Social Media as Communication and Learner Support Tool in Massive Open Online Courses (MOOCs)

Myra C. Almodiel[1], Keats Grecian A. Mampusti[2], and Shaira Tanay[3]

[1]Assistant Professor, University of the Philippines Open University, Philippines, myra.almodiel@upou.edu.ph
[2]Research Assistant, University of the Philippines Open University, Philippines, keatsgrecian.mampusti@upou.edu.ph
[3]Research Assistant, University of the Philippines Open University, Philippines, shaira.tanay@upou.edu.ph

Abstract

The massive open online courses (MOOCs), with its characteristics of being massive, accessible everywhere online, open to everyone, and free of charge, play an important role in bridging the gap between the teacher and the learners, giving more flexibility, access and equity in a learning environment. Recognizing the potential that MOOCS has to offer to a wider audience and trusting in its many years of experience in open and distance education, UPOU embarked in a learning innovation of designing and offering free online courses through the UPOU massive open online courses (MOOCs platform, MODeL, as part of the university's mission to provide wider access to quality higher education. The learner support system plays an important role in making sure that students have ways to communicate with the MOOCs facilitators. UPOU MODeL provided different tools for students to discuss their MOOCs-related concerns through Facebook Group, MODeL LMS, and email. This study showed how social media (Learning Management System (LMS), Facebook page, and Email) were used as communication and learner support tools to address various MOOCs-related inquiries. The results of the study showed that the questions asked through Facebook Group are preferable for Administrative-related matters. The study also revealed that the students preferred communicating

through email for their inquiries related to Counseling and Tutorial Support.

Rationale

With the adoption of the Sustainable Development Goals (SDGs) and the Education 2030 Framework for Action in 2015, access to education has been placed at the heart of the international development agenda to address all forms of exclusion and inequalities in access, participation and learning outcomes (Chien & Huebler, 2018). The massive open online courses (MOOCs), with its characteristics of being massive, accessible everywhere online, open to everyone, and free of charge, play an important role in bridging the gap between the teacher and the learners. MOOCs gives more flexibility, access and equity in a learning environment and thus provides more access to education to more people, who are being denied access to education based on race, religion, language, ethnicity, age, socio-economic status, gender, culture, physical or intellectual capacities, etc.

The University of the Philippines Open University (UPOU) offers free online courses through the UPOU massive open online courses (MOOCs hereafter) platform, MODeL, as part of the university's mission to provide wider access to quality higher education and in response to Republic Act 10650 (Open Distance Learning Law) which mandates UPOU to assist relevant national agencies, higher education institutions, and technical and vocational institutions in developing their distance education programs through training, technical assistance, research, and other academic programs.

As a relatively new phenomenon, the literature on MOOCs is still limited but the interest in this topic is growing among scholars, researchers, and distance education practitioners. This paper hopes to contribute to the finite literature on MOOCs in the Philippines. It focuses on the UPOU

MOOCs platform, MODeL, and how social media (Learning Management System (LMS), Facebook Page, and email) were used as learner support tools to communicate and address the various MOOCs-related inquiries.

Research Objective

This study aimed to explore how social media (Learning Management System (LMS), Facebook Page, and email) were used as communication and learner support tool to address various MOOCs-related inquiries.

Introduction

MOOC as a new approach to distance education, which originated from the open educational resources (OER) movement, is becoming widespread throughout the world (Pilli & Admiraal, 2016) and are among the latest e-learning initiative to attain popularity among many universities (Hew & Cheung, 2014). MOOCs are web-based online courses offered to an unlimited number of participants held by professors or other experts via video lectures, computer-graded tests, and discussion forums (Wulf, Blohm, Brenner, & Leimeister, 2014; Hoy, 2014). They are tagged as the latest in the line of disruptive technologies that are hitting higher education, associated with its characteristics of being massive, accessible everywhere online, open to everyone, and free of charge. The first known MOOC was created by the Massachusetts Institute of Technology (MIT) OpenCourseware in 2002 to provide free web access to MIT course materials (Pilli, 2016).

The term MOOC was originally used by George Simens and Stephen Downes in 2008, and since then has gained popularity in the USA especially when Sebastian Thrun, as Stanford professor offered an artificial intelligence course for free (Hu, 2013, as cited by Hew & Cheung, 2014).

Advocates of the MOOC initiative believe that it can offer educational benefits to higher education institutes, professors, and students (Hew & Cheung, 2014). Furthermore, MOOCs have been praised for bringing the educational opportunities of elite institutions to a wider audience, and for addressing the issue of increasing costs of higher education (Pilli, 2016).

MOOCs are characterized by its constitutive nature such as, a) a large number of participants or being "massive" for it can accommodate an unlimited number of participants in contrast with the traditional distance learning courses; b) open accessibility or being "open" to a wide target group of learners in informal conditions and offered free or with only minimal participation fees; c) digitization or being "online" since the whole course, including the learning resources, teaching process, discussions, and evaluations, is offered via the Internet ("online") making MOOCs accessible from any given location; d) follows a didactical concept in designing a course making the teaching process occur in established learning objectives that sets the course schedule, learning content structure, and assessment ahead of time (Clow 2013; McAuley et al. 2010; Vardi, 2012 as cited in Wulf, Blohm, Brenner, & Leimeister, 2014).

The evolution of MOOCs classification and categorization were seen to persist as MOOCs developed through the years. Table 1 lists some examples of how MOOCs were grouped or categorized.

Table 1. Categorization of MOOCs

Category	Basis/Source
1. cMOOCs (connectivist) **2.** xMOOCs (cognitivist-behaviorist)	Pedagogy (Seyedmonir, 2013, as cited by Pilli, 2016)
1. Market-oriented **2.** Open-resource oriented **3.** Dewey theory oriented	Orientation according to profit, openness and learning (Reich, 2012, as cited by Pilli, 2016)
1. Network-based **2.** Task-based **3.** Content-based	Type (Lane, 2012, as cited by Pilli, 2016)
1. transferMOOCs **2.** madeMOOCs **3.** syncMOOCs **4.** asyncMOOCs **5.** adaptiveMOOCs **6.** groupMOOCs **7.** connectivistMOOCs **8.** miniMOOCs	Learning Functionalities(Clark, 2014, as cited by Pilli, 2016)
1. Degree of openness **2.** Scale of participation (Massification) **3.** Use of Multimedia **4.** Degree of communication **5.** Degree of collaboration **6.** Learning pathway **7.** Quality Assurance **8.** Amount of reflection **9.** Certification **10.** Formal learning **11.** Autonomy **12.** Diversity	Design of course (Conole, 2013)
1. Openness of learning goals **2.** Resources selection **3.** Organization of learning activities **4.** Organization of group work and collaboration	Degree of Openness from the participants' point of view (Belen-Sapia, 20213, as cited by PIlli, 2016)
1. Small scale and less open **2.** Small scale and more open **3.** Large Scale and less open **4.** Small scale and more open	Dimensions in terms of Openness and Massiveness (Pilli, 2013)

MOOCs in the Philippines

Recognizing the potential that MOOCS has to offer to a wider audience and trusting in its many years of experience in open and distance education, UPOU embarked on a learning innovation of designing and opening its first MOOC. In the Philippines, the UPOU pioneered the offering of MOOCs that has been the premier Open University in the country and Southeast Asia. In 2012, UPOU, through the uLearn Project developed its first MOOCs platform, @ral. And in 2013, UPOU, in partnership with a major telecommunications company in the country, offered the first MOOC on "App Development Using the Android Platform" with 700 registered learners (Bandalaria & Figueroa, 2018). Since then, UPOU has launched numerous MOOCs workshops and "MOOCathons" or "unending conversations on MOOCs," that helped UPOU understand how MOOCs should focus on the specific skill set of a social sector.

UPOU continued to offer free online courses through its MOOCs platform, the Massive Open Distance eLearning, or the UPOU MODeL that is accessible at www.model.upou.edu.ph. UPOU Massive Open and Distance e-Learning (UPOU MODeL) has already offered a total of 84 courses since it started (see Table 2). Some of the certification programs that have been offered in MOOCs are Technology for Teaching and Learning, ODeL Teacher Accreditation, Business Analytics, and Sustainable Development (Bandalaria, 2018). Other MOOCs offered were under programs such as ASEAN Studies, eFilipiniana, and Interlocal Cooperation.

Table 2. Summary of UPOU MOOCs offering from 2013 to 2018

Year	Number of Courses Offered	Number of Enrolled Students	Number of Completers
2013	1	390	n/a
2014	1	859	n/a
2015	10	2547	48
2016	7	857	110
2017	23	1741	154
2018	38	2251	441

UPOU offers free online courses through the UPOU MOOCs platform, MODeL, as part of the university's mission to provide wider access to quality higher education and in response to Republic Act 10650 (Open Distance Learning Law).

Learner Support

The current academic discussion on learner support in MOOCs focuses on the contribution of learner support to the success and completion of MOOCs.

In China, one of the measures to address the high dropout rate in MOOCs is designing a perfect learning support service system and improving the capacity of their learning support service (Zheng, Chen, & Burgos, 2018). A high dropout and unsuccessful completion rates continue to be the major concerns of MOOCS providers (Bokurt, Akgün-Özbek & Zawacki-Richter, 2017). These issues contribute greatly to the negative discussion of MOOCs; however, research studies regarding learner support, which is an effective way to get students more involved in terms of attendance, completion, and participation (Labarthe, Bouchet, Bachelet & Yacef, 2016), are insufficient as observed in the study. Research ventures on learner support services in MOOCs

can contribute greatly to the literature by providing effective and efficient solutions to the aforementioned problems and issues that have been plaguing the rise of MOOCs over the years.

The definition of learner support varies through literature and often overlaps with student support. To distinguish the two, the latter is often referred to as tutoring, while the former is referred to as administrative and personal support. The widest definition of learner support is the "totality of the provision by an institution to support the learner, other than generic teaching materials produced by instructional designers/course producers" (Mills, 2003, pp.104). Its key function, therefore, is response and responsiveness (Thorpe, 2003, pp.199), since it should be available at all stages of the learning process, starting from entry to the end of the study career.

Such services offered by learner support are advice, guidance, and study support that should be suited to the needs of learners as these needs are also different per person, course, or year. Moreover, learner support should aim to "remove barriers to learning" (Brindley, 1995, as cited in Phillips, 2003; pp.170), especially in the context of open and distance learning where almost all interactions with students are technology-mediated.

Keast (1997) identified four types of learner support: administrative, technical, instructional, and counseling and tutorial support. Administrative support includes admissions, registration, course scheduling, student records, and financial transactions. In summary, these are organizational activities that ensure the operation of the institution or program, making it one of the crucial supports in the learning process. Second, in technical support, "operation of delivery mediums and offering technical assistance" are monitored for efficiency.
The third learner support, which is Instructional support, includes the "services of graduate assistants, instructional designers, technology personnel" and also involves "communication with tutorial support personnel." Lastly, counseling and tutorial support involves providing help, guide, and academic assistance, and creating a liaison between learners and instructors.

Malefi (2002; as cited in Usun, 2004) also categorized learner support into two: 1) Academic, including such packages as a tutorial, advising and counseling services; and 2) Administrative functions, such as enrolment; admission and registration; record keeping; information provision; and delivery of study materials.

Another set of types of Learner Support also emerged from the study of Dillon and Blanchard (1991; as cited in Usun, 2004) are the following: 1) Learner support that addresses learner needs; 2) Learner support and the needs of the content; 3) Learner support related to the institutional context; and, 4) Learner support and technology.

Social Media as a Learner Support Tool

One pressing issue that affects the development of MOOCs is the high dropout rate observed over the years. In attempts to explore mechanisms for enhancing retention, social media has is used as a tool to increase student engagement. In a study that looked into the role of social media in MOOCs by Zheng et. al (2016), it was revealed that students show higher engagement and retention in social media than in MOOC forums. In another study that determines how often the students benefit from their social media accounts for self-development and determines how the use of MOOCs program, results showed that students preferred their social media rather than obtaining information from pages related to MOOCs since they consider their social media accounts as their daily information and obtaining tool (Bicen, 2017).

While in an explorative interview study, the researcher delves into critically exploring how campus students perceive using social media to support their studies and their perceivedbenefits and limitations compared with other means. The interviews revealed that e-mail and instant messaging are useful to students when asking questions, coordinating group works, and sharing files. Students also used Facebook to communicate with course peers, and Wikipedia and Youtube to retrieve content relevant to their courses. Social media is viewed as one of the three key means of the educational experience, along with face-to-face meetings and employing a learning management system. Social media are generally used for asking questions briefly, and coordinating group work (Hrastinski & Aghaee, 2011).

Methodology

This paper used descriptive content analysis to determine the themes of the inquiries received from students through MODeL LMS, UPOU MODeL's GMail, and UPOU MODeL's Facebook Page from 2017 to 2018. Inquiries were categorized into themes namely Registration, Course Availability, Account Retrieval, Enrollment, Unenrollment, Course Details, Course Materials, Degree Programs, DE Readiness Module, Results and Certificates, and Materials/Submission Requirements. Inquiries were further categorized according to the type of learner support (administrative, technical, instructional, and counseling and tutorial support) Keast (1997). Results were presented using trend line graphs or descriptive analysis such as frequency or percentage values.

Results and Discussion

A. UPOU MOOC Platform: Main Features

The UPOU MOOC Platform, MODeL, was created using Moodle, a free and open source learning management system (LMS). MODeL is accessible at http:model.upou.edu.ph. The platform is composed of several features:

a. Main page

The main page of the MODeL serves as the landing page which is accessible to the public (see Figure 1). This can be accessed at http:model.upou.edu.ph. In this page, available courses, course offering schedule, and announcement page is accessible to everyone (see Figure 2 and Figure 3).

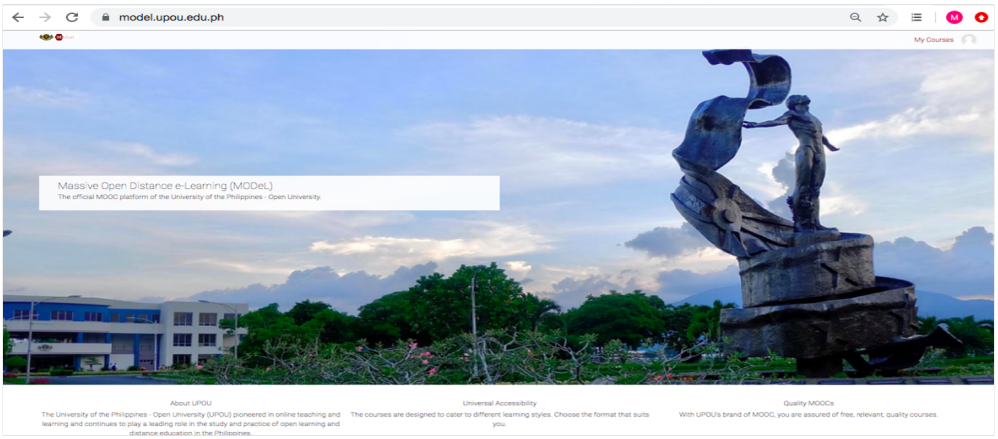

Figure 1. UPOU MOOCs platform, MODeL (http://model.upou.edu.ph)

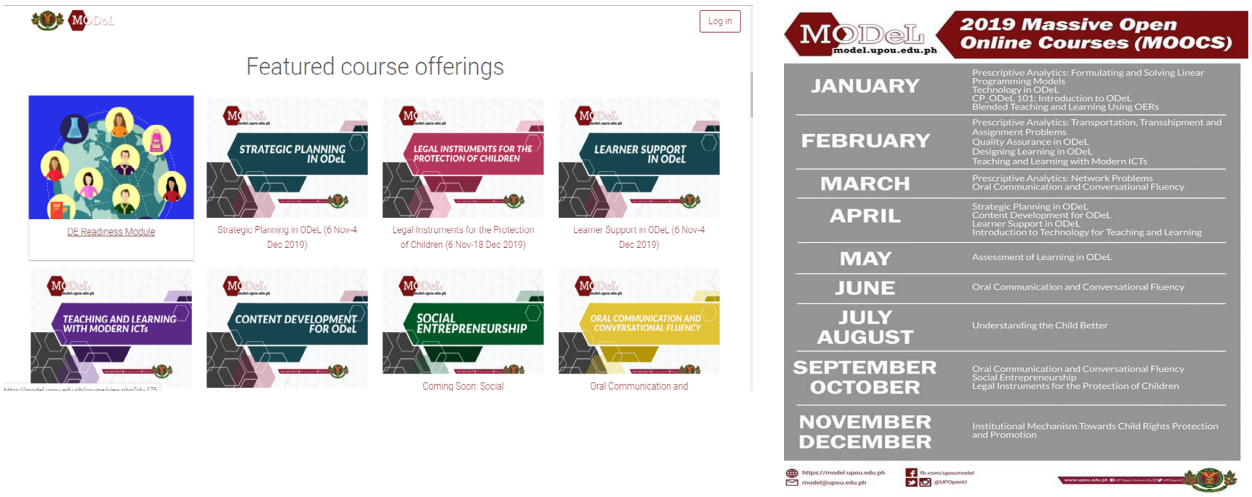

Figure 2. MOOCs Categories and Course Offering Schedule

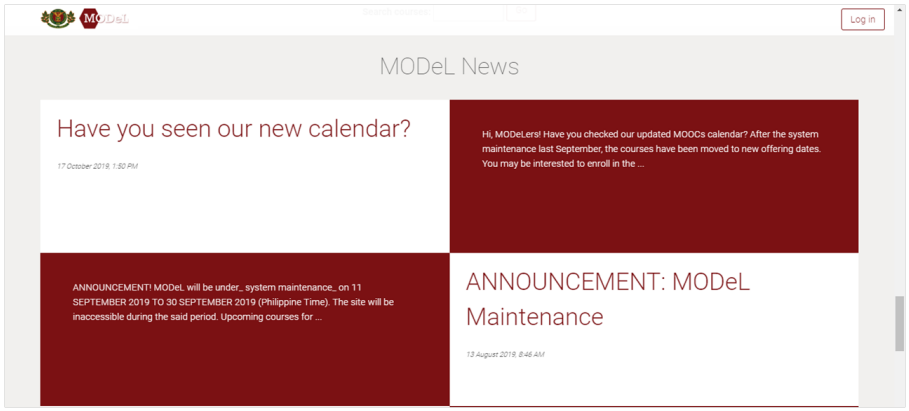

Figure 3. Announcement Section

b. Registration/Login Page

The first step to access and enrol in online courses at UPOU MODel is to register using the registration/login page (see Figure 4.). Here, you will be asked to fill out an online form with your details. You will also be asked to read and agree to the UP Data Privacy Statement.

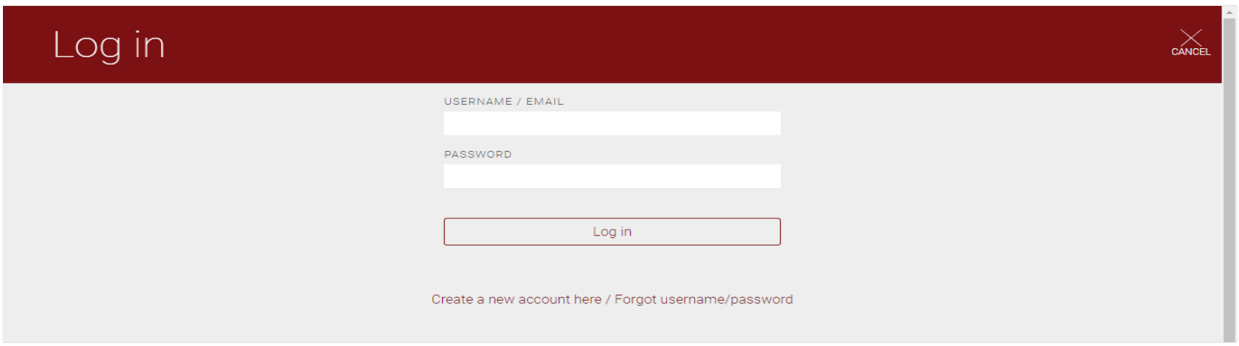

Figure 4. Login Page of MODeL

Figure 5 contains the step-by-step guide to register and enrol in the online courses in MODeL.

- Registration/enrollment

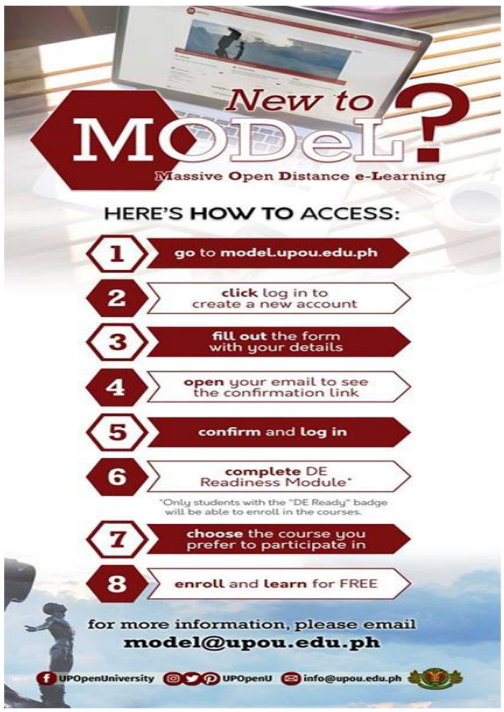

Figure 5. How to access MODeL

B. Social Media used as learner support tools

As part of the learner support services for the UPOU MOOCs platform, a Facebook page (https://www.facebook.com/pg/upoumodel/) (see Figure 6) and an official learner support email account (model@upou.edu.ph) were created to address the various MOOCs-related inquiries.

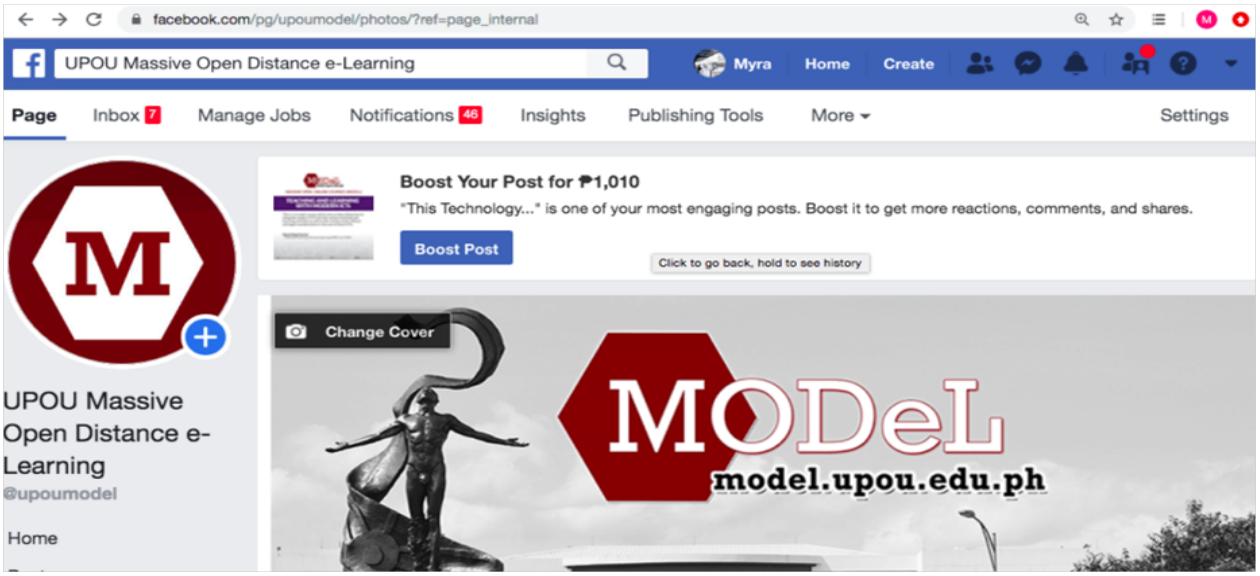

Figure 6. UPOU MODeL Facebook Page

a. Facebook Page

In 2018, more than half (61.7%) of the inquiries through Facebook Group is about Registration and Enrollment (Figure 7). There is a small portion (0.4%) about materials/submission. This implies that inquiring through Facebook group is much preferred when it comes to matters related to registration and enrollment.

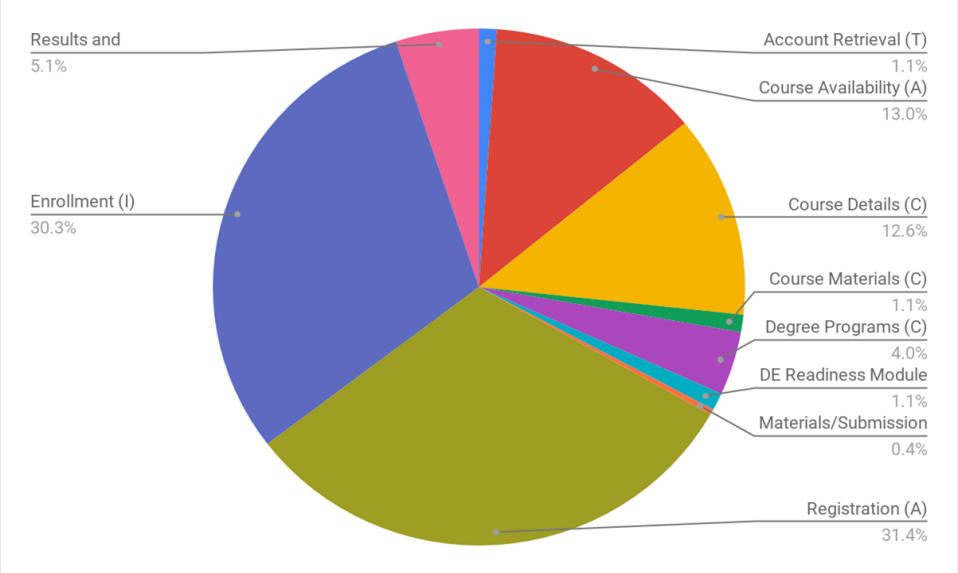

Figure 7. Types of inquiries received through Facebook (2018)

b. Email

In 2017, more than half of inquiries received by email were inquiries on Materials/Submission Requirements (33.5%), Enrollment (19.2%), Course Details (13.8), and Results and Certificates (10.3), while only 2% inquired about Registration (Table 3). Results also showed that in 2018, most of the inquiries were about Registration (24.23%), Results and Certificates (14.62%), Course Availability (11.5%), and Course Details (9.23). It indicates that inquiring through email is preferred when it comes to course-related matters. It also agrees with Hrastinski & Aghaee's (2011) findings that email is utilized by students when "asking questions, the coordinating group works, and sharing files."

Table 3. Inquiries through Email

Category	2017 (%)	2018 (%)
Account Retrieval (T)	2.5	4.62
Course Availability (A)	5.4	11.5
Course Details (C)	13.8	9.23
Course Materials (C)	5.9	2.3
Degree Programs (C)	2	5.77
DE Readiness Module (C)	2.5	3.46
Materials/Submission Requirements (C)	33.5	2.3

To be continued

From previous page (Table 3, page 33)		
Registration (A)	2	24.23
Enrollment (I)	19.2	20
Results and Certificates (C)	10.3	14.62
Unenrollment (I)	3	2.3
Total (%):	100	100

c. MODeL LMS

Results showed that in 2017, most of the inquiries received through MODeL LMS were on Results and Certificates (25%), Enrollment (20.8%), Materials/Submission Requirements (12.5%), and Course Materials (Table 4). While in 2018, results showed that inquiries Materials/Submission Requirements (30%), Results and Certificates (30%), and Enrollment (20%). It implies that students preferred to inquire matters on Results and Certificates, Enrollment Materials/ Submission Requirements through LMS.

Table 4. Inquiries through LMS

Category	2017 (%)	2018 (%)
Course Availability (A)	4.2	10
Course Details (C)	8.3	0
Course Materials (C)	12.5	0
Enrollment (I)	20.8	20
Materials/Submission Requirements (C)	12.5	30
Registration (A)	8.3	0
Results and Certificates (C)	25	30
Unenrollment (I)	8.3	10
Total (%):	100	100

Inquiries According to the Type of Learner Support

The inquiries received from varied platforms were grouped according to Keast's (1997) Types of Learner Support. Results showed that almost half of the inquiries received are related to Counseling and Tutorial Support (42%) and inquiries received were mostly through email (60%) (see Table 5). This implies that most of the students still preferred to communicate through email and also highlights the importance of email in keeping students guided, and well-assisted in their academic needs. Being responsive to every learners' needs through innovative methods of teaching and learning is one of the UPOU's mission as an academic institution that upholds humanism, social responsibility, and service to the nation.

Table 5. Inquiries according to Learner Support (Keast, 1997) received in 2017 and 2018 through social media

Category	FB	Email	LMS/ MODeL	Total
Administrative (A)	16%	14%	1%	30%
Technical (T)	0%	2%	0%	3%
Instructional (I)	11%	13%	1%	25%
Counseling and Tutorial Support (C)	9%	31%	3%	42%
Total	36%	60%	4%	100%

Conclusion and Recommendation

As a MOOCs Platform, UPOU's MODeL offers the necessary features that learners need to be able to obtain free and accessible lifelong education. These can be found under its Main Pages and Registration/Login Pages. Under the main page, learners can access the available courses, course offering schedule, and announcements. Through the Login/Registration page, the learners can create an account or log in to their existing account and begin learning with MOOCs.

The learner support system plays an important role in making sure that students have ways to communicate with the MOOCs facilitators. UPOU MODeL provided different avenues for students to communicate their MOOCs-related concerns through Facebook Page, MODeL LMS, and email.

Results showed that inquiries through Facebook Page are preferable for Administrative-related matters including inquiries on Registration and Course Availability.

Results also showed that students preferred email for inquiries related to Counseling and Tutorial Support such as inquiries on Course Details, Course Materials, Degree Programs, DE Readiness Module, Results and Certificates, and Materials/Submission Requirements.

For further studies, it is recommended to have a more in-depth analysis of the relationship between learner support and completion rate in UPOU MODeL. Evaluations and studies on how to further enhance the quality of UPOU's MOOCs and the mentioned platform should also be done for the betterment of the learning experience of the learners.

References

Bandalaria, M. (2014). MODeLing: A Search for an Ideal MOOC Framework. In G. J. Alfonso & P. G. Garcia (Eds.), Open and Distance eLearning: Shaping the Future of Teaching and Learning (pp. 123-128). Laguna, PH: University of the Philippines Open University and Philippine Society for Distance Learning.

Bandalaria, M. 2018. State of the university report: The road to 2019: Where are we now?. Unpublished raw data.

Bicen, H. (2017). Determining the effect of using social media as a MOOC tool. Procedia Computer Science, 120, 172–176. http://doi.org/10.1016/j.procs.2017.11.225

Chien, C., & Huebler, F. (2018). Introduction. In UNESCO, Handbook on Measuring Equity in Education (pp. 11-15). http://uis.unesco.org/sites/default/files/documents/handbook-measuring-equity-education-2018-en.pdf

Conole, G. (2013). MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. Revista de Educación a Distancia 39 (2013).

Gregori, E., Zhang, J., Galván-Fernández, C., & Fernández-Navarro, F. D. (2018). Learner support in MOOCs: Identifying variables linked to completion. Computers & Education, 122, 153-168. http://doi.org/10.1016/j.compedu.2018.03.014

Hew, K.F., & Cheung, W.S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. Educational Research Review 12.

Hoy, M.B. (2014). MOOCs 101: An Introduction to Massive Open Online Courses. Medical Reference Services Quarterly, 33:1, 85-91, http://doi.org/10.1080/02763869.2014.866490

Hrastinski, S., & Aghaee, N. M. (2011). How are campus students using social media to support their studies? An explorative interview study. Education and Information Technologies, 17(4), 451–464. http:/doi.org/10.1007/s10639-011-9169-5

Keast, D.A. (1997). Toward an effective model for implementing distance education programs. The American Journal of Distance Education, 11(2), 39-55.

Labarthe, H., Bouchet, F., Bachelet, R., & Yacef, K. (2016). Does a peer recommender foster students' engagement in MOOCs? Proceedings of the 9Th International Conference on Educational Data Mining, 418-423. http://www.scopus.com

Letseka, M., & Pitsoe, V. (2012). Access to higher education through open distance learning (ODL): Reflections on the University of South Africa (UNISA). https://bit.ly/2BYOnGu

Mills, R. (2003). The centrality of learner support in open and distance learning. In A. Tait & R. Mills (Eds.), Rethinking Learner Support in Distance Education (pp. 102-113). Routledge Falmer.

Mershad, K., & Wakim, P. (2018). A learning management system enhanced with Internet of Things applications. Journal of Education and Learning, 7(3), 23-40.

Moodle News. (2017). The Future of Learning Management Systems. https://www.moodlenews.com/2017/the-future-of-learning-management-systems/

Phillips, M. (2003) Delivering learner support online. In A. Tait & R. Mills (Eds.), Rethinking Learner Support in Distance Education (pp. 167-184). RoutledgeFalmer.

Pilli, O. & Admiraal, W. (2016). A taxonomy of massive open online courses. Contemporary Educational Technology 7 (3), 223-240.

Romualdo, A. (2017, May 10). UPOU: Pioneering MOOCs in the country. Retrieved October 26, 2018 from https://www.up.edu.ph/index.php/upou-pioneering-moocs-in-the-country/

Thorpe, M. (2003). Collaborative on-line learning. In A. Tait & R. Mills (Eds.), Rethinking Learner Support in Distance Education (pp. 198-211). RoutledgeFalmer.

Usun, S. (2004). Learner Support Services in Distance Education System (A Case Study of Turkey). Turkish Online Journal of Distance Education, 5(4). https://files.eric.ed.gov/fulltext/ED494552.pdf

Wulf, J., Blohm, I., Brenner, W., & Leimeister, J. (2014). Massive Open Online Courses. Research Gate, 111-114. http://doi.org/10.1007/s11576-014-0405-7.

Wyman-Blackburn, S. (2017). Learning management systems. District Administration, 53(6), 68–69. http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=123290025&site=ehost-live

Zheng Q., Chen L., & Burgos, D. (2018) Learning Support of MOOCs in China. The Development of MOOCs in China. Lecture Notes in Educational Technology. Springer, Singapore

Zheng, S., Han, K., Rosson, M., Carroll, J. (2016). The Role of Social Media in MOOCs: How to Use Social Media to Enhance Student Retention, 419-428. http://doi.org/10.1145/2876034.2876047.