

**Original Article****Identification Analysis of MOOC Ethical Features  
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**Received:** 2023/06/22**Accepted:** 2023/10/22**Abstract**

The purpose of this study is to identify MOOC ethical features of Courses & Online MOOC courses in higher education.

Methods: This study was designed as embedded mixed model research to provide a better understanding of the research problem. Throughout this research, both the heuristic inquiry method and the questionnaire method were applied to obtain and analyze the data. At the primary stage, ethical features of Courses & Online MOOC courses were identified. The content analysis method was used for qualitative data, and for quantitative data, both weighted mean and Friedman test were used. The statistical population in the qualitative section of the study includes the electronic resources related to the research subject and, in the quantitative section, 60 distance education experts in the field of planning in virtual learning environments and virtual universities so that 36 of these experts were voluntarily selected as the study sample.

Results: Content analysis results showed 4 dimensions and 16 criteria. The evaluation results of the experts also showed that interacting with the global network, the ease of online interactions with learners and other organizations, and the possibility of receiving electronic assignments or workbooks during the course, are regarded as the most important ethical characteristics of Courses online MOOC courses; security and privacy of individuals ought to be considered in their interactions, observance of the principles related to confidentiality with regards to the files or marks, with other participants through emails, chats, forums, etc.

Conclusions: In these courses, the features of online courses and openness for enrollment are emphasized and predominant. Therefore, there is no need to get involved in new ethical features. Since the maximum current size of online classes is 60 students, various factors of these indicators such as learner agents, instructive organization, content, and teaching and learning environment ought to be accurately studied. Given that the capacity of learners may reach the limit of hundreds and thousands, the kind of considered ethics should be beyond the procedure implemented for online classes.

**Keywords**

analysis of MOOC, ethical, courses, online.

**Introduction**

The problems in the age of information technology in the 20th century are different from those occurring in the 21st century. Therefore, the necessity for training new ethical behaviors, based on modern technologies is quite sensible. One of the problems that are debated in the field of

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ethics within virtual universities originates from this point that there exists a type of political gap on how to apply digital technology (1). Digital computers and PC systems have suggested new capacities to offer the possibility of selecting new options. Meanwhile, there are not often found any governing policies to conduct digital technologies, in this field, concerning the point that current policies are firmly adequate (2).

There are various ethical issues involving the owners of rights in every profession. Individuals require the results of regulated research, originating from the knowledge of professional ethics to resolve ethical problems. Relying on professional ethics is similar to stepping on an escalator to achieve success. Organizations and individuals are capable of categorizing the massive divisions in the area of education, regarding the physical existence or absence of the learners, into three domains of online, electronic, and syncretic. These sorts of training can be offered both directly and indirectly. Online education includes a series of learning-teaching processes occurring via online interactions between teachers and students. This approach is regarded as the common conventional method of education which is directly offered (3).

### **Ethics**

There are specific values in every profession that individuals ought to recognize. These values are as follows:

1. **Commitment:** Technology owners should have the commitment to relevant organizations and professions towards the owners of rights. Also, they must recognize related social and scholarly responsibilities by making commitments.
2. **Loyalty:** The education technology owners must be loyal and frank to accomplish their services, responsibilities, and educational processes.
3. **Impartiality:** The education technology owners should avoid partiality, prejudice, and embrace self-personal viewpoints.
4. **Confidentiality:** Technology owners ought, to be honest, to keep secrets of the owners of right confidentially during the entire process. The subjects must also keep the confidentiality of personal information which they acknowledge during these processes. In other words, they are not allowed to reveal the information offered by the providers both related to the owners of right and organizational secrets, without any permission during these processes.
5. **Genuine respect:** Technology owners are not allowed to propagate rumors, backbites, accusations, and improper criticisms related to the organization and individuals.
6. **Justice:** Practicing fairness for the sake of the owners of rights.
7. **Integrity:** Complete, pure, and perfect attention to all owners of rights and commitment to the national benefits and environment.
8. **Professional behavior:** Avoidance from the deeds or conducts that may damage the professional credit of the organization and individuals.
9. **Parsimony:** Proper utilization of resources, capabilities, and available facilities.
10. **Replication:** Offering correct, proper, and accurate responses and resolutions to research questions, by considering old and modern problems in this area.
11. **Surveillance and superintendence:** Technology owners should have accurate and comprehensive surveillance of the entire professional activities and processes. Meanwhile, they should recognize the weaknesses and strengths of this profession (4).

Distance education enjoys a special position in the case of ethics, in terms of both temporal priority and the level of effectiveness. Hence, the fact does not negate the significance of theoretical education. However, under special conditions, misgiving and doubt may occur to the individuals, and they should have the power of analysis, reasoning, justification, and specification. Therefore, the instruction of ethics begins with practical training and is fulfilled with discursive education (5).

## MOOCs

It provides new opportunities for the users, such as learning in an informal environment, knowledge sharing, freeness, flexibility, an increase of digital skills and informatics literacy, etc. None of the universities in Iran takes action for launching MOOC courses. Meanwhile, courses were very insignificant and ephemeral by the grit of a student or professor and none of these is introduced as a full example of MOOC courses. In MOOC, learners have to take on private responsibilities, as the communication is very circumscribed with professors. (6, 7).

MOOC is a particular type of online training with the following attributions (4, 8):

- Didactic course: acquiring a curriculum including science and skill.
- Fully online: individual learning is possible in a united framework (9).
- Thousands of users can take part concomitantly (far from pecuniary, time and place limitations)
- It is based on academic inculcation principles.
- Scalability: in traditional courses, a curriculum is defined for the limited number of students and teachers. However, the expansion of MOOCs can back up an unlimited amount of enrollers (7).
- Open access: participants in this course do not need to enroll in the school, institute, or university and neither need to pay any fee.
- All the people around the world who have access to the internet can enroll in MOOCs (10).

Freeness:

- The concept of freeness includes various meanings. Therefore, MOOC education leads to the authority in different didactic dimensions, such as the software, enrolment, curriculum, education assessment, interactions and communications, participation and cooperation, knowledge sharing, and the learning environment (11).
- Illustrates MOOCs as a magnificent distance education environment that represents open content. Therefore, anyone in the world is allowed to make a free enrolment anywhere for participation. (12, 13).

## Key features

MOOCs acquire the key features, although it is perceived the concept of MOOC includes a vast area of designs. In this study, the researcher examines Online & Courses of features of the MOOC (7).

## Online

MOOCs are represented in a completely online procedure. Whereas, the increasing negotiations of institutions are performing in a mixed format with the owners of rights to apply the MOOC materials within the pertinent faculty (14). In another word, the institution provides sustainable support to the learner to apply the materials through faculty-based instructions (15, 16).

## Courses

The feature which distinguishes MOOCs from all other open educational resources is the fact that they are organized in a specific and complete course. Whereas, the abovementioned concept is not exactly verified. Although an enormous number of MOOCs represent a sort of certificate or logo sign for all of the successful completion of the courses, these are not accepted for entrance or credit by the MOOC institutions up to now (17).

Different forms of online and course learning, especially in the present era, suggest different philosophical infrastructures, especially in the field of Ethical learning methods. This study intends identification and evaluation of the features of the Ethical of the MOOC (online & courses). For this purpose, the following questions were raised:

What are the Ethical features of online & courses MOOC?

## Methods

The study was designed as embedded mixed model research to provide a better understanding of the research problem. The purpose of the embedded design is to collect quantitative and qualitative data simultaneously or sequentially. In the embedded design, a secondary form of data is used to augment or provide additional sources of information that have not been provided by the primary source of data (18). Throughout this research, both the heuristic inquiry method (the primary source of data) and the questionnaire method (secondary source of data) were applied to obtain and analyze the data.

Regarding the subject under consideration, in the first stage, according to the research topic, Ethical features of MOOC online & courses were derived, based on the available scientific sources. Electronic resources related to MOOCs were examined to identify the Ethical characteristics of online and mass courses. At this point, the heuristic inquiry was used. Heuristic inquiry is an experience-based technique for problem-solving, learning, and discovery (19). Heuristic inquiry is defined as a search for the discovery of meaning and essence insignificant human experience. The heuristic inquiry is an adaptation of phenomenological inquiry, yet it requires the involvement of the researcher in a disciplined pursuit of the research process (20, 21). The research samples at this stage were all books and articles related to MOOC. Referenced in google scholar, the searches were Scirus, Proquest, Scopus, Ieee, Sid, Biomedical, PubMed, Medline (EBSCO & OVID), Eric, Taylor, and Francis, and Science direct from 1990 to 2017. A content analysis search method was applied to the coded, categorized data. The keywords used for the search were Ethical features of online & courses.

In heuristic inquiry, as the primary form of data, 20 distinguishing electronic resources were selected. A set of criteria were defined to be able to examine representative samples that had interactive features peculiar to electronic resources. The electronic resources included in the heuristic research were those that were the most positive reviews by the critics. Resources samples that exhibited different features in terms of the interaction level and genre were selected to have maximum variation sampling.

In the second stage, after determining the main Ethical characteristics of the online & courses of the MOOC, a questionnaire was developed to determine the viewpoints of the experts in terms of the known characteristics for the epistemology of the online & courses of the MOOC to identify the most important Ethical aspects of MOOC online. In the quantitative study, it was important to select experts for the purpose to apply their knowledge to a certain problem based on criteria, which were developed from the nature of the problem under investigation (22). For this research, the participants were required to be experts in one of the following areas: digital books, digital publishing, content design, instructional design, interface, and layout design, or e-learning. It is further required that they had a background in academic research or experience working in the field. Through literature review and purposive sampling, 60 experts were invited to the research. A total of 36 experts expressed their intention of participating.

## Analysis

The first stage of research was conducted from May 2016 to March 2018. The researcher systematically noted his experiences as well as the features observed. All the gathered data were coded and categorized, using content analysis. It is salient that the 16 new criteria, that emerged from heuristic inquiry, are mostly related to user experience which requires direct interaction with the products that are investigated. At the end of the heuristic inquiry process, a total of 4 dimensions, and 16 criteria were identified.

In the second stage of research, based on the known Ethical features of the MOOC for online & courses in the first phase of the research, a questionnaire of 16 questions was formulated that asked by experts to rate each item on a five-point Likert spectrum from where they seemed not very important to very important ones. After collecting the data, the weighted average was used

to determine the significance of each identified feature, and the Friedman test was used to determine the priority of each feature. If the weighted mean was between 1 and 2,33, the feature was unimportant, if between 2,34 and 3,66, was relatively important, and if it was between 3,67 and 5, it was very important.

## Results

The findings of the ethical content analysis of online MOOC courses are presented in table 1. The results showed that, according to content analysis, the four aspects of the learner, the content, the teaching organization, and the teaching-learning environment were identified as eight important Ethical aspects of online MOOC courses which two for both the learner aspect, the content aspect, teaching organization and the teaching-learning environment aspects were assigned.

**Table 1.** The results of ethical dimensions and features of online MOOC courses

The period	Dimensions	ethical features
Online	Learner	1- Be familiar with its moral principles and cultural customs. 2- Learning is an inner thing.
	The content	1- The level of availability is specific to this environment. 2- Observance of intellectual property rights for individuals is one of the principles of education.
	Teaching organization	1- Non-theft of literary affairs should be one of the principles of education for individuals. 2- The virtual education system must be able to record and maintain the confidential educational records of a large number of students.
	Educational environment	1- Listening to the voice conversations of others is a matter of privacy. 2- Protect the security and privacy of individuals in their interactions.

To specify MOOC online ethical requirements, based on the viewpoints of experts in distance education planning courses, the researcher has applied 8 markers as the basis of MOOC online ethics. The results presented in Table 2 indicate that there is no significant relationship between ranking and significance of ethical markers, according to the viewpoints of experts in distance education planning  $\chi^2(7,2) P(0.05) <$ .

Hence, all of the cases have similar importance. The results yielded the following components: the audio-chats of others should be regarded as private) CVR=0.8, M=4.22(; avoiding plagiarism for the individuals should be considered as an educational principle)CVR= 0.87, M=4.5(; acquaintance with ethical principles and their cultural traditions )CVR=0.84, M=4.38); observation of intellectual property rights for individuals must be regarded as an educational principle (CVR=0.87, M=4.5); security and privacy of individuals ought to be considered in their interactions (CVR=0.89, M=4.58); the virtual education system should be able to register and save the confidential education backgrounds of a massive number of students (CVR=0.88, M=4.52); the possibility of special access levels in this environment (CVR=0.88, M=4.52); and the learning opportunity must be considered as an inner issue (CVR=0.82, M=4.3).

**Table 2.** Ethical indicators of MOOC online courses

Ethical bases	Status of the issues			
	Agreement coefficient	High importance	Priority	
			Ranking average	KI-2 value
The audio-chats of others should be regarded as private	0.8	4.22	4.14	9.67
Avoiding plagiarism for the individuals should be considered as an educational principle	0.87	4.5	4.54	
acquaintance with ethical principles and their cultural traditions	0.84	4.38	4.29	
observation of intellectual property rights for individuals must be regarded as an educational principle	0.87	4.5	4.54	
security and privacy of individuals ought to be considered in their interactions	0.89	4.58	4.72	
The virtual education system should be able to register and save the confidential education backgrounds of a massive number of students	0.88	4.52	4.79	
the possibility of special access levels in this environment	0.88	4.52	4.82	
the opportunity for learning must be considered as an inner issue	0.82	3.4	4.15	

The findings of the ethical content analysis of open MOOC courses are presented in table 3. The results showed that, according to content analysis, the four aspects of the learner, the content, the teaching organization, and the teaching-learning environment were identified as eight important aspects of the ethical content of open MOOC courses, for each of which, two for both the learner aspect, the content aspect, teaching organization and the teaching-learning environment aspects were assigned.

**Table 3.** The results of ethical dimensions and features of MOOC courses

The period	Dimensions	ethical features
courses	Learner	1- The development of learners' independence should be emphasized. 2- Grades, attendance reports, conversations, and personal communications of students are considered confidential and may be provided to another only with the student's consent or for academic law matters.
	The content	1- Principles related to fiduciary duty (in terms of grades or files that they store for themselves and make available to individuals in e-learning). 2- System security must be ensured to preserve the information and content of the courses.
	Teaching organization	1- Follow the principles related to confidentiality (in terms of grades or files). 2- Provide information in the field of values and explanations regarding counter-values in virtual content.
	Educational environment	1- Preserve intellectual property in e-learning. 2- There is the ability to internalize and externalize the learner's past thought structures.

The results of Table 4 showed that based on the viewpoints of experts in distance education planning courses, there is no significant relationship between the ranking and significance of ethical indicators of MOOC courses  $10.49=(7)2$  ,  $P(0.05)$ . Hence, all of the cases have similar importance. The results suggested the following components, according to the relevant calculation values: emphasis on the development of learners' independence (CVR=0.84, M=4.36); observance of the principles related to bailment, based on the marks or files they save or make available to the individuals in virtual education (CVR=0.88, M=4.55); observance of the principles related to confidentiality with regards to the files or marks (CVR=0.9, M=4.63); protection of intellectual property in the electronic education (CVR=0.88, M=4.5); marks, roll call reports, personal chats, and communications of the students are regarded as confidential which should merely be allowed to be delivered to others through the legal academic application or the consent of related students (CVR= 0.88 M=4.55); provision of system security to protect related information and content of the courses (CVR= 0.87, M=4.5); observance of making information available in the area of value by explaining anti-values in the virtual content (CVR=0.86, M=4.47); and the ability of internalization and externalization of traditional thinking structures of the learners (CVR=0.88, M=4.52).

**Table 4.** Ethical indicators of MOOC courses

Ethical bases	Status of the issues			
	Agreement coefficient	High importance	Priority	
			Ranking average	KI-2 value
emphasis on development of learners' personal independence	0.84	4.36	4.06	10.69
observance of the principles related to bailment, based on the marks or files they save or make available to the individuals in virtual education	0.88	4.55	4.65	
observance of the principles related to confidentiality with regards to the files or marks	0.9	4.63	4.97	
protection of intellectual property in the electronic education	0.88	4.52	4.64	
marks, roll call reports, personal chats, and communications of the students are regarded as confidential which should merely be allowed to be delivered to others through the legal academic application or the consent of related students	0.88	4.55	4.6	
provision of system security to protect related information and content of the courses	0.87	4.5	4.35	
Observance of making information of anti-values in the virtual content available	0.86	4.47	4.36	
The ability of internalization and externalization of traditional thinking structures of the learners	0.88	4.52	4.38	

## Conclusion

This was done as an identification-based study and evaluation of ethical characteristics of MOOC (both courses & online). The qualitative results of the study showed that the ethics of courses & online courses is measurable using four aspects of the learner, the content, teaching organization, and learning environment. The results in table 1 & 3 suggested that based on the ethical characteristics of MOOC (both courses & online) such as interaction with the global network, the ease of online interactions with learners and other organizations, and the availability of electronic assignments or workbooks electronically throughout the course, respectively, the most important ethical characteristics of the educational environment, teaching organization and content. Comparing the results of the current study with Wilson and Landoni (2002) and Diaz (2003), in addition to content and teaching organization defined, they were the same. As most MOOCs have a lifetime of shorter than 4 years, the number of published studies in this field is limited. Although these activities are growing further, to date, the majority of implemented studies have been mainly reported by the professors of related institutes with regards to enrollment or self-assessment. Accordingly, in the present research, the researcher aimed to analyze the features of MOOC ethical instructions including online and courses of MOOC. The results in table2 suggested that based on the viewpoint of practitioners of distance educational planning, there is no significant difference between the ranking and ethical indicators of online courses. This issue suggests that according to the viewpoint of practitioners and experts, distance education of ethics has no relationship or effect on the characteristics of MOOC online courses across distance education organizations and institutes. This point indicates that the ethics which is instructed in online education courses revolve around the openness and online features of the [Marshall, 2014 #50] classes. This is normally emphasized and accordingly, there is no need to get involved with new ethical features. Based on the results of Table 4, and according to the viewpoint of practitioners, learners sought to pay special attention to the learning and educational content and environment of these indicators. The reason behind this fact is that currently, the size of online classes is approximately 60 persons, while there is a possibility to enhance the size of learners up to hundreds and thousands of participants. Finally, according to the abovementioned consequences, the kind of ethics which is instructed in these classes must be arranged beyond the present features in the future.

Specialists and experts in the field of distance learning pay special attention to the component of learning, the content and education organizations, and the characteristics of the online and courses of MOOC learning area.

## References

- [1] Moore MG. Editorial: Three types of interaction. *American Journal of Distance Education*. 1989;3(2):1-7. doi:<http://dx.doi.org/10.1080/08923648909526659>
- [2] Chaney BH. History, theory, and quality indicators of distance education: A literature review. 2006.
- [3] Rastegarpour H, Movahedi F, Barkhordari Z. Ethical Responsibilities of Instructional Design and Technology Discipline. *Human Information Interaction*. 2016;2(4):52-63.
- [4] Gordon W, Sork TJ. Ethical Issues and Codes of Ethics. *The Jossey-Bass Reader on Contemporary Issues in Adult Education*. 2011:87.
- [5] Marshall S. Exploring the ethical implications of MOOCs. *Distance Education*. 2014;35(2):250-62. Doi: <https://www.tandfonline.com/doi/abs/10.1080/01587919.2014.917706>
- [6] Belle Selene X. Online Teaching in the Digital Age. 2012. doi:<http://dx.doi.org/10.4135/9781452244174>
- [7] Bates T. Teaching in a digital age: guidelines for designing teaching and learning 2016, (A. jadidimohammadabadi, Trans.): Open Learning and Distance Education Resources.



- [8] Clow D, editor MOOCs and the funnel of participation. Proceedings of the Third International Conference on Learning Analytics and Knowledge; 2013: ACM.
- [9] Swenson P, Taylor NA. Online Teaching in the Digital Age. 2012 2018/09/12. Thousand Oaks, California: SAGE Publications, Inc. doi:<http://dx.doi.org/10.4135/9781452244174>
- [10] Engle W. UBC MOOC Pilot: Design and Delivery. Vancouver BC: University of British Columbia; 2014. Doi: <http://dx.doi.org/10.14288/1.0107914>
- [11] Jadidi mohammadabadi, A. Sarmadi, M. Farajollahi, M. Zare, H. (2019). Identification and Evaluation of the Features of the Epistemology of the MOOC (Open and Online). Interdisciplinary Journal of Virtual Learning in Medical Sciences. March; 10(1). doi: 10.5812/ijvlms.83757.
- [12] Gore H. Massive Open Online Courses (MOOCs) and Their Impact on Academic Library Services: Exploring the Issues and Challenges. New Review of Academic Librarianship. 2014;20(1):4-28. doi:<http://dx.doi.org/10.1080/13614533.2013.851609>
- [13] Deng R, Benckendorff P. A contemporary review of research methods adopted to understand students' and instructors' use of Massive Open Online Courses (MOOCs)2016. 601-7 p. doi: <http://www.ijiet.org/show-90-1074-1.html>
- [14] Esposito A. Research Ethics in Emerging Forms of Online Learning: Issues Arising from a Hypothetical Study on a MOOC. Electronic Journal of e-Learning. 2012;10(3):315-25.
- [15] Kolowich S. The professors who make the MOOCs. The Chronicle of Higher Education. 2013;18.
- [16] Hashim H, Salam S, Mohamad SNM. Investigating learning styles for adaptive Massive Open Online Course (MOOC) learning. Journal of Advances in Humanities and Social Sciences. 2017. doi:<https://doi.org/10.20474/jahss-3.5.4>
- [17] Wright F, Reuters T. What do librarians need to know about MOOCs? D-Lib Magazine. 2013;19(3/4). doi:<http://dx.doi.org/10.1045/march2013-wright>
- [18] Lyanagunawardena TR, Adams AA, Williams SA. MOOCs: A systematic study of the published literature 2008-2012. The International Review of Research in Open Distributed Learning. 2013;14(3):202-27. doi:<http://dx.doi.org/10.19173/irrodl.v14i3.1455>
- [19] Creswell J. Educational research. Planning, conducting, and evaluating quantitative and qualitative research. Fourth indian edition. Delhi, india: phi learning private limited;2012
- [20] Douglass BG, Moustakas c. Heuristic inquiry. The internal search to know. In journal of humanistic psychology 2016; 25 (3): 39–55. Doi:<http://dx.doi.org/10.1177/0022167885253004>
- [21] Hasson F, Keeney s, Mckenna. H Research guidelines for the delphi survey technique. In journal of advanced nursing 2000; 32 (4): 1008–1015. Doi: <https://doi.org/10.1046/j.1365-2648.2000.t01-1-01567.x>.
- [22] Díaz P. Usability of hypermedia educational e-books. D-Lib magazine, 9(3). Retrieved from2003 <http://www.dlib.org/dlib/march03/diaz/03diaz.htm>.
- [23] Wilson, D., Callaghan, T., Honore, S. (2000). e-Learning the future of learning. Elearnity White Paper.



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