Self-Learning in a Digital Era

Report of final meeting

ASEM LLL Hub
Research Network 1 meeting
2–4 November 2015, New Delhi, India

AARHUS
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Self-Learning in a Digital Era Report of final meeting

ASEM LLL Hub

Organised by
Danish School of Education, Aarhus University (ASEM LLL Hub)

In co-operation with
Danish Ministry of Foreign Affairs
Danish Ministry of Education
Innovation Centre Denmark at the Royal Danish Embassy in New Delhi
Asia-Europe Foundation (ASEF)

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1.0 SELF-LEARNING IN A DIGITAL ERA: THE MEETING

The ASEM LLL Hub meeting *Self-learning in a Digital Era* gathered 65 participants from 19 countries from 2 to 4 November 2015 in New Delhi, India. The participants were researchers, practitioners or decision makers who shared a common interest: to shed light on the possibilities and challenges of utilising technology for lifelong learning purposes on a higher education level in the knowledge economies of Asia and Europe. With recent trends in educational technology, MOOCs (massive open online courses) being the figurehead of these, renewed attention has been turned towards the revenue model, cost, pedagogy and scalability of higher education.

Chair of the ASEM LLL Hub, Dr Claus Holm, introduced the meeting by not only emphasising the importance of the theme but also suggesting that:

- "[A digital transition] requires that gradual changes in the use of digital technologies are carried out by reformers who know that respect for the starting points of different learning cultures is a prerequisite for achieving fundamental changes."

The theme of *self-learning* denotes the need both for personal independence and for students to be self-motivated, disciplined and goal oriented. The challenges that this raises differ from one culture to another. What is common for both Asian and European countries is that this development is still fairly new. However, in the current state of affairs there are experiences to learn from across the globe. MOOC-like projects have been carried out across Europe and Asia, many on an experimental level. On the one hand this means we are still navigating on shaky ground, while on the other hand we are now in a position to evaluate, revise and clarify the practice gained from these experiences. Therefore, practitioners from Asia and Europe shared their experiences with MOOCs and similar e-learning initiatives on a smaller scale in order to qualify future development.

During two days of keynote speeches, seminars and discussions the participants identified at least four pillars that could profitably be scrutinised further with the particularity of the cultural context in mind. These are: the need for *evidence* on efficiency; the fact that *action* is taken without being sure of where it leads; the *agents* involved are of determinate importance whether national governments, universities or the educator and student; and, lastly, the *pedagogy* behind the models is a determinant for completion and outcome. The suitability of the prevailing transmission model underlying many MOOCs has to be judged with sensitivity both regarding nationality and the content of the course.

This report outlines the keynote speeches delivered and summarises the discussions in seminars. It concludes by presenting the recommendations discussed at the end of the meeting.

2.0/ Keynote speeches

- **Addressing the various lifelong learning needs in ASEAN countries: To what extent are MOOCs/e-learning the solution?** By Le Huy Lam, Director SEAMEO CELLL, Vietnam
- **Digital cultures and lifelong learning** By Dr Jeremy Knox, University of Edinburgh, UK
- **Making MOOCs work: Learning in an open world** By Dr Li Yuan, University of Bolton, UK
- **Revisiting teacher professional support: The NROER model** By Professor Dr Rajaram Sharma, Joint Director at National Council for Educational Research and Training, India

3.0/ Seminars

- **Questioning the contribution of MOOCs**
- **Quality assurance of MOOCs**
- **Instructional design of MOOCs**
- **A Nordic approach to e-learning**

4.0/ Conclusion and themes

2.0 SUMMARIES OF KEYNOTE SPEECHES

2.1/ Addressing the various lifelong learning needs in ASEAN countries: To what extent are MOOCs/e-learning the solution?

Le Huy Lam, Director SEAMEO CELLL, Vietnam

A summary of the diversities among member countries of ASEAN with regard to economic wealth and educational systems highlighted that digital technologies may be able to overcome the huge demand for lifelong learning in the countries with lower GPD. SEAMEO attends to the educational issues in 10 of the 11 ASEAN countries. However, the challenges that the countries deal with vary depending on the GPD per capita, population, adult literacy, infant mortality rate and the number of internet subscribers. The differences are so vast that one identical strategy for every country is likely to fail. Vietnamese adults may need basic literacy skills and live in rural areas while others, such as Singaporeans, may need advanced higher education in the city. The presentation was concerned with the former countries, and the point of reference was personal experiences in Vietnam.

UNESCO-initiated Community Learning Centres (CLCs) have served as a unit for providing education at grass-roots level. In this context it is important to keep in mind the need of a particular individual in a particular context. The educational offers by CLCs reflect the context in which the individuals live, e.g. organic farming or development of bamboo handicrafts.

However, the supply is much below the demand. There are 25,000 CLCs serving 600 million people in seven countries. There is a general lack of resources, especially in terms of qualified teaching capacity, which is evidenced by the fact that no teachers have training in adult education and only 28% of the teachers have a higher education degree. Some 73% are volunteers. Furthermore, the CLCs suffer from ineffective use of resources and an absence of co-ordination.

The issues outlined above have directed interest towards the potential of technology in terms of reach and optimisation of resources as seen in MOOCs. The characteristics of MOOCs relate to CLCs in the follow manner:

- The potential number of students is *massive*.
- The possibilities of *online* delivery are good, as the technological needs are few. A mobile phone will do.
- *Openness*, in terms of free registration is necessary, but a budget for development is needed.
- Some of the material of CLCs is suitable for small videos, whereas other content is worth structuring in a *course*.

For these reasons MOOCs seem suitable for work with CLCs. Furthermore, the quality can be assured and the issue of insufficient qualified teacher capacity can be overcome. Each CLC does not have to develop its own content, but can use the content developed elsewhere and over time establish a resource bank.

However, there are challenges that need to be taken into account. Participation in a MOOC demands basic ICT skills, which itself is a literacy learned at the CLCs. Furthermore, current MOOCs are from highly ranked universities, which lead to a question of whether it is possible to develop MOOCs with non-academic content. Furthermore, a resistance towards technology in Asia can be challenging in relation to the high dropout rates seen in European countries. How do technological scepticism and high dropout rates fit together?

Finally, the fact that most resources have to be developed locally in order to meet the needs of the given context makes it hard to make a repository of materials that is relevant to more than just a few CLCs. In order to do this, a combination of a bottom-up and top-down process is needed. In this case co-ordination and communication between centralised resource developers and local reports of demand is a key challenge.

2.2/ Digital cultures and lifelong learning

Dr Jeremy Knox, University of Edinburgh, UK

With *digital culture* as the point of departure, both theoretical perspectives on how to analyse and understand the consequences of MOOCs and descriptions of personal experiences with developing and co-teaching a MOOC were presented.

The area of MOOCs is generally characterised by instrumentalism. By this is meant that technology is thought of as a tool that can be utilised in order to effectively reach predetermined goals. However, in practice this is not what happens. Instead, technology disrupts and challenges our understandings and forces us to think through fundamental educational principles and concepts. We need to take this into consideration if we are to fully understand the relationship between MOOCs and lifelong learning, and how it changes our society. We limit ourselves when we only allow ourselves to ask questions about enhancement and efficiency through the use of technology.

Even though we now consider ourselves at the stage where the hype has peaked, the number of MOOCs offered continues to rise. Estimates say about 4,000 MOOCs will be offered by February 2016. In the shadow of this development, we can consider MOOCs a Trojan horse. Now they are here and they force us to reflect. Three notions were highlighted: *space*, *pedagogy* and *massiveness.* Those were elaborated with a particular MOOC as a prism – Education and Digital Culture – which Knox developed and co-taught on Coursera.

We talk about virtual spaces as spaces that are not really there. However, the web and the MOOC consist of such spaces. The universities providing MOOCs reflect a certain imaginary space on their web pages, where they place romantic photos of campuses that the students are never going to visit and tell nothing about the experience they are exposed to in a MOOC. This is problematic.

Regarding the physical spaces, so-called heat maps give us a visual representation of where individuals enrolled in the MOOC are geographically located. For this particular MOOC students in different time zones were enrolled, but the difference in time zones gave preferential treatment to some students while others were never present in the discussion boards when the discussion was taking place due to time difference. This has caused an unequal learning experience. In addition to the geographical spacing, the situated material context in which the students engage also seems to play a role. These can be very wide-ranging, from the beach, the living room, to the bed or bus. This has an influence on the learning experience as well.

Regarding pedagogy, it was claimed that MOOCs predominantly favour a behaviouristic and transmission-oriented pedagogy. This was to be backed up by several other participants at the meeting. On Coursera the in-built source for interaction and discussion is the board, but it was highlighted that this feature is not mentioned anywhere when looking at Coursera's educational principles.
With regard to different learning styles, students also express different desires, which cannot all be catered for, and it was stated that there is no clear resolution to this.

This points to the third concept: massiveness. Owing to large numbers of participants, MOOCs are huge in their diversity. This diversity is to be embraced as a force and not an obstacle. However, we now see a change in MOOCs as they transform into, for example, SPOCs – small private online courses. The massiveness as a quality provides a huge amount of data that can be used to shed light on the behaviour of the individuals and identify general patterns of behaviour. It has both potential and ethical dimensions. Moreover, this data often results in visualisations, but these are not objective representations but ideological constructs that call for certain interpretations. Heat maps are a good example of this, as they force you to interpret them in terms of countries and nation states. As MOOCs are predominantly developed by white men, there also lies a responsibility in terms of colonisation – is it appropriate to impose the culture of an American elite university in an African village through MOOCs?

2.3/ Making MOOCs work: Learning in an open world

Dr Li Yuan, University of Bolton, UK

In theory, the "M" of MOOCs can indicate micro as well as massive. At least that is what the recent development within online education trends have pointed towards, as more institutions start to use technology without necessarily scaling up.

In its core this tendency is closely related to openness as seen in the Open Education and Open Educational Resources movements. These areas are distinguished from MOOCs as they are not linked to powerful narratives of cost-effectiveness, revenue and branding. Initially, MOOCs were not developed as way of "marketising" education as a commodity but to pursue openness in education as a commodety.

Today, many institutions question whether they should engage in the development of MOOCs. But MOOCs are not only a question of either/or, and a lot of issues need to be taken into consideration. These considerations often lead to priorities that are more local and context-specific. The following consideration was highlighted. However, there is no exhaustive list, and challenges always arise in practice according to the context.

- The question of platform is the first question that arises. Here both content and pedagogical approach should be taken into account, and a choice has to be made whether you want to collaborate with an existing partner or want to develop your own platform.

- The motivation and expectations of students are important in the initial decision making.

- Moreover, copyright of the material you want to use needs to be taken into consideration.

- To have a vision regarding the revenue model has also turned out to be a key factor, as it has to be sustainable. Often institutions are surprised by the cost of MOOCs.

The hype surrounding MOOCs is to some extent over now – illustrated by the so-called "Gartner Hype Circle" – but MOOCs have caused a renewed focus on the learning experience both politically and publicly, and introduced many people to what kind of subjects are taught in universities. Today we are moving towards a stable plateau of productivity. This means that MOOCs have driven up the general quality of online learning, opened up a culture of experimentation, been thought provoking regarding the use of technology in higher education and business models. Compared with other emerging trends, such as flipped classrooms and blended learning, MOOCs diverge in terms of their openness and scalability.

Wolearn (www.wolearn.org) was given as an example of a new initiative drawing on the experiences with MOOCs. It is a collaborative project between English and Chinese universities developed by Li Yuan. Wolearn combines MOOCs already developed by UK and European universities with face-to-face support at universities in China. By doing this, the students obtain the benefits of both highly qualified professors and local tutoring. By partnering this way, the students get an overseas experience while staying in China.

2.4/ Revisiting teacher professional support: The NROER model

Professor Dr Rajaram Sharma, Joint Director at National Council for Educational Research and Training, India

There are technologists, who carefully develop technologies with a purpose in mind. Then there are plumbers, who have to instantly fix the leak in the moment it is there with whatever tools are available. This presentation took the latter perspective by putting into perspective the need for qualified teacher education in India, and how a specific initiative, the National Repository of Open Educational Resources (NROER), tried to solve this problem. NROER is an initiative of the government of India aimed at bringing together all digital and digitisable resources related to school and teacher education.

In order to understand this context, the history of the Indian educational system must be taken into account. Today the motto is that everyone has the right to education. This, in practice, means a school for every child, and a teacher for every class. This has created a huge demand for teachers and effective teacher colleges. The situation begs for alternative solutions, and therefore they have looked towards technological solutions. In the world of MOOCs so many dishes are offered that it becomes a challenge to choose what to pick. Much of what happens is in English. This means that the Indian population and teacher education will not be able to instantly benefit from the existing MOOCs.

But the principles of MOOCs can be translated into this context. In Hindi and Sanskrit, there are two meanings of "open". One is "free", while the other is "liberate and open for translation and adaptation". In NROER, "open" is interpreted in the second sense, and by so doing they have interpreted MOOC in their own way with NROER. It is not only a library, as a library does not value the students' ability to create content themselves. In NROER, the student is considered an active participant, and they try to include this aspect in the model. NROER consists of two platforms – the course platform and the event platform. The event platform can be contests, celebrations or debates. This is combined with the course platform, in which the students can edit and add new material. The course platform is slightly different from traditional conceptualisations, as the students themselves structure the objects of which the course consists. People in tribal areas with no script are a part of the target group. This challenge has been overcome by adding emphasis to the multi-modal aspects with video, audio and images. Currently 29 languages are represented.

3.0 SEMINAR SUMMARIES

3.1/ Questioning the contribution of MOOCs

In higher education, we have experienced what could be called a decade of change. The reason for this is the development of Open Educational Resources, Open Books, MOOCs and social media. This forces universities to consider how they think of their core business in the long term. We see competition, difference in population and a rising intake, disruption of technology and better infrastructure.

It was discussed to what extend MOOCs can be considered disruptive in the sense that existing higher education is revolutionised and new markets are being opened. It was argued that this is not the case. MOOCs are instead best understood as a natural evolution of previous movements such as E-Learning, Open Universities, Distance Learning and Educational Technology. The importance of addressing the basic infrastructure and technical devices was highlighted. We cannot, anywhere in the world, take for granted that there is either broadband or a computer per person. This basic fact is often overlooked. We already see differences between a European and an American approach. In Europe flexibility is important and in America the certification of the course is important. With Asia as a new market, new approaches will appear and the basic facts of infrastructure may play an important role in the Asian context.

Personal experiences as a MOOC developer, teacher, user of digital resources and provider of e-learning were brought into the discussion. From here on, it was argued that we initially need to develop the skills of receiving and preparing content, learning and teaching online, and thereafter we can put it into practice and do it.

MOOCs can be interpreted in relation to the historical and ongoing development and tension between democratic movements and commercial interests. The result has often been learning management systems that allow discussion in closed fora, but in practice these fora remain empty. We have seen that the internet is not free, because you pay with data on your own behaviour. We always need to be careful with what is actually new here. In 1922 Thomas Edison thought of the moving picture as revolutionising education by doing away with the need for teachers. When we hype technology in this way it is doomed to disappoint. It does not mean that MOOCs do not have an impact. We are forced to think of the student and teacher in new ways. The teacher has to make different paths available,
not just quizzes and videos. Students need to engage voluntarily and have a self-driven approach, make their way through the resources and find networks and partners to collaborate.

3.2/ Quality assurance of MOOCs

This seminar evolved around trying to improve the quality assurance of MOOCs through experimenting with different platforms. The importance of a strong framework for the MOOC system was pinpointed as a keystone, and that it should have an easy overview. Furthermore, the creators of the MOOC system should have self-directed learning in mind when they create the system, to ensure that the system creates a strong framework for good returns to the participant. The theory of Knowles was presented to define self-learning. It highlights the importance of the learners identifying their needs themselves, formulating their own goals and researching their own materials. From this, an appropriate selection of learning resources should be picked. These can consist of announcements, videos, podcasts, glossaries and “cookbooks”. Interaction online can be facilitated through games and discussion boards.

Personal experiences with a MOOC system where the participants interact through games were presented. This was considered a huge success. Finally, the research showed that the dropout rates became lower when the subject was very specialised and that there is a need for a universal certification that is officially recognised. The following challenges in undertaking this task were mapped out:

- Electricity
- Computers and internet connection
- The target group
- Recognition of MOOCs by governments
- Sustainable economy

It was proposed to strive towards a single platform that would suit all Asian countries. This would help assure the quality, as a generic practice of evaluation specific for that system would be effective. The importance of access was underlined, and the assumption that everyone owns a smartphone should be

taken into consideration, so that MOOCs were not only to be accessed via computer. The idea of a universal evaluation system would also help in getting MOOCs recognised in terms of accreditation and certification.

3.3/ Instructional design of MOOCs

Open and distance education universities have a leading role in the MOOC movement, as pioneers in e-learning and providers of solutions to problems that MOOCs also face. In particular, the high dropout rates seem to be a problem that can be addressed by focusing on interface, structure and design. There is a need for creating a better environment around MOOCs through better course designs, online learner support and creating a screening process to ensure that the learners have the necessary qualities to finish the course. Language abilities are often a huge barrier, and should be considered a necessary resource and condition on a par with computer and internet connection.

Technology has the potential to transform the landscape of learning and create "higher" self-learning opportunities and environments. The term "higher" was discussed, as it fundamentally relates to the pedagogical assumptions behind MOOCs. This higher learning can be promoted by self-learning, as self-learners have a purpose and passion for learning. By giving people access to knowledge and the tools for increasing and diversifying their knowledge, higher education expands people's productivity as well as national capacity and competitiveness.

Finally, it was discussed that we are in a changing landscape, with a new generation of "connected" learners. Instructional design should use lessons learned from research to support lifelong learning.

3.4/ A Nordic approach to e-learning

Two different approaches were suggested when designing online education. Both favoured a student-centred approach where the content is personalised in different ways.

The role of the teacher is crucial here, because the cocktail of technology and personalised learning often marginalises the teacher. However, the teacher remains important but in new ways.

A course is structured by different ways of conceptualising the role between the content and the student, the student and the teacher, and the teacher and the content. The role of the teacher is to ask the "why", the "how" and the "what" questions of education. These are some of the success criteria of education, and can be understood as "relational learning". This approach was influenced by Problem-Based Learning.

Problem-Based Learning has the following principles. It points to the fact that knowledge and skills have to be acquired independently and at a high academic level. It is interdisciplinary, based on co-operation with businesses and the surrounding environment, developing abilities to engage in team work and finally to develop student responsibility for their own learning. These principles all relate to the how, the why and the what. These questions have scarcely been highlighted in the development of MOOCs.

Therefore, it was suggested that the following should be considered when designing for self-directed learning:

- Focus on the relations between knowledge domains and pedagogical models. There are no super-solutions for MOOCs.
- Use the potential for facilitating networks to share, participate and contribute but focus on diverse scaffolding strategies.

Under these circumstances the teacher may become more of a facilitator, moderator, modeller, assessor and even learner.

With regard to experiences of developing a LOOC – a local open online course – a nomadic perspective on online education was introduced. By "nomadic" was meant that students have to choose between different fragments and bytes offered and thereby create their own syllabus. These can be combined in any order and are intended to be selected according to the individual needs of each student. The course was offered in coding C++ and the students contributed themselves as a part of the course through developing and suggesting improvements of the code behind the LOOC.

The course has run for the first time, and the evaluation showed the following positive results: that the information provided was sufficient; multimodality was good; it was in Swedish (the local language); and everything was available in the same place. The negative results were that the material was not advanced enough for experienced students and that not every lesson had a quiz.

The biggest challenge, however, is to make students confident that they have made a sufficient and good plan for their own learning.

4.0 CONCLUSION AND THEMES

Throughout the meeting several key themes emerged. Dr Claus Holm ended the meeting by highlighting the following aspects, which were discussed by a panel and the participants. The themes were, as mentioned above *evidence, action, agents* and *pedagogy.*

MOOCs were credited for creating the debate about the value of open education and bringing it to the centre stage. Because, as has been pointed out, we still need evidence on what kind of equity MOOCs produce as well as learning outcomes. However, they are creating a groundswell of important questions.

The desire for evidence was not widespread across all participants, and some valued the importance of finding a way through experimentation. It was stated that massiveness was the original vision of MOOCs, but there are no quick fixes in education for the many. We can learn from MOOCs; after the peak of the hype and all the promises, we can enter the next phase and start listening to experiences and examples. We have seen how MOOCs are massaged to fit local needs and solutions. The optimism is now not so great, but we can make productive suggestions.

There was a point of disagreement concerning action, as in an Indian context MOOCs can transform society, it was argued. If you provide education to all, it is possible to bring entrepreneurship to the people. It is a matter of looking for the ultimate mechanisms. In the digital India, there is hope in the future of education. MOOCs really do provide an opportunity to realise these hopes. Therefore hope remains that MOOCs can help India fulfil its educational objectives.

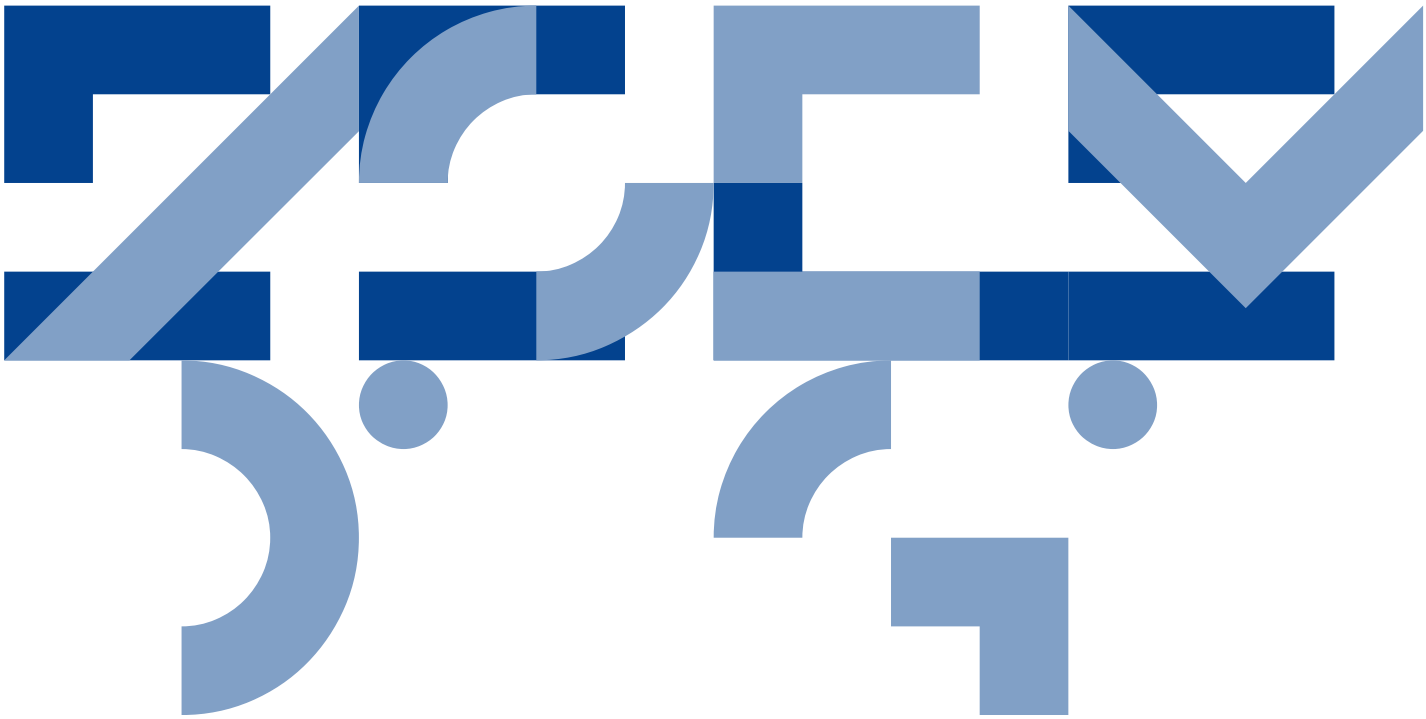
Regarding the agents of MOOCs, it was argued that it all starts with the individual desire for learning. If you are not willing to change yourself, you will not make any changes to the world. Therefore MOOCs are not about using technology but to meet, collaborate and create networks in order to learn. Furthermore, in the Asian context there are such high aspirations for higher education that the institutions cannot meet the demand. Here, everyone has a natural aspiration to make their life better, and a way out of poverty is to get an education.

In order to achieve this goal, you need to learn how to learn under the conditions of a MOOC and, therefore, ultimately a teacher is still necessary. Those going to enrol need some tools for learning how to learn and learning to manage their own learning courses. That is maybe the reason why 90% of MOOC enrollers never complete.

Finally, the pedagogy of MOOCs was discussed. It was argued that the first wave of MOOCs has been relying on fairly primitive pedagogy. Now it is time for the second wave, which we already see in hybrid formats, where interaction is favoured. It was stated that we all recognise that there is not a single best way. We are still experimenting with pedagogy, and we bring our different experiences to the table and that is what is important.

One future task identified was to move away from synchronous teaching, because it needs to be available all the time. In the true essence of openness, we may have to start giving up the luxury of synchronous education. It is a relationship between synchronicity and flexibility. This was proposed under the slogan "just in time, just for me".

Afterwards it was noted that the core essence about much of the discussion is related to our understanding of learning. When discussing pedagogical approaches we need to clarify what we mean by learning. A learning concept emphasising the situated culture may not engage people in learning, where it is considered as managing information. In this case the machine can be a learner as well as a human. We need to ground our understanding of what learning actually is, and scholars should continue to discuss this. It has a radical impact on how you design your online courses.



"Technology must, as soon as it recognised as useful, be put on the path. Be used. But it's not an imperative. Technology is secondary but it's powerful. We must recognise this."

DINESH SING
Vice Chancellor, Delhi University