OPEN LETTER

Learning from each other in the COVID-19 pandemic [version 1; peer review: 3 approved with reservations]

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Abstract
The increase in cases of coronavirus disease 2019 (COVID-19) worldwide has been paralleled by increasing information, and misinformation. Accurate public health messaging is essential to counter this, but education may also have a role. Early in the outbreak, The London School of Hygiene & Tropical Medicine partnered with FutureLearn to develop a massive open online course (MOOC) on COVID-19. Our approach was grounded in social constructivism, supporting participation, sharing uncertainties, and encouraging discussion. The first run of the course included over 200,000 participants from 184 countries, with over 88,000 comments at the end of the three-week run. Many participants supported each other's learning in their responses and further questions. Our experience suggests that open education, and supporting the development of communities of learners, can complement traditional messaging, providing a sustainable approach to countering the spread of misinformation.

Keywords
COVID-19, education, infodemic, MOOC
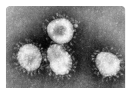
This article is included in the Coronavirus (COVID-19) collection.

Open Peer Review

Reviewer Status ❓ ❓ ❓

	Invited Reviewers		
	1	**2**	**3**
version 1 26 May 2020	❓ report	❓ report	❓ report

1. **Silvia Lizett Olivares Olivares** [iD], Tecnologico de Monterrey, School of Medicine and Health Sciences, Monterrey, Mexico

2. **Ana Pérez-Escoda** [iD], Antonio de Nebrija University, Madrid, Spain

3. **Cristina Pulido Rodriguez** [iD], Autonomous University Of Barcelona, Bellaterra, Spain

Any reports and responses or comments on the article can be found at the end of the article.

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Author roles: Seale AC: Conceptualization, Investigation, Writing – Original Draft Preparation, Writing – Review & Editing; **Ibeto M**: Investigation, Writing – Review & Editing; **Gallo J**: Investigation, Writing – Review & Editing; **le Polain de Waroux O**: Investigation, Writing – Review & Editing; **Glynn JR**: Investigation, Writing – Review & Editing; **Fogarty J**: Conceptualization, Investigation, Methodology, Writing – Review & Editing

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Worldwide connectivity has facilitated spread of the virus causing COVID-19, and this has been almost paralleled by the spread of information and misinformation[1]. Sharing accurate information, for example through reliable, trusted, social media accounts and websites, as well as responding to misinformation with MythBusters is important[2]. However, behaviouristic approaches, the imparting of information, support only superficial learning. Constructivist approaches, placing the learner at the centre, with explicit expectations for engagement, can support deep learning, and the ability to appraise information critically[3].

Early on in the outbreak of COVID-19, The London School of Hygiene & Tropical Medicine (LSHTM) agreed to develop a massive open online course (MOOC) on COVID-19, in partnership with FutureLearn, as described here, and following courses on previous outbreaks such as Ebola and Zika. Our approach to this was grounded in educational theory and utilised social constructivist principles[4]. Beginning with consideration of who the intended learners might be, and what they would know, we brought together a group to share and discuss, at pace, the overall intended learning outcomes for the course. We structured the course simply, in terms of what was known at that time about COVID-19, what a public health response may look like in various settings, and what research was needed to understand more. Within this, each step of the course had defined intended learning outcomes, which contributors were asked to address. We included international contributions to share global perspectives on the pandemic. To support engagement and maximise opportunities provided by the platform, we used varied formats including short video lectures, audio interviews, articles and quizzes. To maximise accessibility for learners we included subtitles and transcripts, in several languages. After each part of the course we encouraged participation and engagement through specific questions.

At the outset we didn't know what the uptake to the course would be, or who would enrol. There was also the concern that evidence would have moved on before the course had even started, as materials were developed 3–4 weeks before the course start (to allow time for translation), and the number of publications and preprints on COVID-19 was increasing rapidly. In a time of heightened public anxiety, by taking a participatory approach to the course, which included sharing uncertainties in terms of what was known, and encouraging discussion and questioning, we, and our institution, took a substantial risk. It could, for example, have resulted in the mass sharing of extreme views by participants. In subsequent iterations it still could. However, as teachers and researchers we work to both learn more, and to share this learning. We are supported institutionally with the academic freedom to do so; there was no corporate "sign-off" from LSHTM.

For the first run of the course, starting in late March, we had very high uptake, with over 170,000 participants in the first three weeks, and over 200,000 in total in the first run, from 184 countries. We also noted very high levels of engagement, with over 88,000 comments, and many people supporting each other's learning in their responses and further questions. Within LSHTM we set up a system to respond to as many queries as possible, even with a small team. Non-technical hosts read through discussion fora and collated queries and synthesised areas of interest for each course step, which academics then responded to, helping to keep the course current.

Much of the feedback on the course has been positive, highlighting the opportunity to gain new knowledge and skills. Running the course, we felt that developing participants' own learning, and providing a space where ideas – and fears – could be expressed and addressed was central to this. But what surprised us was the level of expressed gratitude from learners, perhaps reflecting a gap in such opportunities. Learning from each other in the context of COVID-19 also helped to overcome the challenge of developing and running the course in the emerging pandemic. As we have prepared for a second iteration of the MOOC, we can use our learning from the first iteration to strengthen the learning environment we create.

Our experience suggests building individuals' own capacity to question, to query the data, reports and guidance on COVID-19 is essential, and complementary to the circulation of accurate information. Further investigation of the role of education to support health literacy in the context of outbreaks[2], is important, to better understand and inform practice. The pandemic has highlighted the role of free online courses to support accessibility to education. Our weakness - the worldwide connectedness that increases the spread of disease and information – could also be our strength. By using open platforms to build communities of learners, to share the values of academia through education, we can support sustainability in countering the spread of misinformation.

Data availability
No data are associated with this article.

Acknowledgements
We would like to acknowledge all those who have, and continue to, contribute to the MOOC, "COVID-19: Tackling the novel Coronavirus", as well as all those who have and are participating in it.

References

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   PubMed Abstract | **Publisher Full Text** | **Free Full Text**

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Open Peer Review

Current Peer Review Status: ❓ ❓ ❓

Version 1

Reviewer Report 01 June 2021

https://doi.org/10.21956/wellcomeopenres.17518.r41135

❓ **Cristina Pulido Rodriguez** (iD)
Department of Journalism and Communication Sciences, Autonomous University Of Barcelona, Bellaterra, Spain

The open letter "Learning from each other in the COVID-19 pandemic" accomplishes this type of submission instructions, but there are improvements that could increase the impact of this contribution. The open letter describes the MOOC on Covid-19 developed and how many people were engaged and what they learnt in general terms. But, the following specific instruction is not well addressed "The rationale for the Open Letter should be explained, including an outline of existing challenges and the purpose of the letter, different views and opinions in the field should be referenced appropriately". The open letter describes more the specific experience obtained with the "MOOC on Covid-19", but a general overview on this topic with different views is missed. Another improvement to be considered is to illustrate results with specific examples, not as a research paper because the open letter does not require this, but it could help to identify the real benefits and improvements of applying this type of MOOC.

Is the rationale for the Open Letter provided in sufficient detail?
Partly

Does the article adequately reference differing views and opinions?
Partly

Are all factual statements correct, and are statements and arguments made adequately supported by citations?
Partly

Is the Open Letter written in accessible language?
Yes

Where applicable, are recommendations and next steps explained clearly for others to follow?

Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: My areas of research are: communication sciences, education and sociology.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 01 March 2021

? **Ana Pérez-Escoda** iD

Department of Communication, Antonio de Nebrija University, Madrid, Spain

The Open letter states that education would be one of the main benchmarks for avoiding misinformation by presenting the impact of the MOOC developed by the London School of Hygiene & Tropical Medicine partnered with FutureLearn. Although the topic is certainly relevant and timely it is suggested to add more references to support the arguments that could build up a more suitable and relevant theoretical framework.

It is suggested to add some literature about MOOC focusing on specific features, about learning communities, which is a specific research topic in the open letter; and, also it is recommend some literature about misinformation, authors state that education is in the basis of facing misinformation but it is barely explained. This is essential for a better understanding of the main statements contained in the open letter.

The authors provided the rationale for the Open Letter however they should also outline existing challenges in the field for instance the level of dropout in MOOCs. The Open Letter just focus on descriptive numbers in terms of participants, countries or comments, but how many of that first run participants finished the MOOC?

Facing misinformation is challenging in different dimensions and globally speaking as acknowledged by WHO with the "infodemic" problem. In this regard, it should be better if authors are less enthusiastic with their statements such as: "By using open platforms to build communities of learners, to share the values of academia through education, we can support sustainability in countering the spread of misinformation". A more cautious and realistic wording is suggested, underlining the value of these initiatives in alleviating part of the problem.

Is the rationale for the Open Letter provided in sufficient detail?

Partly

Does the article adequately reference differing views and opinions?
No

Are all factual statements correct, and are statements and arguments made adequately supported by citations?
Partly

Is the Open Letter written in accessible language?
Yes

Where applicable, are recommendations and next steps explained clearly for others to follow?
Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: New learning approaches, digital literacy, digital skills, digital communication, learning methodology.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 22 February 2021

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? **Silvia Lizett Olivares Olivares** (iD)
Tecnologico de Monterrey, School of Medicine and Health Sciences, Monterrey, Mexico

The open letter describes a MOOC with high impact on participants learning about an important topic. The purpose to educate the public is important to address their concerns and misinformation about COVID-19.

I would recommend supporting information with MOOC literature, specially about quality dimensions, design and specific features.

Results from the MOOC are only oriented by numbers (participants, countries, or comments). I recommend describing the type of feedback received from quotes, or satisfaction measures.

Is the rationale for the Open Letter provided in sufficient detail?

Yes

Does the article adequately reference differing views and opinions?

Partly

Are all factual statements correct, and are statements and arguments made adequately supported by citations?

Partly

Is the Open Letter written in accessible language?

Yes

Where applicable, are recommendations and next steps explained clearly for others to follow?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Higher education research, especially health sciences education.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.