Digital Universities in the MOOC Era:
Redesigning Higher Education

ICEM CONFERENCE 2017

20 - 22 SEPTEMBER 2017, NAPLES

Federica.EU
Università di Napoli Federico II

LIÈGE université

Designing MOOCs videos - A prompt for teachers and advisers' pedagogical development?

Jean-François Van de Poel, Pierre Martin, Thibault Crépin, Samuel Harcq, Dominique Verpoorten

Summary

- About Liège University – Institute for Training and Research in Higher Education (IFRES).

- Our role and mission for Teacher's professionnal development.

- Our multimedia studio and our first educational multimedia productions experience.

- The MOOC emergence.

- How we « MOOCed »

- MOOC Design and profesionnal development ?

About **Liège University**

Public university of the French Community of Belgium

Established 1817

Rector : Prof. Albert Corhay

Academic staff: 2,800

Administrative staff: 4,300

Students : 22,000

Location : Liège, Wallonia, Belgium

Campus : Urban, suburban

Website : www.ulg.ac.be

Institute for Training and Research in Higher Education (IFRES).

❖ Promoting the teaching mission in higher education;

❖ Coordinating teacher's professional development ;

❖ Assisting teachers and Departments in their actions to train students both face-to-face and online;

❖ Promote research into higher education pedagogy;

❖ Facilitating the integration of ICTs and eLearning in teaching practices: developing the University's virtual campus

❖ developing a "quality" approach in the evaluation of students and teaching.

One particularity …

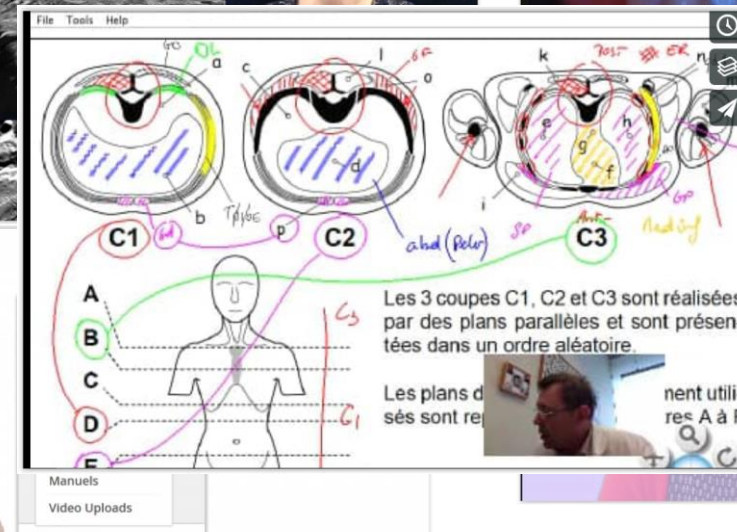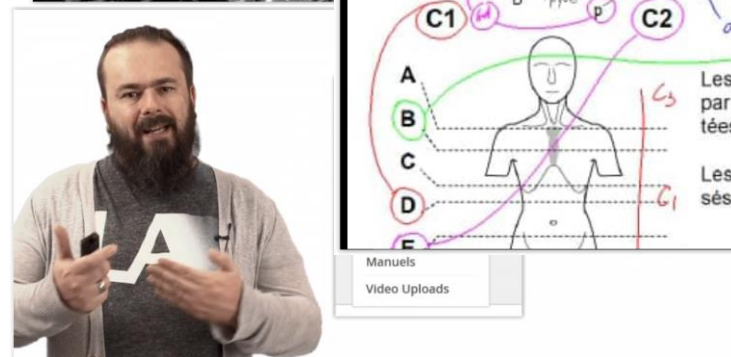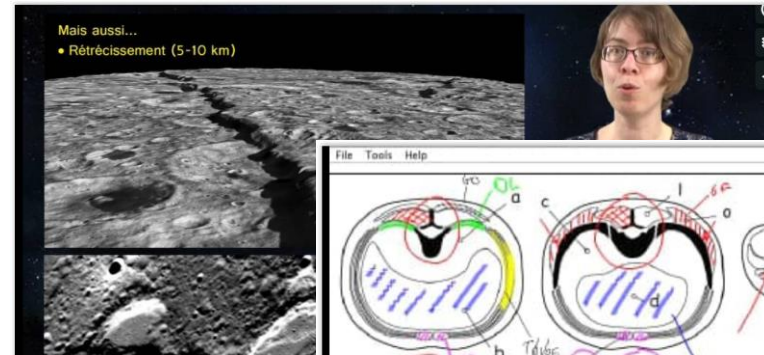| Séances abordant des thèmes plus spécifiques	Séances créditées pour 1 UFP (Unité de Formation Pédagogique)	
INTITULÉ DE LA SÉANCE	**RESPONSABLES**	**DATES**
Déterminer des niveaux d'attentes (prérequis, acquis d'apprentissage, charge de travail) et des modalités organisationnelles adéquates pour mon cours	L. Leduc	14/11/17 am, 15/3/18 pm
Optimiser le recours à des supports écrits et des ressources diverses dans mon cours	L. Leduc	17/11/17 am, 9/5/18 pm
Relations à l'étudiant : communication, déontologie	L. Leduc, P. Detroz & J. Robert	14/12/17 am, 14/6/18 am
Organiser et animer des séances pratiques en sciences humaines	D. Verpoorten & G. Cormann	5/6/18 pm
Organiser et animer des séances pratiques en sciences et sciences appliquées	D. Verpoorten, B. Leyh & P. Tossings	22/3/18 pm
Organiser et animer des séances pratiques en sciences du vivant	P. Bonnet, V. Defaweux, F. Melot & D. Verpoorten	18/12/17 am
Organiser et animer des séances pratiques en droit	D. Verpoorten & Ch. Biquet	15/5/18 pm
L'évaluation de performances complexes	P. Detroz	6/3/18 am
Technologie de l'évaluation	P. Detroz & V. Crahay	25/4/18 pm
Le portfolio étudiant, le journal de bord et le dossier d'apprentissage : principes et illustrations	V. Alonso, P. Detroz & D. Verpoorten	12/4/18 pm
Pédagogie par projet – Concevoir, gérer et évaluer une performance collective	R. Charlier, D. Verpoorten, V. Jans et T. Manfredini & L. Leduc	7/3/18 am
Accompagner et évaluer des mémoires et TFE	D. Verpoorten	30/11/17 pm, 21/3/18 am
Les stages en Master : objectifs, organisation et évaluation	P. Detroz & V. Alonso	9/3/18 pm
L'apprentissage par problèmes : principes, exemples d'application et prérequis	P. Bonnet, A. Collard & D. Giet	20/2/18 de 14h à 17h30 au CHU
Le tutorat pour l'apprentissage par problèmes (APP) et en petits groupes	P. Bonnet, A. Collard & D. Giet	23/2/18 pm au CHU
Méthode innovante pour évaluer les capacités de raisonnement des étudiants : le TCS (Test de Concordance de Scripts)	D. Giet, V. Massart & A. Collard	12/1/18 pm au CHU
Dispositif intégré d'évaluation des performances complexes : les ECOS, EMS	D. Giet, G. Philippe, V. Massart &	2/2/18 pm au CHU

FORMATION DES ENCADRANTS
2017 - 2018

Secrétariat : E. N

Quartier Urbanistes 1, Traverse des architecte
Bâtiment B.63b 4000 - Liège, Sart Ti
Tél. : 32 / 4 / 366 56 31 - Fax : 32 / 4 / 366
Courriel : E.Nivart@ulg.a

www.ifres.ulg.ac.b

10 Compulsory Training modules about higher education pedagogy for new Teachers and T.A.s
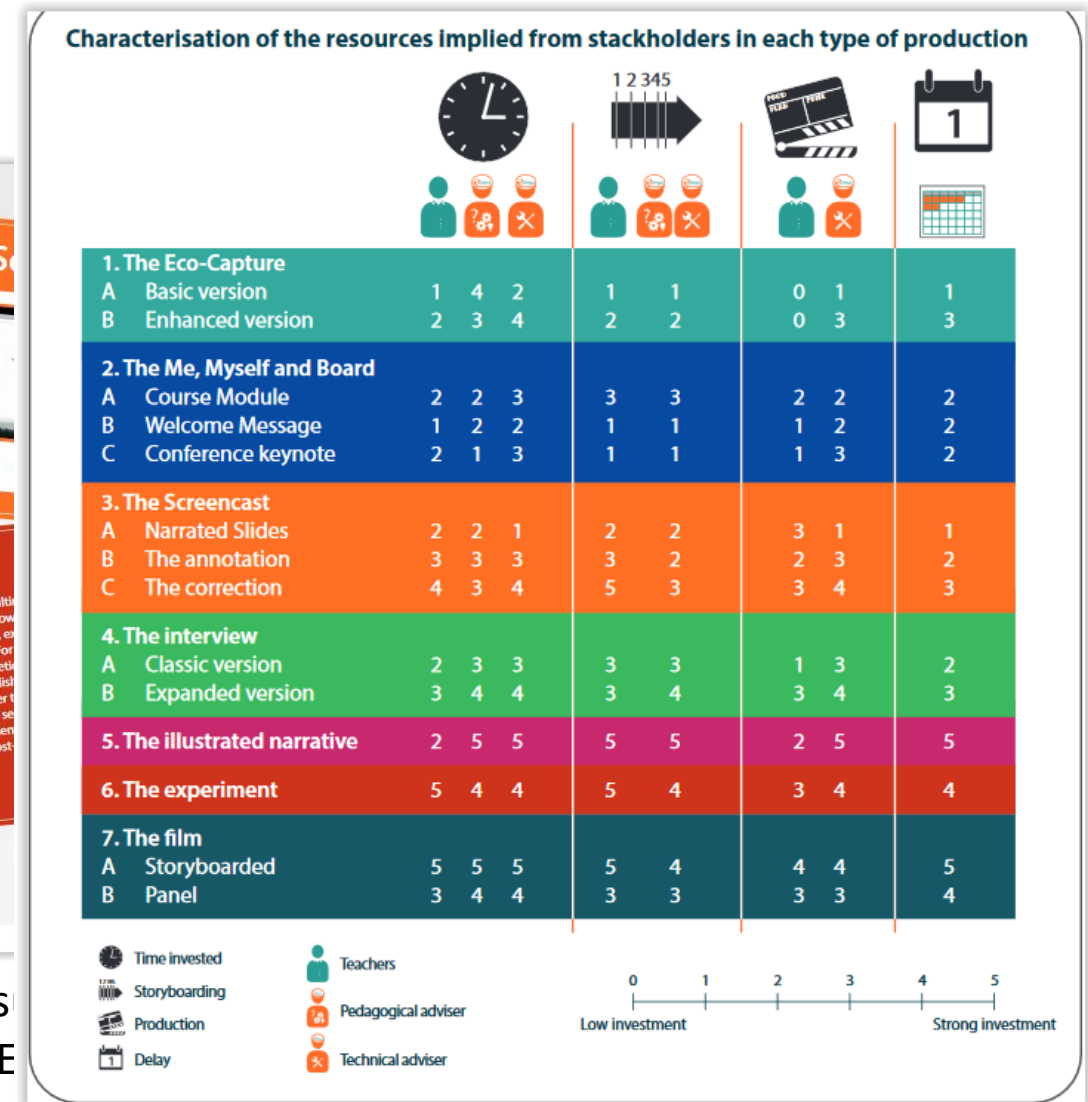
Our first educational videos

- Little piece in the curriculum

- Centered around « essentials » or interview

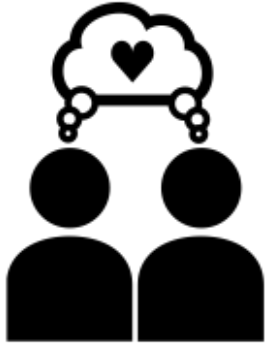- Included in blended learning process (flip-classrooms, etc.)

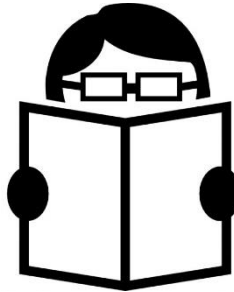# Emerging of our first learning multimedia video typology - 2014

Typology

1. The Eco-Capture
This capture is handled live at real time. After a preliminary work with the teacher mostly for sequencing the training materials , the capture is simultaneously filmed before being post- produced (Basic version) . In its enhanced version , the capture may be decorated with attention markers and other supports to learning.

2. The Me, Myself and Board
In this mode , we offer to teachers to use our studio which is equiped with a large screen TV that will project their training content and next to which they can stand and explain their learning content(Course Module). This modality can also be applied to a «Conference keynote» type or the the filming of a message to introduce a course (Welcome Message).

3. The S...

5. The illustrated narrative
The illustrated narrative is a process that starts from a speech, a speaking teacher recorded on an audio track. We then apply a screenplay treatment on this support in combining the narration with the visual referents which illustrates the concepts presented.

6. The experiment
This type ou multi... is essentially show... manipulations , e... various fields. For... production, meti... must be establish... shooting . After t... the necessary se... voices, commen... markers in post-...

Characterisation of the resources implied from stackholders in each type of production

		Time invested	Teachers	Pedagogical adviser	Technical adviser	Storyboarding Teachers	Pedagogical adviser	Technical adviser	Production Teachers	Technical adviser	Delay
1. The Eco-Capture											
A	Basic version	1	4	2		1		1	0	1	1
B	Enhanced version	2	3	4		2		2	0	3	3
2. The Me, Myself and Board											
A	Course Module	2	2	3		3		3	2	2	2
B	Welcome Message	1	2	2		1		1	1	2	2
C	Conference keynote	2	1	3		1		1	1	3	2
3. The Screencast											
A	Narrated Slides	2	2	1		2		2	3	1	1
B	The annotation	3	3	3		3		2	2	3	2
C	The correction	4	3	4		5		3	3	4	3
4. The interview											
A	Classic version	2	3	3		3		3	1	3	2
B	Expanded version	3	4	4		3		3	3	4	3
5. The illustrated narrative		2	5	5		5		5	2	5	5
6. The experiment		5	4	4		5		4	3	4	4
7. The film											
A	Storyboarded	5	5	5		5		4	4	4	5
B	Panel	3	4	4		3		3	3	3	4

Time invested · Teachers
Storyboarding · Pedagogical adviser
Production · Technical adviser
Delay

0 1 2 3 4 5
Low investment — Strong investment

Van de Poël J.-F., Martin P. & Verpoorten D, (2015) Multimedia-s... instructional usage and implied resources - EAPRIL CONFERENCE...

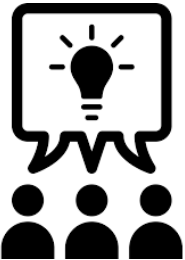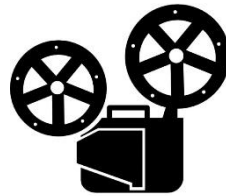# The emergence of MOOCs

2013 2014

2014 2016

2016 2017

EMOOCs European MOOCs Stakeholders Summit 2014

EMOOCs European MOOCs Stakeholders Summit 2016

FIRST PILOT PROJECT (2016-2017)
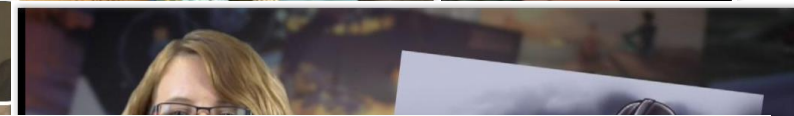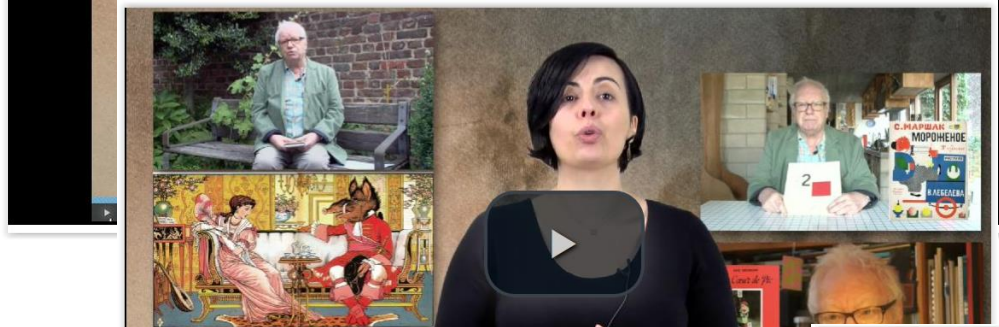
27.000
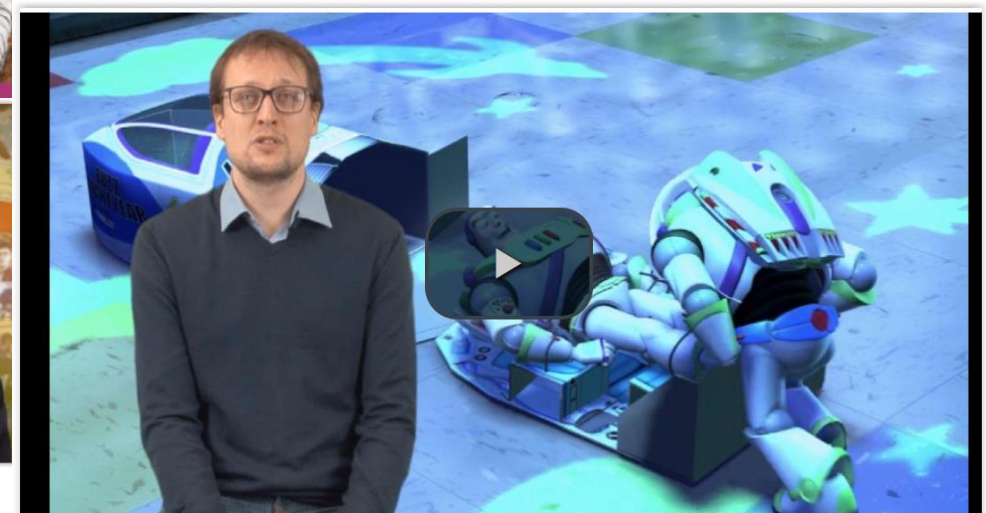

6.000

14.000

7.500

How we « MOOCed » ?

- Our MOOCs are explicitly inserted in our students curriculum
- Our MOOCs production process is collegiate an not centered around one academic
- Our MOOCS are open to all faculties and external experts
- Our MOOCs are produced within a community of practice
- Our MOOCs are designed to reach a maximum amount of people
- Our MOOCs are designed around the respect of instructional quality principles
- Each MOOC has to bring an innovation

Our MOOCs are explicitly inserted in our students curriculum

Our MOOCs production process is collegiate an not centered around one academic

Our MOOCS are open to all faculties and external experts

Our MOOCs are produced within a community of practice

Our MOOCs are designed to reach a maximum amount of people

QUELLE POPULATION POUR MON MOOC ?

Our MOOCs are designed around the respect of instructional quality principles

ELSEVIER

Instructional quality of Massive Open Online Courses (MOOCs)

Anoush Margaryan[*], Manuela Bianco, Allison Littlejohn

Caledonian Academy, Glasgow Caledonian University, Glasgow G4 0BA, UK

CrossMark

ARTICLE INFO

ABSTRACT

We present an analysis of instructional design quality of 76 randomly selected Massive Open Online Courses (MOOCs). The quality of MOOCs was determined from first principles of instruction, using a course survey instrument. Two types of MOOCs (xMOOCs and cMOOCs) were analysed and their instructional design quality was assessed and compared. We found that the majority of MOOCs scored
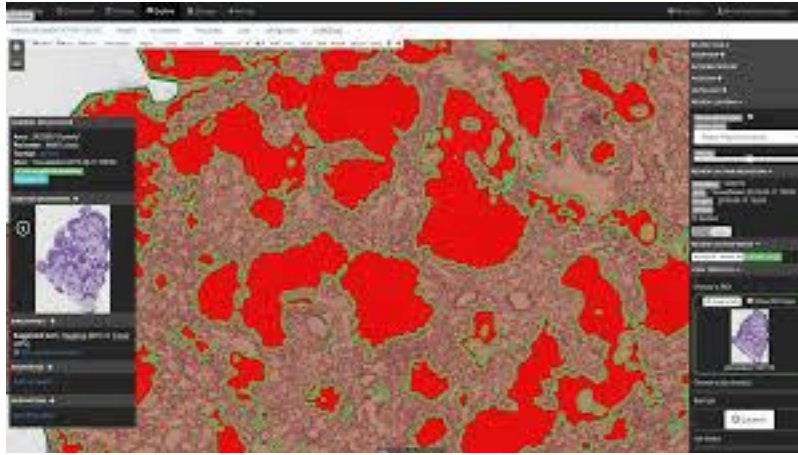
Each MOOC has to bring an innovation

Our production process

| M1	M2	M3	M4	M5	M6	M7	M8	M9
PLANIFICATION	PRODUCTION					COMMUNICATION	DIFFUSION	BILAN
MOOC-PLAN	Storyboard writing a filming	Video editing and activities writing		Online implementation, teaser, enrollment		ADVERTISING, Social network, Professional networks	TEACHING	Bilan

Our video production cycle

ONLINE IMPLEMENTATION

EDITING

RECORDING

VALIDATION

QUALITY FEEDBACK

WRITING
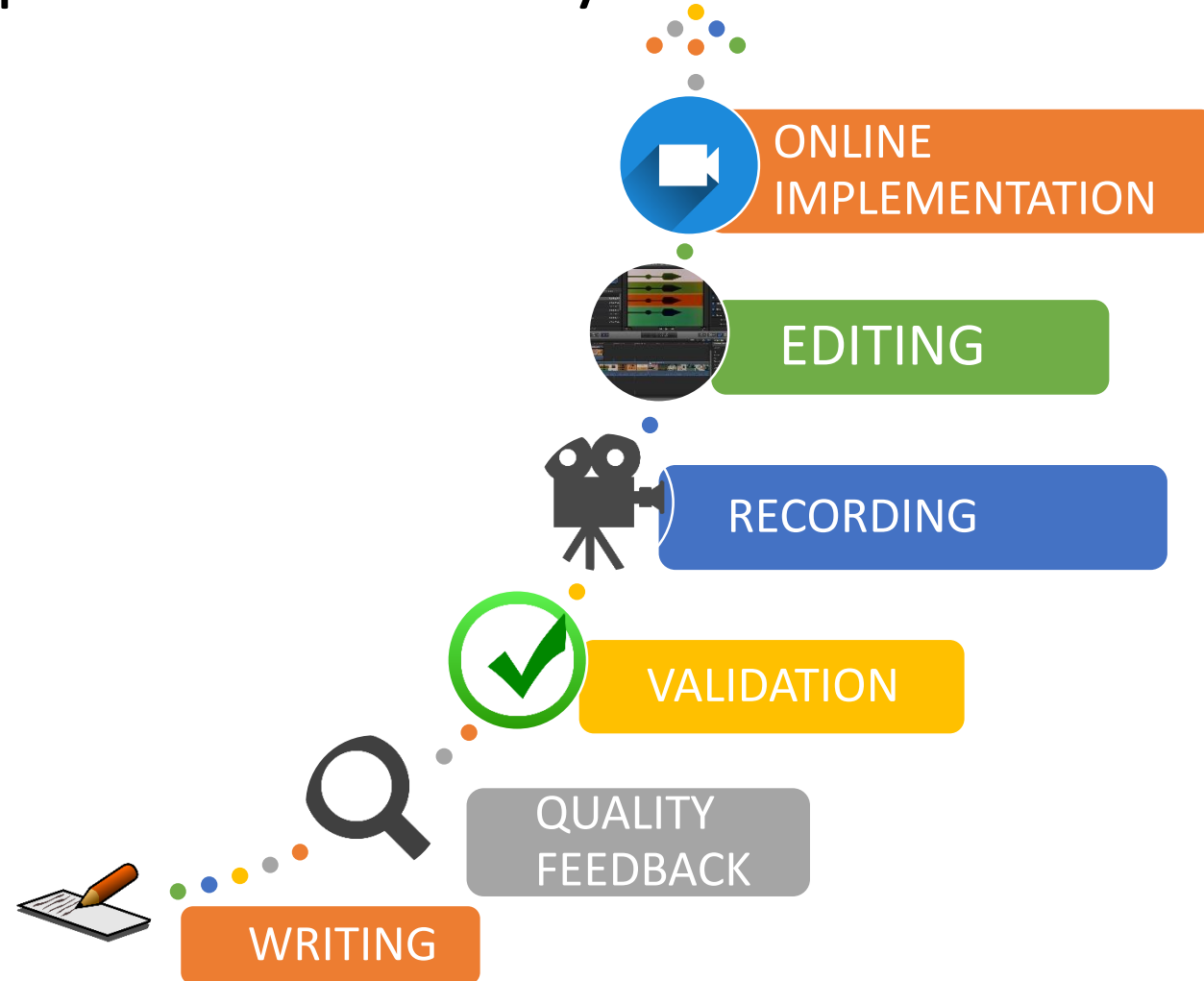
A new and adapted typology
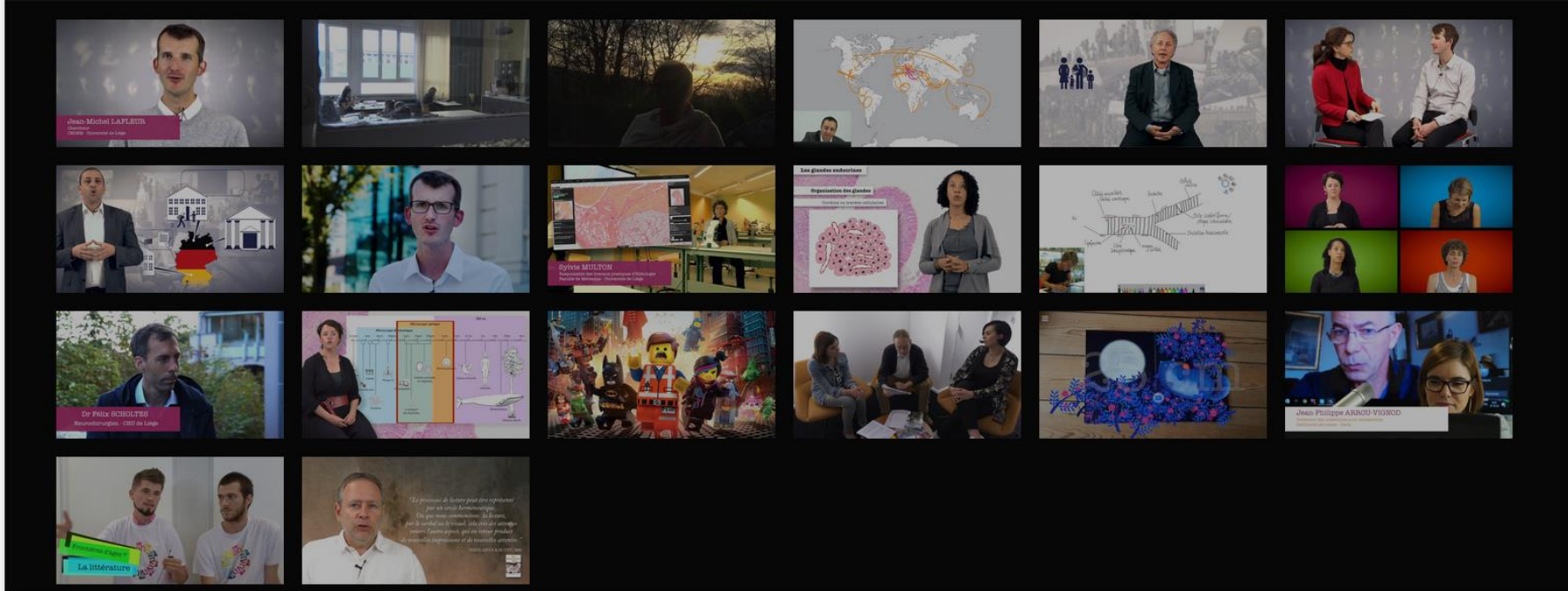
Supported by principles issued by scientific litterature

- Mayer's principles
- Cognitive load theories
- Communicational writing
- Storytelling principals
- Etc.

Guidelines and recommandations (Guo – 2014)

Finding	Recommendation
Shorter videos are much more engaging.	Invest heavily in pre-production lesson planning to segment videos into chunks shorter than 6 minutes.
Videos that intersperse an instructor's talking head with slides are more engaging than slides alone.	Invest in post-production editing to display the instructor's head at opportune times in the video.
Videos produced with a more personal feel could be more engaging than high-fidelity studio recordings.	Try filming in an informal setting; it might not be necessary to invest in big-budget studio productions.
Khan-style tablet drawing tutorials are more engaging than PowerPoint slides or code screencasts.	Introduce motion and continuous visual flow into tutorials, along with extemporaneous speaking.
Even high quality pre-recorded classroom lectures are not as engaging when chopped up for a MOOC.	If instructors insist on recording classroom lectures, they should still plan with the MOOC format in mind.
Videos where instructors speak fairly fast and with high enthusiasm are more engaging.	Coach instructors to bring out their enthusiasm and reassure that they do not need to purposely slow down.
Students engage differently with lecture and tutorial videos	For lectures, focus more on the first-watch experience; for tutorials, add support for rewatching and skimming.

Table 1. Summary of the main findings and video production recommendations that we present in this paper.

http://up.csail.mit.edu/other-pubs/las2014-pguo-engagement.pdf

Compensate the effects of "cold cut plate" with more story-telling

La dimension « story-telling » qui amène plus de motivation chez les étudiants si le parcours et les séquences sont présentés comme une « histoire » plus que comme un « cours »

a certain very specific syntactic shape (beginning-middle-end or situation-transformation-situation) and with a subject matter which allows for or encourages the projection of human values upon this material. Scholes, 1981. p. 205

Stories become a way, in other words, of capturing the complexity, specificity, and interconnectedness of the phenomenon with which we deal and, thus, redressed the deficiencies of the traditional atomistic and positivistic approaches in which teaching was decomposed into discrete variables and indicators of effectiveness.

Carter, 1993, p.6

Some important advices

- **1. Keep it short.** If you go off on too many tangents and include too much information, it makes it harder for someone to grasp what you're talking about. Include only what the viewer needs to know — anything else can be unnecessary.

- **2. Use common language.** Nothing turns off an audience like using "industry-speak" in a video. It's like explaining what you do in a foreign language, which means people outside your industry won't be able to relate. After all, your goal is to make it easier for people to understand your message — not more difficult.

- **3. Allow the visuals to tell the story, too.** Visuals are there to support the message, so use them! If you can *show* your audience something instead of telling it to them, then go for it. This will allow you to insert more information into your video while keeping the running time short.

- **4. Keep your objective in mind.** If your purpose is to explain why red balloons are the best, don't get off-track by explaining the problems with all the other colors. Focus on one topic. If your video highlights too many different ideas, your red balloon, though awesome, will get lost in the clutter.

- **5. Have fun with it.** Don't take your service or products too seriously, and have fun producing videos. This attitude will come across and make watching them more engaging for your audience. Your video will not only explain something, but will also entertain — and that's always memorable.

Our storyboard template

MOOC LIÈGE université

TITRE DU MOOC :

MODULE :   SEQUENCE :

TITRE DE LA SEQUENCE :
DUREE :

TYPE DE PRODUCTION MULTIMEDIA CHOISI :
Consultez la ressource ici

DATE DE TOURNAGE :

TEXTE	ILLUSTRATIONS-COMMENTAIRES
Ecrivez ici le texte qui constituera la narration de votre séquence. Attention, pour une séquence vidéo MOOC, la durée maximale souhaitée ne peut pas dépasser les 7 minutes. En termes de mots, cela correspond à un maximum de 1400 mots. Gardez en tête ce nombre et tâchez de demeurer dans une fourchette comprise entre 1200 et 1400 mots. Séparez votre texte en unités de sens.	Placez ici les images ou les illustrations que vous souhaitez voir apparaître au fur et à mesure de votre narration. Il vous est également possible de réaliser un diaporama complémentaire, le cas échéant, mentionnez juste la dia concernée.

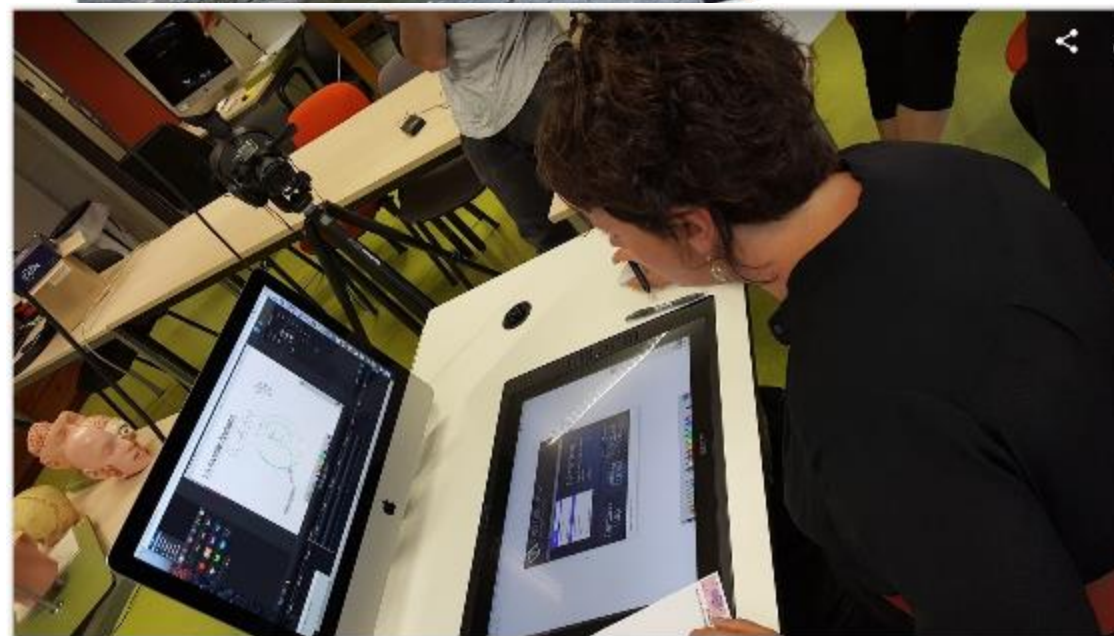# Our quality feedback sheet

FICHE FEEDBACK STORYBOARD (2016)

Titre de la ressource :

	CRITERES	OUI	NON	PARTIELLEMENT	NP	COMMENTAIRES
4.1.	**Durée des vidéos et ressources audiovisuelles.** Les vidéos ne dépassent pas la durée prescrite de 6 min.					
4.2.	**Adéquation de la typologie de vidéo choisie avec le contenu.** La typologie de vidéo choisie est en adéquation avec le type de contenu proposé.					
4.3.	**Respect des principes de l'écriture communicationnelle.** L'écriture des textes à lire fait la part belle aux anecdotes, aux informations importantes directement mises en avant.					
4.5.	**Equilibre de la charge cognitive des vidéos.** Les canaux attentionnels sont mobilisés de manière					

Writing and quality feedback

Production

Editing

Online implementation

Professional development for teachers and advisers ?

For the advisers, instructional design tools are a necessity and a tremendous tool for research

FICHE FEEDBACK STORYBOARD (2016)

Titre de la ressource :

	CRITERES	OUI	NON	PARTIEL LEMENT	NP	COMMENTAIRES
4.1.	**Durée des vidéos et ressources audiovisuelles.** Les vidéos ne dépassent pas la durée prescrite de 6 min.					
4.2.	**Adéquation de la typologie de vidéo choisie avec le contenu.** La typologie de vidéo choisie est en adéquation avec le type de contenu proposé.					
4.3.	**Respect des principes de l'écriture communicationnelle.** L'écriture des textes à lire fait la part belle aux anecdotes, aux informations importantes directement mises en avant.					
4.5.	**Equilibre de la charge cognitive des vidéos.** Les canaux attentionnels sont mobilisés de manière					

MOOC LIÈGE université

DATE DE TOURNAGE :

TITRE DU MOOC :

MODULE :   SEQUENCE :

TITRE DE LA SEQUENCE :
DUREE :

TYPE DE PRODUCTION MULTIMEDIA CHOISI :
Consultez la ressource ici

MOOC LIÈGE université

FICHE DE PLANIFICATION MOOC-SPOC - 2017

| N° du Module	TITRE :					
	Objectif(s)	*Contenu(s) audio-visuel*	*Autres contenus*	*Activités*	*Niveau d'hybridation*	*Outil(s) envisagé(s)*
	Il s'agit ici de ce que l'on veut que les étudiants maîtrisent principalement à l'issue de ce module)	*Lister les thèmes abordés par les contenus audiovisuels que l'on va produire ou que l'on va reprendre de vidéos existantes)*	*On parler ici de liens, d'articles, de dossiers pdf mis à disposition ou tout autre contenu).*	*Quelles activités seront proposées aux étudiants ? Débats, qcm ou autre exercices autocorrigés, dissertation, etc.)*	*Quelle est l'articulation présentiel en ligne ? Le degré d'hybridation ?*	*En fonction de la plateforme (Editeur de quiz, forum, outil de dépôt de devoir, peer-review)*
Séquence 1 : *(Titre)*						
Séquence 2 : *(Titre)*						
Séquence 3 : *(Titre)*						

AND STRUCTURED SYSTEM HELPS TEACHERS

Working in community is still the best way to keep teachers motivated
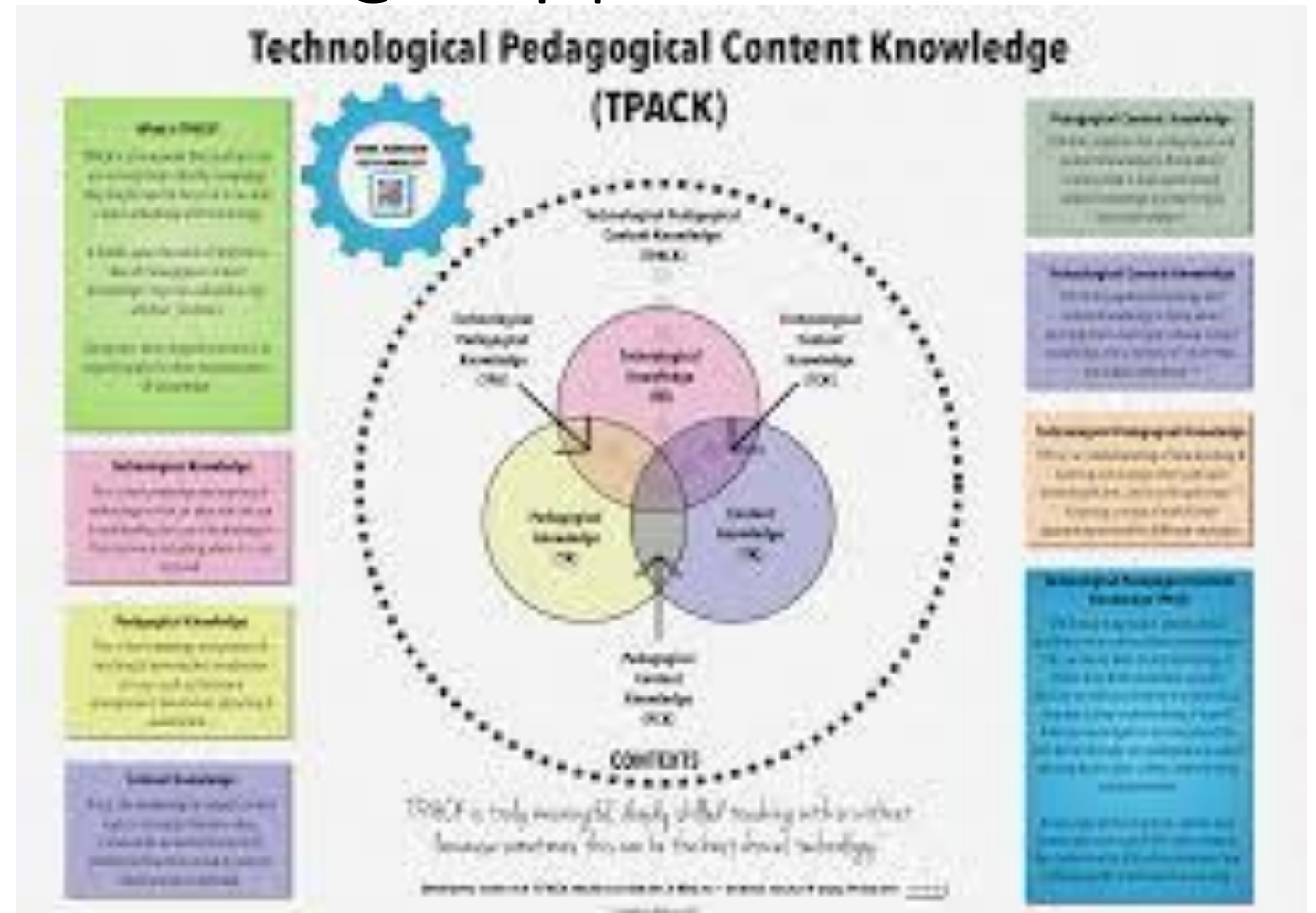
6
MOOC-LABS

Quality process helps completion rate
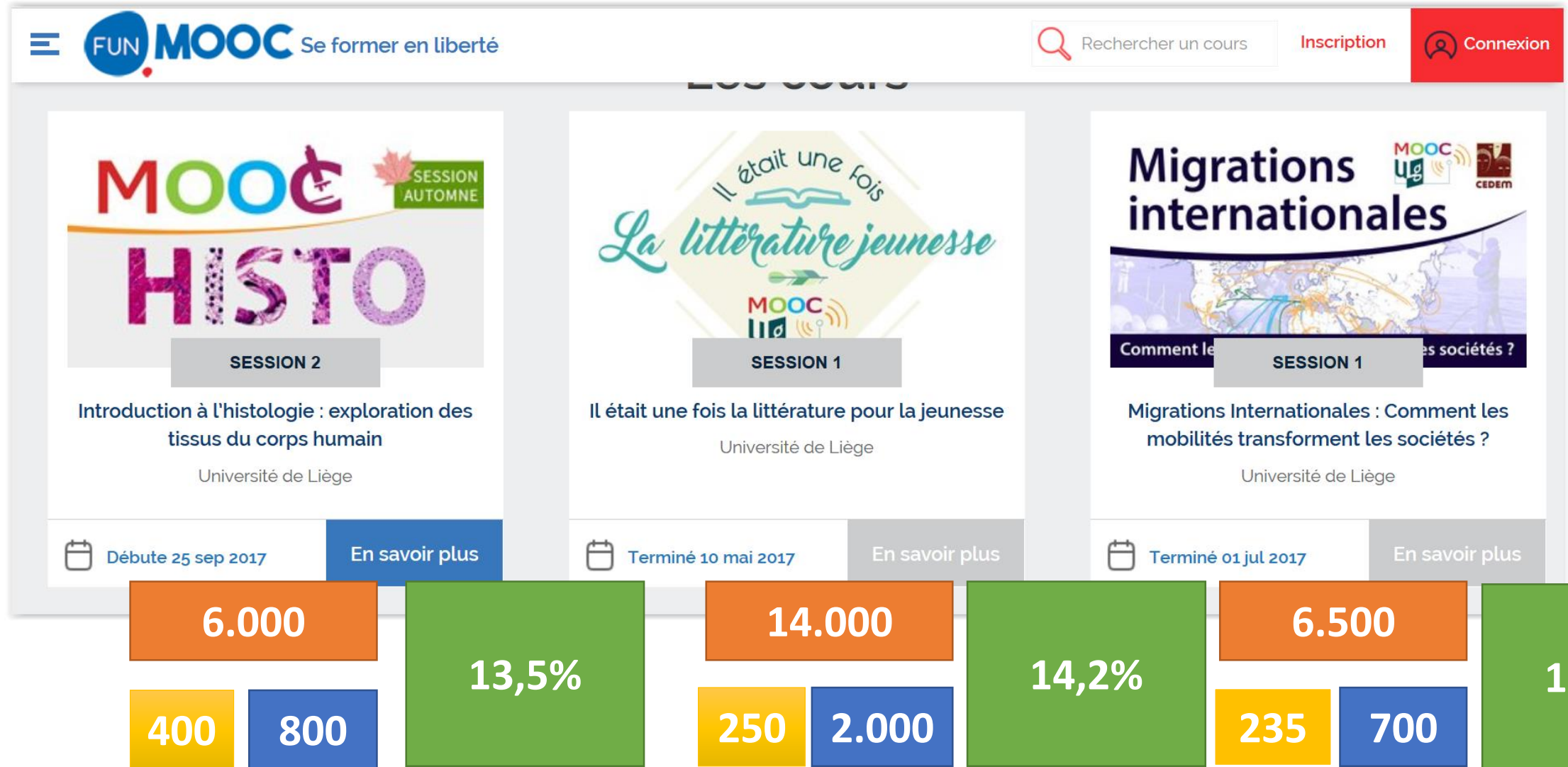
When your teaching mostly happens outside the classroom – something happens

- They perspective on teaching changes
- They perception on digital technologies changes
- They perception on the own specialisation changes

Technological Pedagogical Content Knowledge (TPACK)

Our next MOOCS

- VIDEO GAMES
- CHEMISTRY 101
- HEALTH PSYCHOLOGY
- KYOCERA MANAGEMENT PRACTICES
- WORLD CITIZENSHIP EDUCATION
- IRRIGATION
- BIOMASS
- CROP PROTECTION
- ZITOLOGY
- RECYCLED MATERIALS FOR CONSTRUCTION
- MY FSL CLASSROOM

Next step for us

- Interview of 20 teacher planned in october and november 2017
- Use of the TPACK Framework to measure the professional development
- Use the data to increase the quality of our process

Our next challenge

Increasing the link between video and interactive textbooks

A Team

Dominique Verpoorten

Thibault Crépin
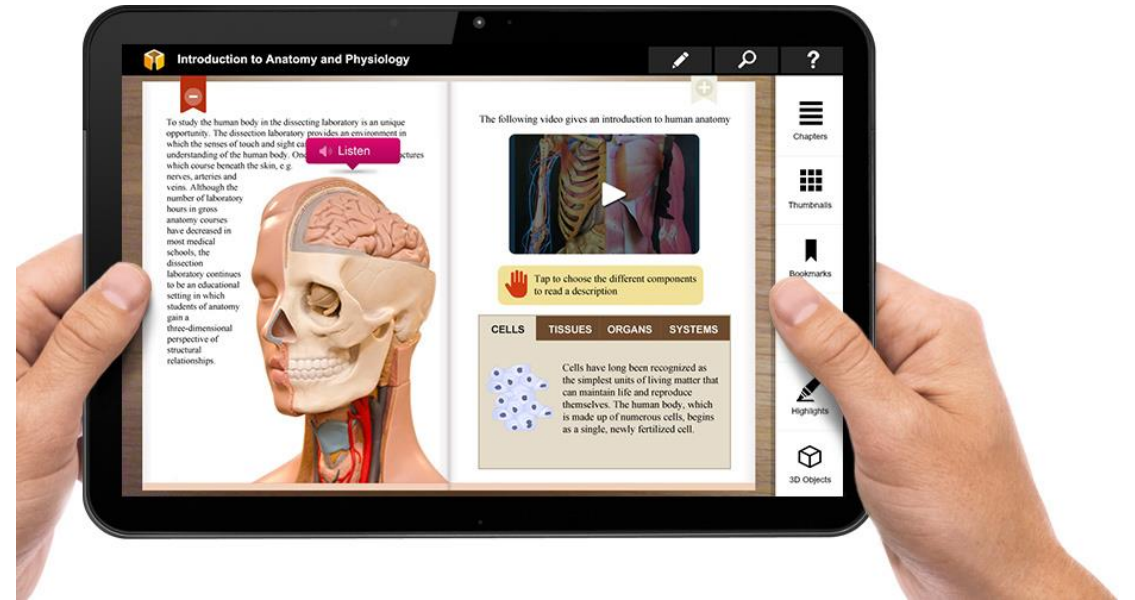
Jeff Van de Poël

Éric Haubruge

Olivier Borsu

Sam Harcq

Pierre Martin