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# **Massive open online courses (MOOCs) – how do they engage higher education students and lecturers?**

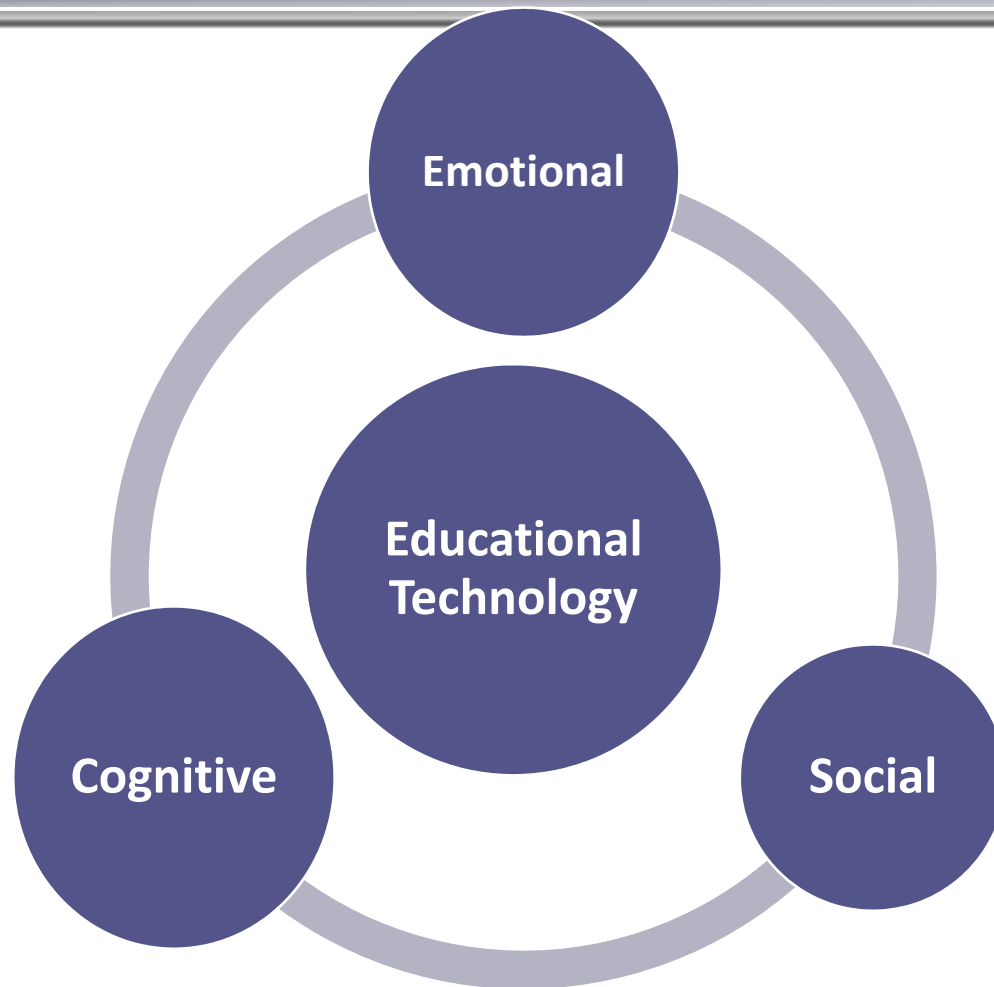
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# Theoretical background (1)

- **MOOCs**
  - Massive – capacity
  - Open – everybody can be participants, diverse abilities and backgrounds, free of charge
  - Online – accessible for everybody at distance
  - Courses - a systematic sequence of learning activities
- Significant phenomenon, myth and paradox
- Educational buzzword of 2012
- Revolution in HE
- Evolution of e-learning (distance learning)
- “Big thing” in Open and Distance Learning

# Theoretical background (2)



# Research aim and question

- **Aim of the Research**
  - To study learning in massive open online courses
- **Research Question**
  - How does educational technology engage learners cognitive, socialy and emotionally to learn in MOOCs?

# The Sample of the Research

<b>Duration</b>	May, 2016	
<b>Sample</b>	University of Latvia	Chulalongkorn University
	Educator - 1	Educator - 1
	Students - 4	Students – 2
<b>Takes place</b>	Course x supported by the UK MOOC platform – <i>Futurelearn</i>	

The current research was carried out in the framework of network of Asian and European higher education institutions (ASEM LLL Hub) in  
RN 1. *Development of ICT skills, e-learning and the culture of e-learning in Lifelong Learning*

# Research design

- The **qualitative exploratory** research design was used.
- The data have been obtained by the **unstructured students and educators reflections** (interviews) on the present course.
- For processing data, the coding system, performed on the **theoretical conception of educational technologies and engagement**, were created.
- Qualitative data processing program **AQUAD 7.5** was used.

# Coding system for data processing

Speaker codes	Profile codes	Conceptual codes
Students	/Stud_L	E_technology
/\$Stud1_L	/Stud_T	E_cognitive+
/\$Stud2_L	/Lect_L	E_cognitive-
/\$Stud3_L	/Lect_T	E_social+
/\$Stud4_L		E_social-
/\$Stud1_T		E_emotional+
/\$Stud2_T		E_emotional-
Educators		
/\$Lect_L		
/\$Lect_T		
/\$Educator		
Peers		
/\$Peer		

# Meaning of Conceptual codes

Conceptual codes	Description of the students/educators views
E_ technology	of the use of different types of technologies and tools, how they are engaged to learn by the use of technologies
E_cognitive+ E_cognitive-	how do they learn
E_social+ E_social-	how they can take part in the course activities (forums, tests etc)
E_emotional+ E_emotional-	their emotional feeling during their learning process





# **Findings of the Research**



# Frequencies (%) of the codes

Codes	Educator of Latvia (%)	Educator of Thailand (%)	Students of Latvia (%)	Students of Thailand (%)
E_cognitive+	<b>49.66</b>	23.29	<b>21.58</b>	5.48
E_cognitive-	39.13	<b>52.17</b>	6.52	2.17
E_social+	<b>47.52</b>	30.69	<b>14.85</b>	6.93
E_social-	25.00	<b>62.50</b>	12.50	0.00
E_emotional+	<b>43.96</b>	25.27	<b>21.98</b>	8.79
E_emotional-	27.96	<b>63.44</b>	5.38	3.23
ET_technology	28.75	29.14	21.19	20.92

# Finding 1

- **There are no differences concerning learners view educational technologies used for learning.**
- *While learning this course I mostly used my personal computer at home and my cellphone while I was on the way (StudA\_L).*
- *... using tools outside the course, which give us to an interactive activity and learn better. A diverse range of technical devices support learning: now I can learn anywhere anytime (StudA\_T)*
- *Also, the mobile version helps me to continue learning everywhere and anytime (StudB\_T)*

## Finding 2

- **The educators and students hold different views on positive or negative engagement in MOOCs, and it may be defined or interpreted differently.**
- *The introduction to the course was interesting and made in high-quality. Professor looked very intelligent and brought some importance to the whole process. I am mentioning that because I like more traditional learning where teacher or a lecturer stands in front of the class. But this course changed my mind. (StudB\_L)*
- *The introduction Video mostly appears different people in a different scene. For Thai, we look at a screen design representing a new technology; mostly those who perform that kind of function on the screen should be a young practitioner not an academia. The authority of an instruction must be a practitioner. ..I feel that the lesson is run by an authoritative classroom teacher, not a productive learner. (Educ\_T)*

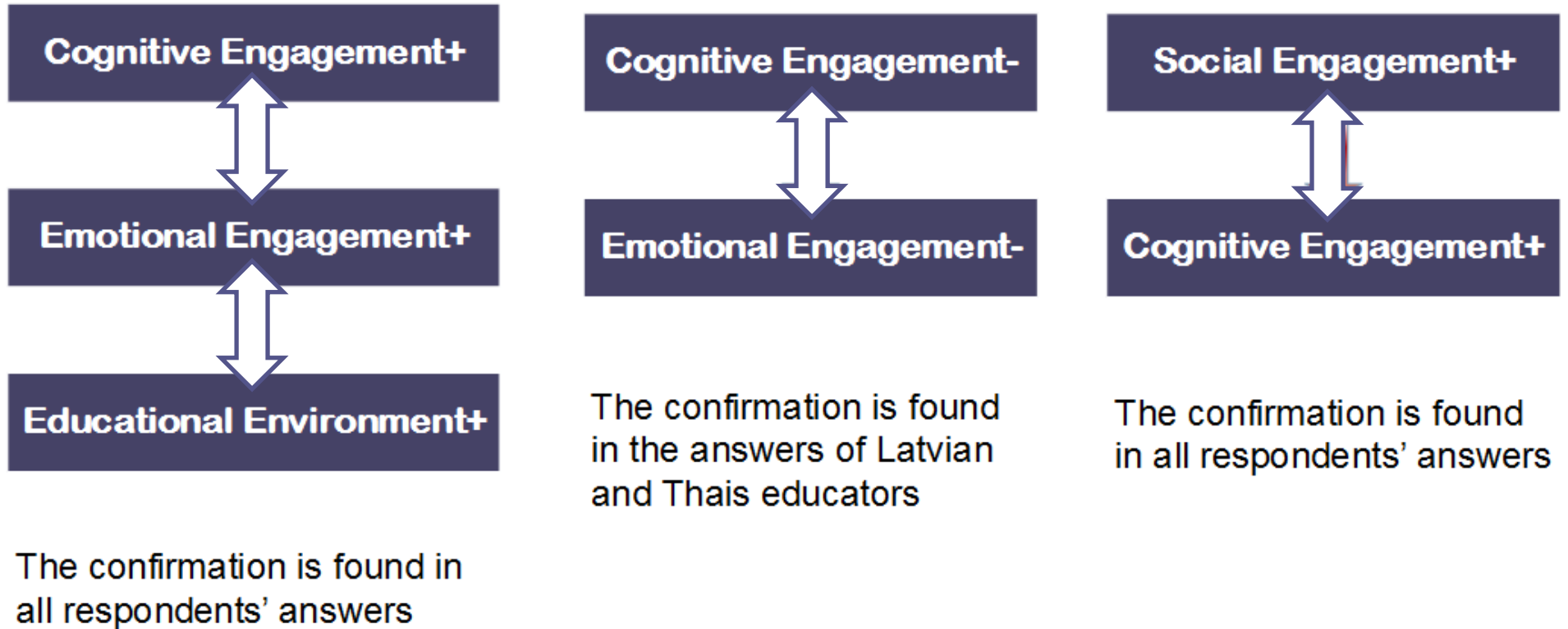
# Finding 3

- **There are some relations in comprehension of learning in MOOCs.**

For identifying relationships among different engagement aspects, some basic assumptions were put forward and tested with the construction of linkages.

- *Great! [code E\_emotional+] It is so transparently to use animation [code E\_technology] to explain complex things [code E\_cognitive+]! Also, from a pedagogical point of view to involve several senses at the same time [code E\_cognitive+]. It is so revitalizing! [code E\_emotional+] To change teaching style [code E\_cognitive+], along with a video attract animation [code ET\_environment]. (Educ\_L)*

# Constructed linkages



# Conclusions (1)

- Nowadays MOOCs learners **do not have a problem** with the use of technology, they are **digitally educated**. There are not significant differences between students and educators, in countries where there is a ubiquitous development of **MOOCs as a mean of knowledge dissemination**.
- The multimodal nature of MOOCs has an enormous potential for supporting a **diversity of relationships** and **implementing new teaching/learning perspectives**.
- The comprehension of how learning happens is a topical issue for the evaluation of students' engagement in three interconnected dimensions: **cognitive** engagement, **emotional** engagement, and **social** engagement.

## Conclusions (2)

- Learning is more effective when the learner engages emotionally and cognitively and a good learning environment is supported. Learning happens when learners **plan, self-organize, try and fail by doing, and carry out meaningful tasks for gaining new knowledge and representing it by communication and collaboration** with a course tutor or peers.



## Conclusions (3)

- **Emotional engagement** mostly related to a learner's **motivation**. An Individual's **emotional states, beliefs, interests and goals, and habits of thinking**. These all influence learning and the learning results. **Negative emotions** are associated with a **learner's inability to complete the given task** due to items such as an **inappropriate or poorly organized learning environment or a lack of time**.

## Conclusions (4)

- Massive open online courses usually attract many participants, who are **actively involved** in the learning process. **A learner's social engagement as social interactions, interpersonal relations, and communications with others are essential for their successful learning.** Active social engagement by **participating in discussions via forums, blogs, and twitter** helps learners improve their cognitive learning; however, there could be a **problem of not receiving immediate feedback from an educator and other course participants.**

# Conclusions (5)

- The educators and students have different views on positive or negative engagement in MOOCs and sometimes the challenge is the variety of interpretations of these meanings
- In addition, different learning cultures and previous learning experiences in MOOCs may be significant in the understanding of these issues as it occurs in this case: **Latvians are more positively open minded to learning in MOOCs than Thais who are more critical**

# Future Implementations

- The results of the current research show **distinct** and **common characteristics** of the technological impact on learning engagement.
- There could be **many interpretations** of these findings based on the **cultural lens and personal experiences** of the researchers.
- There are needs for further research that might **reveal deeper insights in pedagogical and psychological features** in learning with educational technology in the context of MOOCs.

# Acknowledgements

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# Thank You for Your attention!

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