

MOOCresearch2.0: A mixed-method and multidisciplinary approach to socio-cognitive conflicts in online educational platforms

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BACKGROUND

- In education research, **socio-cognitive conflicts** (differences in point of view that are socially experienced and cognitively resolved) have long been regarded as powerful resources to promote conceptual change, learning and knowledge transformation.
- Many scientific concepts in the humanities and social sciences are “**essentially contested concepts**” (ECCs), i.e. concepts which engender perpetual disputes about their meanings and applications (e.g. *democracy, human rights*).
- Learning the **scientific meanings** of ECCs requires a re-examination of their personal and everyday meanings, which can be the source of socio-cognitive conflicts.
- In **Massive Open Online Courses (MOOCs)**, interactions are **asynchronous**, and written in a **foreign language** by students with diverse professional, educational and cultural backgrounds.

MAIN OBJECTIVES

- Develop in-depth understanding of the **dynamic process** of social learning in online learning platforms via the study of the emergence, development and resolution of socio-cognitive conflicts in edX discussion forums.
- Provide **guidelines** to select activities that trigger the most fruitful learner-learner or learner-instructor interactions, to raise awareness of the types of problems that may interfere with socio-cognitive conflict resolution, and to identify interactions that require monitoring.

CHALLENGES

- Retrieve relevant data from the EdX platform.
- Provide **access** to MOOC forum discussions to our multidisciplinary team.
- **Structure** and **enrich** forum posts for easy exploitation across projects.

LouvainX Corpus



MOOCXPERIENCE
LOUVAIN

9 English MOOCs
126 845 English posts
2.6 million words

14 French MOOCs
95 339 French posts
1.6 million words

Extraction of edX forum posts



- Forum posts include:
- Discussions between students
- Questions to students and/or staff
- Submissions for tasks
- Technical or practical questions

Enrichment with students' metadata



- Pre- and post-MOOC surveys
- student motivation, experience, language proficiency, etc.

Data restructuring



- Forum thread reconstruction
- Filtering, searching and exporting
- Visualisation issues

Enrichment of forum posts



- Measures of cognitive engagement
- Measures of linguistic complexity
- Native Language Identification

Multidisciplinary insight from the LouvainX Corpus

The LouvainX corpus forms a basis to investigate facets of debates and socio-cognitive conflicts in MOOCs

How do learners engage in the epistemic resolution of socio-cognitive conflicts in MOOC discussion forums? The influence of instructional design on learner engagement

Education studies

Dennis A. Rivera and Mariane Frenay



How does the communicative organization of MOOC forums relate to the different forms of agency and debate that emerge in MOOCs and their forums?

Communication studies

Jan Zienkowski and François Lambotte

To what extent are non-native speakers participating in MOOC forum discussions, and more particularly in the epistemic resolution of socio-cognitive conflicts?

Linguistics

Bert Van de Poel and Magali Paquot

Learning Essentially Contested Concepts in social sciences: The case of Corporate Social Responsibility

Management studies

Pauline de Montpellier d'Annevoie and Valérie Swaen

Learn more about our common goal and all four subprojects on our website
<https://tinyurl.com/MOOCresearch2-0>

