³² Graham, *supra*, note 25.

³³ See, e.g. Washington Bureau, *Twitter Users find out the hard way that anonymity is just fleeting*. <<http://www.japantimes.co.jp/news/2013/10/26/world/tweeters-find-out-the-hard->

significant benefit to Twitter users who wish to have a free exchange of ideas without exposure to potential public discovery.³⁴ Finally, private messages may only be sent between registered Twitter users, at least one of whom must “follow” or subscribe to the other users posts.³⁵ Twitter makes it relatively easy to set up accounts but depending on their public or private nature, the user may have to spend some time reading privacy agreements and thinking through options.

RESEARCH CONSIDERATIONS

With the selection of Twitter, came other research questions. From a curricular standpoint, legal environment instructors are not only faced with how to teach but what to teach.³⁶ When it comes to social media the appropriateness of use seems to be raised daily in courts across America.³⁷ As the law attempts to apply traditional principles to the new technology, liability for online social media behavior appears in flux. Students will be faced with the consequences of their social media expression: termination or failure to be hired for Facebook postings³⁸ or tweets and harassment or bullying of account holders who share personal loss with their followers and the public.³⁹

way-that-anonymity-is-just-fleeting/> (visited Sept. 8, 2014) Students, specifically, and Twitter users generally should be aware that anonymity does not mean an escape from all scrutiny.

³⁴ See, e.g. Max Fisher, *The 16 essential Twitter accounts to follow Ukraine's unfolding crisis* <<http://www.washingtonpost.com/blogs/worldviews/wp/2014/02/18/the-16-essential-twitter-accounts-to-follow-ukraines-unfolding-crisis/>> (visited Sept. 8, 2014) When there is a shooting war afoot, anonymity is particularly important and accurate information may be impossible to glean through the fog of war. But Twitter allows users to follow even international stories from front-line sources.

³⁵ Graham, *supra*, note 25.

³⁶ Yordy, *supra* note 3, at 52.

An understanding of cognitive development demands that materials be presented at appropriate levels of difficulty, in appropriate manners, and in appropriate orders to encourage the students' development without overwhelming or underwhelming the students. (Also an) understanding of college student development for use in curriculum design and pedagogical planning is important for legal scholars to maximize our impact on the development of the skills required or desired in our graduates.

³⁷ See, e.g. Huffington Post, *Twitter Lawsuit* <<http://www.huffingtonpost.com/news/twitter-lawsuit/>> (visited Sept 8, 2014) This links to a long list of various lawsuits filed against Twitter or Twitter users and highlights the potential legal liability of which students are likely unaware.

³⁸ See e.g. Jacqueline Smith, *How Social Media Can Help (Or Hurt) You in Your Job Search* <<http://www.forbes.com/sites/jacquelynsmith/2013/04/16/how-social-media-can-help-or-hurt-your-job-search/>> (visited Sept 8, 2014) for advice that might help students find jobs through social media.

³⁹ See, e.g. CBS News, *After Robin Williams' daughter Zelda quits Social Media, Twitter Considers Changes* <<http://www.cbsnews.com/news/after-robin-williams-daughter-quits-social-media-twitter-considers-changes/>> discussing the recent bullying of Zelda Williams, the

Courses and consultants abound with promises to give you a positive social media presence to help with jobs and business yet there is always the possibility of being held accountable for misrepresentations and deception.⁴⁰ For purposes of the study, the question of whether or not students appreciated the potential liability of social media expression became critical. Instructors should be aware of the extent to which they should include in their curricula or course content such subject matter. In order to assist in curricular development for legal environment and business law instructors, this study included questions about the students' frequency of use of Twitter, whether or not the student was aware they could be held legally responsible for any harm their tweets caused and whether or not the student had taken or was enrolled in a legal environment course; the assumption being if the student had had some exposure to the law they may be more aware of their responsibilities. These results were intended to help faculty design curriculum and recommendations based on those findings will be made herein.

In addition to the above, the ubiquitous nature of Twitter led to certain assumptions in devising this study. Based on the number of social media users (Twitter reportedly had over 500 million registered users in 2012⁴¹), its omnipresence in our lives (the logo appears daily on millions of emails, webpages, links, etc.) and the rush of faculty to include it in their course work, it seems clear that Twitter is popular. It is used in many classes, sometimes even required.⁴² It is an option on many academic webpages, along with Facebook, Instagram, and flicker. The literature appears to support its use almost without hesitation. There seems to exist a positive presumption of Twitter use. In devising this study we relied on this assumption, i.e., Twitter is a positive popular activity welcomed by students. Therefore in our study we expect to find that students will think Twitter use in the classroom is very appropriate, especially for class related work and that they would welcome the instructor's use of Twitter in the classroom be it personal or academic. We also expect students to be aware of their attendant liabilities vis-à-vis Twitter since its use is so widespread.

We offer the following hypotheses:

- (1) students will want Twitter in the classroom.

late Robin Williams' daughter who pulled down her Twitter account after followers and users assaulted her after she shared a post about her father's suicide. (visited Sept. 8, 2014).

⁴⁰ Smith, *supra*, note 38.

⁴¹ *But see*, Securities and Exchange Commission filings

<http://www.sec.gov/Archives/edgar/data/1418091/000156459014003474/twtr-10q_20140630.htm?_ga=1.106844928.2072504916.1401902059> (visited Sept. 7, 2014)

which indicates as many as 8.5% of those "users" may be "bots" who do not represent human users, an allegation Twitter officially denies.

⁴² Van Noorden, *supra*, note 6.

(2) students will want their instructors to use Twitter.

(3) students will be aware that there are legal consequences to their use of Twitter.

THE STUDY

To test our hypotheses and to contribute to the literature, we prepared a survey which elicits threshold information on whether or not the student has a Twitter account, the frequency of use, their knowledge as to potential liability for their tweets and the appropriate use of Twitter in the classroom using a Likert scale for three scenarios. A copy of the survey is attached as Appendix A. The three scenarios varied from little or no class relevance to a class requirement to use Twitter. Two hundred and ninety one responses were received allowing for significant findings to be made. Data was placed in an Excel spreadsheet then run in SPSS software. We analyze this data using ANOVA. Presentation of the methodology (Part I), discussion of the results with tables (Part II), explanation of factors/variables influencing the results (Part III) and recommendations to legal environment faculty (Part IV) all follow.

PART I. METHODOLOGY

A convenience sample of 291 undergraduate business students at a southeastern public college participated in the study. In order to assess a student's perception of the appropriate use of Twitter in a classroom and their attendant legal liabilities, it was necessary to establish a baseline of several key factors: whether the student had any legal knowledge of Twitter, this was addressed by asking the student if they had taken a business law course or were in a course currently. It was also necessary to establish a student's comfort with Twitter, so questions were asked about the frequency of use. If a student rarely used Twitter then they might be intimidated by its mandated use in the classroom.

Finally students were surveyed as to their knowledge of potential legal liability based on their Twitter activity. Business law professors can be guided by this question in determining instructional parameters for their classes.

Once this baseline was established, students were then presented with three scenarios of Twitter use in a classroom and, for each, were asked to rate five different Twitter-related activities a professor might incorporate into a course. Table 1 lists the five Twitter-related course activities.

Table 1
Twitter Course Activities

1. The professor refers to their Twitter account in class.
2. The professor stops to tweet in class.
3. The professor encourages you to follow them on Twitter.
4. The professor encourages you to tweet them outside of class.
5. The professor requires you to tweet as part of the course.

The three scenarios were used to present students with different contexts in which Twitter-related activities might be incorporated into a course for their consideration. Each varied by the level with which the Twitter content related specifically to the course as listed below:

Scenario 1: The references to Twitter are course related.

Scenario 2: The references to Twitter are related to the subject matter of the course but are not course specific.

Scenario 3: The references to Twitter are completely unrelated to the specific course or to the subject matter of the course.

More specifically, students were asked to indicate the extent to which he/she felt each activity was appropriate on a 5-point Likert scale in each of the three scenarios. Response options ranged from very inappropriate (1) to very appropriate (5). To obtain examples of what students considered to be the most inappropriate uses of Twitter, the survey asked the student for specific anecdotal data.

PART II. RESULTS

The sample consisted of slightly more females (n=158; 54 percent) than males (n=134; 46 percent). Roughly half of the participants were enrolled in a business law course at the time the survey was administered (n=142; 49 percent) and two-thirds of the participants had a Twitter account (n=193; 66 percent). Of those with a Twitter account, 73 indicated they use Twitter daily and 45 indicated they use Twitter weekly. The remainder of participants with a Twitter account indicated they use it once a month or less. Thus, if we define daily or weekly use as regular use, roughly forty percent of the entire sample could be considered regular users of Twitter. Cross-tabulating gender with whether students had a Twitter account revealed a significant relationship with females tending to have Twitter accounts more often (chi-square = 6.68; p = .01)

Table 2 displays the frequency of participants' responses to the question ascertaining whether students were aware of their legal liability for their tweets. As one can see, roughly one-fourth of the students sampled indicated they did not think you could be sued for what you tweet, almost one-third thought that you could and a

little over forty percent did not know. Since it is the case that you can be sued for what you tweet⁴³, 65 percent of students failed to give the expected response. This suggests, in general, that students are not adequately informed about the potential legal liability associated with tweeting.

Table 2
Can you be personally sued for what you tweet?

Responses	Frequency	Percent
No	74	25.4
Yes	95	32.6
Don't Know	122	41.9

To get a general understanding of how students perceive Twitter activities in a course, we first analyzed the student ratings provided for these activities when the Twitter account solely related to the course content (i.e. data for Scenario 1). Table 3 displays the average ratings students assigned each activity in this context. Figure 1 also displays these average appropriateness ratings.

Table 3
Student Perceptions of Twitter Course Activities
When the References to Twitter are Course Related

	Average Response	Standard Deviation
1. The professor refers to their Twitter account in class.	3.21	1.18
2. The professor stops to tweet in class.	1.84	1.14
3. The professor encourages you to follow them on Twitter.	2.72	1.23
4. The professor encourages you to tweet them outside of class.	2.37	1.22
5. The professor requires you to tweet as part of the course.	2.75	1.35

⁴³ See, e.g. Digital Media Law Project <<http://www.dmlp.org/threats/siegal-v-kardashian>> (visited Sept. 5, 2014). Also, Mental Floss <http://mentalfloss.com/article/26918/watch-what-you-tweet-4-twitter-lawsuits> (visited Mar. 13, 2015). Links to complaints filed in *Siegal v. Kardashian*, which was later dismissed. Kim Kardashian alleged a doctor's tweets about his cookie diet resulted in defaming her character. Additional links to cases involving fake accounts (Pete Rose), free speech issues (Courtney Love) and libelous tweets.

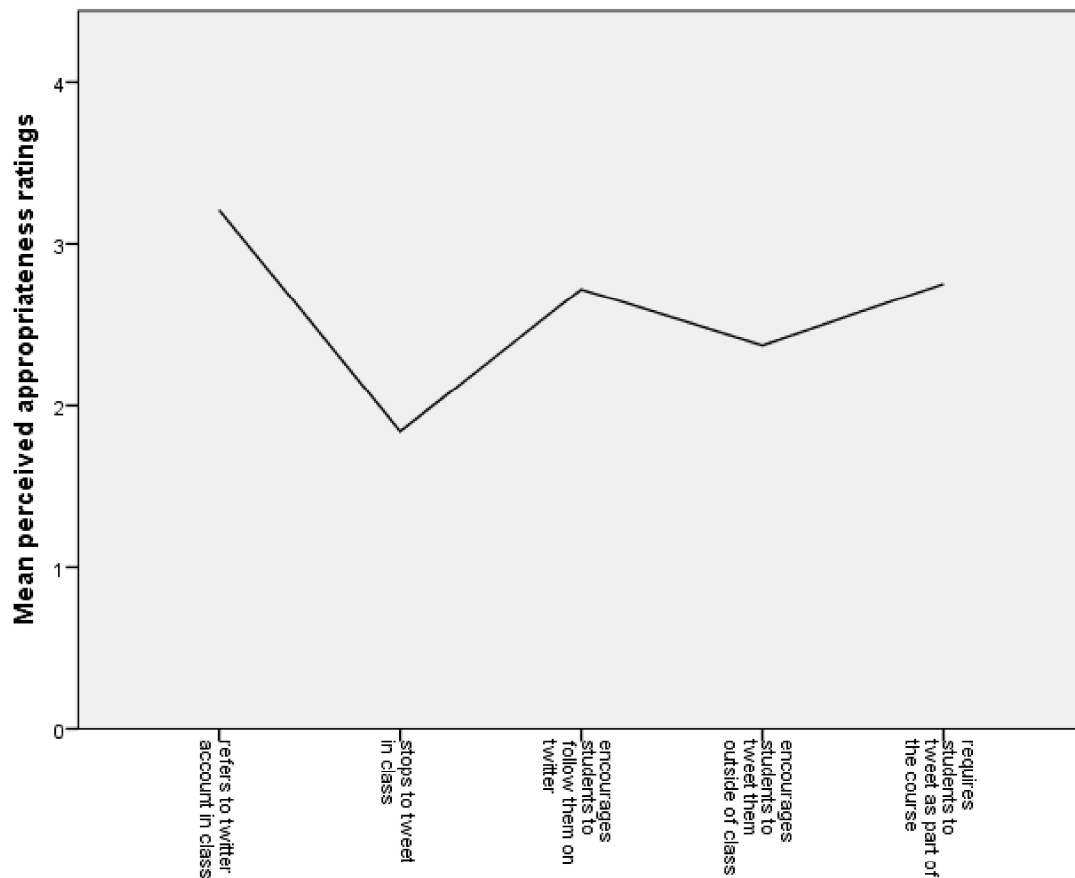


Figure 1
Student Perceptions of Twitter Course Activities
When the References to Twitter are Course Related

Given these results, it appears that in general students did not perceive the use of Twitter activities in a course to be particularly appropriate. A professor referring to their Twitter account in class (that is related specifically to the material being taught in the course) received the highest average perceived appropriateness score of 3.21. Testing the hypothesis that the mean perceived appropriateness rating for this activity was positive (i.e. that students did perceive the activity to be appropriate by assigning a value greater than 3 to this activity), we reject the null hypothesis that the mean student response assigned to this activity was neutral or lower (a rating of 3 or below) ($t=3.021$; $p=.00$). This suggests students did perceive the activity of referring to one's Twitter account in class to be somewhat appropriate. However, the remaining activities, all with average perceived appropriateness ratings less than 3 provide no evidence they were generally considered to be appropriate by the students.

To test for differences in perceptions among students across these activities, repeated measures ANOVA model was generated along with post-hoc comparisons.

Table 4 displays these results. The results suggest students' perceptions of the appropriateness of the various Twitter activities did vary significantly by activity ($F=93.00$; $p=.00$). More specifically, consistent with the initial results provided above, the post-hoc results suggest students rated the activity of 'the professor refers to their Twitter account in class' (Activity #1) as significantly more appropriate than any of the other activities. In addition, consistent with the means depicted in Figure 1, the remaining activities all varied significantly in terms of the level by which they were perceived to be appropriate as well except for Activity #3 (professor encouraging you to follow them on Twitter) and Activity #5 (professor requires you to tweet as part of the course) which were perceived no differently from each other. The professor stopping to tweet in class was viewed as significantly less appropriate than any of the other activities.

Table 4
Repeated Measures ANOVA
Perceived Appropriateness for Different Twitter-related Course Activities
(Scenario #1 only)**

	Df	Mean Square	F*	Significance
Twitter Activity	3.46	86.98	93.00	.000
Error	1002.90	.94		

* Since the assumption of sphericity was not met, the Greenhouse-Geisser corrected F was used.

** Bonferroni post-hoc pairwise comparisons revealed significant mean differences at the .05 level for all sets of activities except for the difference between activity #3 and #5.

In sum, then, these results suggest that efforts to incorporate Twitter-related activities into a course beyond simply referring to such an account are going to be significantly less well received. Given the nature of the additional activities presented to students in this study, these findings are very interesting. If we compare all five activities in terms of the level of involvement/action required by students, it appears students are less inclined to perceive activities that require action on their part as appropriate. They are also not receptive to the idea of a professor stopping to tweet in class even though the Twitter account is specifically related to the course. Taken together, the results suggest students are not receptive to Twitter-related activities being a focal part of the method by which learning is facilitated in a course.

To examine the impact of the context of the Twitter activity, a second repeated measures ANOVA model was generated. In addition to including an independent variable representing the type of Twitter activity employed (as in the first model), a second independent variable was included representing the different scenarios students considered. As described above, the contexts varied from the Twitter activity being

related specifically to the course in which the student was enrolled to the Twitter activity being completely unrelated to the course. Table 5 displays the results of the ANOVA.

Table 5
Repeated Measures ANOVA
Perceived Appropriateness for Different
Twitter-related Course Activities and Scenarios

	df	Mean Square	F*	Significance
Scenario	1.58	441.78	176.07	.00
Error (Scenario)	458.68	2.51		
Twitter Activity	3.16	166.00	105.31	.00
Error (Twitter Activity)	916.95	1.58		
Scenario* Twitter Activity	6.84	8.94	24.15	.00
Error (Scenario*Twitter Activity)	1984.05	.37		

* Since the assumption of sphericity was not met, the Greenhouse-Geisser corrected F was used.

As the results suggest, significant main effects for the Twitter activity type ($F=105.31$; $p=.00$) and the scenario under which the activity occurred ($F=176.07$; $p=.00$) were observed. However, a significant interaction effect between the two variables was also observed ($F=24.15$; $p=.00$). It has been suggested main effects should generally not be interpreted in the presence of a significant interaction involving that main effect⁴⁴. This is because the significant interaction term indicates that the impact of the scenario on appropriateness ratings varies by activity type. In other words, the significant interaction between the two variables indicates the amount by which different activities' appropriateness ratings vary across scenarios is not the same.

Figure 2 below displays the marginal mean appropriateness scores for each of the scenarios broken down by the different Twitter activities. The non-parallel lines in this figure are evidence of this interaction. For instance, the line segments connecting the mean perceived appropriateness ratings for encouraging students to tweet the professor outside of class (Activity #4) and requiring students to tweet as part of the course (Activity #5) have similar slopes (slight incline upward) for Scenarios 1 and 2 which suggests the perceived differences in mean appropriateness ratings across the two types of activities is similar for the two scenarios. On the other hand, the line

⁴⁴ See, generally, Andy Field, *Discovering Statistics Using IBM SPSS Statistics* (4th ed), Sage Publications Ltd. (2013).

segment connecting these same activities for Scenario 3 is distinct. Unlike Scenarios 1 and 2, for Scenario 3 this segment slopes downward suggesting the difference in the two activities for this scenario is distinct from that of Scenarios 1 and 2. As one can see in the plot, in the case of scenario 3 (when the Twitter activities are for a Twitter account completely unrelated to the content of the course) the mean perceived appropriateness ratings for these two activities appear to be much closer to the same.

More importantly, though, while the impact of the various scenarios on appropriateness scores are different for different activities, there does appear to be a general trend in which the less the Twitter activities related to the specific course, the less they were judged to be appropriate. This is evidenced by all of the Scenario 2 mean ratings falling below those of Scenario 1 and all of Scenario 3's mean ratings falling below Scenario 2's further still. Thus, it appears the challenge to effectively incorporate Twitter into a course to facilitate student learning will be even greater when the activity does not relate to the content of the course. Twitter activities which are completely unrelated to the class appear to be the most difficult to use effectively.

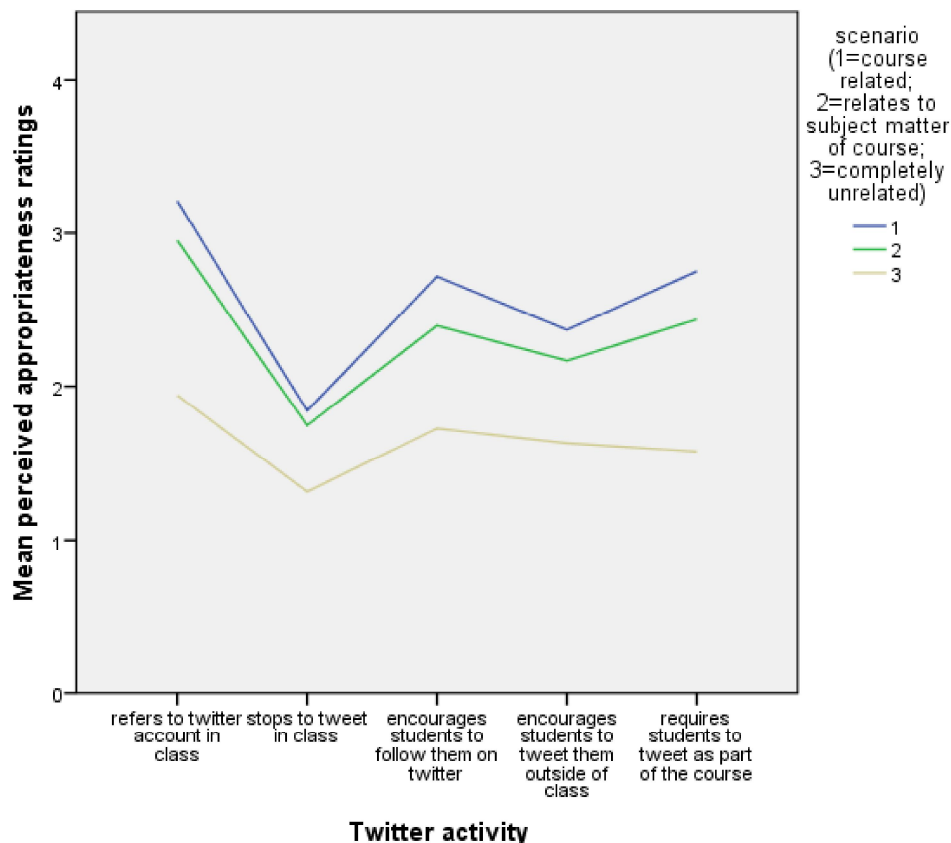


Figure 2
Student Perceptions of Twitter Course Activities for the Different Scenarios

PART III. EVALUATION OF FACTORS/VARIABLES INFLUENCING RESULTS

Overall the data did not support our first hypothesis, it does not appear that students as a whole think Twitter is very appropriate in the classroom. It is possible to tease out relationships that might allow us to conclude that if it is course related they are more likely to accept its use but they do not seem to be enthusiastic about it.⁴⁵ This raises questions as to why. Although it might be impossible to capture all of the reasons, there are a few that can be reasonably hypothesized:

1. Workload Changes. Some students may resist any changes that require even a modest amount of effort. If laziness or apathy is the reason for student resistance across some population of students a professor likely has few, if any, available surefire options for lowering student resistance in that population.⁴⁶ However some students may fear a workload increase because they are not sufficiently aware of the benefits and ease of use of using social media. This would likely apply most to those students who did not have a Twitter account. Even those who have an active account may wish to set up a secondary account to separate their personal and academic communications not only from the professor but also from the other students.

2. Stages of Student Learning. Students may recognize, explicitly or implicitly, their own learning limitations.⁴⁷ College seniors may have greater capacity to effectively utilize different learning tools than their sophomore peers, all things equal.⁴⁸ Not every stage of student learning would seem equally conducive to using social media for educational purposes. This problem is likely exacerbated in courses that attract students in different years, where years is a proxy for the stages of student learning. This is a variable we did not gather but warrants further study as we move forward with this body of research.

3. Heckler's Veto and Bullying. It is a longstanding principle of free speech jurisprudence that government may not create prior restraints on speech.⁴⁹ Instead of

⁴⁵ 44 students offered written comments in addition to completing the survey instrument. The factors identified herein not only reflect those comments but also the reasoned expectations of the authors after conversations with students.

⁴⁶ Many strategies to encourage student reading have been suggested. *See, e.g.* Wright, Donna J. *Choosing to read: Overcoming reading apathy*, 5 *Teaching & Change* 225. (Spring/Summer 1998).

⁴⁷ Yordy, *supra*, note 3. Yordy discusses the different stages of learning and the challenges those stages present to business law pedagogy.

⁴⁸ *Id.*

⁴⁹ *See, e.g.* Freedman v. Maryland, 380 U.S. 51 (1965) which invalidated a Maryland statute that required a state body review a film before it could be shown in Maryland theaters.

preventing the unpopular or offensive speech the state is left in a position only to punish speech that violates a narrow range of legal proscriptions. In practice, this legal principle means professors may indicate their expectations for appropriate social media interactions but cannot *ex ante* stop the loudest and most obnoxious students from dominating social media conversations.

Many students may therefore have legitimate concerns about participating in online conversations where other students might be loud or boisterous.⁵⁰ Students may be aware that professors are unable to regulate the speech of adult students. It is widely accepted that one of the proper goals of higher education is to encourage the free exchange of ideas and challenge students with new ideas.⁵¹ However it is often difficult for students to express themselves on complex issues without potential moderation, as in a classroom setting. In effect, this might mean while there is no legal basis for a heckler's veto, the heckler may be an imagined threat that substantially interferes with student participation in social media discussions.

Another way to frame this student concern is that online (or cyber) bullying may impede student learning.⁵² Many students may have experienced what they perceive as online bullying and allow those experiences to color their perception of the value of social media as a learning tool.⁵³

⁵⁰ Several students specifically mentioned in their written comments this particular concern. The degree to which the concerns are warranted may be worthy of debate but student fears do exist. As professors attempt to create a safe environment for learning, they should consider how to mollify or temper these student concerns.

⁵¹ Tonia H. Murphy, *Editor's Corner: Civility in the Classroom*, 28 J. Legal Stud. Educ. page v, v-viii (2011)

The Statement of Professional Ethics drafted by the American Association of University Professors (AAUP) serves as a useful starting point. In part, this statement provides: 'As teachers, professors encourage the free pursuit of learning in their students... Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors.'

...First, respect for diversity of ideas and free debate is essential in the classroom.

...Second, civility contributes to a good classroom climate, and pedagogical research indicates that a good classroom climate fosters student learning.

⁵² Difficulties with intra-student communication include bullying and worse. (See, e.g. 2 N.Y.U. Intell. Prop. & Ent. Law Ledger 16 -- discussing high school students) Social approbation may be the best check on these sorts of behaviors, especially amongst college-age students. Concerns about a "heckler's veto" in online conversations may need consideration.

⁵³ Jerry and Lidsky, *supra*, note 21 at 57.

Social media, however, can also be a disruptive force within the university community. The same characteristics that help foster discourse--accessibility, interactivity, connectivity --also magnify the

4. Compartmentalization: Students may not want their academic life or their teachers to cross over into their social life.⁵⁴ Much like some students' efforts to dissuade their parents from following them on Facebook, students seem not to want their professors invading their Twitter lives.⁵⁵ In conversations with students about the appropriateness of Twitter use in the classroom, (only some of whom participated in the survey), some objected strongly to the use of Twitter in the classroom arguing that Twitter should be exclusively personal and social.

5. General privacy issues. Other obstacles may be privacy concerns. Students may have little information about how using the Internet in classroom situations could affect their lives. Alternatively, students may know some employers use online activities in hiring decisions and therefore feel unfettered online academic conversations pose an unnecessary risk.⁵⁶ Students might have played the children's game "Telephone" and know that misunderstandings about the intention and meaning of online communication are especially likely.⁵⁷ Many students may be aware that "the Internet is forever" in the United States. Some may have misgivings about corporate or government data mining.⁵⁸ Others may be confused because they have heard about

potential for conflicts with other important values, such as civility, privacy, and administrative efficiency. Social media may also conflict with a university's ability to convey its own message without disruption or distortion. (internal citations omitted)

⁵⁴ See, e.g. Meg Penrose, *Outspoken: Social Media and the Modern College Athlete* 12 J. Marshall Rev. Intell. Prop. L. 509 (2013). A university's right -- or lack thereof -- to restrict student athletes' social media usage is an open question. When institutions are arguably taking liberties with the speech of students (who happen to be athletes) it would not be unusual that students would have internalized the (perhaps unintended) lesson universities have taught that speech (via Twitter or elsewhere) may be problematic.

⁵⁵ The difference between curricular and non-curricular communications for K-12 teachers may be of particular importance due to the increased likelihood of inappropriate conversations leading to inappropriate actions between teachers and students. (See e.g. Mary-Rose Papandrea, *Social Media, Public School Teachers, and the First Amendment* 90 N.C.L. Rev. 1597 (2012)) The same considerations may drive perceptions of college students in their interactions with professors. While the legality may be different, the concerns are similar due to power differentials and employer expectations. Courts worry about balancing tests and so, it would seem, do college students.

⁵⁶ See e.g. Catharine Smith and Craig Kanalley, *Fired Over Facebook: 13 Posts That Got People CANNED* <http://www.huffingtonpost.com/2010/07/26/fired-over-facebook_posts_n_659170.html> (visited Sept. 8, 2014). Students indicate even if they have not formally studied the legal ramifications of online communications they understand social media carries certain risks.

⁵⁷ For a discussion of miscommunication, cyber bullying and the Telephone game, See Pelfrey and Weber, 17 J. of Youth Stud. 397 (2014).

⁵⁸ Although clandestine government programs are not understood, the controversy has percolated through the public consciousness and at least one federal judge has ruled the programs unconstitutional. *Klayman v. Obama* (13-cv-881) 2014. See, also Bill Mears and Evan Perez, *Judge: NSA domestic phone data-mining unconstitutional*

European Union rules that limit access to online information and the right to be forgotten as enforced by EU courts.⁵⁹ The vast majority of students starting a business school curriculum have, perhaps, given little thought to how their online activities might affect their futures.

Further, for those students who are aware of the potential liability they can create with online activities, concerns about defamation might give pause. Public disclosure of private facts could lead to liability, even if true.⁶⁰ In a world of such uncertainty a rational response to participating in an academic conversation might be viewed as inherently dangerous by students. Students might know that a conversation that is not objectionable on the whole is likely to be paraphrased in ways that could be unfairly judged.

The data clearly did not support our second hypothesis. Students strongly believe it is inappropriate for their professors to tweet during class time about personal matters. The more the subject matter can be course related the more likely they were to accept it but they were definitely opposed to a professor taking time during class to tweet. This finding presents multiple opportunities for faculty to establish policy and regain the classroom. One of the most contentious areas of the syllabus for faculty is the use of technology in the classroom and its potential to be distracting. Clearly students want a professor's full and devoted attention while in the classroom yet they often fail to reciprocate. It is clear that if the shoe were on the other foot, students would not find it appropriate to tweet personal messages during class. Once again this may be explained by some sort of compartmentalization or better yet a double standard: what is good for the student may not be good for the professor, the latter being held to a higher standard. Students expect professors to give them undivided attention in class. Whatever the reason, this finding should prove helpful in framing the context within which technology can be allowed in the classroom.

In an attempt to tease out the specifics of what students believe is inappropriate in the classroom, the survey asked those respondents who reported they had witnessed inappropriate use of Twitter to describe it. Not all respondents were willing to give particulars but over 44 students did so. The examples of inappropriate tweeting ranged from bullying behavior to plain 'rudeness'.

<<http://www.cnn.com/2013/12/16/justice/nsa-surveillance-court-ruling/index.html>> (visited Sept. 8, 2014)

⁵⁹ *But see*, Aoife White, *Google and Right-to-be-Forgotten Critics Distort Ruling, EU Says* <<http://www.bloomberg.com/news/2014-08-18/google-and-right-to-be-forgotten-critics-distort-ruling-eu-says.html>> arguing that the results of the recent EU ruling are exaggerated by companies like Google.

⁶⁰ *But see*, *Moreno v. Hanford Sentinel, Inc.* 172 Cal. App. 4th (2009), in which self-revelation of otherwise private facts in a MySpace post barred recovery when those same facts were disclosed by a third party.

The third hypothesis was also not supported by the data. More than 40 % responded that they did not believe they were liable for their comments on Twitter while approximately 20% were uncertain. Clearly the majority of students lack the basic legal awareness necessary to use Twitter without liability. At the same time, it is difficult to determine if non-legal studies faculty and administrators have the necessary threshold knowledge in order to monitor any classroom Twitter activity. It is possible that many of the professors who mandate tweeting, once again those whose disciplines are not law related, are unaware of these consequences and therefore are doing very little to safeguard students and the classroom. Although the data demonstrates a clear majority (over 60%) of students are unaware, it may be overstated since the survey was administered during the school year and it is possible the subject of social media liability had not yet been addressed in the law course the student was taking. Perhaps further study should involve surveying the students as they graduate to determine if they have basic awareness before entering the work force. The true significance here is that students are using Twitter in their social lives well before college and in multiple classes where it may be required, before they take a law course, and they lack basic knowledge as to their responsibilities. Unless these students take a law course, which course should prepare them for any potential legal liability, they will be joining the workforce more vulnerable to being a victim or perpetrator of a wrong committed on or by social media. This finding clearly supports instruction of legal liability for social media not only for students but perhaps for non-legal studies faculty who choose to mandate its use in their classes.

PART IV. RECOMMENDATIONS

It is generally accepted that students are computer and media savvy; however, there are significant obstacles to successful implementation of technology in the classroom. Educators naturally want to use any and all mechanisms to reach students and achieve 'learning'. In this study we have examined the students' threshold knowledge about Twitter use and its legal liability. We have presented students with a series of scenarios ranging from purely personal use to course specific use and measured their perceptions' of that use in the classroom. The knowledge gained from this study serves as the basis for the following recommendations:

1. Based on the overall underwhelming response of students to all three scenarios, professors must overcome measured student resistance to technological implementation. This can be accomplished through various techniques of eliciting student buy-in. Proper introduction of the potential benefits of social media at an appropriate level of engagement might increase student buy-in. Further, professors may want to emphasize that social media usage is a supplement to traditional classroom learning and not an addition to overall workload. This may alleviate preliminary fears and increase student buy-in to the use of social media as a learning tool. Instructors should design exercises that educate on the social media, perform these exercises with the students in class and limit the number of exercises that are technologically driven.

In other words, to the extent that Twitter can be a useful tool, use it but do not let it take the place of active instruction and engagement. Keep it in its place.

2. Define expectations as to conduct and reward. The instructor is responsible to all students for the learning environment. The rights of one student to express herself cannot trump the rights of other students to feel safe in the learning environment. Instructors should let students know what is acceptable and should provide incentives (grades or other) to maintain those standards. The instructor must be an active engaged monitor of the social media forum. Professors could decrease student anxiety by addressing how poor behavior online would result in negative consequences for the potential perpetrators. Explicit instructions in syllabi about what is and is not appropriate conduct in the classroom should be included. As our finding suggests, if students are displeased with a professor who takes class time to tweet personal messages then they should not engage in similar behavior. The syllabus must also contain the appropriate warnings and potential adverse impact of violating the acceptable standards.

3. The data makes it clear that students have strong preferences as to how a professor should use Twitter in the classroom. The most noteworthy finding amongst the three scenarios is that students perceive the conduct of professors who send personal tweets during class as very inappropriate. Simply put, professors should not send personal tweets during class. This same standard should apply to students. One of the most contentious sections of any syllabus involves the use of technology in the classroom and its potential to disrupt the proceedings. Students can be distracted by Facebook on their laptop, texting on their smartphones or tweeting under the desk. They can also distract their classmates. Many professors provide academic sanction for this disruptive behavior and many schools have policies prohibiting such disruptive conduct in the classroom.

Placing a paragraph in the syllabus to the effect that ‘you’ (the student) would not want me to spend class time personally tweeting therefore you will not do the same may go a long way in maintaining student attention during class. Letting students know from day one that the professor student relationship requires attention on both sides may reduce unpleasant episodes during the semester.

4. Clearly the data suggests that students are unaware of their basic legal responsibilities when it relates to social media. Although this area of the law is evolving as the courts wrestle with it, there is enough established law to let these students know that there is some liability. A parameter of acceptable conduct can be taught/shared and the responsibility to do so lies at the feet of the legal environment faculty. Some schools may not be able to devote entire courses to social media but legal environment professors must carry the load here. It is incumbent on the legal environment faculty to instruct students, non-legal faculty and perhaps administrators if necessary.

One of the most critical areas of concern is inappropriate communications. In a legal environment these concerns typically arise in the context of K-12 education. Employer school systems often wish to limit contact between minor students and teachers. However, most college students are only removed from that environment by months or a few years and we might anticipate the alleged problems of inappropriate communications to extend beyond some artificial constraint such as a calendar. If this concern affects at least some small percentage of students, we might expect that effect to be profound. To guard against this, faculty who use social media should instruct by way of the syllabus and through class participation the appropriate boundaries of social media.

All business schools should find a place in their curriculum to teach basic legal liability for social media and the most appropriate forum is the legal environment or business law course.

5. Finally, our study supports the proposition that a professor may be better served by foregoing Twitter use in her class. Even though students were more likely to find Twitter use more appropriate the more it was related to the course work, overall the findings are lukewarm on the use of Twitter in the classroom at all. Perhaps Twitter has already run its course amongst our students, or as discussed above the impediments to student buy-in remain strong.

Future research must certainly address other forms of social media and their use in the classroom. Setting up scenarios that can tease out potential explanatory variables will strengthen the study; once direct impediments to buy-in can be identified then more methods can be used to overcome them. Correcting for possible interactions of these explanatory variables will be necessary to determine that we have accurately identified the pattern or relationship between those variables. More surveys with finer tuned scenarios may prove illuminating. Questions that could be addressed by future research: students' preferences for other forms of social media, students' expectations in instruction on social media as well as many others.

CONCLUSION

This study yielded surprising results worthy of consideration by all educators but of special note to those of us who teach legal environment/ business law courses. Traditional assumptions that technology makes everything better have been challenged by these findings. Granted this study focused on a single form of social media and we do not mean to condemn all technology. Our findings are significant. Students are underwhelmed by the use of Twitter in the classroom, even though the more academic the use the less underwhelmed they appear to be. In addition we find that students are using a social media tool for which they are ignorant as to consequences and liability: like driving a car without having passed the test to get a license.

As educators this study compels us to examine how we teach, what we teach and when we teach. Students should be aware of the consequences of their actions before they engage in those actions. The latest app may not be the best way to reach students for purposes of education even though it serves a valuable social function. We instructors who think we are connecting with our students on their level may be no more appreciated than their 'pathetic' parents who follow them on Facebook. It appears they do not want us as friends; they want us as teachers. Their social lives are distinct from their academic ones. Good news? The study also tells us that they want our full attention, they are not happy when we take away from their class time to send personal tweets. More good news? As educators we should welcome these findings. Our students want us to focus on them and coursework. We should want that too. #luckyteacher.

Appendix A**Survey Instrument:**

Thank you for taking a few minutes to answer this survey.

Please answer the following questions by circling either Y for yes or N for no.

1. Are you a female? Y N
2. Are you currently taking a business law course? Y N
3. Have you ever taken a business law course? Y N
4. Do you have a Twitter account? Y N
5. If yes, do you use it on a daily basis? Y N
6. If yes, do you use it on a weekly basis? Y N
7. If yes, do you use it on a monthly basis? Y N
8. Can you be personally sued for what you tweet? Y N

For the rest of the questions, please consider all of the classes you have taken at the college level and the professors in those classes, in arriving at your answers. Please rate the following hypothetical scenarios on a scale of 1-5, with 1 being 'very inappropriate' and 5 being 'very appropriate'.

Scenario One: The references to Twitter are specifically course related.

9. The professor refers to their Twitter account in class. 1 2 3 4 5
10. The professor stops to tweet in class. 1 2 3 4 5
11. The professor encourages you to follow them on Twitter. 1 2 3 4 5
12. The professor encourages you to tweet them outside of class. 1 2 3 4 5
13. The professor requires you to tweet as part of the course. 1 2 3 4 5

Scenario Two: The references to Twitter are related to the subject matter of the course but are not course specific.

14. The professor refers to their Twitter account in class. 1 2 3 4 5
15. The professor stops to tweet in class. 1 2 3 4 5

16. The professor encourages you to follow them on Twitter. 1 2 3 4 5

17. The professor encourages you to tweet them outside of class. 1 2 3 4 5

18. The professor requires you to tweet as part of the course. 1 2 3 4 5

Scenario Three: The references to Twitter are completely unrelated to the specific course or to the subject matter of the course.

19. The professor refers to their Twitter account in class. 1 2 3 4 5

20. The professor stops to tweet in class. 1 2 3 4 5

21. The professor encourages you to follow them on Twitter. 1 2 3 4 5

22. The professor encourages you to tweet them outside of class. 1 2 3 4 5

23. The professor requires you to tweet as part of the course. 1 2 3 4 5

24. Have you ever experienced an inappropriate use of Twitter? Y N

25. If you answered Yes to question 24 please briefly describe what made it inappropriate. Do not use any identifiers (names, schools, specific courses etc.).