

The Social Presence of Active Learners across Five Countries through MOOCs: From Single to Super Postings

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Abstract

Learning in massive open online courses (MOOCs) embraces an unexpected learning outcome that educators have not fathomed, enriched learning experiences through social interactions with learners with diverse backgrounds and experiences. Active learners were studied in the MOOC, 'Making Sense of News', which was offered in 2015. The methodology of the study included descriptive analysis of the MOOC's entry survey and qualitative discourse analysis of the MOOC's forum discussions. NVivo 11 Plus was used to analyse forum postings. Global participants made 783 postings. This paper analyses how active learners from the top five countries—Canada, China, Hong Kong, India and the United States of America—participated in forum discussions. Among the super-posters, those who made six or more postings, Chinese active learners had the highest percentage of super-posters among the five countries. The MOOC active learners gained insights from other global learners, particularly the super-posters.

1. Introduction

Over 700 of the top universities around the world have attracted attention by providing MOOCs via popular platforms such as edX, Coursera and FutureLearn in the past five years. These courses are open to all regardless of prior qualifications. According to the report by Central Class, about 58 million people registered for one MOOC [1]. MOOCs have a few unique characteristics in an educational setting, and they attract massive numbers of learners to participate in a single cohort compared with traditional online and distance learning courses [2]. However, large numbers registering in MOOCs may not indicate a commitment to completion. About 10 percent of registrants do complete the courses [4]. Cognitive diversity is often observed in MOOCs because prior academic backgrounds range from post-secondary to advanced degrees [3][5]. Teaching content in MOOCs consists of short video-based lectures, and learners can study through the structured sequence or jump between weekly topics to learn at their own pace during the course [6]. Apart from viewing videos, participants' attempts in a quiz or posts on course forums are regarded as

active learning after the MOOC commencement date [7].

However, with a lack of face-to-face interactions and an expectation of autonomy over collaborative discourse, many online distance participants adopt independent learning and may not be aware that they can obtain support from tutors or learning peers when they are behind weekly schedules, experiencing stress or loaded with various full-time commitments [8]. Nevertheless, research findings indicate that social presence between learners and learners, and learners and tutors in online or blended learning environments may allow learners to have positive emotional experiences that attribute satisfaction through the online community [9] [10].

Attended mainly by adult learners, MOOCs provide both content and virtual space for social interactions similar to many online distance learning programs. MOOC forum discussions are the main medium of interaction between participants on content and with the course team [7]. The global communications in this context may promote socialization and address the needs of learners with diverse backgrounds, both cognitively and culturally [11]. This implies that experienced learners with professional knowledge and experience can share this with less experienced learners, and participants can contribute and disseminate regional practices to global learners [12]. The majority of discussions are around content-related questions, in which participants are engaged in constructive dialogue in a way that answers may be related resources and/or productive responses based on field experience [13]. Learners often get timely responses, including on difficult topics [14].

The volume of forum discussion varies from course to course. Nevertheless, tutors can stay abreast of any learning issues based on the type of questions, statements and comments posted in the MOOC forums. These postings may indicate quality of course materials, clarity of content dissemination and difficulty that participants encounter with respect to countries and cultural practices [15]. To cultivate a community of inquiry, the course instructors may make postings in response to learner-generated questions and issues and provide positive acknowledgements [16]. Despite that volume of

forum discussion can be stimulated by active tutor participation, this may not slow down the decline in participation across the weeks [17]. Tomkin and Charlevoix advocate that the presence of a tutor makes no significant difference because the majority enrolling in MOOCs have an undergraduate or master's level of qualification [18].

Nevertheless, social presence by students may create an influential and positive effect on the online community [19]. Among those participating in MOOC forum discussions, some may join only in the first week to introduce themselves and make no postings when it is not required as part of the assessment tasks in the course. On the contrary, there are some highly motivated students who are better engaged through the open interactions in the forum. These participants are more ready to complete MOOCs [20]. These very active forum participants, named as super-posters, display above-average engagement across MOOCs in obtaining better grades than the average forum participant; they make useful contributions to content and are often appreciated by participating peers [13].

In this study, we explore the natural voluntary responses of those who participated in the forum activities among the active learners in a six-week MOOC *Making Sense of News*:

1. What learning foci emerged in the MOOC forum discussions?
2. Which country has the highest percentage of super-posters among the active learners in the top five countries participating in the forum discussions?
3. What characters are displayed among the super-posters in the country with the highest percentage of super-posters?

2. Background of the study

A campus-based, semester-long undergraduate course *Making Sense of News* was taught by the University of Hong Kong (HKU), and core content was selected to fit in a six-week MOOC. Students in HKU benefited by having a blended learning experience in which they could have face-to-face interactions with classmates in their regular courses and the possibility to interact with global learners enrolled in the online course. Because this was an introductory-level MOOC, learners were expected to commit two to three hours of study through watching short videos with English and Chinese transcripts, reading suggested materials (journal articles, newspaper articles and web resources), doing formative exercises, holding discussions with other participants on a voluntary basis and carrying out summative assessment tasks. This MOOC was launched between 19 May and 30 June 2015. Learners reaching the pass mark of 60 percent in the assessment tasks could receive a certificate for

completion of the course. The six topics of the course were (1) the core elements in news while differentiating it from promotion and entertainment; (2) the process of news production and the differences between news reported through news agencies and from social media; (3) being aware of sources of information and ways to evaluate sources in news reports; (4) examining the evidence provided and the process of verification closely; (5) being aware of one's own biases; and (6) becoming an active news audience.

Throughout the course, participants were highly encouraged to hold discussions to deepen their understanding of concepts related to the weekly activities through the forum; this might enable individuals to go from watching videos and preloaded materials to critically reflecting on variations and differences in cultural practices. Discussion topics were structured as general discussion, subject-specific discussion, course feedback and technical feedback. The teaching staff responded to questions relating to the course, and four teaching assistants responded to technical questions. Enabling a global perspective, the MOOC participants were invited to bring examples from their home countries in the first assessment task. Students could communicate about the task before or after they had completed it. Similarly, students could work on the second written task and share their analysis with peers to receive some formative feedback before they submitted the task. Throughout the course, participants could make assessment-related or course-related postings. In this paper, technical postings were excluded, and subject-specific discussions were selected for exploration.

3. Methodology

A mixed-method approach has been used to investigate the asynchronous mode of learning in the forum. Three sets of data were collected: a pre-entry survey, forum postings and a post-course survey. Qualitative data posted in the forum discussions for the course offered in 2015 were collected. All data on forum discussions were first extracted from the course. Because the study examines active participation of learners in forum activities, the postings by the course team in Hong Kong were checked and were removed separately from the postings by participants. Tableau software was used to identify active contributors across countries. Five countries with the most contributions were selected for this study. These five countries are Canada (CA), China (CN), Hong Kong (HK), India (IN) and the United States of America (US).

Among the postings, the first step was to exclude postings related to assessment logistics and technical problems from the five countries. Postings were coded independently by two researchers using

NVivo 11 Plus to examine emerging themes. They included (1) building a critical awareness of news (e.g. bias standpoint, interpretation); (2) identifying original sources of information; (3) alternative ways of sourcing news; and (4) the impact on personal actions.

Apart from examining qualitative data in the forum postings, the entry- and exit-course surveys on learner experience were also collected to provide a descriptive analysis on the quantitative data collected. Based on the IP address sent, each anonymous survey was coded with the corresponding location, and data from the five locations were selected to triangulate postings made in the forum. An entry survey was sent to participants registered on the commencement date of the MOOC. Data collected included educational background, motivation for joining the MOOC, and academic and work status.

4. Results of survey and emerging themes in forum discussion

605 learners reached the pass mark of 60 percent in the assessment tasks and received certificates. To receive marks, learners needed to do quizzes, writing tasks and peer reviews on the writing tasks. Although participants gained no extra marks by making postings in the discussion forum in the six-week course, they were encouraged to make use of the tool to ask questions and share ideas and local practices with the course tutors and fellow global learners. In the entry survey, 286 participants from Canada, China, Hong Kong, India and the United States were sampled in this study. For participants with a bachelor's degree or higher, the countries, in descending percentage order, were Hong Kong (89%), China (76%), Canada (71%), India (69%) and the United States (66%). 89 percent responded that the main reason for joining the MOOC was an interest in the topic. Four percent (participants from China, Hong Kong, India and the United States) cited completing the course to earn a certificate; 4 percent (participants from Canada, Hong Kong, India and the United States) wanted to enhance their employment prospects by doing the MOOC; 2 percent (participants from Hong Kong, China and the United States) cited gaining competitiveness for college entrance through completion of the MOOC; and 2 percent (participants from China, India and the United States) cited participation in the social community of the course (see Figure 1).

Active learners were identified when they watched a video and did a quiz or made a posting through the system. 256 active learners were tracked, and 156 forum participants from the five countries made 398 postings (51 percent of all postings).

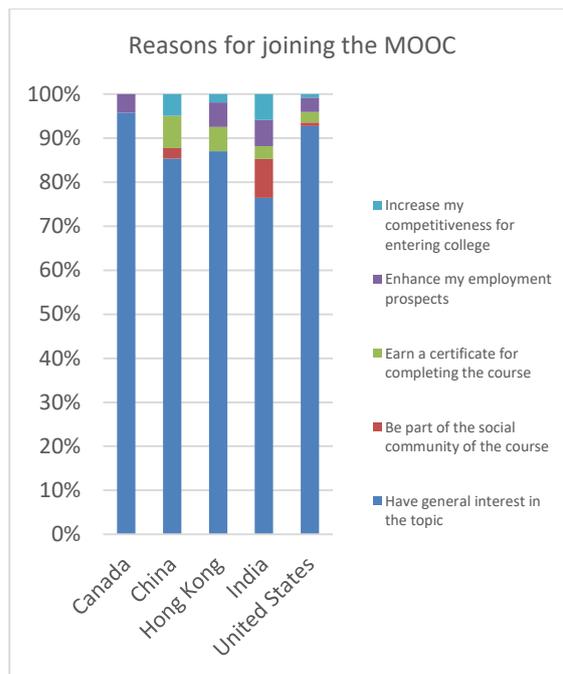


Figure 1. Reasons for joining *Making Sense of News*

Active Chinese learners were the highest percentage of participants in forum discussions, followed by the United States, Canada, India and Hong Kong (see Table 1).

Table 1. Percentage of forum participants among active users in MOOC

Location	Active users	Forum participants	% of forum participation
CA	22	15	68%
CN	34	26	79%
HK	64	20	31%
IN	30	15	50%
US	106	80	75%

4.1. Themes that emerged in forum discussions

Postings by the active learners from the five countries centred on current news around the time of offering, practices in different countries and personal experiences. These were voluntarily and readily shared. There follows a sample of forum postings from the active learners reflecting on the core conceptual understanding upon attending the MOOC:

4.1.1 Building a critical awareness of news authenticity.

Learners show a reflectiveness in seeking unbiased, independent news:

'Corporate media are revenue-driven. Not hero-driven. If we accept and understand bias we can still be active critical readers while considering the source.'

#72, Canada

'We usually read same news from different websites and we don't know which one is the truth or the best. We study some useful knowledge from this lesson and how to make judgement of news.'

#168, China

'Not many people are consciously getting news that is opposite to their own preferences/opinions, and there are not that many news outlets that can always provide unbiased information or both sides of the coin.'

#515, Hong Kong

'Main lesson of this course is that we should be a bit more skeptical and critical about the information rather than blindly believe everything. I need to be aware that what is portrayed in the news that we receive from a news organization could be different from the truth.'

#554, India

'I also made the same mistake and was confused and I didn't realize that the sources need to be independent, but now I know.'

#863, USA

4.1.2 Identifying the original source of information. Learners seek original and reliable sources of information when reading news:

'... providing links is an excellent idea as it provides the reader with the opportunity to review the sources used for the article. This may allow me to view and reflect upon the original sources myself without having to sift through any misrepresentation, bias or ulterior motives which may have crept into the article.'

#66, Canada

'Well, from my point of view, no one can account for the importance of providing links for the press releases, by this way, we can verify the information as well as view the information from a more objective perspective.'

#175, China

'The key word in this discussion is "should". Yes, journalists should check their sources; however, the reader should also check their sources.'

#815, USA

4.1.3. Taking alternative sources of news. Learners read a variety of sources for news and make comparisons or syntheses of the information retrieved:

'I used a news aggregation app called Flipboard every day. This kind of aggregation allows us to follow topics of our choosing and get news/coverage from many sources. The algorithm behind is to tailor your consumption on topics you are "interested in" only. We may then follow major news outlets around the world. We no longer need to be confined to the editorial choices of one or a few outlets.'

#520, Hong Kong

'I subscribed to both domestic news sources and foreign ones. Just reading three versions is enough to get the ideas and perspectives.'

#880, USA

'As a journalist, I do in fact use social media significantly... I did a story about the tuition strikes in California. I was able to follow the most active strikers and

contacted them for quotes. In the past, there were so many barriers for a journalist to get a quote whether it be geographical barriers or just the inability to find the people who care about the topic.'

#870, USA

4.1.4. Impact on personal actions. Learners consider adopting a different approach to reading or disseminating news:

'It relates to the recent occupation of parts of Hong Kong, but on a personal level it transformed my regard for Twitter from "foolish waste of time" to "important communication tool". I could become involved, and share my own images and impressions. From regarding journalism and media as always being at some remove from my personal life, I came to regard it as something far more integral and integrating.'

#341, Hong Kong

'Being able to critically evaluate all information you encounter (Facebook posts, news articles, emails, radio) is an important skill set. I teach my students to apply the Currency, Reliability, Authority and Point of View (C.R.A.P) test to information is a good way to develop this skill.'

#837, USA

'My "take away" from the course so far is that I must scrutinize every element of every news story far more carefully than I have been in the habit of doing! And no skimming!!!'

#828, USA

4.2 Frequency of postings and super-posters

Examining the frequency of postings made by active learners, 73.5 percent of participants made only a single posting. In fact, the majority of learners made one of two postings, Chinese learners had the highest percentage making three or more postings, followed by learners from India, the United States, Canada and Hong Kong (see Table 2).

Table 2. User posting frequency of the five countries

Location	% of one or two postings	% of postings >2
CA	78.6%	21.4%
CN	61.5%	38.5%
HK	85.0%	15.0%
IN	66.7%	33.3%
US	75.0%	25.0%

There were 16 super-posters (out of 155 active learners), who made six or more postings during the six-week course, and 23 percent of these postings were by Chinese students, 20 percent by Indian and 14 percent by Canadian participants. Only 5 percent were by Hong Kong and US learners (see Figure 2).

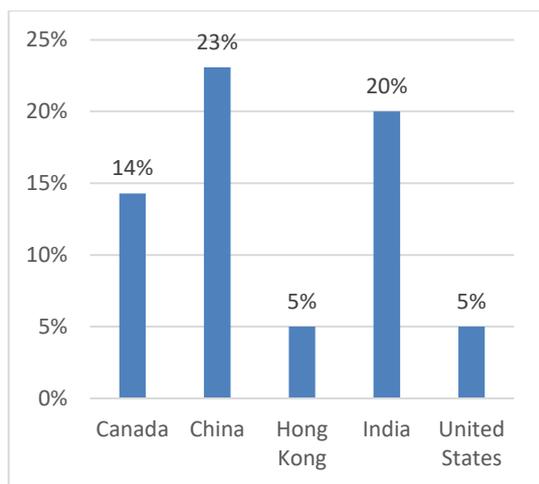


Figure 2. Super-posters

4.2.1. Chinese super-posters. Of these postings, Chinese learners in this online environment showed an interest in discussion, and this is shown in both their participation in the MOOC forum and indications in the exit surveys (see Figure 3).

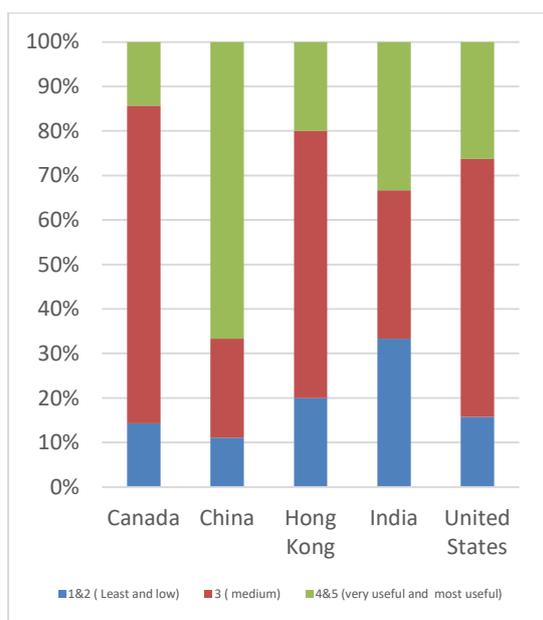


Figure 3. Perceived usefulness of forum for learning the subject

Chinese learners in traditional classroom settings are commonly described as passive learners in the literature because culturally they expect educators to be the source of knowledge. However, they may exhibit different behaviour in the online environment. Six Chinese super-posters among 23 Chinese learners (65 of 99 postings), and 17 postings were by the top super-poster.

The Chinese super-posters indicated that journalism in China did not show the professional

procedural practices taught in the MOOC, and it blurred the distinction between news and entertainment.

'Some journalists hear a wrong message, they don't check it, in order to gain attention to release the error news. But audience don't know which one is right, many people very angry when they knew the results. It is unethical... some news agency pay money to some scholar for obtain useful information, maybe we can read exclusive information, but I think it is not truth. Because some organization for itself ideas, deliberately make false information.'

#S2

'As we all know, there are some news reporters not subjective reluctant to verify its authenticity, but because of some objective environmental reasons, for example: said may be because some unknown truth will lose your job to make a living. And the emergence of this situation, the reporter about this? Would the most basic readers need to know the truth.'

#S1

'Among hot topics in Weibo, most of them are related to popular singers or actors/actresses. Others are some funny stories. But there seems not enough serious news unless any emergency things happened. That reflects our preference.'

#S5

Learning through the six-week course, the Chinese super-posters seemed to have gained better understanding of the process of news production and were more aware of sources of information while making better judgements of the news around.

'I love to know what's happen every day though I understand that it may be false or counterfeit, so I must distinguish between them. The most things are to meditate on something of value which has nothing to do with true or false but a request similar to trueness.'

S4

'I hardly post newsworthy information. As a result, I affect others a little. Nevertheless, I have benefited from the information that is a story everyone knows. I learn how to be a better person and persist on it.'

S3

'Many news last for a long time, news agency maybe not the truth information, reader must study how to analyse it and find the important information.'

S7

'We usually read same news from different websites, but a web has a view different from other website. So sometimes we don't know which one is the truth or the best. We study some useful knowledge from this lesson and how to judge the view of news.'

S2

Of 65 postings, there were nineteen accounts of questions (29 percent of postings). Journalism in China adopts a different approach in both print and through social media. Among the super-posters, questions predominantly related to editorial decisions, the reliability of press releases, how news

is adopted as propaganda or with biased perspectives, and news consumers' attitude and behaviour.

5. Discussion

Many fabricated stories appeared as news before the U.S. presidential election in 2016. Such fake news went viral through social media such as Facebook, according to engagement figures published in monthly reports by BuzzFeed [21]. The course was first offered in 2015 and coincided with the election. Nevertheless, the MOOC learning environment offers an unprecedented possibility for learners from different countries to learn through watching quality videos, doing simulated tasks, taking optional quizzes and communicating through insightful discussion on topics of interest. Learners can simply work through the well-structured and organized weekly materials. But more importantly, if learners want to have a deeper understanding of concepts of the MOOC, joining in the forum discussions can provide multiple opportunities to find out how learners make sense of news and how editorial decisions are made around the world. The frequency of contributions to forum discussions is one of the core indicators of learner engagement in MOOCs [5]. The MOOC global learners are better engaged through the open interactions in the forum and are ready to complete MOOCs [20]. It is not surprising to find that certificate earners often make more forum contributions in addition to the required assessment tasks [22]. Communication and social presence not only are directly associated with emotions but are also considered significant by the students, as far as their emotional state is concerned. Promoting as well as facilitating quality communication has a positive effect on students' psycho-emotional state, reinforcing their positive emotions and alleviating the negative ones [8]. Nevertheless, there is a possibility of co-constructing knowledge through sharing experiences through peer-to-peer interactions [23].

Forum discussions often involve a minority of dominant participants [24], and knowledge co-construction through the discussion forums is small and episodic [25]. Although participation in forum discussions was voluntary in this course, 156 active forum participants from the five countries contributed 398 postings. Almost three-quarters (73.5 percent) of forum participants made only one or two postings throughout the six-week course. However, 26.5 percent made three or more postings. There were a number of thoughtful reflections supported by verifying sources of information in the discussion. While some participants made postings on various topics, some made responses to others, forming an extended discussion. Hong Kong and Canadian learners showed lower participation in

forum discussions compared with learners from China, India and the United States. These learners may not have perceived this form of social learning as useful.

Nevertheless, students attending the MOOC have socially and culturally diverse backgrounds and experiences, which showed in the 398 postings. Participants showed variations in news consumer behaviour from the same country, such as retweeting news without checking sources, while some exhaustively checked different sources for the same piece of news. After making coding analysis in the rich set of data, four emerging sub-themes were observed: building critical awareness of news authenticity; the need to provide original source information; accessing alternative sources of news; and impact on personal actions through this course.

The Chinese super-posters made the highest average, although the top super-poster did not make the highest number of postings among the super-posters. Chinese super-posters showed readiness to discuss a lack of rigour in professional practice in journalism in China. Some of the learners indicated a reflectiveness on seeking the truth and building critical awareness of news received. The Chinese learners did not shy away from raising questions, even though they may be perceived as quiet in a traditional classroom. Their participation in the online forum discussions illustrates an openness of mind and a readiness to engage actively in learning. Indeed, the results of the exit survey on perceived usefulness of the forum triangulated participation of Chinese learners across the forum in the MOOC.

Although this was not a professional training course, participants could also benefit from reading about differences in journalism practice in different countries because some participants were already practitioners in the field. Therefore, despite their experiences, learners could compare and contrast differences and variations in practice across countries. The MOOC platform provided not only concepts but also methodologies on ways to stay vigilant on news consumption when participants learned to consider vigorously the evidence embedded in news.

6. Conclusion

MOOCs are open to anyone who is interested in learning, and they can choose to study by going through the content materials and doing assessment tasks individually. However, participants can build competence that embraces both local and international practice through discussions among learners with diverse prior knowledge and experience. A safe and friendly online learning environment can encourage many active learners to be engaged in both academic and social interactions

while inviting them to actively reflect on real-world practices [26].

Although knowledge co-construction through the discussion forums occurs in small and episodic snatches [25], the topical discussion contributed by global learners from Canada, China, Hong Kong, India and the United States showed that participants can build an understanding of both local and international news consumer behaviour through posting and reading postings in the MOOC forum. While participants build a heightened awareness of news authenticity, direct and alternative sources of news provide good evidence of weighting or bias in news that can be judged by individuals. The forum in MOOCs can effectively engage Chinese learners, because they can take time to express themselves in the online environment. The Chinese learners showed a readiness to discuss and raised questions in the forum, with the highest percentage of super-posters among the top five countries. They contributed to forum discussions, showing the need to be critical in mind when receiving news. Although a single six-week MOOC has many limitations in making solid claims, participants around the world can continue to learn in MOOCs in the field. Further research is needed to explore the impact on learners of this kind of learning environment and how forum discussion can broaden conceptions and enrich learning experiences.

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