

### Journal of University Teaching & Learning Practice

Volume 15 | Issue 1 Article 8

2018

# Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators

Tyler W. S. Nagel Southern Alberta Institute of Technology, tylerwsnagel@gmail.com

Chaseten Remillard

Royal Roads University, Chaseten.Remillard@royalroads.ca

Robert Aucoin

Royal Roads University, aucoin424@gmail.com

Akari Takenishi Royal Roads University, akaritak@icloud.com

Follow this and additional works at: https://ro.uow.edu.au/jutlp

#### **Recommended Citation**

Nagel, T. W., Remillard, C., Aucoin, R., & Takenishi, A. (2018). Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators. *Journal of University Teaching & Learning Practice*, 15(1). https://doi.org/10.53761/1.15.1.8

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

## Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators

#### **Abstract**

In this paper, we present findings on social media use by students at two institutions in three levels of post-secondary programs. We find that students are almost universally using at least one social network, with Facebook as the most popular, and Instagram second. Many respondents are simultaneously active on several social networks. However, few post to any social medium more than once per day. Social media usage levels of students in our survey far exceeded that of the adult Canadian population at large. Changes in student posting habits during the course varied widely with the level of post-secondary program, as did views on the professional applications of social media.

#### Keywords

Social Media, Twitter, Educational Technology, Pedagogy



### Journal of University Teaching & Learning Practice

Volume 15 | Issue 1 Article 8

2018

# Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators

Tyler W. S. Nagel Southern Alberta Institute of Technology, tylerwsnagel@gmail.com

Chaseten Remillard

Royal Roads University, Chaseten.Remillard@royalroads.ca

Robert Aucoin

Royal Roads University, aucoin424@gmail.com

Akari Takenishi Royal Roads University, akaritak@icloud.com

Follow this and additional works at: https://ro.uow.edu.au/jutlp

#### **Recommended Citation**

Nagel, T. W., Remillard, C., Aucoin, R., & Takenishi, A. (2018). Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators. *Journal of University Teaching & Learning Practice*, 15(1). https://ro.uow.edu.au/jutlp/vol15/iss1/8

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

## Findings on Student Use of Social Media at the Collegiate, Undergraduate, and Graduate Levels: Implications for Post-Secondary Educators

#### **Abstract**

In this paper, we present findings on social media use by students at two institutions in three levels of post-secondary programs. We find that students are almost universally using at least one social network, with Facebook as the most popular, and Instagram second. Many respondents are simultaneously active on several social networks. However, few post to any social medium more than once per day. Social media usage levels of students in our survey far exceeded that of the adult Canadian population at large. Changes in student posting habits during the course varied widely with the level of post-secondary program, as did views on the professional applications of social media.

#### Keywords

Social Media, Twitter, Educational Technology, Pedagogy

#### Introduction

Our society is saturated with the use of social media. Almost six in 10 Canadians use Facebook, accessing the platform an average of nine times each week; LinkedIn is used by 30% of Canadians and Twitter by 25% (Forum Research 2015). Most social-media use is personal communication and information-gathering, but in many industries, social media has become an essential part of professional practice, and social media literacy is a skill many employers now seek (Benson, Morgan, & Filippaios 2014).

Despite the growing use of social media in our society and its acknowledged importance for employment, many educators still view its use in the classroom as a non-traditional teaching technique (Grosseck 2009). Often educators forbid the use of social media in the classroom, viewing its use as a mere distraction; others may not feel comfortable enough with social-media platforms to implement them in their teaching practice (Liu et al. 2016). Recently, scholars have started to investigate the pedagogical value of a more complete integration of social media within course delivery (Friesen & Lowe 2012).

In this study, we survey students at two institutions and at three post-secondary program levels to explore students' social-media usage patterns within communications programs. We then turn to the effects of social-media tuition on students' perceptions and use of social media.

#### Literature review

Heralded as a mechanism to enhance creativity, collaboration, problem-solving and engagement with both classroom and social issues (Grosseck 2009), social media has yet to demonstrate its full potential in modern classrooms. Current research on the use of social media in the classroom shows that although there are many potential, and perhaps hypothetical, benefits for student engagement and learning, there exists a need for further inquiry to determine how those benefits can be fully realised in the classroom (Levin 2010). Despite this need for further research, what has been done has shown some key factors, and social media as a pedagogical tool has been shown to have both documented benefits and limitations.

Current research in the use of social media in the classroom indicates that attitudes among students and teachers alike continue to be mixed (Aucoin 2013). In their study of over 500 college students, for example, Westerman, Daniel and Bowman (2016) found that college users of social media were generally negatively influenced about the use and content of social media through mass media and instructors or teachers, but positively influenced via friends and personal experiences. In other words, university users continue to be overwhelmingly positive about the use of social media in their personal lives, but apprehensive or even negative about it in their scholastic lives. Westerman, Daniel and Bowman were able compare their study results to similar studies in face-to-face environments focusing specifically on communication, and the results were telling. The researchers discovered that students report positive attitudes toward communicating via social media, but they report even more positive attitudes toward face-to-face communication. Hence, teachers and instructional designers should think carefully when choosing modes of communication. This finding supports earlier meta-analytic findings by Means et al. (2009).

Beyond the question of simple personal preferences with respect to the use of social media in the classroom, it may be more important to discuss the ways social media (or any media) is used in the classroom. In other words, are students and instructors using social media in pedagogically sound

ways? Are they consuming (and producing) information and media critically? In some ways these questions revolve around questions of information and media literacy that go back decades (Toffler 1970). Modern scholars have continued this dialogue: Greenhow and Lewin (2015), for example, propose a social-constructivist model of using social media in the classroom to encourage users to move from being rather unsophisticated consumers of social media to more sophisticated consumers *and* producers of social media. The idea, in this case, is that using social media more critically and interactively will lead to "new forms of inquiry, communication, collaboration, identity work, or have positive cognitive, social, and emotional impacts" (Greenhow & Lewin 2015). This concept was also explored by Gao, Luo, and Zhang (2012). Such a shift would require moving beyond the passive consumption of knowledge and the relatively simplistic "liking" or "disliking" of content to higher orders of thinking and interacting with media. Sophisticated use of social media could support the co-construction of knowledge in scholarly environments, potentially including activities like shared storytelling and Wiki-editing projects (Bonk & Khoo 2014).

The successful incorporation of social media into the classroom depends on several key factors. The level of familiarity with social media, by both student and educator, affects student perceptions related to the usefulness and importance of social media in the classroom (Liu et al. 2016). Simply put, as with other online learning tools, student perceptions of the usefulness of social media in the classroom would seem to be linked to their perceived ease of use of that social media in the classroom (Chang & Tung 2008). Although strong peer support for the use of these new online learning methods (Tan 2009) can overcome such ease-of-access issues, with the steady rise of social media in everyday life, it seems classrooms must be increasingly ready for the integration of social media as a learning tool. Indeed, students who reported enjoying social media also reported higher levels of engagement in courses where social media was employed (Welch & Bonnan-White 2012). However, despite contemporary students' quotidian use of social media, most students continue to profess a preference for only a moderate use of technology within the classroom (Smith & Caruso 2010). Furthermore, as it is yet to be determined whether these "digital natives" learn any differently to previous generations (Bennett, Maton, & Kervin 2008), social media seems poised to act more like a tool than an iconoclast within the classroom.

As a pedagogical tool, social media brings both benefits and limitations. On the one hand, moderate use of Twitter within the classroom does produce a positive impact on student perceptions of their learning experience, in classrooms where students were familiar and willing to use Twitter (Fife, Nelson, & Clarke 2014). Twitter also works effectively for classroom management and facilitates clarity about assignment expectations and deadlines (Fife, Nelson, & Clarke 2014). On the other hand, classroom use of social media typically facilitates teacher-student communication, but not necessarily peer-to-peer collaboration (Clark et al. 2009). As a tool of information-gathering and productivity, social media does not develop critical-thinking skills in students, although it does provide avenues for students to make connections between course information and real-world cases (Kassens-Noor 2012) and opportunities to gain practical, skills-based learning with organisations outside educational institutions (Crews & Stitt-Gohdes 2012). Finally, student opinion on the use of the tool is polarised, with some students appreciating the increased possibilities for interaction, and others concerned for breaches in the traditional student-teacher relationship (DeGroot, Young, & VanSlette 2015).

The use of social media, both informally and formally, within the classroom will continue. However, for it to be an effective tool, educators need to gain a better understanding of what exactly social media is, the different types of social media available, the different levels of familiarity that students have with those social-media platforms, and what specific skills and impacts social media can add to the classroom. Social media promises to bring new opportunities to the classroom, but only when educators and students alike better understand such technology as a pedagogical tool (Prensky 2012).

#### Method

This study's participants include students at the Southern Alberta Institute of Technology (SAIT) in Calgary, Canada, and at Royal Roads University (RRU) in Victoria, Canada. The students were enrolled in the Journalism Diploma at SAIT, and in the Bachelor of Arts in Professional Communications and Master of Arts in Professional Communications at RRU. Some of the RRU students were completing their studies in a traditional face-to-face classroom, others in a solely online learning environment and still others in a blend of face-to-face learning supplemented by online learning. All SAIT students were enrolled in a blended program of traditional face-to-face learning supplemented by online technology. Students at each institution were required to use Twitter in various course assessments and assignments. The use of Twitter was a mandatory part of classroom activities, but the specific implementation and goals varied by institution and educator.

As educators at two different post-secondary educational institutions, the authors used social media in our classrooms to achieve two pedagogical objectives. At RRU, social media is used to enhance the learning experience and engagement of students, regardless of the subject matter of the course. At SAIT, the use of social media in coursework is intended to raise student literacy with the medium and train them in specific industry-relevant usage. Intuitively, we believe integration of social media holds considerable promise to achieve either or both of these pedagogical goals (increased learning, and increased preparation for employment). However, the purpose of our current research is to determine more accurately to what extent these uses of social media within our teaching practices do in fact increase student perceptions of engagement and professionalisation.

At the end of the 2016 winter semester, students completed an extensive survey on their personal use of social media, their use of social media as mandated by the course and their perceptions of learning and experience as a result of the course. The survey was based on questions from Aucoin (2013), with modifications to reflect currently available social-media platforms and practices. Further questions were added to probe student reaction to social-media usage in the classroom.

The survey was administered and completed by an online survey tool, and the authors completed subsequent data analysis using spreadsheets of the survey results. The findings presented in this paper relate to the students' use of social media before and after taking the courses, and their perception of the importance of social media in the workplace.

#### Results

Eighty-eight survey responses were received: 61 from RRU and 27 from SAIT. The survey data was split almost equally between students enrolled in online courses (46.6%) and students in face-to-face blended courses (48.9%). As well, the survey data was split evenly across the type of program, with 30.7% of students enrolled in diploma programs, 31.8% in bachelor's programs and 37.5% in a master's program.

The vast majority of students had previously been active on social media. The most popular platform was Facebook, with 95.8% of students active on the platform. YouTube, Instagram, Twitter and LinkedIn were next in popularity, with usage rates of 77%, 71.3% and 69% respectively.

Frequency of posting varied dramatically by platform (Table 1; Figure 1). Snapchat users were the most prolific content creators, with 69.7% of student users posting at least once per day. Instagram followed Snapchat, with 34.2% of student users posting at least once daily. The percentages for Twitter and Facebook were similar, at 26.8% and 25.3% respectively. Only 11.5% of LinkedIn users posted at least daily, and no student reported posting daily or more frequently than daily to YouTube.

Table 1. Usage rate and engagement by platform (n=89)

	Percentage of students active on the platform	Percentage of users posting at least once daily
Facebook	95.4%	39.7%
YouTube	77.0%	0.0%
Instagram	71.3%	34.2%
Twitter	69.0%	43.2%
LinkedIn	66.7%	11.5%
Snapchat	46.0%	69.7%
Google+	33.3%	3.3%
Tumblr	26.4%	41.7%

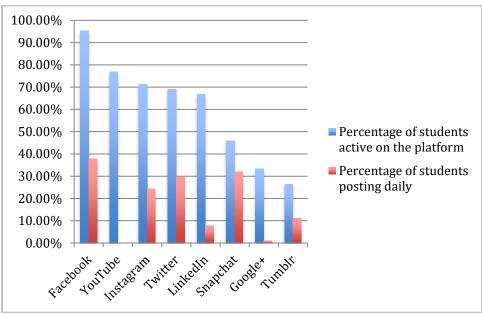


Figure 1. Usage rate and engagement by platform

Distinct differences emerged between RRU and SAIT (Table 2; Figure 2). Use of LinkedIn varied most dramatically, with 80.3% of RRU students using the platform verses only 32.1% of SAIT students. Other significant differences were found for Tumblr (16.4% at RRU versus 46.4% at SAIT) Snapchat (26.1% at RRU versus 64.3% at SAIT), and Google+ (39.3% at RRU versus 17.9% at SAIT).

**Table 2: Usage Rates by Institution** 

	RRU (n=61)	SAIT (n=28)
Facebook	93.4%	96.4%
Instagram	68.9%	71.4%
YouTube	80.3%	64.3%
Snapchat	36.1%	64.3%
Twitter	72.1%	57.1%
Tumblr	16.4%	46.4%
LinkedIn	80.3%	32.1%
Google+	39.3%	17.9%

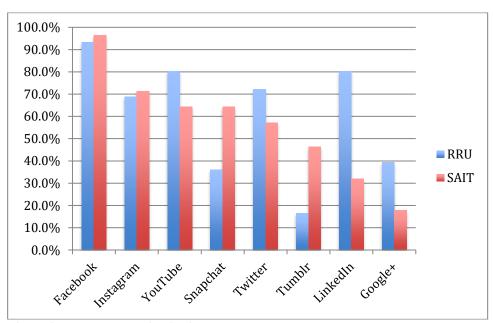


Figure 2. Usage rates by institution

As the data shows, significant differences in the use of social media were found across the level of program Table 3; Figure 3). In particular, Twitter and LinkedIn usage increased with level of program. That is to say that Diploma students had the lowest usage of Twitter (57.1%), followed by bachelor's students (60.7%) and then master's students (81.8%). LinkedIn showed similar variance by level, with higher-level students using the tool significantly more than diploma students: 35.7% of diploma students using LinkedIn verses 71.4% of bachelor's students and 84.8% of master's. Conversely, diploma students used Snapchat much more intensively than other levels (64.3% for diploma, 35.7% for bachelor's and 36.4% for master's). Similarly, Tumblr usage mirrored Snapchat usage (46.4% of diploma students, 14.3% of bachelor's students and 18.2% of master's students).

**Table 3: Usage Rates by Program Level** 

	Diploma (SAIT) (n=28)	Bachelor's (RRU) (n=28)	Master's (RRU) (n=33)
Facebook	96.4%	92.9%	93.9%
YouTube	64.3%	82.1%	78.8%
Instagram	71.4%	67.9%	69.7%
Twitter	57.1%	60.7%	81.8%
LinkedIn	35.7%	71.4%	84.8%
Snapchat	64.3%	35.7%	36.4%
Google+	21.4%	42.9%	33.3%
Tumblr	46.4%	14.3%	18.2%

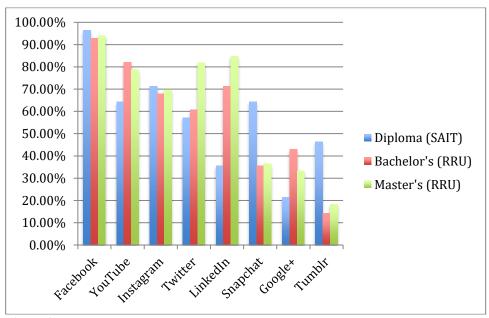


Figure 3. Usage rates by program level

The usage of Instagram and Facebook did not vary significantly by institution or level of program, the use of each tool being nearly identical in each instance.

Students varied as to how important social media was in their day-to-day work (Table 4). Master's students tended to use social media the most, and bachelor's students the least.

Table 4. Average of answers to the question "Currently, how important is social media in your day-to-day work?" (1=Not important at all; 4=Extremely important)

Level	Average
Diploma (n=28)	2.46
Bachelor (n=28)	2.1
Master (n=33)	2.56
Overall (n=89)	2.38

Most students believed that social media competency will be important to employers (Table 5), with diploma and master's students identifying the greatest need for competency in social media. Responses changed when students were asked generally about the importance of social media to their future careers (as opposed to employers after graduation). Students at the master's level were most convinced of social media literacy's importance to their career, while those at the diploma level were less likely to view social-media literacy as important to their careers. Answers to this second question (Table 5) exhibited significantly less variance than the previous question about importance to employers.

Table 5. Average of answers to the question "When you apply for a job after graduation, how important do you believe competency with social media tools will be to your prospective employers?" (1=Not important at all; 4=Extremely important)

Level	Average
Diploma (n=28)	3.29
Bachelor (n=28)	2.96
Master (n=33)	3.27
Overall (n=89)	3.18

Table 6. Average of answers to the question "Do you think social media literacy will be very important in your future career?" (1=Not at all; 4=Very much)

Level	Average	
Diploma (n=28)		3.57
Bachelor (n=27)		3.59
Master (n=33)		3.63
Overall (n=88)		3.6

Answers varied widely in whether students now post more content to social media than before their courses started. Eighty-two percent of diploma students reported a significant increase in their frequency of posting, verses only 29% of bachelor's students and 27% of master's students (Table 7). These results show a split between SAIT and Royal Roads students: SAIT students dramatically increased their social media posting, while fewer Royal Roads students did.

Table 7. Students responding yes to the question "Do you now post more content to social media than when you started the course?"

Level	Agreement
Diploma (n=28)	82.1%
Bachelor (n=28)	28.6%
Master (n=33)	27.2%
Overall (n=89)	44.9%

As the frequency of student posting changed by the end of the course, so too did the types of content posted (Table 8). Exactly 50% of students overall posted different types of content by the end of the course, with the greatest change -79% – coming from SAIT's diploma students. Royal Roads bachelor's and master's students were less likely to post different types of content, with 22% and 49% respectively posting different types of content.

Table 8. Students responding yes to the question "Do you now post different types of content to social media than when you started the course?"

Level	Agreement
LCVCI	Agreement

Diploma (n=28)	78.6%
Bachelor (n=27)	22.2%
Master (n=33)	48.5%
Overall (n=88)	50%

A different type of split emerges when students were queried as to whether they had modified their social media profiles to look more professional (Table 9). Royal Roads students were far more likely to have modified their profiles to look more professional. Nearly two thirds of RRU bachelor's students and more than three quarters of RRU master's students modified their social media profiles to look more professional, while only a third of SAIT students did.

Table 9: Students responding yes to the question "Since starting the course, have you modified your social media profiles to look more professional?"

Level	Agreement
Diploma (n=28)	35.7%
Bachelor (n=28)	64.2%
Master (n=33)	75.6%
Overall (n=89)	59.6%

Most students had a positive perception of their social-media presence, with 87% of students overall rating their presence as either satisfactory or above average. SAIT diploma students were the most likely to rate their social-media presence as professional (Table 10). RRU students in the master's and bachelor's programs were less likely to rate their presence as professional.

Table 10. Average of answers to the question "After this course, when you look at the social media accounts that you have, how would you rate your professional social media presence?" (1=Inadequate; 4=Exceptional)

Level	Average
Diploma (n=28)	2.71
Bachelor (n=28)	2.36
Master (n=33)	2.45
Overall (n=89)	2.51

#### Limitations

This data provides a glimpse into the social-media habits of students over the course of a single program of learning. When interpreting the results, it is important to consider the differences between the program levels as well as those between the institutions, the educators and the pedagogical goals of social-media implementation. However, the data cannot be compared directly because the various populations had different instructors, and the two schools offer mutually exclusive levels of schooling in this study (SAIT offers only a diploma program, and not a bachelor's nor a master's; RRU does not offer a diploma). Thus, when comparing level of

program, for example, the diploma results come exclusively from SAIT and the bachelor's and master's students come only from RRU. Finally, this research was conducted within communications programs and may not translate well to other disciplines.

#### **Discussion and implications**

Our research noted several differences and similarities within students' prior-to-class usage; these results raise several points of discussion and implications for pedagogical design. First, demographic differences in the use of social media are well documented (Duggan 2015), and it is important for educators to acknowledge these differences when designing social media into the classroom. As outlined in the results section, platforms such as Instagram and Facebook are almost universally used at similar levels, regardless of institution or level of program. However, previous use of and familiarity with other platforms like LinkedIn and Twitter were dramatically higher in bachelor's and master's students than for the two-year diploma cohort. Conversely, the use of Tumblr and Snapchat was much lower in the undergraduate and graduate cohorts.

In this survey, Facebook usage surpassed all other platforms. Considering prior media literacy, therefore, the use of Facebook perhaps offers the best opportunity for educators to introduce social media within their classrooms, without the need for an orientation. Research has demonstrated that the use of Facebook can lead to higher levels of "student motivation, affective learning, and [a more] positive classroom climate" (Mazer, Murphy, & Simonds 2007, p.12). Despite potential concerns around privacy and the use of Facebook as a means of communication outside of the classroom, the surveyed students and faculty tended to not consider this as an issue impeding the use of Facebook within the classroom (Roblyer et al. 2010). Other studies have shown that students already use Facebook as an out-of-class coordination tool (Lampe et al. 2011), and that the use of Facebook as a classroom supplement does contribute to a better sense of learning community (Barczyk & Duncan 2013). As a universally used platform, therefore, Facebook may be the easiest social-media platform to integrate into the classroom, particularly for the purpose of student engagement and collaboration.

The observed disparity in usage among surveyed students may also be explained by the proximity of students in graduate programs to career-oriented professional settings. In other words, students in different degree programs may use social media outside of the classroom for a range of different functions, ranging from personal to professional. Kietzmann et al. (2011) offer a typology of seven different "building blocks" of social media based on functionality, which "are neither mutually exclusive, nor do they all have to be present in a social media activity". Although Kietzmann et al. outline the various functions of social media to emphasise the importance of tailoring social media use for distinct audiences and purposes, their observation that the "social" in social media is not a uniform concept is adept and applicable to pedagogical design. Again, as our data shows, differences in age and degree level directly relate to differences in the types of social media students used before the class started: as the age and level of degree increased, so did the use of platforms such as LinkedIn and Twitter. Conceivably, as students expanded their use of social media to maintain relationships beyond their personal networks and into their professional ones, the platforms they used also shifted.

Thus, from an educational-design perspective, the integration of social media into the classroom for the purpose of professionalisation must consider what platforms are likely to be more useful for students not only as a tool, but also as a social network, when entering into their distinct work

environments. The use of Snapchat in the classroom, for example, may produce higher levels of engagement and positively affect the learning climate of the course, because its functionality is much better geared to relationship maintenance, but such literacy may not provide the professional networking opportunities that proficiency with platforms such as Twitter or LinkedIn may yield.

Of course, the rapid and changing nature of social media means that educators who wish to deepen student opportunities for professionalisation through the use of social media in the classroom must also continue to challenge themselves as educators to stay current with contemporary practitioners' social-media use within relevant professional networks. In addition to consideration of platforms, designers need to further consider subject area. Current research is suggesting that the judicious use and adoption of social media might very well be subject-specific, with numerous studies focusing on social media in marketing, English-language teaching and music education, to name a few (Crittenden & Crittenden 2015; Allam & Elyas 2016; Albert 2015).

Another significant finding is that the vast majority of students posted less than once per day on any platform. Although students are portrayed in popular media as being prolific content creators on social-media platforms, only 32.8% of the students surveyed in this study posted daily to Facebook, which had one of the highest engagement rates of the platforms included in the study. Posting on platforms other than Facebook was significantly less frequent.

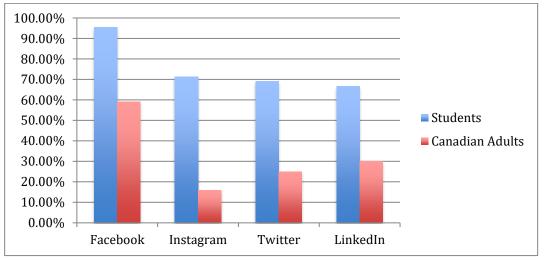


Figure 4. Usage rates of adult Canadians and students

Despite the results for students' posting frequency, a consideration of overall usage of the platforms (including reading without posting) shows that student usage of social media eclipses society-wide usage of social media. Compared to a 2015 survey of Canadian adults' social-media usage per platform (Forum Research 2015), the results of this study show that today's post-secondary student is much more active on social media than the average Canadian. For example, 95% of students are active on Facebook while 59% of Canadians are active users. Newer platforms show an even greater discrepancy. Instagram is used by 71% of students but only 16% of Canadian adults. Thus, despite students' (surprising) lack of consistent daily usage on various social-media platforms, they are still more significantly engaged on social media than the average Canadian adult. This higher-level of use of social media does suggest that purposeful

incorporation of social media within the classroom has the potential to be met with less resistance than other technologies in the past, as social-media literacy amongst students is inherently high. However, as the previous discussion has outlined, and as our data on student usage rate and engagement by platform (Figure 1) suggests, the incorporation of social media into teaching practice must be strategically tailored to the demographics of the student cohort. Moreover, educators must also recognise that familiarity with or "having an account" on social media does not necessarily equate to platform literacy, nor does it likely equate to a capacity to consistently create meaningful content (Aucoin 2013). This belies the prediction of many authors that students would become "prosumers" of media (Prensky 2001, Toffler 1970). Thus, educators should incorporate instructional scaffolding to build basic social-media literacy skills for the vast majority of students less familiar with creating content on social media on a regular basis (Greenhow & Lewin 2016).

As shown in Tables 4 and 5, students tend to identify the importance of social media in the future job market, but don't currently use social media to a significant degree in their jobs. This discrepancy might be explained by two effects. One is that students may be currently employed in entry-level positions and hope to be hired into higher-level and more communications-focused positions when their schooling is complete. On the other hand, students may percive a trend toward more social media in the workplace and may be looking ahead to times when the use of social media is an increasingly important aspect of professional communication.

There were often significant variations between students at various degree levels and between the two institutions involved in the study. The purpose of the pedagogical use of social media may have a significant effect on student posting habits. At RRU, Twitter was implemented to facilitate discussion inside the classroom, while at SAIT the purpose of Twitter was to train students in social-media use in the workplace. Alternatively, the level of the program (diploma, bachelor's and master's) may have been responsible for the effect. Since the study could not examine these variables independently, further research is needed to examine the correlations. Other studies, too, have pointed out the need for such research (Lackovic et al. 2017), and the potential exists for larger-scale cooperation between institutions to examine these effects. More variables for future study might also include socioeconomic status, culture and language.

At SAIT, students were much more likely to post more frequently by the end of the semester. They were also much more likely to have changed the type of content they posted than their RRU counterparts. These effects may be explained by the focus at SAIT on forming social-media habits oriented toward the workplace, as opposed to focusing on in-class discussion.

However, counterintuitively, far fewer SAIT students than RRU students were likely to have modified their social-media profiles to be more professional. Only 36% of SAIT students reported having changed their social-media profiles to look more professional, while over 70% of RRU students reported making such a change. Various explanations for this effect could be explored: bachelor's and master's students might be more focused on being employed than first-year diploma students. Conversely, diploma students in an employment-oriented journalism course at SAIT might have already made changes to their social media profiles prior to enroling in this specific course. Without further inquiry, little light can be shed on this discrepancy.

Regardless of their habits, students have faith in their social-media profiles. Only 7% of students overall rated their professional social-media presence as inadequate. Diploma students at SAIT had the highest degree of confidence in their social-media profiles, possibly due to the workplace focus on Twitter use in the classroom. However, the discordance between this faith in their social-

media profiles and the seeming lack of changes to "professionalise" their social media presence is an effect that warrants further investigation.

#### Conclusion

As educators and administrators adapt to a more connected generation, there is an increasing imperative to encourage positive student perceptions of faculty and course material by incorporating social media into classroom experiences (Neier & Zayer 2015). The results of this study indicate challenges associated with that approach, highlighting students' disparate use of the technology and fairly low content-creation rates. Facebook seems to be a key "universal platform", with high usage rates that remain constant across institutions and program levels. However, other platforms are less consistently and uniformly used.

The age and previous professionalisation effects of social-media usage highlight the need to address social media in the curriculum. Educators must work to overcome any personal bias that equates student ownership of a social-media account with true literacy regarding whether students can actually use that platform purposefully, skillfully and consistently to maintain collaborative and engaged communities. Similarly, educators must creatively look for ways to encourage students to engage in social media use as a tool to widen professional networks, and as a mechanism to create and disseminate user-generated content. Such encouragement might come from peer-based learning, or through developing linkages to industry practice, and perhaps even through the incorporation of industry-expert testimony in course material and classroom delivery. In short, educators should keep in mind that although someone may have grown up riding in automobiles, it is unlikely they intuitively know how to drive.

This survey of collegiate, undergraduate and graduate students showed that despite some overlap in previous social-media usage, significant and important differences in usage and literacy exist between these student cohorts. Our findings, when contextualised with current literature around the effective integration of technology within the classroom, suggest that for social-media integration in the classroom to be effective, the educator needs to be familiar with the social-media platform, and that students need a level of literacy with that platform. To ensure adequate bridging between current and required knowledge, educators need to be familiar with their students' existing social-media habits before delivering their course.

In integrating social media with the goal of enhanced learner engagement, this familiarity with students' social-media usage is vitally important, because the educator must accommodate a wide spectrum of students' usage levels and expertise with particular platforms. While engagement on a platform already in use by a majority of students might reduce the time required to facilitate familiarity with a given platform, the introduction of a new platform might better serve pedagogical goals based on the platform's capabilities and characteristics. Regardless, ignorance of students' prior social-media habits could at best cause needless repetition in technical platform training, and at worst, actually decrease engagement by engendering animosity through the provision of insufficient training on a platform.

In the case of industry-specific social-media training as a pre-employment pedagogical goal, it is still important to be aware of students' prior social-media usage habits as curricula are developed. Ignorance of prior learning and usage can result in duplication of prior learning, or in a gap in an education progression, leading to frustration or needlessly difficult courses.

We recommend that educators acknowledge the potential of social media as a pedagogical tool and recognise that social media is a diverse suite of applications and that different student bodies use and are familiar with different social-media platforms. For social media to be most effective in building engagement and professionalisation, educators should scaffold basic social-media literacy skills into their course design and not assume that personal use of social media equates to students' capacity to use it for classroom purposes.

#### References

Aucoin, R C 2013. A study of students' perceptions of the use of web 2.0 applications in higher education. Viewed 22 September 2016 at https://doi.org/10.14288/1.0165844.

Allam, M & Elyas, T 2016. Perceptions of Using Social Media as an ELT Tool among EFL Teachers within the Saudi Context. *English Language Teaching*, 9(7).

Albert, D J 2015. Social media in music education. *Music Educators Journal*, 102(2), pp. 31-38. doi:10.1177/0027432115606976.

Barczyk, C C & Duncan, D G 2013. Facebook in higher education courses: An analysis of students' attitudes, community of practice, and classroom community. *International Business and Management*, 6(1), pp. 1-11.

Bennett, S, Maton, K, & Kervin, L 2008. The "digital natives" debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), pp. 775-786.

Benson, V, Morgan, S, & Filippaios, F 2014. Social career management: Social media and employability skills gap. *Computers in Human Behavior*, 30, pp. 519-525.

Bonk, C J & Khoo, E 2014. *Adding some TEC VARIETY – 100+ Activities for Motivating and Retaining Learners Online*, Open World Books, Indiana University. Viewed 21 February 2018 at http://tec-variety.com/TEC-Variety\_eBook\_5-4.pdf.

Chang, S-C & Tung, F-C 2008. An empirical investigation of students' behavioural intentions to use the online learning course websites. *British Journal of Educational Technology*, 39(1), pp. 71-83.

Clark, W, Logan, K, Luckin, R, Mee, A, & Oliver, M 2009. Beyond Web 2.0: mapping the technology landscapes of young learners. *Journal of Computer Assisted Learning*, 25(1), pp. 56-69.

Crews, T B & Stitt-Gohdes, W L 2012. Incorporating Facebook and Twitter in a Service-Learning Project in a Business Communication Course. *Business Communication Quarterly*, 75(1), pp. 76-79

Crittenden, V & Crittenden, W 2015. Digital and social media marketing in business education: Implications for the marketing curriculum. *Journal of Marketing Education*, 37(2), pp. 71-75.

DeGroot, J M, Young, V J, & VanSlette, S H 2015. Twitter use and its effects on student perception of instructor credibility. *Communication Education*, 64(4), pp. 419-437.

Duggan, M 2015. *Mobile Messaging and Social Media – 2015*. Pew Research Center, Washington, DC. Viewed 26 September 2016 at http://www.pewinternet.org/files/2015/08/Social-Media-Update-2015-FINAL2.pdf.

Fife, E, Nelson, C L, & Clarke, T B 2014. Online Technological Media in the Higher Education Classroom: An Exploratory Investigation of Varied Levels of Twitter Use. *International Journal of Online Pedagogy and Course Design*, 4(2), pp. 35-45.

Forum Research 2015. *Instagram tops in user satisfaction*. Forum Research, Toronto. Viewed 21 September 2016 at http://poll.forumresearch.com/post/213/facebook-leads-in-penetration-linkedin-shows-most-growth/.

Friesen, N & Lowe, S 2012. The questionable promise of social media for education: connective learning and the commercial imperative. *Journal of Computer Assisted Learning*, 28(3), pp. 183-194.

Gao, F, Luo, T & Zhang, K 2012. Tweeting for Learning: A Critical Analysis of Research on Microblogging in Education Published in 2008-2011. *British Journal of Educational Technology*, 43(5), pp. 783-801.

Greenhow, C & Lewin, C 2016. Social Media and Education: Re-conceptualizing the Boundaries of Formal and Informal Learning. *Learning, Media and Technology*, 41(1), pp. 6-30. doi:10.1080/17439884.2015.1064954.

Grosseck, G 2009. To use or not to use web 2.0 in higher education?. *Procedia – Social and Behavioral Sciences*, 1(1), pp. 478-482.

Kassens-Noor, E 2012. Twitter as a teaching practice to enhance active and informal learning in higher education: The case of sustainable tweets. *Active Learning in Higher Education*, 13(1), pp. 9-21.

Kietzmann, J H, Hermkens, K, McCarthy, I P & Silvestre, B S 2011. Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), pp. 241-251.

Lackovic, N, Kerry, R, Lowe, R & Lowe, T 2017. Being knowledge, power and profession subordinates: Students' perceptions of Twitter for learning. *The Internet and Higher Education*, 33(Supplement C), pp. 41-48.

Lampe, C, Wohn, D Y, Vitak, J, Ellison, N B & Wash, R 2011. Student use of Facebook for organizing collaborative classroom activities. *International Journal of Computer-Supported Collaborative Learning*, 6(3), pp. 329-347.

Levin, B 2010. Innovation, transformation and improvement in school reform. Paper prepared for the ESRC Seminar on School Effectiveness and School Improvement Research, Glasgow, Scotland, June.

S

Liu, M, McKelroy, E, Kang, J, Harron, J & Liu, S 2016. Examining the Use of Facebook and Twitter as an Additional Social Space in a MOOC. *American Journal of Distance Education*, 30(1), pp. 14-26.

Mazer, J P, Murphy, R E & Simonds, C J 2007. I'll See You On "Facebook": The Effects of Computer-Mediated Teacher Self-Disclosure on Student Motivation, Affective Learning, and Classroom Climate. *Communication Education*, 56(1), pp. 1-17.

Means, B, Toyama, Y, Murphy, R, Bakia, M & Jones, K 2009. Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies. US Department of Education Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Service. Viewed at http://files.eric.ed.gov/fulltext/ED505824.pdf.

Neier, S & Zayer, LT 2015. Students' perceptions and experiences of social media in higher education. *Journal of Marketing Education*, 37(3), pp. 133-143.

Prensky, M 2001. Digital Natives, Digital Immigrants Part 1. On the Horizon, 9(5), pp. 1-6.

Prensky, M 2012. Before bringing in new tools, you must first bring in new thinking. *Amplify*, June. Viewed 22 September 2016 at http://marcprensky.com/writing/Prensky-NewThinking-Amplify-June2012.pdf.

Roblyer, M D, McDaniel, M, Webb, M, Herman, J & Witty, J V 2010. Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education*, 13(3), pp. 134-140.

Smith, S D & Caruso, J B 2010. *The ECAR Study of Undergraduate Students and Information Technology*. Educause Center for Applied Research. Viewed 22 September 2016 at https://library.educause.edu/~/media/files/library/2010/10/ers1006w-pdf.pdf.

Tan, J P-L 2009. Digital kids, analogue students: a mixed methods study of students' engagement with a school-based Web 2.0 learning innovation. Thesis, Queensland University of Technology, Brisbane. Viewed 22 September 2016 at http://eprints.qut.edu.au/30396/.

Toffler, A 1970. Future Shock. Bantam Books, New York.

Welch, B K & Bonnan-White, J 2012. Twittering to increase student engagement in the university classroom. *Knowledge Management & E-Learning: An International Journal*, 4(3), pp. 325-345.

Westerman, D, Daniel, E S & Bowman, N D 2016. Learned risks and experiences rewards: Exploring the potential sources of students' attitudes toward social media and face-to-face communication. *Internet and Higher Education*, 31, pp. 52-57. https://doi.org/10.1016/j.iheduc.2016.06.004.