Training Factors as Predictors of Students' Self-Efficacy Beliefs for Online Journalism Practice

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Abstract

The advent of Internet technologies has heralded new skill demands in the media industry. Since journalism education mainly takes its cue from industry trends, media training institutions are now forced to adjust their curricula and teaching styles to produce online-ready graduates. Drawing on aspects of self-efficacy theory, this correlation study employs a questionnaire to explore how different training factors influence students' self-efficacy beliefs for online journalism work. A sample of 182 mass communication students from five Rwandan universities participated in the study. Results showed that the training factors explained 29.7% of the variance in the respondents' self-efficacy beliefs for online journalism work, with positive correlations between all the training factors and the students' self-efficacy. In particular, the types of online skills (β =.069) and availability of teaching facilities (β=.076) contributed a larger part of the online self-efficacy beliefs than teaching styles (β=.018). These results showed that training factors have a role in boosting students' beliefs in their capacity to execute online journalism tasks in the industry. Results suggested that journalism educators especially need to enhance different online journalism teaching approaches in order to better develop future professionals who are online-confident for the workplace.

Keywords: online journalism, self-efficacy, training, pedagogy, Rwanda

One defining feature of journalism education is the ability of graduates to demonstrate competence in the changing work environment (Schwalbe, 2009). With Web 2.0 technologies, professional news production has been transformed as news audiences (called "citizen journalists") become active producers and consumers of news, inevitably putting the relevance of journalism education into sharper focus (Oluchi, 2016). Furthermore, the industry's gradual inclination towards multi-skilled and techno-savvy graduates has presented a new reality for media training institutions who are forced to adapt by re-designing their curricula and adopting better ways of teaching these new skills (Robinson, 2013; Quinn, 2010). Short of this, journalism education risks playing the technological catch-up game as stakeholders continue to wonder if the institutions are adequately prepared to develop online-ready graduates (Ehreneich, 2009).

Educating the new generation of media professionals requires breaking from traditional teacher-led approaches by taking cognizance of students' exposure and agility with the digital tools they are expected to use in the industry (Patrão & Figueiredo, 2018; Iordache et al., 2017). With traditional media models almost obsolete, it has been argued that journalism education can only extricate itself from the crisis of relevance by devising new ways of integrating technology in the students' learning experiences. Particularly, the traditional "silo" teaching of TV, radio and print separately has been challenged, with scholars advocating for an integrative use of the technologies to teach these skills for a multimedia environment (Kaul, 2013; Quinn, 2010; Iyer (2015). Harnessing social media tools to co-produce and share story pieces through class blogs and Facebook pages are becoming the teaching norm in a number of institutions (Patrão & Figueiredo, 2018). In contrast with traditional journalism pedagogy, co-creation of stories affords students valuable learning moments, especially through accompanying online comments to their productions. This teaching approach also scaffolds learners with an active community of practice enabling them to authenticate their learning experiences (Cindy, 2015; Ferrucci, 2017).

In online skills training, the nature of content, training approaches and facilities have been considered crucial in shaping the acquisition of skills for the industry (Iordache et al., 2017; Iyer, 2015; Jeanti, 2015). In the journalism context, however, research is needed to explore how students perceive their ability to use these skills at the work place. Some studies have explored students' journalistic writing self-efficacy (e.g. Broaddus, 2012) and efficacy beliefs in social media use (e.g. Patrão & Figueiredo, 2018). Focus on the role of training factors on students' online journalism self-efficacy has not been systematically examined. Although Rwandan journalism schools have integrated the teaching of online journalism skills in their curricula, it remains unclear how the training contributes to students' confidence in the use of such skills when they graduate. Hence, this study hopes to fill this void by exploring the role of content, training approaches and facilities in the students' self-efficacy beliefs for online journalism work.

Literature Review

Digital skills are considered critical for professional survival in an increasingly e-permeated society. Indeed, Ferrari (2012) considers digital competence as one of the critical competences for life-long learning, comprising the "knowledge, skills, attitudes, abilities, …required when using digital media to perform tasks …" (p.11). In light of the fast-evolving technologies, journalism scholars argue that clarity of the variety of online skills required for digital work-readiness among the future professionals is urgently needed (Iyer, 2015; Jeanti, 2015). However, in the absence of a coherent framework for such skills, Gallardo-Echenique et al.

(2015) suggest that a digital competence framework like Ferrari's (2012), which amalgamates other frameworks, can be contextualized to help define the skills expected from media professionals. This framework expects the 21st century professionals to have skills in social media communication, creation and distribution of multimedia content, online ethics, online research and using social media to solve communication problems.

Evidence suggests that skills like online research, multimedia content creation and social media communication are the cornerstone of modern journalism practice (Jeanti, 2015; Cindy, 2015). The ability to produce stories for different formats and share them on social media networks such as blogs, Twitter or news websites has become crucial. Other critical skills gaining currency include the ability to work with web code and data analytics, as well as crowd sourcing stories through artificial intelligence-enabled techniques. In essence, the burgeoning skills call for innovative ways of using the technology to maximize news audience satisfaction (Robinson, 2013; Hirst & Treadwell, 2011).

Journalism educators are urged to tune their training content and techniques by adopting a learning environment that replicates the digital newsroom, which is expected to enhance students' digital production skills (Iyer, 2015; Hirst & Treadwell, 2011). Evidence shows that if social media tools are well appropriated in journalistic training, online story-telling practices of the future professionals can be enhanced (Aifan, 2015; Hirst & Treadwell, 2011; Quinn (2010). Although a connected multimedia environment with unlimited opportunities for practice is the ideal for online production skills, leveraging the near-ubiquitous mobile phones and free online software for editing has sufficed to circumvent the costly equipment in a number of schools (Salaverría, 2011; Kaul, 2013). Indeed, Bethell (2010) argues that journalism students only need a mobile phone and curiosity to produce professional-ready stories. Researchers argue that if students have the necessary environment to develop a skill, they will gradually experience confidence and success with the skill and tasks associated with that skill. Bandura (1986) termed this feeling or belief in their ability to perform a task as one's self-efficacy.

While self-efficacy in the context of journalistic performance has largely focused on writing skills, little attention has been given to new media skills (Broaddus, 2012). Becker et al. (2012) surveyed the journalism work efficacy of 2,195 US graduating students. More than 70% of them attributed the content taught for their self-efficacy for writing and editing for the web, creating blogs, and use of the social media professionally. Wotkyns (2014) explored Australian university students' satisfaction of the training environment in a new convergent journalism major. 88% were extremely-moderately satisfied with the online skills given, indicating that students' learning expectations were being met. A study by Huang et al. (2020) found that students' journalistic writing self-efficacy was positively correlated with their actual writing performance, although the relationship was weak ($r = .16$), suggesting that their unfamiliarity with the unique requirements of news writing could have been the cause.

Broaddus (2012) explored how learning strategies (among other factors) contributed to US journalism majors' writing self-efficacy. Practical classroom assignments contributed more in students' writing self-efficacy than the students' background experiences and their general writing background. A linear regression analysis on the extent to which learning experiences with such scholastic media associated with writing self-efficacy indicated a statistically significant model ($F4, 445 = 10.075$; $p = .000$; $R^2 = .075$) where newspaper experience ($t = 3.678$; $p = .000$) and journalism classes ($t = 2.671$; $p = .008$) predicted the students' self-efficacy

and therefore possible proficiency in writing. It was evident that exposing journalism students to scholarly media developed their self-efficacy towards producing professional news.

Some studies on technology-focused efficacy indicate a positive relationship between students' technology exposure and usage and their self-efficacy for technology in different academic and professional contexts. Shank and Cotton's (2014) study indicated that students could vicariously acquire technology self-efficacy from their teachers, implying that educator characteristics could inculcate beliefs in students' confident use of technologies. Joo & Choi (2000) explored how students' Internet self-efficacy related to their Internet research performance based on written and practical tests. Students' Internet self-efficacy was related more to the practical research than to the theoretical test. This was not surprising since hands-on skills are considered the best test of readiness for work.

Research Context

In Rwanda, periodic media industry surveys have partly attributed the low quality of news content to poor use of online tools by practitioners. A 2017 Rwanda Governance Board survey considered poor content as the bane of an industry struggling to stay afloat. About 90% of media houses' staff surveyed were confirmed to have inadequate skills for producing professional stories. Although Rwanda's media policy (2014-2020) envisaged a citizenry that is exposed to news through a digitally-empowered media, the 2017 National Media Dialogue echoed a growing stakeholder concern that portrays lackluster use of online tools by media houses (Mwai, 2017). Journalism schools have largely been criticized for inadequate online skills development for the industry (Media High Council, 2016). While media training institutions have increased efforts to train the next generation of "digital journalists", stakeholders are still concerned about the nature of online skills taught and techniques employed (Media High Council, 2016). Although students' efficacy beliefs for technology use have been explored in other countries, the role of Rwanda's journalism training on students' self-efficacy beliefs for professional online skills is not known. Given that employers expect "online-ready" graduates, the role of such training becomes pertinent.

To understand the role of training factors in the students' self-efficacy for online journalism work, the role of content taught, training approaches and training facilities were explored. The study questions were:

1. How efficacious are Rwandan mass communication students in their online journalism skills?
2. How does the content taught, training approaches and facilities influence the students' online journalism self-efficacy beliefs?
3. Are there significant relationships between the training factors and the students' online journalism self-efficacy?

The null hypothesis (H_0) posited no significant positive relationship between each of the training factors and the students' online journalism self-efficacy.

Methods

This study employed a descriptive cross-sectional survey involving a sample of final undergraduate mass communication students (n=182) drawn from journalism schools in five Rwandan universities. Yamane's (1967) formula was used to determine the sample size (i.e.

for populations of 1500). This sample comprised 98 males and 84 females and together constituted 62% of the total student journalism and communication student population (n=293). Recruitment of participants was done through a systematic random sampling from class lists provided by the heads of the selected schools. Out of the 182 respondents, 143 (79%) successfully completed and returned the questionnaires.

The survey instrument was developed through an extensive literature review to identify a scale incorporating components for the training factors and online journalism self-efficacy. Ferrari's (2012) digital competence framework was adapted to test the students' self-efficacy beliefs in their ability to perform the following five online journalism skills: conduct online research; communicate effectively with different social media tools; develop and share multimedia content; integrate ethical practices in online news publishing; and use social media tools to solve organizational problems. The respondents indicated their agreement with statements about training content, teaching style and training facilities and the five online journalism skills. This was indicated on a five-point Likert-type scale where 1 = Strongly Disagree and 5 = Strongly Agree.

To test the quality of the instrument, a pilot survey involving 20 randomly selected students (i.e. four from each journalism school) preceded the main study. The Cronbach Alpha test indicated an overall instrument reliability score of .79, with factor-wise reliability values ranging from .072 to .81. Having met the threshold of .07 as recommended (see Faizan and Zehra, 2016), the instrument was found fit for the main study.

The gathered data was analysed using SPSS version 21. Descriptive analyses of the responses showed the patterns of agreements and disagreements with given statements. Inferential statistics (correlation and regression analyses) were carried out to show the nature and contribution of the training factors (independent variables) on the students' efficacy for online journalism work (dependent variable). Using F-test, the H_0 was tested to confirm or disconfirm the relationship between training factors and students' efficacy for online journalism. The hypothesis was tested at a level of significance of 0.05. Results were then used to draw relevant conclusions of the study.

The research was part of a broader academic study approved by Rwanda's National Council for Science and Technology after ethical clearance by the Directorate of Research of the University of Rwanda. All respondents were informed about their participation rights and their consent obtained before commencement. All responses were kept confidential with no identity required on the questionnaires returned.

Results

Descriptive Analysis of Online Journalism Training Factors
Drawing from empirical research, the training factors considered critical in the development of online journalism skills included the nature of online skills taught, training style and training facilities. Mean aggregate responses regarding these factors are summarized in Table 1.

Results showed that having learnt multimedia content production and sharing skills had the highest mean score (mean=4.11), followed by learning of social media skills (mean=3.99). The fact that most of the journalism modules taught integrated notions of online skills (e.g. research) attracted a mean score of 3.69. Furthermore, respondents indicated that content that related to the industry (e.g. case studies) were well employed in the online journalism classes

(mean=3.67). These results implied that the respondents had been taught a broad range of industry-focused online skills. From the aggregate mean agreement score of 3.87 and standard deviation of 1.09, respondents generally agreed with the training content despite some slight variances in their responses.

Table 1: Means and STDVs of training factor responses

Construct	Indicator	Mean	STDV
Training content	We learnt some online skills in most of the modules	3.69	1.077
	We learnt how to use different social media tools	3.99	1.051
	We learnt how to produce and share multimedia content online	4.11	1.035
	We learnt real online case studies from the industry	3.67	1.179
Sub-variable Aggregate score		3.87	1.09
Training approach	Teaching online skills was more practical than theoretical	4.10	1.115
	Online resources like tutorials were sometimes used in teaching	3.92	1.015
	Some students volunteered to teach complex online skills like web design	3.73	1.181
	Lecturers used online tools to professionally interact with students	4.22	0.958
	Lecturers demonstrated adequate online journalism skills	3.92	1.101
Sub-variable Aggregate score		3.98	1.07
Training facilities	The training facilities (software and hardware) were adequate	3.53	1.118
	Mobile phones were sometimes used in multimedia production exercises	4.13	1.013
	Internet connectivity was reliable during online-based classes	3.64	1.178
	Technical support in online journalism classes was always available	3.60	1.139
Sub-variable Aggregate score		3.73	1.112
Overall aggregate score for training factors		3.9	1.1

Being a key component of online journalism education, the prevalence of multimedia production content and social media skills was not surprising. Scholars argue that journalism educators need to take cues from the technological advances in the industry and integrate such skills in the curricula, leveraging social media interactions with the students for professional teaching and learning (Aifan, 2015; Mihailidis & Shumow, 2011). The results concur with suggestions for retooling training content in cognizance of most students' heavy "digital culture". By leveraging this digital exposure, scholars argue that trainers would not only save lots of time in teaching already familiar topics but also encourage students to teach themselves much of the emerging content (Ferrucci, 2017; Oluchi, 2016). The high mean score regarding use of case studies aligned to industry supports researcher recommendations on updating journalism curricula and employing social media tools in simulated newsrooms for news production (Iyer, 2015; Hirst & Treadwell, 2011).

Regarding the approaches to online journalism training, the online interactions between lecturers and students (e.g. through email and social networking sites) had the highest mean agreement score (M=4.22, STDV=0.958). This was followed by the lecturers' use of more practical than theoretical training approaches like online projects and case studies. (M=4.10, STDV=1.115) and then the use of free online tutorials to supplement formal teaching of multimedia skills like audio or video editing (M=3.92, STDV=1.015). Respondents also generally considered the trainers as competent and therefore, able to teach the online skills (M=3.92, STDV=1.101). While seemingly recognizing that a number of students were digital-savvy and therefore could have learnt a number of online skills by themselves, the voluntary contribution of students in teaching complex topics like web design and development was acknowledged by most of the respondents (see M=3.73, STDV=1.181).

The results align with studies that suggest the need for journalism educators to adopt pedagogy strategies that impart the required digital skills for the ever-changing industry. Wotkyns' (2014) study on the level of students' satisfaction with journalism curricula particularly highlighted their appreciation with experiential learning approaches that integrated their creativity and helped to link theory with practice. Jeanti (2015) and Ferrucci (2017) also argue that teaching digital journalism should be a process where the trainer co-designs the training with his or her students, allowing for as much innovation as possible. Incorporating students in the teaching of online skills is also touted as relief for trainers since they are not necessarily expected to be well-versed with all emerging online tools (Schwalbe, 2009). Results from the current study therefore seem to support this approach where students are taught to largely drive their own learning through the vast number of online tools.

From the results, mobile phone use in multimedia production training has gained ground in the journalism schools, with a mean agreement score of 4.13 implying that phones were being used to supplement the more traditional tools of news production like recorders, cameras and computers. The low mean score regarding the adequacy of these traditional training facilities (M=3.53, STDV=1.118) possibly indicated that in the absence of these facilities, the easily accessible mobile phones came in handy for practical learning purposes. Online journalism training also seemed to by the availability of reliable internet connection (M=3.64, STDV=1.178) which is the bedrock of online skills production. To ensure online journalism classes ran well even in the absence of the lecturers' interventions, respondents generally agreed that technical assistance was always available (M=3.60, STDV=1.139). This implied that apart from technical assistance from knowledgeable student colleagues, it would seem that the training facilities were manned with support staff not only to ensure the facilities were ready for use but also to support students with the online production projects when necessary.

The results concur with other scholarly views on the need for journalism training institutions to appropriate new media tools that will enhance the online story-telling practices of the future professionals (Aifan, 2015; Bor, 2014; Wenger & Owen, 2012). As the results show, easy access to mobile phones as tools of journalistic production can address costs associated with the traditional journalism equipment (Ferruci, 2017; Salaverría, 2011). Although the ideal online journalism training facilities are far from being realized (e.g. for reasons of limited financial means), studies advocate for connected multimedia environments that afford students with unlimited opportunities to experiment and practice their new media production skills (Alves et al., 2014; Switzer & Switzer, 2013).

Overall, constructs under the training approach had the highest aggregate mean agreement score among the respondents (M=3.98, STDV=1.07). This was followed by constructs under

training content (M=3.87, STDV=1.09) and then constructs under training facilities (M=3.73, STDV=1.11). The aggregate mean score of all the training factors (M=3.9) indicated that most respondents generally agreed about the different aspects of the training in online journalism.

The impression created by these results was that students agreed (with moderate variability) that they were trained on a variety of relevant online skills, using innovative techniques which possibly complemented the traditional teaching approaches and modest online training facilities. This demonstrates the dynamic nature of online journalism training where scholars advocate for a keen eye on the evolving digital needs of the media industry coupled with revised curricula, innovative training and learning techniques and general technical readiness for a future of technology that is gradually redefining the roles of journalists (Robinson, 2013; Jeanti, 2015; Tanner, 2014).

Descriptive Analysis of Online Journalism Efficacy
The respondents' self-efficacy for online journalism was conceptualized as their beliefs in the ability to effectively do online journalism research, create and share multimedia stories online, use social media tools to communicate to different audiences, practice ethical online publishing and solve problems with different online tools. Table 2 shows the aggregated responses under this variable.

Table 2: Respondents agreement levels on their online journalism efficacy

I believe I can effectively…	Generally Agree (SA+A)	Neutral (N)	Generally Disagree (D+SD)
Conduct online journalism research	84.4	12.1	3.5
Communicate with different social media	76.7	12.9	10.3
Create and share multimedia stories online	73.7	15.0	11.3
Conduct ethical online publishing	80.4	15.0	4.5
Use online tools to solve different problems	85.3	9.9	4.8
AVERAGE	80.1	13	6.9

Key: SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree

From the results, respondents considered themselves adept in the five online journalism skills, with an average of more than 80% of them believing they could perform all the skills. The greatest level of self-efficacy for online journalism was expressed in the ability to use online tools to solve problems (85.3%), followed by ability to conduct research online (84.4%) and understanding of the ethical implications of using online tools (80.4%). Compared to other dimensions, the respondents had low efficacy for multimedia production skills (73.7%). Only about 7% of the respondents did not express any efficacy to execute online journalism tasks.

The findings are consistent with studies that explored the digital competence of students. For example, Sutherland and Ho (2017) and Bethell (2010), argued that digital competence should best be demonstrated by the ability to identify and solve practical problems. Although scholars like Switzer & Switzer (2013) and Bor (2014) suggest that students are likely to gain social media communications skills faster than other skills such as multimedia and problem-solving skills, this study showed the contrary. It seemed to indicate that the students focused more on interrogating how social media tools can be used to address problems in organization as well

as online research skills than others. To obtain a fuller picture on the relationship between the identified training factors and the students' levels of online journalism efficacy, the next section explores the statistical nature of the relationships as well as contribution of each of the factors on the students' online journalism self-efficacy levels.

Correlation Analysis of Training Factors and Online Journalism Efficacy Beliefs
To determine the strength and direction of association between the training factors and the students' self-efficacy for online journalism, correlation analysis was done. The resulting correlation matrix with correlation coefficients for the aggregate of the training factors and online journalism efficacy is shown on Table 3.

Table 3: Correlations of training factors and online journalism efficacy

Training factor		Training content	Training style	Training Facilities	Online journalism self-efficacy
Training content	r	1			
	Sig. (2-tailed)				
Training style	r	.413**	1		
	Sig. (2-tailed)	.000			
Training Facilities	r	.489**	.419**	1	
	Sig. (2-tailed)	.000	.000		
Online journalism self-efficacy	r	.435**	.315**	.422**	1
	Sig. (2-tailed)	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed); r = Pearson correlation coefficient

Results showed that all the training factors were significant and positively correlated to the online journalism self-efficacy levels of the students. The nature and types of online skills taught had the highest significant positive correlation with the students' online journalism self-efficacy (r=.435, p=.000) followed by training facilities (r=.422, p=0.000). The way online skills were taught had the least yet significant relationship with the students' online journalism self-efficacy (r=.315, p=.000) at 95% level of confidence. The results implied that a unit of positive improvement in the nature and types of online skills taught, training facilities and training approaches led to a corresponding increase in the students' online journalism self-efficacy levels by 43.5%, 42.2% and 31.5% respectively. Further, the results disconfirmed the H_0 that predicted no significant correlation between training factors and online journalism efficacy. The observed positive linear relationships supported studies that underscore the need for journalism schools to adapt their training to the ever-changing media industry if future professionals were to fit well in the digital industry (Ferrucci, 2017, Ferruci, 2017; Jeanti, 2015).

Test of Hypotheses
To explore the statistical significance of the influence of the training factors on the students' self-efficacy for online journalism, the null hypothesis postulated no significant relationship between the training factors and the online journalism self-efficacy. To test this hypothesis, a multiple regression analysis model was employed to establish if an aggregate mean score of the training factors could statistically predict the students' online journalism self-efficacy at 95% level of confidence. The postulated model was fitted thus: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$, where Y = online journalism self-efficacy, β_0 = constant (α = constant term), β_1- β_3= intercepts

for the independent variables, X_1= training content or online skills taught, X_2= training approaches, X_3= training facilities and ε = error term/Stochastic term.

The results in Table 4 presents the fitness of the regression model used in explaining the variation of online journalism self-efficacy as a result of the identified training factors.

Table 4: Model Summary for training factors on students' online journalism self-efficacy

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
1	.545[a]	.297	.282	.474	.297	19.288	3	137	.000

a. Predictors: (Constant), Training facilities, Training style, Training content

Results showed that, taken together, all the training factors were highly and significantly correlated with the students' online journalism self-efficacy (r=.545, p=.000). Furthermore, given the coefficient of determination of 0.297 (R^2), it was evident that the training factors exerted some explanatory power on the students' online journalism self-efficacy. This implied that 29.7% of variations in the online journalism efficacy could be explained by the training factors (on their own in the model). The remaining 70.3% could only be explained by issues not factored in the model. However, without the constant variable ($\beta 0$) on the model, the training factors had a predictive power of 28.20% (adjusted R^2 of .282) on the students' online journalism self-efficacy, implying only a minor variation of .015. This adjusted R^2 result meant that a unit improvement of the training factors (without the $\beta 0$) would improve the students' self-efficacy for online journalism by a factor of .282 or 28%.

The Analysis of Variance (ANOVA) results (Table 5) indicated that the proposed regression model had a statistically significant goodness-of-fit at 5% significance, indicated by the calculated F-statistic of 19.288 which was larger than the critical F-value of 2.67 (obtained from the F distribution tables) with degrees of freedom (3,140) at p-value<0.000. Moreover, the existence of a significant positive relationship between the training factors and online journalism efficacy of the students implied that the proposed model could be relied upon to demonstrate the predictive power of training factors on the online journalism efficacy of the students.

Table 5: ANOVA[a] for training factors on students' online journalism self-efficacy beliefs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.007	3	4.336	19.288	.000[b]
	Residual	30.795	140	.225		
	Total	43.801	143			

a. Dependent Variable: Online journalism self-efficacy

b. Predictors: (Constant), Training Facilities, Training style, Training content

By further testing the significance of the regression coefficients of the training factors on the students' online journalism efficacy (see Table 6), results confirmed a positive relationship

between the training content (β=0.059, t=2.780) and training facilities (β=0.076, t=4.058) and the students' online journalism self-efficacy, with a significance of .006 and .000 respectively. Despite the training approaches having indicated a positive relationship with the students' online journalism efficacy, this relationship was of negligible significance (p>.349)

Table 6: Coefficients for training factors[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.191	.271		8.090	.000
	Training content/skills	.059	.021	.236	2.780	.006
	Training approaches	.018	.019	.077	.940	.349
	Training facilities	.076	.019	.346	4.058	.000

a. Dependent Variable: Online journalism self-efficacy

From the results, the proposed model predicting online journalism efficacy from the three training factors taken together was, therefore, fitted with regression coefficients as follows: online journalism self-efficacy = 2.191 + 0.059 (training content) + 0.018 (training approaches) + 0.076 (training facilities) + ε.

With p-values 0.000<0.05 for both training content and training facilities, the H_0 was therefore rejected and a conclusion made that these training factors exerted a significant and positive influence on the online journalism self-efficacy beliefs of mass communication students in Rwanda. In an optimal model, however, the H_0 for training approaches would be accepted since it had a p-value>.05, indicating that, though this dimension had a positive relationship with students' self-efficacy for online journalism, its significance did not meet the 95% level of confidence. These findings agree with scholarly evidence that advocate for adapting the journalism training to the required digital content, training approaches and facilities to improve the career paths of graduates in the digitally-oriented industry (McDevitt & Sindorf, 2012; Cindy, 2015).

Discussion of Findings

This study sought to explore the relationship between training factors and online journalism self-efficacy beliefs of mass communication students in Rwanda. The results largely supported scholarly evidence that training determines the perceived work-preparedness of students. Respondents generally agreed with the different statements regarding the characteristics of online skills offered, the approaches used in teaching these skills as well as the nature of facilities available for teaching and learning online journalism skills. The fact that a good mix of multimedia production and social media skills are well integrated in the curriculum pointed to alignment of curricula with emerging digital skills in the industry. Of note also were the high mean scores regarding the online skills or content taught as well as the training facilities. This indicated that Rwandan journalism schools seem to have made appreciable strides in adapting online tools in the curricula and invested in some facilities to enhance the teaching and learning of these emerging skills.

Correlation analyses showed significant positive correlations between each of the training factors and online journalism self-efficacy beliefs of the students. This demonstrated that

journalism schools cannot ignore the role played by characteristics of training in their quest to develop online-ready graduates. Media researchers have argued for competence-based training characterized by teaching skills or content that will make graduates fit well in the workplace (Hirst & Treadwell, 2011). In teaching online skills among the youth such as students, evidence shows that pedagogy which considers the digital habits of these digital natives might facilitate competence development of digital skills which are transferable to the industry (Jeanti, 2015). In this study, respondents seemed to recognize that some of their colleagues had more advanced online skills than the lecturers which enabled them to contribute in the teaching and learning of more complex practical exercises like web design and development. This supports arguments by scholars that in this era of new media technologies, journalism educators should embrace co-creation of training content and innovative ideas from the learners (Wiebe & McAuley, 2010).

In the context of online journalism education, digital training resources have been considered key as the rapid development of new technologies requires frequent updates of the infrastructure (Boers et al., 2012). In this study, though technical facilities had a weak but positive correlation with the online journalism self-efficacy beliefs of the students, the high mean score regarding the use of mobile phones and online tutorials in the multimedia production classes gives hope especially with dwindling resources for the more expensive technical journalism equipment. This is in line with arguments from scholars like Mihailidis and Shumow (2011) who decry the way some journalism schools compromise practical learning through "bureaucratic inertia and resource constraints" (p.15) instead of opting for cheaper and more cost-effective alternatives like mobile phones.

The respondents' good rating on the accessibility to reliable Internet connection and technical support during the training also indicated attempts at technical readiness for the schools concerned. This augurs well for online skills training since researchers argue that training in new media technologies require a good mix of tools and techniques all of which depend on the availability of a reliable source of Internet connectivity (Iyer, 2015; Jeanti, 2015).

By showing that the aggregate mean score of training factors had significant contribution ($R^2=.297$, $p<0.05$) in the students' self-efficacy beliefs regarding online journalism work, the regression analysis results demonstrated the central role of these characteristics of training in explaining or predicting the level of the "online-readiness" of the mass communication students. Particularly, disaggregated mean scores also indicated that each of the factors had contribution though with different levels of significance. The findings resonate with studies that position the revival of journalism curricula and pedagogy techniques as central to the integration of new media skills in journalism training. Such studies argue for the need for journalism schools to identify the range of skills or content to be taught and how these will be continuously and effectively taught in an increasingly dynamic media industry (Tanner, 2014; Ferrucci, 2017).

Conclusion

The study explored perceptions of mass communication students regarding online skills training and how these are congruent with their online journalism self-efficacy beliefs. The respondents expressed agreement in all the factors as characteristic of the online journalism training in Rwandan journalism schools. This portends well for the development of digital skills among the future media professionals. In line with previous research, results showed that the content taught, how it is taught and the overall training environment were correlated with

the students' self-efficacy for online journalism (Cindy, 2015; Seelig, 2010). In essence, this implied that improving the quality and diversity of online skills taught and how they are delivered builds confidence in the students' ability to use online tools to work in the industry. Regression analysis also confirmed that the training factors (singly and collectively) positively contribute to the students' levels of online journalism self-efficacy, though at varying levels of statistical significance.

These results are encouraging for online journalism education in Rwanda. However, the study had some limitations that merit further investigations. Given the narrow focus of the study, including a combination of other factors beyond training (like field experiences and individual online behavior) might have produced more insightful results on the self-efficacy of the students. Furthermore, the study was limited by the use of a survey. The nuances of the lived experiences of a phenomenon (in this case, how students make sense of the factors incidental to their self-efficacy beliefs in online journalism) are best explored with a mixed methods approach. Including interviews and/or focus group discussions with selected students might possibly yield a clearer picture of the students' online journalism self-efficacy beliefs. Despite these limitations, this study can be considered as an addition to knowledge on how the dynamics of online journalism training in the digital era are likely to play into building the necessary confidence for students as they face the increasingly digitally-competitive workplace.

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