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Influence of attitudes to social media use in professional learning on students' online journalism self-efficacy beliefs

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Abstract

With a wide variety of easily-accessible internet tools, social media have revolutionized the way people access, create and share information. Apart from facilitating social networking, these online platforms are also considered critical enablers of professional competence development, with perceptions of their use in promoting learning – in a domain like journalism – gaining currency. Using Rwanda as a case study, this article explores students' attitudes towards social media use in professional learning and how these predict their self-efficacy for online journalism work. Empirical data was gathered from mass communication students from five Rwandan universities (n=143), who completed a researcher-constructed 'online journalism self-efficacy' (OJSE) survey. Descriptive findings indicated that the students are highly efficacious in most online journalism skills. Inferential statistical analysis demonstrate that the students' beliefs, feelings and actions regarding social media as professional learning tools, significantly correlated with the students' online journalism self-efficacy. The results disconfirm the null hypothesis that negate the existence of a significant relationship between these variables. In light of the study's results, educators need to leverage the students' positive social media attitudes to enhance and innovative student-centred teaching and learning approaches – where learners harness the affordances of the social media tools for their professional growth.

Introduction

Modern journalism practice is characterised by the adoption of digital skills that facilitate the speedy gathering and distribution of stories to news audiences. Such skills also enable audiences (as 'citizen journalists') to capture stories in different formats (text, sound, still image or video) and simultaneously share them on different online platforms (Dabner, 2012). One example of such skills is the ability to use social media tools to share stories online. These tools have been defined as "internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content" (Osepashvili, 2014: 379).

Such free and inexpensive online applications have led to the creation of a digital culture where people share information and learn from each other. Being the most active online audiences, it has been argued that students have the ability to use social networking platforms such as Twitter, Facebook, YouTube and Instagram to generate and exchange important content with others for social and professional learning purposes (Lewis, 2010). One characteristic defining this generation has been their ability to create customized and self-paced learning through various interactive online tools. It has been argued that today's net-centric learners (referred to as 'digital natives') have different learning styles, and can simultaneously use different social media tools to communicate and collaborate with other online audiences, to support a student-centered learning environment (Flores, 2010). While the role of social media in promoting student-centered learning is acknowledged (see for example Meabon, 2014), more systematic and evidence-based research is needed to ward off claims of the 'commercially contoured' nature of social media services in different domains (Friesen & Lowe, 2011:193).

Studies about attitudes towards the internet as a learning tool show that most online audiences rely on the medium for their news sources and professional development. While social media platforms provide media practitioners with interactive avenues of information sharing, there are concerns about the credibility of the news and information generated and shared. The fact that social media platforms are open information sources without proper regulation, means there is a probability of a heightened risks of fake news, the distortion of facts, and issues related to the accuracy and objectivity of news stories on social networking sites (Safari, Rahman, & Mohammed, 2016).

In developing social media skills for the media industry, evidence shows that students' formal and informal use of different tools may contribute to the development of their online skills self-efficacy, that is, the perceived ability to perform the online skills for desired professional online work. However, with no consensus on the digital skills required for future communication professionals, researchers have attempted to map out critical skills that define online journalism. Ferrari's (2012) 'Digital Competence Framework' defined a comprehensive list (amalgamated from other frameworks) of online skills that he considered critical for any 21st century professional. In his framework, digital readiness is underpinned by five dimensions: the ability to conduct online research, develop multimedia content, communicate with social media tools, be ethical while publishing online content and the usage of online tools to solve organisational problems. Ferrari's framework aligned with others like Van Deursen & Van Dijk's (2011) which foreground information navigation skills, social media skills and online creativity skills as key characteristics of the future workplace. According to

Sagrsta & Matbob (2016), Ferrari's digital skills could be contextualized in mass communication practice to measure students' preparedness for online work in the industry.

While advocating for a broader interrogation of factors key to self-efficacy for digital skills such as social media, researchers Yakin & Erdel (2012) and Caballero & Walker (2010) recommended going beyond skills and knowledge to consider personal attributes, such as attitudes regarding technology. Despite ubiquitous social networking sites having influence on learning in educational settings, Dabner (2012) argues that the way students perceive such tools for their own professional development has not been well established. Although studies on general attitudes to social media have been carried out in different domains, scant attention has been paid in drawing the relationship between such attitudes towards social media for professional learning, and self-efficacy beliefs in actual professional performance of the digital skills. This is more so in developing countries like Rwanda which prides itself in digital reforms that continue to position the country as a rising digital hub in Africa.

Literature Review

Attitudes towards social media

The concept 'attitude' has been defined variously. However, Hogg & Vaughan's (2005:150) definition of attitudes as the "beliefs, feelings and behavioural tendencies towards socially significant objects, groups, events or symbols" seems to find more valence among scholars. The beliefs, feelings and behaviors that students have towards technology are crucial, since these affect their level of interest and engagement with the technology. Besides, research shows that in the digital age, educators should study the digital culture (including the value beliefs in technologies) of their students to align their digital skills development practices accordingly (Holmström & Siljebo, 2013).

The role of social media attitudes in cultivating online readiness among students continues to garner research interest. Evidence suggests that since attitudes towards online interactions can influence students' approach towards working and learning online, establishing the attitudes that such students have towards online communication can help to align their learning for future careers (Correa, 2015). Furthermore, though the connection between students' online communication attitudes and actual performance on the job is difficult to see, positive attitudes have been seen to predict active engagement in online interactions (Hammoud, Love, & Brinkman, 2008; Korkmaz, 2012; Ku, Tseng, & Akarasriworn, 2013). Although social media are interactive avenues of sharing stories, the credibility of such sites as news sources is questioned. Scholars caution about the heightened risks associated with instances of deliberate misinformation, affecting the accuracy and objectivity of news that audiences receive (Safari *et al*, 2016).

Mao (2014) investigated students' attitudes and beliefs about social media and challenges associated with using them for learning. Students showed positive attitudes and beliefs about using such tools to improve their learning. Although they enjoyed using social media to share assignment ideas, especially after class, some considered them as distracting. Vannatta & Fordham (2004) analysed students' and teachers' views about technology for learning, with 87% of the students citing technology as efficient in executing tasks concurrently and boosting their confidence levels. Although previous research (e.g.

Palak & Walls, 2009) shows a relationship between attitude and perceptions of technology competence, Vannatta & Fordham's (2004) study found only a slight relationship.

Separately, using a participatory approach, Cochrane, Sissons and Mulrennan (2012) assessed how Twitter, Blogging and Facebook use in journalism classes influenced students' perceptions of their professional engagement with each other and lecturers online. Students reported having developed more online interactivity skills, learning a lot from the experiences of colleagues and they considered such online tools as having 'authenticized' real work experiences. In Holmström and Siljebo's (2013) study, positive attitudes to technology among Swedish students related positively with their digital skills development.

Ha and Shin (2014) surveyed 324 undergraduate journalism students to explore perceptions of social networking sites (SNSs) as learning tools. While students' were skeptical about SNSs in learning, most positively evaluated the potential of SNSs in skills development. In Popa and Topală's (2018) study of 200 undergraduate students' online attitudes, and their self-perceived competencies for self-learning, results showed that the more digital tools students used, the higher the level of their self-directed learning was. Those with favorable attitudes to digital tools used the tools more frequently, with satisfied students considering self-teaching with online tools as critical to their competence development.

Osepashvili (2014) surveyed Georgian journalism students' attitudes towards using Moodle and Facebook for learning. Findings showed strong popularity with closed Facebook groups in sharing professional ideas through their media productions. A study by Lewis (2010) also drew parallels between public relations students' attitudes to social media and their usage of such tools as news sources and research tools for class assignments. Results also indicated that attending social media classes has positive influence on students' attitudes towards the social media as strategic communication tools. Lewis (2010) argued that educators should endeavour to appreciate how students make sense of social media, the role these tools play in their lives and how they fit into the industry for which they are being educated.

As the media industry adopts a more convergent approach, the foregoing discussion suggests that media training institutions should also evolve and bridge the skills gaps created. With the foregoing evidence showing a correlation between students' perceptions of using technology in their learning, and their adoption of the technology for academic and professional advancement, establishing the role of attitudes or beliefs regarding social media tools as catalysts for confidence building for the media industry becomes urgent. Such attitudes are expected to reveal how the students position the new media, not just as tools for social networking, but also as potential forums for creating a professional identity and learning.

A technological acceptance model approach to attitudes towards social media use

Davis' (1989) technology acceptance model perceived technology usage as dependent on the degree to which an individual believes that its use would enhance their job performance (perceived usefulness) and the belief that using that technology would be free of real and mental efforts (perceived ease of use). According to Davis, these factors determine attitudes toward using a

particular technology, which drives the intention to use and eventual actual usage behaviour. By extension, if a user perceives technology to be easy to use and familiar, his or her belief in the ability to use it (competence) increases.

Drawing from Davis' framework, the current study operationalises attitudes towards social media tools for journalistic learning to include knowledge of the usage or benefits of using the social media tools for professional purposes; the perceived ease of use of these tools in professional environments; the actual usage of social media tools for academic purposes; as well as the enjoyment or fears in using such tools for professional growth. In the context of digital skills learning by mass communication students, it can be argued that the cognitive effects of constant use of these new media technologies can spur students to always be connected to learn from each other. Furthermore, research has shown that apart from the social uses of new media technologies, such technologies also have learning and education value to users (Dogoriti, Pange, & Anderson, 2014).

Statement of the problem

Rwanda's dark past, characterized by the 1994 genocide against the Tutsi, saw the media heavily blamed for the ethnic division, perpetuation of hate messages and the eventual atrocities that were visited on the population. In a break from this past, media industry reforms in the better part of the last quarter of a century have focused not only on professionalizing the sector through a self-regulation framework, but also by harnessing the internet-based technologies like social media to play a key role in the country's socio-economic transformation. With an education policy (MINEDUC, 2016) that emphasizes student-centered learning, harnessing the power of social media tools to boost 'self-teaching' among the 'digital natives' (students) in a domain such as journalism, therefore becomes timely. With evidence of positive association between technology attitudes and perceptions on ability to perform a technological task (e.g. Ellefsen, 2016), it has been argued that exploring students' attitudes on online platforms like social media might help understand the perceived value and impact of such tools in their personal and professional lives (Wright & Hinson, 2009). Given that social media are now considered critical in the performance of organizations, the need to understand the attitudes of future professionals regarding the use of social media for learning and practice has become urgent (Vidal, Martínez, Fortuño & Cervera, 2011).

While literature has established that social media is phenomenal in influencing mass communication practice, the main focus has been on students' social media profiles and their perceptions of selected social networking sites in their learning and networking (Dogoriti *et al*, 2014; Lewis, 2010; Osepashvili, 2014). Studies specifically examining students' attitudes towards the use of these tools in enhancing their beliefs in ability to professionally work online however, are lacking. In Rwanda, perceptions of mass communication students regarding social media tools in professional growth is not clear and therefore merits investigation.

This study endeavors to address this gap by exploring how students' attitudes to social media tools influence their self-efficacy beliefs in performing professional online work. From a technology acceptance model approach, the study argues that the students' perceived ease of use of the social media tools, perceived usefulness or value of the social media tools for professional learning, as well as perceptions of the social media as underpinning the future of the profession, cultivate positive

attitudes towards using the tools for professional advancement. Such positive attitudes are therefore expected to crystallize their self-efficacy beliefs and provide a foundation for their capability to perform online journalism tasks in the future.

Study questions

The study questions that underpinned this study were the following:

1. What are the students' attitudes towards social media use for professional learning?
2. What are the students' self-efficacy beliefs regarding online journalism skills?
3. Are the students' attitudes towards social media usage for professional learning significantly related to their self-efficacy for online journalism work?

Hypothesis

Although evidence shows that social media are generally perceived positively by students, some scholars caution against generalizing digital competence of all youth, citing peculiarities of social media usage that do not necessarily relate to professional learning. To this end, the study tested a null hypothesis (H_0) which postulated no significant relationship between the students' attitudes towards social media for professional learning and their self-efficacy for online journalism work.

Methodology

The study targeted final year mass communication students ($N=293$) in five Rwandan universities, purposively selected as the only institutions offering undergraduate journalism programs. A proportional sample of 143 respondents (81 males and 62 females) was determined from Yamane's (1967) formula for populations below 1500. A researcher-constructed questionnaire was used to gather data. Attitudes regarding social media for professional learning were measured using a modified version of Rosen, Whaling, Carrier, Cheever & Rokkum's (2013) sub-scale of their validated 'Media and Technology Usage and Attitudes Scale'. This scale was originally developed to measure IT and social media usage, as well as attitudes towards information technology. The Cronbach's alpha value of the original Media and Technology Usage and Attitudes subscale items ranged between .85 and .80. Being part of a larger research project, the whole instrument had been content-validated by five Rwandan online journalism educators and three social media editors.

Subscale items were contextualized into journalism from the three attitude components as proposed by Ajzen (2005): affect (feelings about social media), cognition (beliefs about social media) and behavior (intention or action towards social media). Statements therefore focused on perceived usefulness, confidence, and anxiety and aversion to social media as learning tools. Participants responded to nine five-point Likert scale statements with response options ranging from 1 (strongly disagree) to 5 (strongly agree). Self-efficacy for online journalism skills was assessed by adapting Ferrari's (2012) Digital Competence Framework which considers online research, multimedia content creation, social media communication, online ethics and problem-solving as critical skills required in the 21st century. Other studies also indicate the need for future communication professionals to possess such skills for career readiness (Ha & Shin, 2014).

A pilot test involving 20 respondents (i.e. 4 from each school) indicated Cronbach's Alpha values for 'attitudes towards social media for professional learning' and 'online journalism self-efficacy' as .742 and 0.785 respectively, demonstrating high reliability of the instrument on the .7 threshold (George & Mallery, 2003). Response patterns were analysed through descriptive statistics followed by inferential statistical analysis (correlation and regression) using SPSS Version 21 to determine the correlation and contribution of attitudes on the students' online journalism self-efficacy. Hypothesis test results were considered significant at $p < 0.5$.

Ethical considerations

This study was part of a broader study on predictors of online journalism self-efficacy in Rwanda which had been officially approved by Rwanda's National Council of Science and Technology (NCST). Respondents were briefed about the objectives of the study before they gave their free and informed consent to participate. Also the researchers gave an assurance that responses would remain anonymous since no names would be included in the analysis and discussion of the findings. In an effort to get the most accurate responses, respondents were requested to indicate their opinions as honestly as they could, considering the positive pedagogical implications that the responses were expected to generate.

Results

Descriptive analysis of attitudes towards social media for professional learning

Respondents were asked to indicate their level of agreement on each of the attitude dimensions (beliefs about social media for professional learning, feelings about social media in professional learning and actions/intentions towards social media use in professional learning). Table 1 shows the attitudes to social media mean response rates on a five-point Likert scale.

Table 1: Attitudes towards social media for professional learning

Attitude dimension	Indicator	Mean	Standard deviation
Beliefs of social media for professional learning	I believe social media skills will be crucial to my employment	4.6	0.652
	I believe social media can teach me new skills for my future job	4.71	0.487
	I believe my future career depends on knowledge of social media tools	4.26	0.984
Feelings about social media for professional learning	Social media use decreases my journalistic skills	3.75	1.178
	The media industry cannot survive without social media use	3.99	0.979
	Social media are trusted news sources	3.43	1.237

Behaviour towards social media for professional learning	I explore the potential of social media to improve my interaction skills	4.49	0.659
	I have several social media accounts to keep myself updated	4.57	0.667
	I always sign up to new social networking sites	4.22	1.12
Average		4.2	0.9

Findings indicated that most respondents strongly believed in the use of social media tools for professional learning. This was indicated by the high mean agreement values regarding the statements under this attitude dimension. The belief in the ability for social media tools to teach new journalistic skills had the highest approval (M=4.71), followed by the belief in social media as enhancers of future employment (M=4.6) and then by the belief that success on their future careers was hinged on their competence in the use of social media tools (M=4.26).

Regarding the affective attitudinal dimension, respondents felt the media industry would only thrive if they adopted social media tools (M=3.99), yet also agreed that social media use would negatively affect the journalistic writing skills (M=3.75). Despite the high regard for social media, findings contradicted its perceived role in giving accurate or trusted information (Flores, 2010). Most respondents considered social media as untrusted sources of news (M=3.43), in line with caution against trusting all that is posted online (Flores, 2010; Cremedas & Lysak, 2011). This implied that the respondents could be prioritising the tools for social rather than professional purposes.

Respondents expressed a strong agreement with how they use social media tools. Majority strongly agreed that they had signed up to a variety of social media tools to keep themselves updated (M=4.57) and that they regularly explored the features of those tools to boost their communication and interaction skills with them (M=4.49). This concurred with scholars like Anderson, Glaisyer, Smith, & Rothfeld (2011) who suggested that future professionals should be ready to learn social media tools as they emerge to give them an edge in the industry.

On the whole, an average agreement rate (M=4.2, Standard deviation=.9) expressed positive sentiments from the students about the potential of social media tools in shaping their future careers. These social media seemed to be positioned as key drivers of professional growth, with capacities to open up vast opportunities of professional learning experiences. Further, the high agreement in the three attitude dimensions showed that respondents generally embraced social media as the new game changers in the media industry, where future practitioners will be assessed on their ability to leverage these digital skills for performance. Findings in this study support the technology acceptance model of Davis (1989) which linked attitudinal aspects, like perceived ease of use and benefits of using a technology, to beliefs in the successful use of the technology.

Descriptive analysis of online journalism self-efficacy

Online journalism self-efficacy was measured by the adapted version of Ferrari's (2012) digital competence scale which considers the ability to conduct online research (OJR), produce multimedia content (MMC), communicate with social media (SMC), observe online ethics (OET) and solve problems with social media (PSV) as the key digital skills for professionals in the 21st century. Table 2 shows the cross-tabulated results.

Table 2: Response rates for online journalism efficacy

Code/Online journalism skill	SA(5)	A(4)	N(3)	D(2)	SD(1)	M	STDV
[OJS] I can effectively conduct journalistic research in different online platforms	38.6	45.8	12.1	2.7	0.8	4.2	0.8
[SMC] I can use different social media tools to communicate professionally	43.4	33.4	12.9	5.8	4.5	4.0	1.0
[MMC] I can produce different multimedia content and share it in different social media platforms	37.4	36.3	15.0	7.5	3.8	4.0	1.0
[OET] I can apply ethical online practices when I publish stories online	43.0	37.4	15.0	3.7	0.9	4.2	0.9
[PSV] I can use different social media tools to solve organization-audience problems	38.5	46.9	9.9	3.4	1.4	4.2	0.8
AVERAGE	40.2	39.9	13.0	4.6	2.3	4.1	0.9

Key: SA = Strongly Agree; A = Agree; N = Neutral, D = Disagree; SD = Strongly Disagree; M=Mean; STDV=Standard Deviation.

Results indicated most respondents were highly efficacious in most of the online journalism skills. On aggregate (Strongly Agree + Agree), the ability to use social media tools to address problems between an organization and its audiences, attracted the highest agreement rate (85.3%). This was followed by the use of social media tools to conduct journalism research (84.4%). The ability to produce multimedia content and share it across different platforms had the lowest agreement rate of 73.7%.

The overall average result expressing the respondents' agreement with their ability to carry out all the online journalism tasks, and therefore overall self-efficacy, was 81.1%, or the equivalent of 116 out of 143 respondents. This demonstrated that about 4 out of 5 of the respondents felt prepared to carry out most of the skills operationalized under online journalism. On the face of the results therefore, an aggregate of 81% of the respondents felt highly prepared to do online journalism tasks, 13% had no inclination on their specific level of self-efficacy while a paltry 6.9% (about 11 out of the 143 respondents) were not prepared to execute tasks related to online journalism. The significance of these results (in conjunction with the predictor variable) was, however, subject to statistical tests which we now explore in the next sections.

Correlation Analysis

To test the statistical relationship between the three dimensions of attitudes towards social media for professional learning and students' self-efficacy for online journalism, correlation analysis was run with a statistical significance of 0.05. Table 3 shows the multiple correlation analysis between the dimensions of attitudes to social media and the respondents' online journalism self-efficacy.

Table 3: Correlations between social media attitudes and online journalism self-efficacy

	Beliefs about social media use in professional learning			Feelings about social media for professional learning			Behaviour about using social media for professional learning		
	I believe social media skills are crucial to my employment	I believe social media can teach me skills for my future job	I believe my future career depends on knowledge of social media	Social media use decreases my journalistic skills	The media industry cannot survive without social media use	Social media are trusted sources of professional information	I explore the potential of social media tools to improve my interaction skills	I have several social media accounts to keep myself updated.	I always sign up to new social networking sites
Online journalism self-efficacy	.236	.309	.154	.211	.230	.192	.314	.184	.280
Sig. (2-tailed)	.005	.000	.068	.012	.006	.022	.000	.029	.001

Overall, the correlation matrix indicated varying levels of interdependence, ranging from weak to strong (at 95% confidence level) between online journalism self-efficacy beliefs and the three attitude dimensions. Results showed strong and significant correlations between constructs under behavioural dimensions of attitudes and online journalism self-efficacy – exploring social media for potential skills ($r=.314$, $p<.05$), signing up to new social networking sites ($r=.280$, $p<.05$), and opening up several social media accounts to keep updated ($r=.184$, $p<.05$). This implied that the more the respondents engaged with the social media tools, the more this heightened their beliefs in their ability to do online journalism tasks.

Regarding the cognitive dimensions of attitudes, correlation between the belief that social media could negatively affect one's journalistic skills and online journalism self-efficacy ($r=.154$, p -value $.068$), was positive but proved insignificant. The other constructs however, posted positive and significant correlation results with online journalism self-efficacy as follows: belief in social media teaching news skills ($r=.309$, p -value $<.05$) and, social media and employment ($r=.236$, p -value $<.05$). This implied that respondents who believed that social media tools have the potential to determine their prospects of employment, as well as boost their digital skills required in the industry, had higher levels of self-efficacy for online journalism work.

On the affective dimensions of attitudes, only a strong positive and significant correlation was observed between the respondents' feeling that media industry would not cope well without social

media ($r=.230$, $p\text{-value}<.006$). Although the other two constructs (social media decreases journalistic writing skills and social media are trusted sources of news) had positive correlations with online journalism self-efficacy, these were insignificant. By recognizing the fate of the media industry in the wake of social media technologies, respondents seem to acknowledge the central role played by such digital skills in boosting industry performance.

Overall, the Pearson's correlation values showed that the strongest and most significant positive correlation was between the respondents' beliefs that social media skills can be relevant skills for industry preparedness, coupled with the exploration of social media possibilities in enhancing interactivity skills and online journalism self-efficacy. Despite the premium attached to social media in the respondents' perceptions, it was particularly surprising to note that the least significant (yet positive) correlation was shown to be between the belief that respondents' future careers would depend on the knowledge of social media and online journalism self-efficacy.

When the attitudes towards social media were aggregated, the resulting correlation value was $r=.413$, $p\text{-value}<.05$ indicating an even stronger positive linear relationship with the respondents' online journalism self-efficacy beliefs. This demonstrated the central role of attitudes in shaping beliefs about performance. In the context of online journalism, any improvement in the attitudes towards social media as professional learning tools is therefore likely to increase the students' efficacy for working in online environments.

Hypotheses testing

To test the null hypothesis (H_0), bivariate regression analysis of the mean scores of the respective variable constructs was run at 95 percent confidence level. The predicted model was fitted as: online journalism self-efficacy, $Y = \beta_0 + \beta_1 X_1 + \epsilon_i$ where Y = online journalism self-efficacy; β_0 = constant (α = constant term); β_1 = intercepts for the independent variable (attitudes towards social media for professional learning); X_1 = attitudes towards social media for professional learning and ϵ = error term/Stochastic term.

Table 4 presents the results of the fitness of the regression model used in explaining the variation of online journalism self-efficacy as a result of the attitudes to social media for professional development.

Table 4: Model Summary for attitudes to social media and OJSE^b

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.413 ^a	.170	.164	.511

a. Predictors: (Constant), Attitudes to social media for professional development

b. Dependent Variable: online journalism self-efficacy (OJSE)

The coefficient of determination (R^2) of 0.170 showed that the influence of the respondents' attitudes to social media for professional development explained 17% of the variation in their online journalism self-efficacy. In essence therefore, other factors external to the model variables accounted for 83% of online journalism efficacy. Excluding the constant variable, these attitudes to social media for professional development explained the variations in online journalism self-efficacy by 16.4% (as

shown by the adjusted R^2 of .164), with other factors not in the model accounting for the remaining 83.6%.

The ANOVA results in Table 5 showed that the goodness-of-fit of the proposed regression model was statistically significant at 5% significance, i.e. $F(1,142)=28.510$ and $p\text{-value}<0.000$. This confirmed that a significant relationship exists between attitudes towards social media for professional development and online journalism self-efficacy of the students.

Table 5: ANOVA results for attitudes to social media and OJSE^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.455	1	7.455	28.510	.000 ^b
	Residual	36.346	142	.261		
	Total	43.801	143			

a. Dependent Variable: online journalism self-efficacy (OJSE)

b. Predictors: (Constant), Attitudes towards social media for professional learning

The test of the significance of the regression of attitudes towards social media for professional development and online journalism self-efficacy (see Table 6) indicated that a positive significant relationship existed between attitudes towards social media for professional development and online journalism self-efficacy ($\beta=0.507$ and $t=5.339$) with a $p\text{-value}<0.000$.

Table 6: Regression coefficients for attitudes towards social media and OJSE^a

	Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	1.945	.404		4.808	.000
	Attitudes to social media for professional learning	.507	.095	.413	5.339	.000

a. Dependent Variable: online journalism self-efficacy (OJSE)

The demonstrated positive linear relationship implied that, keeping other factors constant, a unit improvement in attitudes towards social media for professional development led to an increase in the probability of online journalism self-efficacy of the respondents by a factor of 0.507 (50.7%). Consequently, to predict online journalism self-efficacy from attitudes towards social media for professional development (X_1), as the only independent variable, the equation was formulated as follows:

$$\text{Online journalism self-efficacy (Y)} = 1.945 + 0.507 (\text{attitudes to social media}) + \epsilon$$

With the regression coefficient indicating a $p\text{-value } 0.000 < 0.05$, the H_0 was therefore rejected and a conclusion made that attitudes towards social media for professional development do exercise a significant and positive influence on the online journalism efficacy of mass communication students in Rwanda. The positive relationship between attitudes to social media for professional development, and the online journalism self-efficacy of the respondents, strikes concurrence with previous studies

(see Holmström & Siljebo, 2013; Desmal, 2017) which found a relationship between students' attitudes to technology and their digital skills development.

Discussion

The role of social media use in shaping students' beliefs about their professional growth is evident in this study. Most students believed in the potential of social media networks to learn online skills that would eventually be crucial in their careers. The students' positive attitudes regarding social media as tools for professional learning is associated with beliefs that social media positions future professionals for the industry, evidenced by a majority opinion who expressed the prospect of people using such tools to teach themselves skills relevant to their profession ($M=4.71$). Just like the study results show, scholars position early exposure to social media tools as critical of the future professionals. The results also concur with studies which showed that students with positive attitude towards the use of social media in their learning, had higher chances of increased overall satisfaction and motivation in their academic work (Silius, Miilumäki, Huhtamäki, Tebest, Meriläinen & Pohjolaine, 2010; Vidal *et al*, 2011; Lewis, 2010). Such a correlation between attitudes and digital skills development implied that effective journalistic learning should not be isolated from the peculiarities of learners (MacMillan, 2014).

The positive and significant correlation between attitudes towards social media for professional learning, and the online journalism self-efficacy of the respondents, implied that how the respondents perceived online tools in the context of their future employment and place in the industry to some great extent determined their assessment of their own online journalism preparedness. Moreover, the regression analysis results depicted that such attitudes contribute 17% of the level of the respondents' online journalism self-efficacy. This presented sufficient ground to reject the null hypothesis on the basis of this positive and significant contribution made by attitudes in the respondents' online self-efficacy beliefs. As Top (2012) argues, the acquisition of competence in digital skills calls for the right attitudes to enable people to adapt to the changing demands of the new technologies and the ability to interact socially and professionally around them. The findings suggest that social media can be harnessed as professional learning tools given the positive attitudes towards them by learners. It was also clear from this study that mass communication students in Rwanda generally favoured social media not only as socialization tools but also as potentially useful in journalistic learning. This is in line with extant literature which demonstrates that by using social media as learning tools, educational dividends will be achieved (Lordache, Mariën, & Baelden, 2017).

The study had limitations that necessitate further study. Scholars urge prudence in generalizing results arising from self-report measurements (like in this study) for their potential bias. The findings are therefore, indicative. Self-efficacy measures, for example, can be more objective with practical assessment of students' skills in the use of social media. It is suggested that deeper qualitative insights into students' attitudes and beliefs on the present subject might be obtained with a mixed methods approach that incorporates interviews or focus group discussion with the students (Mao, 2014). As the sample was limited to Rwandan journalism schools, the results may not be generalisable to other countries. The consistency of the results would therefore, stand a better test with research involving a bigger sample and across different countries. Apart from exploring students' attitudes, the beliefs

of journalism educators regarding teaching social media skills along with the role of students' attitudes in facilitating trainers' delivery of online journalism courses, would also comprise interesting studies.

A more encompassing research project may need to focus on how attitudes toward social media – in combination with other factors such as training in social media, experience with social media and online habits of students – contribute to the journalism self-efficacy beliefs of mass communication students. This is expected to give better insights on the key issues likely to bear on mass communication students' perceived confidence to work in online professional environments.

Conclusion

The study explored the role of students' attitudes towards social media for professional learning in their self-efficacy beliefs for online journalism work. Findings supported empirical evidence that indicates attitudes to technology as important predictors of students' beliefs in their ability to perform tasks with that technology. In line with this study's results, how people feel, behave or believe about social media tools as instrumental in their learning, might bear on their sense of confidence in employing the tools for professional purposes (Lewis, 2010; Popa & Topală, 2018). Study results show a high overall online journalism self-efficacy (M=4.1) and favourable evaluations of social media; for example, as crucial 'drivers for future employment' (M=4.6), as important tools for 'self-teaching' (M=4.71), and the 'dependence of future careers on the knowledge of social media' (M=4.26). This demonstrates students' strong conviction in the power of social media to shape the types of environment that they as future professionals will be required to work in. This is in tandem with scholarly perspectives which position new media technologies as the drivers and shapers of the media industry (Cremedas & Lysak, 2011).

Social media are placed at the centre of the technological revolution, redefining how the media industry must adjust to shifting audience behavior characterized by the public's capacity to use such tools to create and share their own stories. This study has added to this voice by particularly demonstrating journalism students' strong feelings about the industry's 'inability to survive without adopting social media tools' (M=3.99). Students' activities with social media tools (e.g. being active on several accounts) associated well with levels of confidence in online journalism skills. This result is not surprising, with evidence showing increased use of technology as strong predictors of technology self-efficacy (Friesen & Lowe, 2012). Furthermore, from the Technology Acceptance Model approach, learners' perceptions of the usefulness and ease of use of technology, like social media, has been shown to give insights into how these perceptions relate to actual or imagined performance with the technology. In the context of this study therefore, understanding mass communication students' attitudes should be seen as critical in supporting students' potential to utilize social media tools to enhance their journalistic learning and preparing them for the professional world. As the study results indicate, social media tools can support a constructivist learning philosophy where learners and trainers 'create, co-create and share knowledge [...] beyond the classroom (Meabon, 2014:11).

With results confirming a strong social media attitudes and self-efficacy relationship, recommendations abound for journalism education stakeholders. With attitudes towards social media contributing 17% of the variance in the students' self-efficacy for online journalism work, it is evident that journalism education stakeholders need to embrace a framework that positions the use of new

media technologies at the centre of student-centered learning. Furthermore, positive results on the students' attitudes (e.g. beliefs in use of social media for self-teaching (M=4.71), social media knowledge as crucial for employment (M=4.6) and career dependence on social media skills (M=4.26)) indicate the urgency of cultivating the necessary mind set among journalism educators to take advantage of students' readiness to learn with the new media tools.

Given the interest that social media use in educational contexts continues to generate, institutions of learning are urged to be at the forefront of harnessing these technologies, to not only connect better with students, but also to exploit their affordances for the students' professional advancement. As this study shows, students' behavioral attitudes regarding these tools (M=4.43) attests to the need for Rwandan journalism educators to systematically adopt pedagogical approaches that allow students to explore the easily accessible and vast online tools available and together interrogate how individual social media activities can be turned into professional learning opportunities (Correa, 2015). Though these technologies cannot possibly replace journalism education, training institutions should adopt them not only to facilitate training but also broaden students' learning experiences, while being wary that such decisions are crucial pedagogical choices which depend on how the 'digital' learners interact with the tools for professional learning beyond social networking (Osepashvili, 2014; Ellefsen, 2016).

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