Humanizing Massive Open Online Courses (MOOCs) In Universiti Sains Malaysia (USM)

Rozinah Jamaludin , Wong Kin Loon
Center for Instructional Technology and Multimedia, Universiti Sains Malaysia
rozinah@usm.my, noelwong88@gmail.com

Abstract. This paper explores the humanizing experiences of Massive Open Online Courses (MOOCs). Much has been said that technology has detached the human touches on learning experiences through MOOCs. When a student learns from MOOCs, they learn through the online courses where explanations are done everything through online. However, not all students understand through explanation done online because different students have different abilities in learning. This is worse when MOOCs have thousands of students in a course. This research uses Community of Inquiry (CoI) model by early pragmatists Charles Sanders Peirce, John Dewey and Jane Adams which consisted of social, cognitive and teaching presence that allowed learners to establish human connections and ultimately knowledge creation. This studies run through a qualitative approach where experiences, perceptions and deciding factors on 3 faculties in Universiti Sains Malaysia in designing and developing MOOCs were documented. The results of the interview revealed that all three elements played an important role in the process designing and developing MOOCs. Nonetheless, the three elements can be combine and work in tandem to essentially create the MOOCs that promotes humanizing aspects to better serve the students in learning process. From this research, it can be beneficial for the stakeholders especially instructors and students to benefit from the process of development of humanized MOOCs for knowledge creation, retention and motivation. The aspects of the framework act as a platform for designers and content producers to create MOOCs with humanizing elements in it.

Keywords. Humanizing, MOOCs, Social, Cognitive and Teaching Presence

1 Introduction

Online learning has since been the medium of instruction in the higher education setting. Since its interception, Massive Open Online Courses (MOOCs) has been becoming more and more popular. Companies such as Coursera, EdX and Udacity have jumped into this bandwagon. Higher education seems that MOOCs is open access and free to use which will cut down cost is the way to go. MOOCs provide easy to use as it has less fees, no formal accreditation and requirements for participation (McAuley, Stewart, Siemens, & Cormier, 2010).

MOOCs can be defined as “a course of study made available over the Internet without charge to a very large number of people” by Oxford online dictionary (Parr, 2013b). Indeed MOOCs has been beneficial as it provides the access of educational content to large number of students across continents. However, although MOOCs has a wide outreach, it is
still depends on method it is used to create a more conducive learning environment and developed the humanizing elements in it.

1.1 Research Questions?

1. What do you think of humanizing in MOOCs? What are the factors that you consider as humanizing in your teaching?

2. How do you think humanizing can influence your teaching through MOOCs or conventional method?

3. Do you think the social, cognitive and teaching presence is important in humanizing MOOCs?

4. How do the social media have great influence in your teaching?

5. What are the factors to successfully design and develop MOOCs and to engage and develop understanding in an online course?

2 Literature Review

2.1 Community of Inquiry (CoI) Framework

This research uses the Community of Inquiry Framework to construct the Massive Open Online Courses (MOOCs). Humanizing MOOCs can be define as a meaningful learning among the community of inquiry through coincide of three core elements which are social, cognitive and teaching presence (Garrison, Anderson & Archer, 2000). This model supports constructivist learning where it is feasible for creating an inquiry community which is required in higher education setting. John Dewey believed that the heart of education process is where individual and society who formed community through inquiry breeds understanding, experience and development. He strongly ascertained that students collaborate in an educative environment to construct and confirm meaning. Soon after, the CoI framework further developed by Garrison, Anderson and Archer in late 1990s (Garrison, Anderson, & Archer, 2000) to incorporate three different elements which are: social, cognitive and teaching presence as shown in Figure 1 and 2.

The three elements as mentioned above in this framework could not be stand-alone but needed to be co-existing to provide a deeper understanding and meaningful learning in an online mediated environment. This is pre-requisite as the understanding of the different elements helps to maintain and sustain a collaborative community of inquiry (Garrison, Cleveland-Innes, & Fung, 2010). The CoI model has provided perspective and guidance to a great research on online education. However, this practice has yet to be researched in higher education setting in Malaysia.
2.2 Social Presence

Social presence can be defined as the learners’ ability to portray themselves emotionally and socially which then labeled as real people in a computer mediated communication. (Gunawardena & Zittle, 1997). Social presence is more research compared to cognitive and teaching presences because of the asynchronous nature of online learning which requires more participation that promotes collaboration and understanding. Recent research stated that the characteristics of social environment support more interaction between the course participants will guide them to form their own intellectual understanding and developing new knowledge from the course (Garrison, Anderson, & Archer, 2000). Its disadvantage of
online communication is that it hardly supports a sense of belonging among students with course, instructors and other students. The sense of belonging and interpersonal contact when in online communication brings about successful learning in an online environment (McInerney & Roberts, 2004; Picciano, 2002; Richardson & Swan, 2003).

There are three categories act as indicators to social presence which are affective expression, open communication and group cohesion (Rourke, Anderson, Garrison & Archer, 2001). Affective expression can define as expression of emotions, feelings, belief and values. Open communication indicates the students communicate and sustain the communication. Effective communication can be established through affective bond created with a common purpose or goal (Thompson & MacDonald, 2005). This leads to having cohesion in an open and meaningful communication that leads to more respects among its peers (Garrison and Arbaugh, 2007). As research done by Dixon, Kuhlhorst, and Reiff (2006) reported that group cohesion leads to quality learning outcome. In addition, the solidarity, cohesion and community causes effective online learning (Shea, Fredericksen, Pickett, and Pelz, 2003). The students need to able to express their feelings and emotion through open communication without affecting the cohesion of the task.

Social presence will be focus mainly on acquiring of knowledge when there is no collaborative task where students can benefits from the perspective of others (Picciano, 2002) besides in xMOOCs where teacher is not collaboratively discussing or giving feedback to the task given. As research has suggested, it is extremely difficult to develop an online course with social presence alone (Garrison & Cleveland-Innes, 2005). The social characteristics of online learning lead to increase communication among the students to provide structure for development of cognitive presence (Beuchot and Bullen, 2005). With the support of social presence towards educational purposes must be combine with educational communication (ie. cognitive and teaching presence) (Garrison and Arbaugh, 2007).

Cognitive presence
Dewey (1993) construct of practical inquiry as shown in Figure 3 and critical thinking prepare the foundation of higher education setting. He initiated 5 phases of reflective thinking which are suggestion, intellectualization, and guiding idea, reasoning, testing and satisfactory which are the distinguished characteristics in higher education setting since it promotes reflective inquiry. Through this concept, the emergence of Practical Inquiry Model (Garrison, Anderson, and Archer, 2001) and thus operationally defines cognitive presence. Garrison, Anderson, and Archer, (2001) defines cognitive presence as the extent where students construct and make sense of meaning through reflection and discourse. They proposed that the practical inquiry model consisted of four-phases which are triggering event, exploration, integration and resolution. The triggering event is where some of the issues were identified for further questioning. Exploration is where students explore issues both individually and collaboratively by using critical reflection and discourse. Integration is where learners construct meaning through the exploration process. Resolution is learners apply the newly learned knowledge to educational context or workplace settings. (Garrison, Anderson, and Archer, 2001).

The cognitive presence is often related to teaching presence. Often structure, organization and leadership and social interaction are associated with teaching presence which cognitive presence can be established. Garrison and Cleveland-Innes (2005) found that course design,
structure and leadership significantly impact the learners engage in constructing deeper meaningful learning. Thus, this finding proved that the role of educators in structuring the mindset and create meaningful learning through course content and participatory interaction.

![Practical Inquiry Model](image)

Fig 3. Practical Inquiry Model

### 2.3 Teaching Presence

There is a substantial research that instructor needed to be actively engaged and involved in the learning of the students (Mandernach, Gonzales, & Garrett, 2006). The teaching presence is where the teacher acts as a director, facilitator and designer (Garrison and Arbaugh, 2007). Dewey stated that the importance of having purpose, structure and leadership in education process besides cognitive and social presence. He further confers that to establish and maintain a community of inquiry, educator must be the main person who is knowledgeable, flexible focused and comfortable with educational direction (Dewey, 1933). The operational definition of teaching presence is “design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes” (Anderson, Rourke, Garrison & Archer, 2001). There were a growing body of research confirmed teaching presence is important for the success of online learning. (Dixon, Kuhlhorst, & Reiff, 2006; Garrison & Cleveland-Innes, 2005; Shea, Pickett, & Pelz, 2003; Swan & Shih, 2005).

The researchers conceptualized and segmented the teaching presence into three components: instructional design and organization, facilitating discourse and direct instruction. The instructional design and organization can be defined as the formulation of planning and designation of the structure, process, interaction and evaluation in an online course (Anderson, Rourke, Garrison, & Archer, 2001). It is inevitable that as an instructor needs to have a desirable mixture of various multimedia tools with the proper guideline and structure to provide an engaging course online. This is then supported by Swan, 2003, who suggested that clear and consistent structure in regards with engaging instructor and discussions will lead to successful online courses.
The second aspect of facilitating discourse is students engaged and contacted with the materials and contents in a course (Anderson, Rourke, Garrison, & Archer, 2001). In this aspect, the students will obtain the materials with the proceeds of discussion, state their opinion through agreeing or disagreeing and finally come to a consensus. On the other hand, the instructor will guide and facilitate the discussion in an intended direction and efficiency, review and comments on students feedback, raise higher order thinking questions and promote inactive students while limit dominating students. (Anderson, Rourke, Garrison, & Archer, 2001; Pedrosa-de-Jesus, & Moreira, 2012; Shea, Pickett, & Pelz, 2003).

The third element is direct instruction which instructor shares their subject matter knowledge through the provision of materials and resources in order to have a complete understanding of the course (Anderson, Rourke, Garrison, & Archer, 2001). This is then supported by Montgomeire , 1997 who depicted that the teacher act as a responsible figure for the commencement and care for the intellectual climate in the course. The role of educators must direct instruction and facilitate reflection through assessment and feedback. Thus, they should have not only the content but pedagogical skills to make sense and link contents, ideas and opinions, diagnose misconception to convey knowledge to the students.

3 Methodology

The method used to conduct this research is based upon qualitative case study approach. According to Cresswell, (2007) stated that this approach is much useful in terms of giving the reader an in depth understanding of the research. To this regard, the research questions are created based on the aim of finding the instructors’ opinions in incorporating humanizing factors into MOOCs design and development. As supported by Creswell, (1998) the “how” and “what” questions are typical of qualitative design and lend themselves best to understanding the nuances of a particular phenomenon. To gain a better analysis of the research, we draw from multiple sources of information such as interview, observations, and documents audio visual materials which is supported by Cresswell, 2007 and Yin, 2003. The limitation of this research is it only uses qualitative case study approach towards three instructors in USM. Further generalization could not be assumed to broader populations and to other courses in designing and developing of MOOC. Besides, time constrains in conducting interview and the scope of questions could not be generalized to other instructors' creation of MOOCs.

The research sample consisted of three instructors from USM notably they are the pioneer in designing and developing their own and in purpose for USM creation of first MOOCs. The research samples consisted from three respective schools which are the School of Management, School of Arts and Center of Research in Women and Gender (KANITA). These three distinctive schools creation of MOOCs offered for undergraduate studies (arts faculty), postgraduate courses (School of Management) and ASEAN region context (KANITA). The courses are open to all students from different parts of the world.

Individual interview were conducted towards three of the instructors. The interviews were done based on voluntary basis. Prior to the interview session, the questions were sent via
emails and appointments were made. During the interview, instructors are expected to answer based on their experience and share their perceptions on designing and developing MOOCs. All data were recorded via digital voice recorded and the recorded interviews were translated into transcript. Transcripts were then analyze and segregated into three different domains deem suitable. Besides, documents of initiation guideline of MOOCs development and MOOCs that were developed were analyzed.

4 Results

Professor The research is division of three separate domains which are social, cognitive and teaching presences which is derived from CoI framework by Garrison, Anderson and Archer in late 1990s. Based on the interview transcripts, documents, and MOOCs that were developed, we categories them based the subdomains of CoI framework.
Instructor A: KANITA, instructor B: School of Arts and instructor C: School of Management.

4.1 Social Presence
In the social presence domain, the instructors claimed the importance of having a collaborated discussion in the forum of MOOCs. In the beginning of the course, there must be a welcoming or introduction section to create an inviting or relaxation space for the students. This will create a sense of belonging or human touch towards the content and lecturers. From the introduction, the students will get familiar with the course.

Instructor A: There must be input such as video to welcome the students to introduce them into the course content. Sometimes, it is a challenge to create a sense of belonging for the students in MOOCs by creating safe, inviting and respectful environment.

When the course proceeds, personalized discussion forum must be monitored. Students are free to express themselves and share extra contents according to weekly topics. However, there must be a ground rule set before the communication is established. This will give them more autonomy and be content sharer to keep the discussion flowing and with the ultimate aim of building on knowledge and make them understand better of a certain topic.

Instructor A: Before the discussion is establish, there must be ground rules set because different students have different personality and sometimes the discussion will go haywire. Instructor B: The discussion must have questions that can elicit more knowledge production among the participants.

A course is collaboration from a few instructors needs to be committed and more effort must be done in collaboration among the instructors. One of the course offered by KANITA have 4 lecturers conducting the course. It then requires the lecturers to have collaboration and create cohesion for the course to have flow from the beginning until the end.

Instructor A: The course has 5 of us to conduct the course. We will have meetings to discuss on which topic we are taking and on the cohesiveness of the topic.
In engaging and motivating the learners to continue the discussion, the discussion questions should be relevant to the topic and interesting. The theories learned must be applicable in the real world. The instructor stated it is difficult to maintain the interaction as the learners are all from different parts of the world. However, they can share their experience on the task in the forum.

**Instructor A:** The contents that we choose must have real world application so that the students will be able to discuss among themselves. The students are from different parts of the world can contribute their opinion based on the assignments given and share in the forum.
**Instructor C:** Our course requires the students to work in groups to form an imaginary company. The company requires them to provide a name, management structure, budget, product/service offered, target market. These important facets are the general things to run a successful company.

### 4.2 Cognitive Presence

In cognitive presence domain, the students will have to go through 4 phases, triggering event, exploration, integration and resolution. In our findings, the course must have content and coordinator who have the ability to trigger or arouse their interest into the course. Every student has their backgrounds or schemata must be able to match with the course.

**Instructor B:** For my course, the history of new media, it is important for the students to be able to relate their background to the history of new media so that they could make sense and understand the gist of it.

In the course, students must work in groups for the group task to be completed. The assignments require them to contribute and suggest ideas to the respective task. In this process, exploration and integration of ideas among group members are prevalent. The MOOCs will have its limitation and supplement of social media for group discussion could be used.

**Instructor C:** In this course, one of the task is the students need to analyse the general, industrial and competitors environment which needed to be done outside of classroom. They will do it through social media like Whatsapp, Facebook or Google Talk.

During the interview, all instructors claimed that the discussion in forum is to post task, guide them by elicit information, give further explanation, clear misunderstanding and provide feedbacks. Forum that has the service of emoticons will substitute the impact body languages in a normal conversation. Emoticon is an effective way in bringing the message across to the students.

**Instructor A:** As a newbie in technology, I seldom use emoticons as normally we will write full sentences. However, I have tried it in my course and it really helps to enhance the meaning at times.
The students must be able to apply the knowledge in real world settings. The findings suggested that in order to construct meaningful learning experience, task that reflects the real world settings must be given. Case studies that are relevant could be posted to supply the students with current issues and opens their mind to the happenings.

**Instructor A:** There is a task where students need to look into the happenings in the surroundings and debate on how patriarchy is manifested in their life.

**Instructor C:** We provide case studies in the form of video that are relevant to international practices in line with current issues to encourage learners to be motivated and be relevant to the working world.

### 4.3 Teaching Presence

The instructor must equip themselves with the technology skills and know-how of usage of MOOCs. The design and organization of the course will be systematically lain out for the students. Through this, contents can be posted systematically and navigation is easier will sustain the students to finish the course.

**Instructor A:** I need to equip myself with the skills necessary as I am generation X. Then I will be able to make the course a comprehensible one and sustain the students’ participation.

The course must have its own identity with localized valued imprint into it. The instructor needs to bring a certain personality and portray them into the course. Besides, the instructor needs to be approachable, show empathy, provide prompt feedback. This will further engage the students’ interest in the course and prevent dropout.

**Instructor B:** My course is on the history of new media which is very much localized into Malaysian context. I feel this will engage the students better as they will understand the Malaysian context better. However, those from overseas will face a tough time which I have taken into account by explaining and making connection with their culture through our forum.

Besides, creativity in delivery of the curse contents is crucial to sustaining them in the course. Instructor need to have creativity in using multimedia tools to enhance their understanding.

**Instructor A:** We must create engaging videos with English subtitles for the understanding of the students.

### 5 Discussion

The research uses CoI framework which is a suitable framework for studying online learning. This framework proposed that the three social, cognitive and teaching presences are essential to incorporate humanizing presence into a MOOCs design and development. In social presence, the importance of having collaborated discussion on weekly topics is crucial to maintain the interaction flow and cohesion among students. Through discussion, students are prompt to share extra information and material to further build on new
knowledge creation. Zach and Agosto, 2009, stated that the students gain more educational benefits such as knowledge creation through online collaboration and knowledge sharing. Efforts by instructors needed to further made the learners feel satisfied and importance during the discussion. Instructors will further motivate the students through relating real world context with the topics that they teach. With the understanding of purposeful and meaning context, student is able to master new knowledge creation (Williams and Williams, 2011).

For cognitive presence, instructors must able to relate the background knowledge to the topic as each different student comes from different background. The relation with that prompts them to organize, understand better and promote creation of new knowledge. (Cross, 1999; Fisher, Frey & Lapp, 2012; Svinicki, 1994). During the course, instructors must act as a facilitator to guide them, clear doubts, provide opportunity for them to explore and integrate ideas with the topic. With this the ultimate aim is for them to be susceptible and acceptable to new knowledge creation. The third element of teaching presence is where instructors act as a main figure in planning, design and develop the content and organization of the online course. The role of the teacher has been ever changing and they are now information provider, role model, facilitator, assessor, planner and resource developer (Harden and Crosby 2000). They should equip themselves with basic technological skills to prepare quality content. The content must include humanizing elements such as video to have more “personal” touches when conveying a message to the participants. Instructors need to include personality or identity such as being approachable, understanding and bring localized value into the course. As research suggested that having good personality will determine the teaching effectiveness (Murray, Rushton, & Paunonen, 1990). Other factor is deliverance of the course should be creative and effective to sustain the students’ motivation in learning and promote reflection.

6.0 Conclusion

The CoI framework which consisted of social, cognitive and teaching presence is the important facet of reflected in production of MOOCs. All three elements needed to be co-existed in humanizing the MOOCs. Thus the importance of this research in understanding the three components in contributing factors which will make the MOOCs more of a human touch, promote collaboration, higher order learning, maintaining students participation, contribution and share knowledge in ultimately creation of new knowledge in online learning. As supported by Garrison and Archer, 2000, p.91, at the heart of the CoI framework is the idea that community, critical reflection, and knowledge construction are integral to learning, especially learning online. The future research is to research on the application of the three components into running a MOOC course. As most research focuses on implementing only one aspect of the component in online learning. Further research could include emotion presence to create more human touches which will contribute to the construct of knowledge (Cleveland-Innes & Campbell, 2006). Since the MOOCs have not been created, future research can be done in comparing MOOCs without human touches and with human touches by the performance of the students in courses. Besides, it is also a research can be done by studying the deciding factors such as materials, multimedia tools and pedagogical aspects which promote human touches and evaluate the successful factors during the implementation of MOOCs that engages the students. Further research on
inclusion of three elements into transdisciplinary MOOCs and validate its effectiveness of knowledge creation and learning as this research only focuses on 3 different schools which currently only focuses on one particular subject.

6 References


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