

Crossing the Bridge: Transitioning to Facebook as a Short-term Response amidst the COVID-19 Pandemic

Nosipho Mbatha

ORCID iD: <https://orcid.org/0000/0002/1989/3940>

Abstract

COVID19, a global pandemic that has destabilized various sectors and has forced many to begin conversations and plans alternative to the regular everyday routine of going to places of work or school. Educational institutions have also found themselves thinking of ways to continue with its core business, teaching and learning, amidst the pandemic. Looking at some of the possibilities to continue with teaching and learning during this time, this paper responds with an alternative way of teaching in the era of the COVID19 pandemic, which has forced staff and students into isolation. Drawing from the community of inquiry framework, the paper supports the effectiveness of Facebook in teaching, as it already possesses the necessary features that aid learning. This platform can be used as a short-term response while institutions are preparing their staff and students for online teaching, learning and assessment. Facebook already has the virtual infrastructure in place favourable for teaching. It has millions of staff and students as registered users of the platform, and the challenge of data is mitigated as multiple network providers allow access to this platform on ‘free mode’ – without the use of mobile data. In this paper, a proposition is made to explore Facebook as a teaching medium during this time of global crisis. It is suggested as a short-term solution to assist in the continuation of teaching and learning within higher education institutions.

Keywords: COVID19, Facebook, teaching and learning, Community of Inquiry, HEI

1 Introduction

Facebook is a free online social media platform with a massive capacity to host millions of users at the same time. In South Africa, in November 2020, Facebook had a total of 24 310 000 users of which 6,077,500 (25.5%) are between the ages of 18-24 years (NapoleonCat 2020). This age bracket also comprises many of the 2,5million students enrolled at higher education institutions (HEIs) in South Africa (Nzimande 2020). Various studies (Bumgarner 2007; Menzies, Petrie & Zarb 2017) assert that the 18–24-year age group has been the core user demographic since the inception of Facebook internationally. The social media community, in general, already holds a view of seeing the social media space as a learning site (Prescott, Stodart, Becket & Wilson 2013). This is seen through the opportunities for sharing information among users, media, government and professional institutions using the medium to communicate with the masses. Such uses of the medium have developed a credibility for social media, and many users have become reliant on it for various kinds of information (ibid). There have been numerous South African studies (Cloete, De Villiers & Roodt 2009; Rambe & Ng’ambi 2014; Reid 2011; Shambare & Mvula 2011) conducted that have indicated positively how Facebook can be integrated into teaching. What these studies suggest, is that Facebook can be used as an alternative tool for learning as it is also cost effective, provides flexible access, and requires no training to navigate the platform and has the capacity to accommodate masses without crashing down (Govender & Govender 2012; Kanuka & Brooks 2010). Taking a cue from these studies, therefore, Facebook can be an effective learning platform as HEIs are in the conversation for a better solution appropriate during the pandemic of the Coronavirus disease (hereafter COVID19). In this paper, the community of inquiry (CoI) framework is used as a guide to illustrate how Facebook has the necessary features and has the potential to be a learning medium. A recommendation to use Facebook is made, to be integrated into teaching as a short-term solution for HEIs as universities prepare their Learning Management System (LMS) to cater for the new conditions of remote learning under social distancing regulations.

2 What is the Current Situation with South African HEI?

South African universities are working towards fully transitioning their teaching and learning core service to students onto LMS such as Moodle, Blackboard and Sakai (Ssekakubo, Suleman & Marsden 2012), without the option of contact teaching. This transition is brought on by the global COVID19 pandemic that has led to South Africa declaring a national state of disaster, consequentially leading to a lockdown of the country as the COVID19 confirmed cases increase daily. The lockdown has forced many sectors to shut down abruptly and its employees to remain in their homes, leaving only essential sectors such as health and pharmaceuticals, food stores and limited transport services open for the public. While these restrictions have brought strain to the South African economy, education also remains one of the severely challenged sectors due to this pandemic.

Prior to the COVID19 pandemic, in South African HEIs, synchronous or contact teaching was the primary method of teaching, with LMS providing support for academics and students, with the aim to support and improve the learning experience of the students (Ssekakubo *et al.* 2012). Online platforms for learning have been used as a support structure for contact teaching. Other South African universities prior to COVID19 had begun with the integration of blending learning in response to the ongoing student protests (Czerniewicz, Trotter & Haupt 2019) However, many academics had not fully tapped into the greater possibilities and benefits of online teaching and learning. Nor has online platforms been ever used for undergraduate teaching as the primary mode of teaching at South African universities (*ibid*) – with the exception of UNISA. LMS as support systems for contact teaching were used willingly by academics and students. An academic could choose not to integrate LMS into their courses and still be able to teach and communicate effectively with students. A student, on the other hand, could also disregard LMS and manage to access teaching material in other ways, unless forced to access LMS by assessment tasks uploaded to be completed only via LMS. This is one indication that LMS are online platforms that may or may not be used by academics and students, though available at their disposal, with the additional support of ICS staff to assist with technical challenges on-site.

With issues of massification, there are a significant number of academics who have sought to LMS to support their teaching and assessing in order to alleviate the challenges of teaching large classrooms (Moonsamy & Govender 2018). Contrarily, there are also academics who have resisted or

dropped out from using the LMS offered by their university due to various recorded issues. Some of these issues include poor or low technological skills leading to the intimidation of technology; generally, among the older generation of academics, complaints that the use of LMS increases administrative work for academics; poor activity response from students; repeated crashing of LMS due to the inability to manage high traffic from its users (Bennett & Lockyer 2004). Students have also shared their frustration in using university licensed LMS, recording the unfriendliness of the LMS and its difficulty to navigate (Terry Anderson & Dron 2017). Though available to academics and students, there are mixed feelings about the LMS and their effectiveness in teaching and learning. Nonetheless, contact teaching has been continuing with or without its integration into teaching and learning.

Currently, with all HEIs unable to offer contact teaching, it has become increasingly challenging for academics and students to continue with the current LMS licensed at different universities. Although LMS remain open and operational, there are various challenges that require attention to make them better suited to remote online teaching and learning of students and academics during this time. These challenges are two-fold; one set of challenges is created through the abrupt ending of contact teaching and the second set is created by the inability of the current LMS design that was not tailored for remote distance teaching and learning. The challenge posed by the ending of contact teaching has forced teaching and learning to LMS. However, the commencement of online teaching requires that all registered students be in possession of stable internet connection and a personal computer (PC) or laptop. With many students having been reliant on campus-based computer laboratories, there are students who currently do not possess a personal laptop at home (Czerniewicz *et al.* 2019).

Connectivity of all students has also proven to be a challenge, as the South African network providers do not provide network coverage in all South African areas of residence (Czerniewicz *et al.* 2019). Those affected greatly with poor or no connectivity are rural places of residence. University LMS also are currently not fully equipped to provide a platform for remote teaching and learning, as the current design was mainly to support contact teaching. Terry Anderson and Dron (2017) assert that LMS is more of a management system than a learning system, as the name suggests, implying that it benefits more the manager of the system – the academic and the institution, rather than the student. In upgrading LMS for suitability for remote learning, developers

in conversation with institution or academics need to include student-friendly features that would give students a sense of shared control and ownership of the platform as is the case with social media platforms like Facebook (ibid). Therefore, developers will need time to develop new, or restructure existing LMS to respond to the current method of teaching and learning.

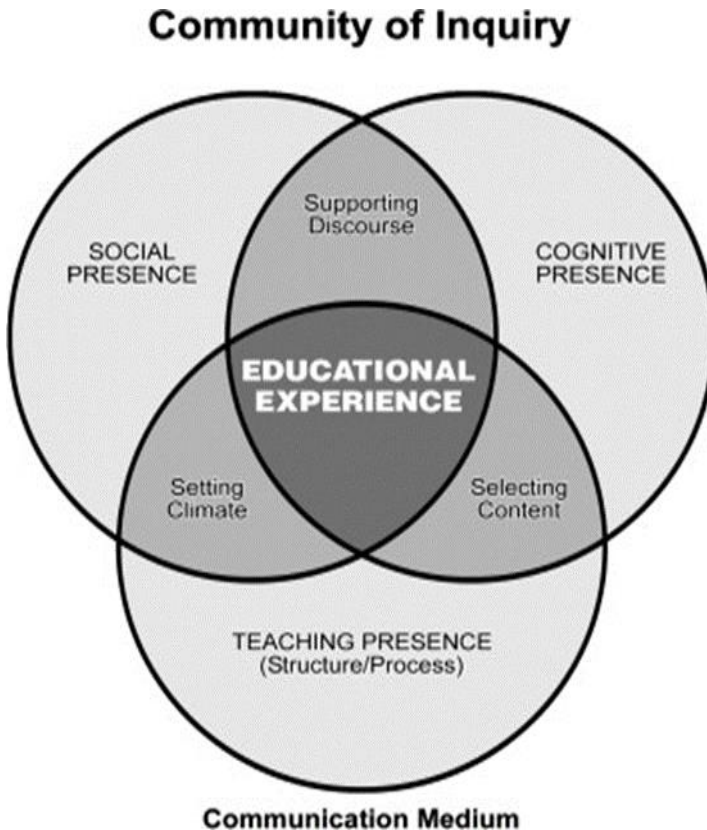
2.1 The Community of Inquiry Framework (CoI)

In order to guide and assist in bringing the focus onto Facebook as a learning medium, the community of inquiry (CoI) framework provides a simple guide that aims to improve the learning experience using online tools. Developed just about two decades ago by Garrison, Anderson and Archer (1999), the community of inquiry framework is a model that supports online learning environments and its activities. As a teaching and learning theory used commonly in higher education, CoI draws on John Dewey's extensive work on community and inquiry, premising inquiry as a social activity essential to quality educational experience (Dewey 1938; Garrison *et al.* 1999). Conceptualized on the phenomenon of 'presences', the community of inquiry notes three distinct elements, *cognitive*, *social* and *teaching* presences (Garrison, Anderson & Archer 2001; Picciano 2017).

Cognitive presence can be understood as 'the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication' (Garrison *et al.* 2001: 12). *Social presence* can be described as the ability to project one's self and establish personal and purposeful relationships (ibid). Lastly, the *teaching presence* is a significant determinant for student satisfaction, interaction and discourse facilitation (Garrison 2007).

Understanding the CoI framework, the three presences of *cognitive*, *social* and *teaching* remain the core elements that are necessary for establishing and continuing with online learning in massive numbers. With the CoI framework, it is possible to integrate Facebook into learning as South African academics (Cloete, De Villiers & Roodt 2009; Rambe & Ng'ambi 2014; Reid 2011; Shambare & Mvula 2011) have done. Online learning is currently a viable solution that may assist in saving teaching and learning activities within HEIs. Though there are challenges of connectivity, hardware for students and online platforms – Facebooks remains constant and readily available to be used for learning. *Cognitive presence*, paramount in the CoI

framework, requires of the student to have the intellectual capacity to assimilate higher-order epistemic discourse (Garrison 2007). This epistemic discourse is shared on the platform by the academic who initiates engagement with the content and students about the discursive content. Being registered university students is already an indication of *cognitive presence* which may be extended through further intellectual rigour (Rourke & Kanuka 2009).



*Figure 1: Community of inquiry model
(Garrison et al. 2001)*

Facebook, as an existing social platform, advantageously aligns with the *social presence* and offers a social environment that also encourages learning, communication and for its users to openly display their identities and being ‘real people’ (Rourke & Kanuka 2009: 21). With the conducive climate and an alert mind, the *teaching presence* solidifies and completes the framework. In *teaching presence*, the instructional design, discourse facilitation, and direct instruction are responsibilities of the academic which contribute to the environment created on the platform (Anderson, Rourke, Garrison & Archer 2001; Garrison *et al.* 2001).

The idea of *teaching presence* does not only leave the academic with the sole responsibility of teaching. However, in extending the notion of *teaching presence*, students, through their engagement with one another and in sharing their understanding of the learning material may be teaching other students through passive teaching. I use the term ‘passive teaching’ to refer to ways how a student unintentionally teaches another through sharing his/her understanding of a concept, consequentially resulting in the learning of another student. *Teaching presence* is important, as online learning does not take away the need for a teacher to present, disseminate and assist the student to make sense of the complex subject matter presented to them (Wallace 2003).

2.1.1 *Benefits of Facebook in Remote Learning*

According to Minister Nzimande (2020), at least 14 universities out of 27 are not ready to commence with an online teaching and learning program, due to a number of reasons, including the ones that have been mentioned in this chapter. In the plea to salvage academic activity, despite the various predicaments currently faced by HEIs, Facebook may be used for teaching and learning. Resorting to Facebook may allow LMS software developers to have more time to develop university LMS efficiently to respond to remote learning. Though students may have a positive reception of using Facebook for formal learning purposes, there are academics who have resisted to its use and have chosen to keep their conventional methods of teaching (Bahati 2015). Nonetheless, the current state of HEIs warrants alternative ways of teaching that open the idea of social media to be explored for educational purposes (Shambare & Mvula 2011). There are studies (Bahati 2015; Chugh & Ruhi 2018; Menzies, Petrie & Zarb 2017) that have shown how academics

have successfully integrated Facebook into their course, and documented the benefits and students' experiences. Academics who have integrated Facebook into their teaching have found multiple benefits that enhance learning for students, as mentioned below.

Chugh and Ruhi (2018) assert that social media may be useful in sharing educational content and increasing engagement between students and with their teacher. Through a study of content analysis of Facebook, Harran and Olamijulo (2014) have found that there was freedom of expression and learning and online mobility, encouraging engagement even among the shy students in contact teaching (Reid2011). Prescott *et al.* (2013) conducted a study and discovered that academics found Facebook useful in their modules as it encouraged communication and kept a discussion going for longer than the discussion page on the LMS that the university was using. Other academics (Rambe & Ng'ambi 2014) found Facebook better for sending announcements to students than emails, as students logged onto Facebook much more regularly than onto their emails. Mazman and Usluel (2010) also advocate the integration of social media as a tool to enhance learning as it already promotes the soft skills required for students. These soft skills include active engagement, boldness to share an opinion and to defend it, as well as to engage critically with other active users participating in the relevant active post (Gordon, Petocz & Reid 2007). It also promotes collaboration and sharing of information among users. Students have also expressed positive insight into the use of Facebook integration into their learning experience. Students found the use of Facebook for educational purposes convenient, as they already spend a lot of their time on the site (Irwin *et al.* 2012). Madge *et al.* (2009) also found that students favoured and tended to respond much quicker to announcements made through Facebook.

Balcikanli (2015) records that through the use of Facebook for educational purposes, there is a noticeable increase in teacher-student and student-student interaction. Facebook has also proven to be useful as an engagement tool in comparison to LMS discussion platforms, as Facebook shows a high number of students frequently participating in content-relevant discussion, rather than the LMS-based forum discussion pages (Miller & Garrety 2013). This is an important finding in Miller and Garrety's study, which could be a recommendation in the reshaping of LMS, as many currently lack social connectivity tools (Mazman & Usluel 2010). Mazer *et al.* (2007) have discovered that Facebook also give their students more courage to

approach or respond to academics with regard to posted learning content, which is not always easy via face-to-face consultation, as some students may be intimidated, or via email, as some are weary and do not feel confident with their understanding of email etiquette. The findings of student and academic opinions, and essential elements – the ‘presences’ of the CoI framework – further highlight the possibility of Facebook as a viable teaching tool during this time.

3 Learning as a Social Act

Bahati (2015) submits that social media is a powerful tool that is currently used for social interaction; however, it may also be used for academic purposes and successfully attain social and educational results. Other scholars (Admiraal, Huisman & Pilli 2015; Zygouris-Coe 2012) advocate educational learning to be premised as a social act, which will promote learning. This premise allows academics to be more open to social forms of learning which is what HEIs that offer distance learning are currently doing (Admiraal *et al.* 2015). Social learning promotes engagement, which is a dominant feature in contact teaching (*ibid.*). Premising learning as a social act also encourages students to work together even on online platforms, being open to sharing knowledge and collaborate in their learning activities (Zygouris-Coe 2012) as the *social presence* encourages. This also allows for spontaneity of discussion as traditional conventions are not imposed on students with the aim of learning together. Alluding to Vygotsky’s (1962) social constructivism, collaboration addresses the sharing of knowledge, skills and completing of assessment tasks. It promotes ongoing communication and interaction among students as they normally are active on social media platforms. I acknowledge that social media can and should never replace human interaction (Moonsamy & Govender 2018); however, these challenging times demand of people to maintain a social distance; consequently, interfering with physical, social interaction and the possibility for students to make acquaintances and establish friendships. Nevertheless, social media such as Facebook with its yielding capacity for *social presence* may make a good attempt in mitigating such challenges as the platform also encourages virtual acquaintance (Prescott *et al.* 2013).

4 Conclusion

The Minister of Higher education and Training, Science and Innovation, in his public briefing of the level four lockdown regulations on 30 April, made a call for HEIs to consider all tools that may be used for teaching during this time, while preparations for online learning were underway. He continued to submit that academics would need multiple and flexible teaching methods when universities commence teaching again (Nzimande 2020). I submit that Facebook can be one of those mediums that should be explored during this time, as it can assist academia to continue with the teaching and learning. The COVID19 pandemic might also bring significant change to South African HEIs as it pushes universities to establish new or improve the existing LMS that allows for remote learning under social distancing. Hill (2020) asserts that HEIs globally cannot go back to their 'old normal' post-COVID19. This experience should yield teachable moments that will assist in learning more about teaching and learning and improving HEIs in their core business. Extending this thought, I believe that the COVID19 pandemic, although challenging in various ways, will be a teachable experience that will push resisting academics to explore social media platforms for learning or to explore other functions of LMS that they can use to enrich the learning experience of their students, and for HEIs to fully integrate blended learning.

Acknowledgements

I would like to acknowledge and thank UCDP through the Accelerated Academic Leadership Development Programme (AALDP), for providing me with mentorship and capacity building opportunities, and for granting me teaching relief to complete my doctoral study and pursue writing for publication.

References

- Admiraal, W., B. Huisman & O. Pilli 2015. Assessment in Massive Open Online Courses. *Electronic Journal of E-learning* 13,4: 207 - 216.
- Anderson, T. & J. Dron 2017. Integrating Learning Management and Social Networking Systems. *Italian Journal of Educational Technology* 25,3: 5 - 19. <https://doi.org/10.24059/olj.v5i2.1875>
- Anderson, T., L. Rourke, D.R. Garrison & W. Archer 2001. Assessing Teaching Presence in a Computer Conferencing Environment. *Journal of Asynchronous Learning Networks* 5,2: 1 - 17.

- Bahati, B. 2015. Extending Student Discussions beyond Lecture Room Walls via Facebook. *Journal of Education and Practice* 6,15: 160 - 171.
- Balcikanli, C. 2015. Prospective English Language Teachers' Experiences in Facebook: Adoption, Use and Educational Use in Turkish Context. *International Journal of Education and Development Using ICT* 11,3: 82 - 99.
- Bennett, S. & L. Lockyer 2004. Becoming an Online Teacher: Adapting to a Changed Environment for Teaching and Learning in Higher Education. *Educational Media International* 41,3: 231 - 248.
<https://doi.org/10.1080/09523980410001680842>
- Bumgarner, B.A. 2007. You have been Poked: Exploring the Uses and Gratifications of Facebook among Emerging Adults. *First Monday* 12,11: <https://doi.org/10.5210/fm.v12i11.2026>
- Chugh, R. & U. Ruhi 2018. Social Media in Higher Education: A Literature Review of Facebook. *Education and Information Technologies* 23,2: 605 - 616. <https://doi.org/10.1007/s10639-017-9621-2>
- Cloete, S., C. de Villiers & S. Roodt 2009. Facebook as an Academic Tool for ICT Lecturers. In *SACLA '09: Proceedings of the 2009 Annual Conference of the Southern African Computer Lecturers' Association*. New York, NY: Association for Computing Machinery.
<https://doi.org/10.1145/1562741.1562743>
- Czerniewicz, L., H. Trotter & G. Haupt 2019. Online Teaching in Response to Student Protests and Campus Shutdowns: Academics' Perspectives. *International Journal of Educational Technology in Higher Education* 16,1: 1 - 22. <https://doi.org/10.1186/s41239-019-0170-1>
- Dewey, J. 1938. *Logic: The Theory of Inquiry*. Illinois: Southern University Press.
- Garrison, D.R. 2007. Online Community of Inquiry Review: Social, Cognitive, and Teaching Presence Issues. *Journal of Asynchronous Learning Networks* 11,1: 61 - 72. <https://doi.org/10.24059/olj.v11i1.1737>
- Garrison, D.R., T. Anderson & W. Archer 1999. Critical Inquiry in a Text-based Environment: Computer Conferencing in Higher Education. *The Internet and Higher Education* 2,2-3: 87 - 105.
[https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)
- Garrison, D.R., T. Anderson & W. Archer 2001. Critical Thinking, Cognitive Presence, and Computer Conferencing in Distance Education. *American Journal of Distance Education*, 15,1: 7 - 23.

<https://doi.org/10.1080/08923640109527071>

- Gordon, S., P. Petocz & A. Reid 2007. Tools, Artefacts, Resources and Pedagogy – Stories of International Statistics Educators. *Australian Association for Research in Education: Conference Papers, Abstracts and Symposia*. Adelaide: Australian Association for Research in Education (AARE.) Available at: <https://www.aare.edu.au/publications/aare-conference-papers/show/5046/tools-artefacts-resources-and-pedagogy-stories-of-international-statistics-educators>
- Govender, I. & D.W. Govender 2012. *Using Social Networks for Teaching and Learning: An Exploratory Study*. Paper presented at the EdMedia + Innovate Learning 2012, Denver, Colorado, USA. <https://www.learn-techlib.org/p/41095>
- Harran, M. & C. Olamijulo 2014. Social Media Communication Spaces to Develop Literacies in a Higher Education Language Classroom Context. *South African Journal of Higher Education* 28,2: 410 - 435.
- Hill, P. 2020. *US Higher Ed Set to Go Fully Online in Just Four Weeks Due to COVID-19*. Available at: <https://philonedtech.com/us-higher-ed-set-to-go-fully-online-in-just-four-weeks-due-to-covid-19/>
- Irwin, C., L. Ball, B. Desbrow & M. Leveritt 2012. Students' Perceptions of Using Facebook as an Interactive Learning Resource at University. *Australasian Journal of Educational Technology* 28,7: 1221 - 1232. <https://doi.org/10.14742/ajet.798>
- Kanuka, H. & C. Brooks 2010. Distance Education in a Post-Fordist Time: Negotiating Difference. In Cleveland-Innes, M.F. & D.R. Garrison (eds.): *An Introduction to Distance Education*. New York: Routledge.
- Madge, C., J. Meek, J. Wellens & T. Hooley 2009. Facebook, Social Integration and Informal Learning at University: 'It is more for socialising and talking to friends about work than for actually doing work'. *Learning Media and Technology*, 34,2: 141 - 151. <https://doi.org/10.1080/17439880902923606>
- Mazer, J., R. Murphy & C. Simonds 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* 5,1: 1 - 17. <https://doi.org/10.1080/03634520601009710>
- Mazman, S.G. & Y.K. Usluel 2010. Modeling Educational Usage of Facebook. *Computers & Education* 55,2: 444 - 453. <https://doi.org/10.1016/j.compedu.2010.02.008>
-

- Menzies, R., K. Petrie & M. Zarb 2017. A Case Study of Facebook Use: Outlining a Multi-layer Strategy for Higher Education. *Education and Information Technologies* 22,1: 39 - 53. <https://doi.org/10.1007/s10639-015-9436-y>
- Miller, C. & C. Garrety 2013. March. Transition to New LMS: Student Perceptions of BlackBoard v. Google. In McBride, R. & M. Searson (eds.): *Proceedings of SITE 2013 – Society for Information Technology & Teacher Education International Conference*. New Orleans, Louisiana, United States: Association for the Advancement of Computing in Education (AACE.) <https://www.learn techlib.org/primary/p/48208/>
- Moonsamy, D. & I. Govender 2018. Use of Blackboard Learning Management System: An Empirical Study of Staff Behavior at a South African University. *EURASIA Journal of Mathematics, Science and Technology Education* 14,7: 3069 - 3082. <https://doi.org/10.29333/ejmste/91623>
- NapoleonCat 2020. Facebook User in South Africa: March 2020. <https://napoleoncat.com/stats/facebook-users-in-south-africa/2020/03>
- Nzimande, B. 2020. *Lockdown Level 4 Regulations for Higher Education*. (Press Release.) <https://www.youtube.com/watch?v=rF4Siv-Uc3A>
- Picciano, A.G. 2017. Theories and Frameworks for Online Education: Seeking an Integrated Model. *Online Learning* 21,3: 166 - 190. <https://doi.org/10.24059/olj.v21i3.1225>
- Prescott, J., M. Stodart, G. Becket & S. Wilson 2013. The Experience of Using Facebook as an Educational Tool. *Health and Social Care Education* 0,0: 1 - 5. <https://doi.org/10.11120/hsce.2013.00033>
- Rambe, P. & D. Ng'ambi 2014. Learning with and from Facebook: Uncovering Power Asymmetries in Educational Interactions. *Australasian Journal of Educational Technology* 30,3: 1 - 14. <https://doi.org/10.14742/ajet.116>
- Reid, J. 2011. We Don't Twitter, We Facebook: An Alternative Pedagogical Space that Enables Critical Practices in Relation to Writing. *English Teaching: Practice and Critique* 10,1: 58 - 80.
- Rourke, L. & H. Kanuka 2009. Learning in Communities of Inquiry: A Review of the Literature. *Journal of Distance Education* 23,1: 19 - 48.
- Shambare, R. & A. Mvula 2011. South African Students' Perceptions of Facebook: Some Implications for Instructors. *African Journal of business Management* 5,26: 10557 - 10564.
-

<https://doi.org/10.5897/AJBM11.1144>

Ssekakubo, G., H. Suleman & G. Marsden 2012. Learning Management Systems: Understanding the Expectations of Learners in Developing Countries. In Nunes, M.B. & P. Isaias (eds.): *Proceedings of IADIS e-Learning 2012*. Lisbon, Portugal: International Association for Development of the Information Society (IADIS.)

http://pubs.cs.uct.ac.za/id/eprint/790/1/el2012_F_202_Ssekakubo.pdf

Vygotsky, L.S. 1962. *Thought and Language*. Cambridge: M.I.T. Press, Massachusetts Institute of Technology.

Wallace, R.M. 2003. Online Learning in Higher Education: A Review of Research on Interactions among Teachers and Students. *Education, Communication & Information* 3,2: 241 - 280.

<https://doi.org/10.1080/14636310303143>

Zygouris-Coe, V. 2012. Collaborative Learning in an Online Teacher Education Course: Lessons Learned. In Morris, L. & C. Tsolakidis (eds.): *ICICTE 2012 Proceedings*. Rhodes, Greece: International Conference on Information Communication Technologies in Education (ICICTE.)

[https://pdfs.semanticscholar.org/2f96/35c33cd](https://pdfs.semanticscholar.org/2f96/35c33cd1c6568e4847bb747f7ae055dae82a.pdf)

[1c6568e4847bb747f7ae055dae82a.pdf](https://pdfs.semanticscholar.org/2f96/35c33cd1c6568e4847bb747f7ae055dae82a.pdf)

Nosipho Mbatha

Lecturer

Creative Arts

UKZN

Durban

mbathan5@ukzn.ac.za