

# A Massive Open Online Course useful in medical education? The clinical reasoning process MOOC as an example

Université   
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# Clinical reasoning

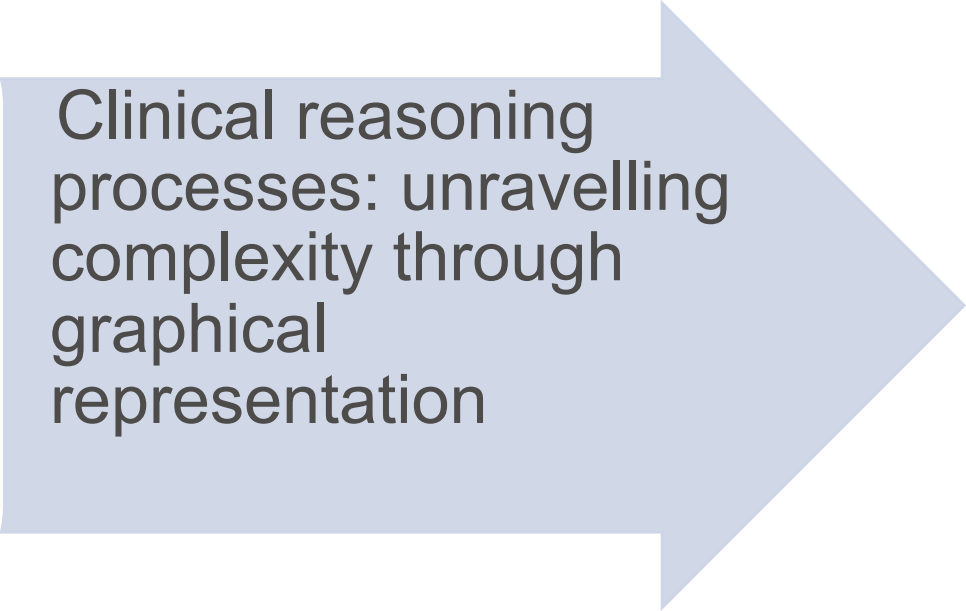
Clinical reasoning stands at the very core of the medical profession. It is defined as the set of complex thought and decision-making processes underlying clinicians' choices and actions in specific medical problem-solving context.

Boshuizen et Schmidt 1992

Clinical reasoning remains notoriously difficult for students to grasp and teachers to nurture.



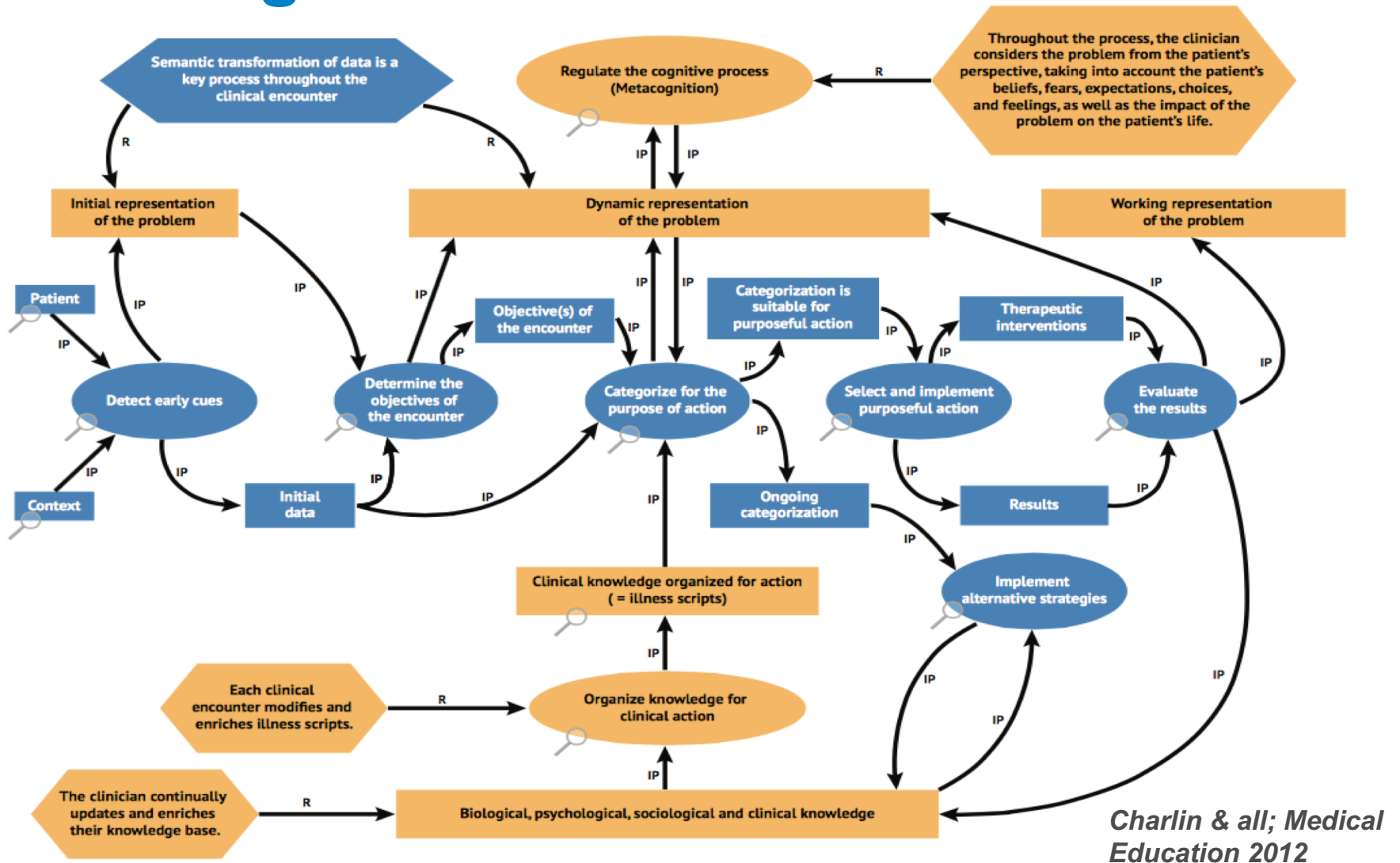
2012



Clinical reasoning  
processes: unravelling  
complexity through  
graphical  
representation

*B. Charlin, Medical Education 2012*

# Comprehensive Model of Clinical Reasoning Processes



# Clinical Reasoning Processes (CRP)

- The model was received with great enthusiasm as it presented for the first time a framework for understanding clinical reasoning (CR) not only of medical doctors' but also of other health care professionals.
  
  
  
  
  
  
  
  
  
  
- The model as presented in the research paper was too complex to allow significant knowledge transfer into the day to day medical teaching practice.

# Story Line

## 2014 Online course

- Easy and free access to the course.
- Able to enroll despite not being a teacher or a student at Université of Montréal
- Facilitate exchanges between participants

# Story Line

The logo for EDUlib, featuring the word "EDUlib" in a bold, blue, sans-serif font. The "E" is stylized with a horizontal bar extending to the left.

Few months  
later...

The logo for OPENedX, with the text "PROPULSÉ PAR" in a small, grey, sans-serif font above the word "OPENedX". "OPEN" is in blue, "ed" is in red, and "X" is in blue.A large, light grey arrow pointing to the right, containing the text "Launched a call for projects".

Launched a call  
for projects

# Story Line

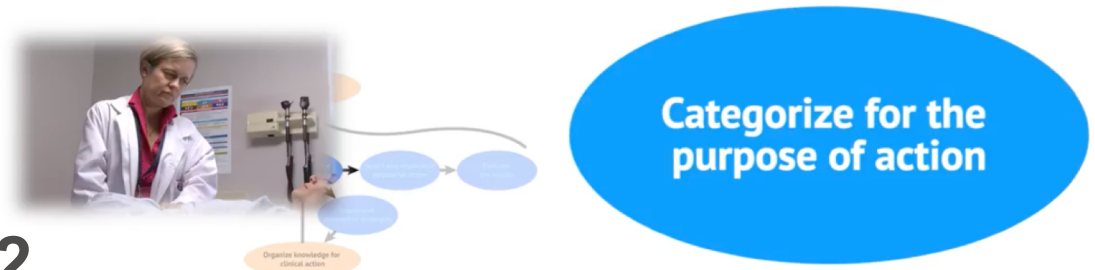
## Development of the CR- Process MOOC

- Interdisciplinary course aimed at pharmacists, veterinarians, medical doctors, nurses, dentists and physiotherapists
- Learning trajectory non linear and free
- Interactive activities with frequent assessment
- Discussion Forum
- “Meet the teacher” session on Google Hangouts



# Content of the MOOC

## Module 2



**ACTIONS**



**OUTCOMES**

Identify relevant data  
 Recognize a pattern or analogous case  
 Verify that no other hypotheses exist  
**Orient search for further data to challenge the hypotheses**  
 Compare characteristics and data

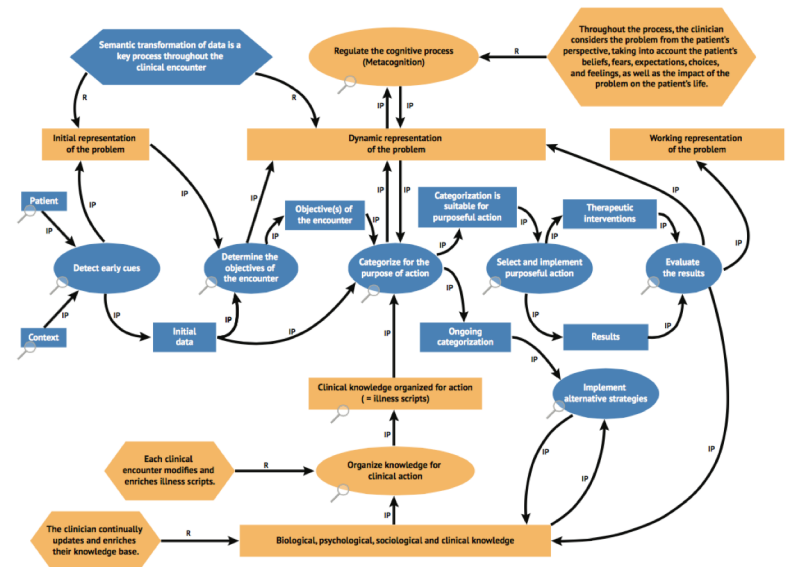
Initial clinical data  
 Initial hypotheses  
**Set of hypotheses and their activated scripts**  
**New clinical data**

Categorization is suitable for purposeful action

## Module 1

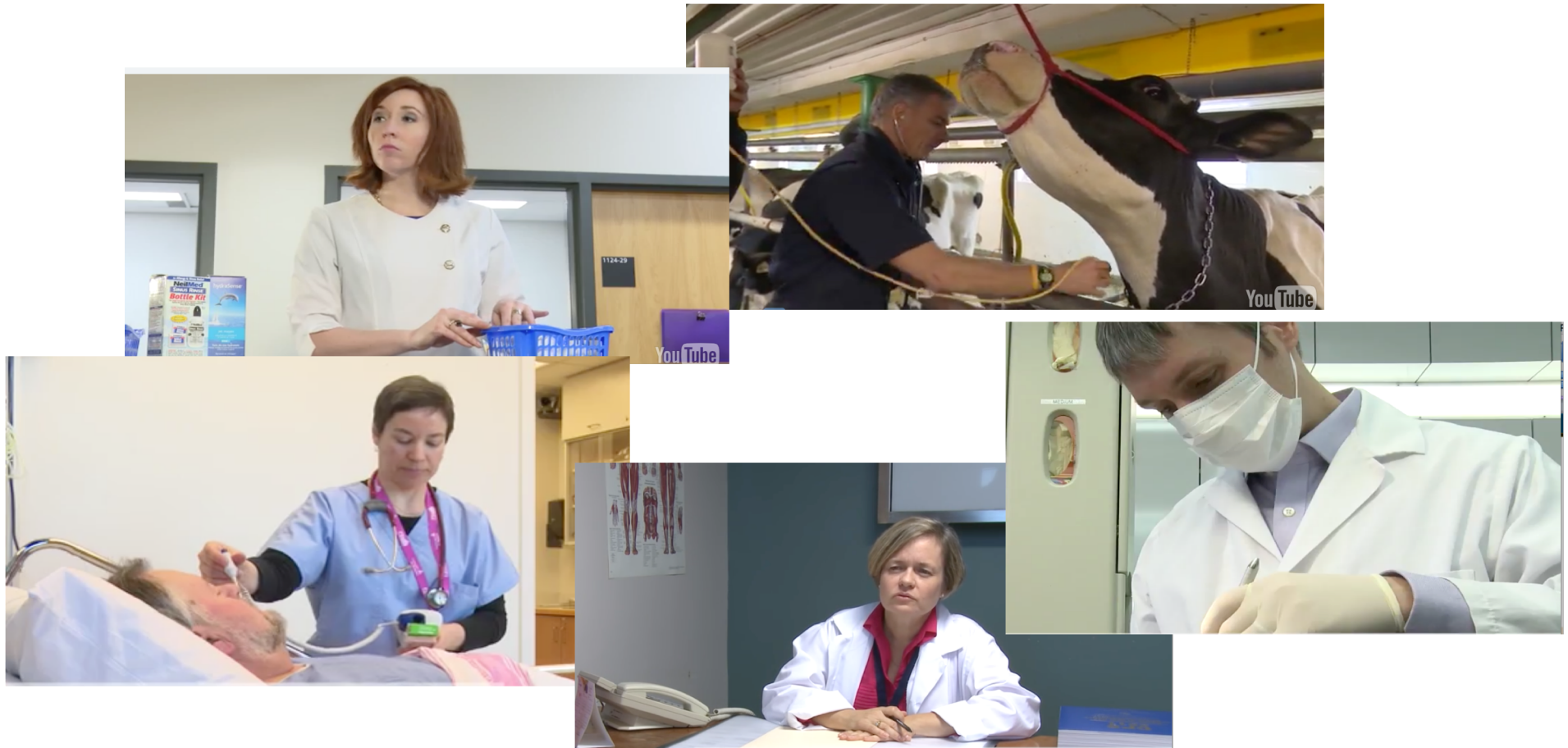


## Module 3



Pharmacist, Veterinarian, Medical doctor  
 Nurse, Dentist and Physiotherapist

# Content of the MOOC



The role of soft competencies in the CR, experts on CR short videos

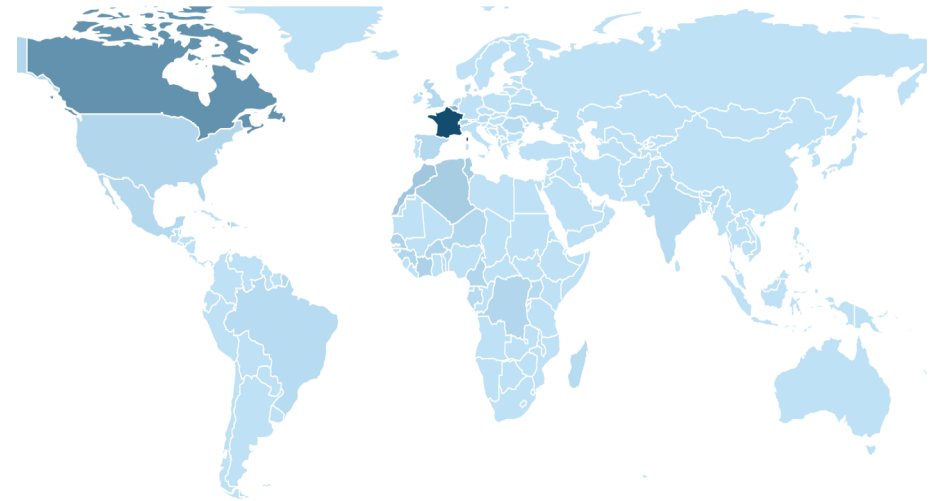
# Story Line

Delivery of  
the course  
2016-2018  
4 times

- N=1200
- N= 980
- N= 687
- N=1008

# MOOCs and the Global Democratization of Higher Education

France	61,7 %	660
Canada	17,5 %	187
Belgique	6,0 %	64
Réunion, La	2,3 %	25
Maroc	1,9 %	20
Haïti	1,8 %	19
Tunisie	1,2 %	13
Algérie	1,1 %	12
Suisse	< 1%	7
Côte d'Ivoire	< 1%	7

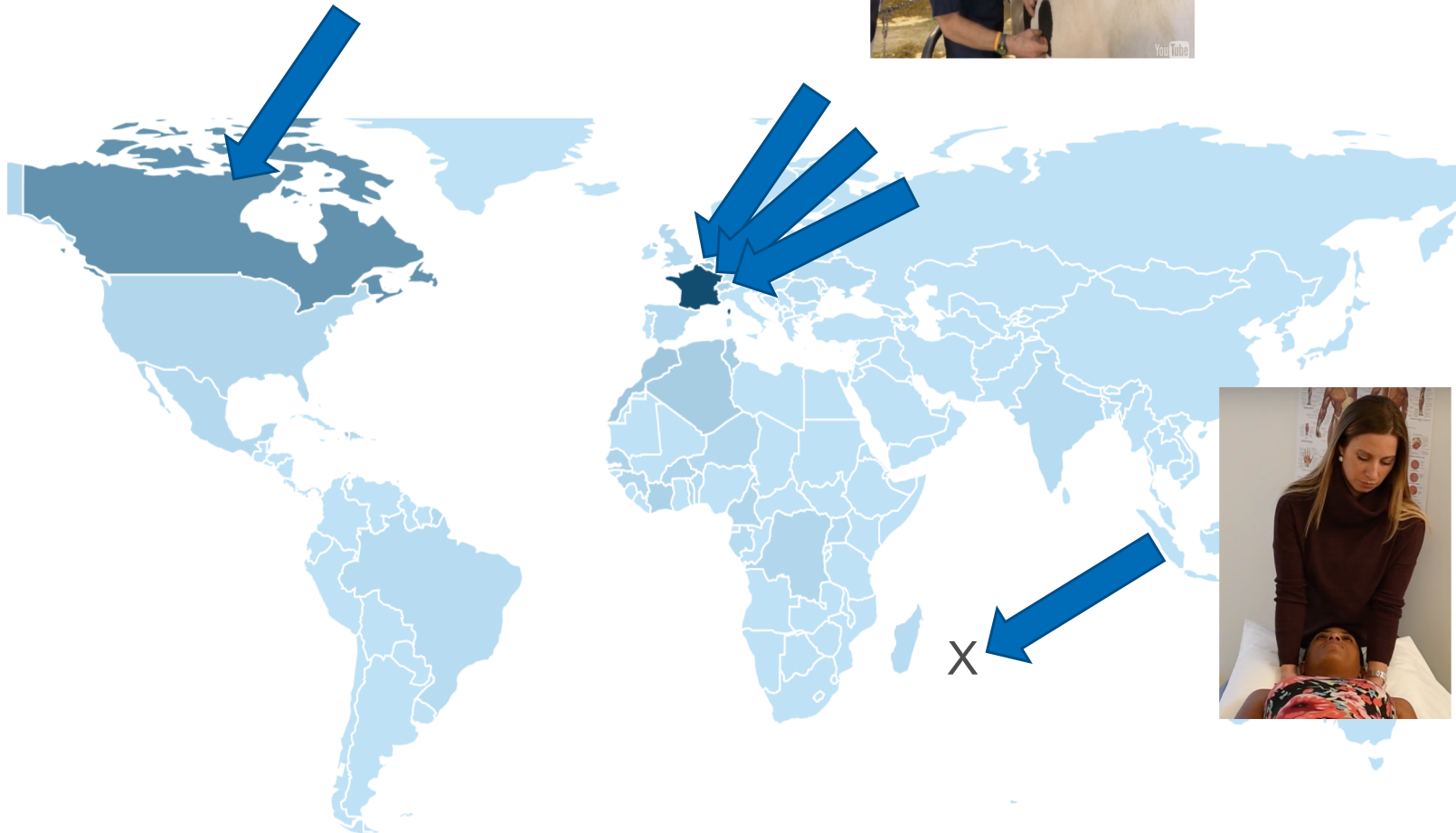


Improved access to higher Education ?

# Story Line

## MOOC's content

- SPOC
- Learning material for flipped classroom sessions
- Extra teaching material for « traditional » learning sessions



## Conclusion

The CRP-MOOC has helped disseminate research work to a wide range of health care professionals and connect people interested in CRP

## CRP- MOOC TEAM

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Thank you