Open Education Practices as answer to new demands of training in entrepreneurship competences

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Agenda

- The Entrepreneurship Education (EE)
- Success factors in Open Education
- A study case in Open EE: The OER Gateway
- Study case Learning Analytics in EE
Entrepreneurship Education

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Aspects in Entrepreneurship Education

• EE refers to the development of a wide range of different abilities.
• Increasing importance in the European panorama: alternative for young people
• EE as a lifelong learning process:
  ▫ Primary
  ▫ Secondary
  ▫ Higher education
  ▫ Personal career
The demand for entrepreneurship learning has been and is still steadily increasing.

There are obstacles hindering the uptake of entrepreneurship education, such as:

- A shortage of human resources and funding for this type of education
- There has been a tendency in academic/teaching communities to perceive it with learning how to start and run a business
Initiative, resilience
Responsibility
Risk-taking, creativity
Team-, networking
Empathy, compassion
Co-constructing
Managing, organising
Meta-cognitive skills
Failing forward

New skills

Personal skills

Social skills

Learning skills

Personalisation

Collaboration

Informalisation

Learner-centred

Social learning

Life-wide learning

New ways of learning

Tailormade & targeted
Active & constructive
Motivating & engaging

Peer-learning
Sharing & collaborating
In communities

Anywhere, anytime
Blending virtual & real
Combining sources/providers

Augmented Reality
3D virtual worlds
Data mining
Social networks
Learning analytics
Games
Mobiles
e-books
OER
ePortfolios
LMS

Success factors in Open Education

- The Entrepreneurship Education (EE)
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Open Education starts with ideas as:

• Education is sharing

• Open allows more rapid building and sharing at a larger scale

CC BY-NC “sharing” by ryanr – http://www.flickr.com/photos/ryanr/142455033/
OER are building blocks for innovation
What does EC mean with *Opening up education*?

Opening up education means bringing the digital revolution into education. Digital technologies allow all individuals to learn, anywhere, anytime, through any device, with the support of anyone.
review their organisational strategies
explore the potential of Massive Open Online Courses (MOOCs)
stimulate innovative learning practices such as blended learning
equip teachers with high digital competences
equip learners with digital skills
think about how to validate and recognise learner’s achievements in online education
make high quality Open Education Resources (OER) visible and accessible
Success factors

- Personal Learning Environment
- Usage scenario
- Diffusion & Adoption
- Communities
- Quality
Diffusion and adoption of OER

The road to OER success through collective ambition and competence
Three aspects of Communities of Practice may hinder or enhance learning

<table>
<thead>
<tr>
<th>Aspects</th>
<th>What does it mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual engagement</td>
<td>Members come together because they are engaged in actions whose meaning they negotiate with one another. They develop shared practices and are linked through their mutual engagement in such activities.</td>
</tr>
<tr>
<td>Joint enterprise</td>
<td>Members work together, explicitly or implicitly, to achieve a negotiated common goal, which may or may not be officially defined.</td>
</tr>
<tr>
<td>Shared repertoire</td>
<td>A common history and culture is generated over time by shared practices, stories, tools, concepts and repeated interactions. Writing, routines, rituals, ways of doing things and so on, become a common repository.</td>
</tr>
</tbody>
</table>

Quality Assurance for OER: The four layers of the TIPS Framework

- T: teaching and learning processes
- I: information and material content
- P: presentation product and format
- S: system technical and technology

http://www.open-ed.net/oer-quality/tips.pdf
Dimensions of Quality

<table>
<thead>
<tr>
<th>Box 1: Dimensions of Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Achieving Exceptional Excellence: surpassing some pre-set criterion-referenced standard</td>
</tr>
<tr>
<td>(ii) Achieving Perfection: focusing on first making a machine that is successful 100% of the time, rather than trial-and-error or envisaging improving it later on</td>
</tr>
<tr>
<td>(iii) Achieving Fitness for Purpose: satisfying the aims or reasons for producing the item, according to the judgements of the various stakeholders - particularly the consumers</td>
</tr>
<tr>
<td>(iv) Achieving Value for Money: focusing on relative efficiency, and the (immediate output, mid-term outcome, and long-term impact) effectiveness</td>
</tr>
<tr>
<td>(v) Achieving Transformation: enhancing and empowering the consumer, eg equipping the student with the 21st-century knowledge-creative skills</td>
</tr>
</tbody>
</table>

The OER localisation processes

1. Upper-level overarching repositories
   - Reusable

2. Intermediate-level teachers and translators
   - Adaptable
   - Adaptable

3. Local-level student end-users
   - Customised
   - Customised
   - Customised

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By Pail Kawachi in eLearning Papers 40
A typical usage scenario for Open Educational Resources

- **Initiate**
- **Author**
- **Describe**
- **Integrate**
- **Edit**
- **Check**
- **Approve**
- **Release**
- **Publish**
- **Discover**
- **Repurpose**
- **Use**
Initiate

By Hartwig HKD https://www.flickr.com/photos/h-k-d/3316550063
Authoring
Describing
Release

By Alaska Region U.S. Fish & Wildlife Service https://www.flickr.com/photos/usfws_alaska/6479112403
Check/edit /approve
Publish

By Sean MacEntee
https://www.flickr.com/photos/smemon/4420336383/
Discovering
Use, integrate, repurpose

By GotCredit
https://www.flickr.com/photos/jakerust/16205025164/

By Pockafwye
https://www.flickr.com/photos/pockafwye/3492897684/
Evaluation and rating

4
LOVE
LOVE
LOVE
3
meh.
2
HATE
HATE
1
Ø
PLE

- Designing and organising their own learning
- Autonomous learning
- PLE approach implies that learning is not located in a specific time and place, but is an ongoing, ubiquitous and multi-episodic process
A study case in Open Entrepreneurship Education

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- Success factors in Open Education
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StartUP
intelligent training needs assessment and open educational resources to foster entrepreneurship

531206-LLP-2012-IT-KA3-KA3MP
StartUP Projects aims to.....

“to develop an entrepreneurial mind-set that enables learners to start a new business or increase their employability”.
StartUp objectives

• Set up an innovative method for evaluating individual users' learning needs in the entrepreneurial sector

• Provide effective OER corresponding to the actual individual learning needs

• Set up a peer-review and sharing community to ensure the quality of the individual learning path
LEARNING ENTREPRENEURIAL SKILLS USING OERS SELECTED FOR YOUR PERSONALIZED TRAINING

OER GATEWAY
Cluster and Competences

- Competence area
- Competence
- Learning outcomes
Entrepreneurial Competences Catalogue
StartUP: Why based on OER?

- COMMUNITY SOCIAL Learning: Widening participation
- Different stakeholders
  - School and University Teachers and students
  - Trainers
  - Trainees
  - Non-formal learners
- International
- Life Long Learning
  - Specially appropriated
Training Paths with OERs

Entrepreneur Context - Training based on OER
Interaction between User Profile, Learning Paths and OER

User Profile ↔ Learning Paths ↔ Open Educational Resources Metadata
Feeding the community in a personal learning environment

OER provided by Serendipity Web Services

Semantic resources from LOD-Cloud (Dbpedia.org)

OER/Users/Hashtags provided by Social Network Analysis - Web Services

Query concepts extracted from Dbpedia.org

Management

Management in all business and organizational activities is the act of getting people together to accomplish desired goals and objectives using available resources efficiently and effectively. Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal.

Concepts (extracted from LOD-CLOUD)

- Leadership and initiative
- Project management
- Action planning and goal setting
- Time management
- Risk management
- Outcome orientation
- Cooperation and teamwork
- Technology

Nro.skills: 8
# OERs from Collective Intelligence

## Results to Management -> Project management

<table>
<thead>
<tr>
<th>Resources</th>
<th>Users</th>
<th>Hashtags</th>
</tr>
</thead>
</table>

This resources were published by the most influential Twitter users that publish about this thematic. And ordered through an algorithm that uses criteria of collective intelligence.

"Mom, What is Project Management?" | Edutopia

**Episode 267: Integration of Project Management and Ongoing Business (Premium)**

#PMOT

Guest blogger Chris Hare, project manager and parent, uses a book report assignment to demonstrate how project management is already in place in the classroom, and how easy it would be to fine-tune this practice.

Project Management Keeps Learning on Track | Edutopia

Turn pandemonium into productivity by harnessing tech tools and cultivating self-directed students.

Online Project Management Certification Exam Training 2013 | Project Management and Templates

Are you looking for project management certification exam study material? Which door is the suitable for online PMP training 2013?

Merlin for Mac – ProjectWizards presents Merlin – Project Management for OS X

ProjectWizards presents Merlin, the leading Project Management software for Mac OS X. Plan and manage your projects. Work on a Mac with a feature set similar to Microsoft Project on Windows and stay compatible to other project management applications on Mac or Windows.

5 tips on how online project management tools can help your business
Relevant users mined from twitter

Click on user account to access twitter profile

Results to Management → Project management

Resources Users Hashtags

Betweenness is a centrality measure of a vertex within a graph (there is also edge betweenness, which is not discussed here). Betweenness centrality quantifies the number of times a node acts as a bridge along the shortest path between two other nodes. It was introduced as a measure for quantifying the control of a human on the communication between other humans in a social network.

- **jobz4pm**
  - #ProjectManagement #jobs

- **CheriEssner**
  - Cheri Essner, PMP & founder of http://KoreBuilders.com Team building is my passion & I share my experiences of renewing empowerment to take U from Me to We!

- **Go_Freelancer**
  - #Employers are you spending a fortune on #employees? Stop now! Find quality professional #freelance #workers. Get job done hassle-free for less. Visit us now!

- **PRINCE2PROJECT**
  - Project Management Community for Project Managers | #ProjectManagement Guidelines for #ProjectManagers | Please ReTweet this!!
A study case in Open Entrepreneurship Education. The OER Gateway

- The Entrepreneurship Education (EE)
- Experiences in EE
- Success factors in Open Education
- A study case in Open EE: The OER Gateway
- Study case Learning Analytics in EE
StartUP Website

www.startupproject.eu
StartUp Platform

http://www.startupproject.eu/?q=oer-academy
Log in

Username: tester
Password: ********
Log in

Remember username
Forgotten your username or password?

Cookies must be enabled in your browser 🌐

Some courses may allow guest access
Log in as a guest!

Is this your first time here?

Hi! For full access to courses you'll need to take a minute to create a new account for yourself on this website. Each of the individual courses may also have a one-time "enrolment key", which you won't need until later. Here are the steps:

Fill out the New Account form with your details.
An email will be immediately sent to your email address.
Read your email, and click on the web link it contains.
Your account will be confirmed and you will be logged in.
Now, select the course you want to participate in.
If you are prompted for an "enrolment key" - use the one that your teacher has given you. This will "enrol" you in the course.
You can now access the full course. From now on you will only need to enter your personal username and password (in the form on this page) to log in and access any course you have enrolled in.

Create new account

You are not logged in.

Home

Lifelong Learning Programme

531206-LLP-2012-IT-KA3-KA3MP

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
Welcome to the StartUP Platform!

Create your Training Set today and start your journey to become an entrepreneur!

1. Self-evaluate your current entrepreneurial skills running the Virtual Expert! You can access it in English, Spanish, German or Italian. The Virtual Expert will find which relevant OERs (Open Educational Resources) will help you improve your communication, management, self development and business skills.

Go to Virtual Expert!

2. Have you already taken the Virtual Expert? Here you can access your sets of OERs in different languages!

Go to My Training Set!

3. Share your OERs!

Share your OERs!

Your first step will be to self-evaluate your current entrepreneurial skills running the Virtual Expert! You can access it in English, Spanish, German or Italian. The Virtual Expert will find which relevant OERs (Open Educational Resources) will help you improve your communication, management, self development and business skills.

What are you waiting for? If this is your first time the StartUP Virtual Expert is ready to guide you to your next success!

Go to Virtual Expert

Have you already taken the Virtual Expert? Here you can access your sets of OERs in different languages!

Go to my Training Set
Virtual Expert: Communication skills

Please fill in the following form to let the virtual expert to provide your customized training path. All the fields are mandatory. Levels range from 1 (strongly disagree) to 5 (strongly agree).

I give my full attention to the person who is talking to me.  \(2\)

I can block out background noise when I am in a conversation or listen to somebody.  \(3\)

I take the time to listen and understand my clients' needs.  \(1\)

I am aware of the impact of non-verbal communication e.g. eye contact, gestures, body position.  \(3\)

I am good at reading others' body language and adjust mine accordingly.  \(5\)

I am aware that the cultural background strongly influences communication habits.  \(2\)

I am at ease in written and oral communication.  \(1\)

I am often taking every opportunity to improve my public speaking skills.  \(2\)

I feel confident when speaking in public.  \(0\)

I aim to establish a good communication atmosphere ("rapport") when talking to somebody.  \(2\)

In a negotiation I can deliver my point of view to the other.  \(3\)

I take the time to investigate the needs and wishes of my clients to address those in my market communication.  \(3\)

Using modern communication technology and strategic planning of professional communication is part of entrepreneurship e.g. marketing, online-conferencing etc.  \(3\)

I rely on the communication technology I use and am good at using the tools at use.  \(1\)

I use modern communication tools to reach my clients (when appropriate).  \(4\)

Save changes  Cancel
OERs in English

Based on the answers you have given, we recommend that you work on the following areas.

**Listening**

Competence: Listening, Level: Basic, Target Group: Professionals

- Communication Skills: Speaking and Listening
  - tips on empathy, how to ask questions or give feedback
- Assessment of your communication skills
  - Test to analyse your communication skills and to advice you how to improve them
- Effective Communication
  - Website with tips to improve your communication skills

**Suggested topics:** Psychotherapy, Counseling, Behavioural sciences, Workplace, Relationship counseling

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**Non-verbal communication**

Competence: Non-verbal communication, Level: Intermediate, Target Group: Professionals

- Communication Types
  - Explanation of the three communication types: passive, aggressive and assertive

**Hashtags:** #Nonverbal #autism #Communication #Language #Body

**Twitter Users:** @mediatrainer_75 @Com_non_verbal @Psych2morrowmag @Comm_Matters @VenusCaelestis

**Suggested topics:** Communication, Human communication, Semiotics, Gestures, Nonverbal communication

---

**Public Speaking and Presentation Skills**
Based on the answers you have given, the Virtual Expert has selected these Open Educational Resources for your Training Set. Each OER will help you develop a competence on a certain level. You can access your Training Set several times and complete your learning at your own pace. You can also access the Virtual Expert again and access a different cluster of knowledge. Use this powerful tool!

Cluster: Communication Skills

<table>
<thead>
<tr>
<th>Cluster: Communication Skills, Competence: Listening, Level: Basic, Target Group: Adult Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence: Listening, Level: Basic, Target Group: Adult Learners</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Communication Skills: Speaking and Listening" /></td>
</tr>
<tr>
<td><strong>Voters:</strong> 1, <strong>Average Score:</strong> 5</td>
</tr>
<tr>
<td><strong>Assess the Quality</strong> <strong>Assess the Relevance</strong></td>
</tr>
<tr>
<td><strong>tips on empathy, how to ask questions or give feedback</strong></td>
</tr>
<tr>
<td><img src="image" alt="Assessment of your communication skills" /></td>
</tr>
<tr>
<td><strong>Voters:</strong> 0, <strong>Average Score:</strong> 0</td>
</tr>
<tr>
<td><strong>Assess the Quality</strong> <strong>Assess the Relevance</strong></td>
</tr>
<tr>
<td><img src="image" alt="Test to analyse your communication skills and to advice you how to improve them" /></td>
</tr>
<tr>
<td><strong>Voters:</strong> 1, <strong>Average Score:</strong> 2</td>
</tr>
<tr>
<td><strong>Assess the Quality</strong> <strong>Assess the Relevance</strong></td>
</tr>
<tr>
<td>Website with tips to improve your communication skills</td>
</tr>
<tr>
<td><img src="image" alt="Effective Communication" /></td>
</tr>
<tr>
<td><img src="image" alt="Follow experts and discussions on this topic on Twitter to further develop your skills and network" /></td>
</tr>
<tr>
<td><strong>Suggested topics:</strong> Psychotherapy, Counseling, Behavioural sciences, Workplace, Relationship counseling</td>
</tr>
</tbody>
</table>
OER URL
Title* My first OER
Alternative Title
Abstract* Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Tags
Author First Name John
Author Last Name Doe
Author Organisation ACME Ltd
Date 24 June 2014
Provider
License* Public Domain
Encoding Format* Text
Duration: 0 minutes

Choose at least one Target Group:
- School Students (aged 14+)
- University Students
- VET trainees
- Adult Learners
- Please select
- Please select

Competence Area: Communication Skills

**Communication Skills**

Select the competences covered by the OER (at least one), and the associated level of explanation:
- [ ] Listening  Please select
- [x] Non-verbal communication  intermediate
- [ ] Public Speaking and Presentation Skills  Please select
- [ ] Interpersonal skills  Please select
- [ ] Technology  Please select

**OER Removal**

Delete this OER

Save changes  Cancel

There are required fields in this form marked *.
Click one of the next links to validate an OER:

1. Business Planning
2. Financing and financial planning
3. Legal aspects
4. Sales and Marketing
5. Technology
6. Networking skills
7. Emotional Intelligence (including empathy)
8. Motivation (including Recognizing)
9. Assertiveness
10. Conviction/self-belief
11. Creativity skills
12. Leadership and initiative
13. Project management
14. Action planning and goal setting
15. Time management
16. Risk Management
17. Conflict Management
18. Listening
19. Non-verbal
Main Components

- **VIRTUAL EXPERT**
  - USER PROFILING
  - SELF-ASSESSMENT
  - TAILORED TRAINING PATH BASED ON OERs

- **AUTHORING SYSTEM**
  - REVISE
    - REUSE
    - REMIX
    - REDISTRIBUTE

- **RATING SYSTEM**
  - COMMUNITY OF USERS
    - QUALITY and RELEVANCE CONTROL

- **RECOMMENDER SYSTEM**
  - More resources for training paths
  - Helps networking with Twitter
https://www.youtube.com/watch?v=uxcxztxwCxQ
Get Involved!

- **Mini Course for authors**
  - Oct 2014

- **Restricted Community Test**
  - Nov-Dec 2014 (we aim for 140 users)

- **Open Community Test**
  - Jan 2015 (we aim for +500 users)

- **Learning path integration**
  - ongoing
Contacts

www.StartUPproject.eu

info@StartUPproject.eu

StartUP
intelligent training needs assessment and open educational resources to foster entrepreneurship

531206-LLP-2012-IT-KA3-KA3MP

- Short-questionnaire (open test):
- http://goo.gl/forms/ZWtvD6drfm
  edmundo.tovar@upm.es

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
Success factors A review for StartUp project

- Personal Learning Environment
- Usage scenario
- Diffusion & Adoption
- Communities
- Quality
A study case in Open Entrepreneurship Education

- The Entrepreneurship Education (EE)
- Sucess factors in Open Education
- A study case in Open EE: The OER Gateway
- Study case Learning Analytics in EE
Building a knowledge base on MOOC learners. IPTS Goals

- To assess the current perspective of learners as participants of European MOOCs.

- To collect a large-scale data basis about participants of (European) MOOCs Longitudinal and systematic data collection (2014-2016)

- Addressing intention vs behavior gaps

- IMPACT of Open Education on labor market conditions and formal education outcomes

- Standardized & multilingual questionnaires

- Audiences:

  - policy-making by the European Commission
  - MOOC providers to build open online education
Building a knowledge base on European MOOC learners

✓ The project aims to establish large-scale cross-provider data collection on European MOOCs

✓ The project aims to deliver insights about the following variables collected from participants of European Massive Open Online Courses (MOOCs):
  
  • socio-economic profile,
  • lifelong-learning profile,
  • ICT-profile,
  • MOOC profile,
  • Motivation
  Impact on study success / job success
Research model

**Distal variables**
- Individual level
  - demographics
  - socioeconomic status
  - previous experiences with MOOCs
  - professional development
  - information literacy
  - online-communication skills
- Environmental level
  - social influence
  - descriptive norm
  - social support
  - household composition
- Task level
  - challenges

**Proximal variables**
- outcome beliefs & their evaluation
- normative beliefs & motivation to comply
- control beliefs
- attitude
- perceived norm
- perceived behaviour control
- behavioural intention
- actual behaviour
- actual behaviour control

**Implementation intentions**
- impact on career development or study success

The behaviour under study is defined as:
First data collection

<table>
<thead>
<tr>
<th>Topic</th>
<th>Language</th>
<th>Number of enrolled students</th>
<th>Number of fully filled in pre-questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOOC A Teacher ed</td>
<td>English</td>
<td>1672</td>
<td>173</td>
</tr>
<tr>
<td>MOOC B Entrepreneur</td>
<td>Spanish</td>
<td>11000</td>
<td>316</td>
</tr>
<tr>
<td>MOOC C Anxiety</td>
<td>Spanish</td>
<td>10000</td>
<td>715</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>22672</td>
<td>1204</td>
</tr>
</tbody>
</table>

1,204 fully filled in questionnaires from the pre-survey and 172 questionnaires from the post-survey.
Results. Demographic details
Results. Economic profile and employer appreciation

Nearly 45% of the sample is currently employed for wages, while 18.5% is currently unemployed. 15.8% of the sample are students and 12.7% are self-employed.
Results. Economic profile and employer appreciation
Results. Economic profile and employer appreciation

Influence of certification in appreciation (N=218)

- Has much influence: 15.1%
- Has influence: 18.3%
- Has fair influence: 10.1%
- Has some influence: 12.8%
- Has a little influence: 9.2%
- Has hardly any influence: 12.4%
- Has no influence at all: 22%
Results. Economic profile and employer appreciation

Around 30% of the employed participants in MOOCs report that there is some form of support by their employer to professional development in general.

Only the 21% of fresh entry-level position are supported by employers, while approximately 47% of the managers are supported.
Results. Economic profile and employer appreciation

Type of support (N=264)

- Cost: 8.3%
- Time: 20.1%
- Encouragement: 79.9%
Most participants have enrolled in the past in 3 – 5 open online courses.
Approximately 50% of the participants have completed between 1 – 3 open online courses before.
Discussion

<table>
<thead>
<tr>
<th>MOOC A</th>
<th>MOOC B</th>
<th>MOOC C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>44 years</td>
<td>40 years</td>
<td>39 years</td>
</tr>
<tr>
<td>High presence of employed for</td>
<td>High presence of self-employed</td>
<td>High variety (but still</td>
</tr>
<tr>
<td>wages</td>
<td>(but still predominance of employed for</td>
<td>predominance of employed for</td>
</tr>
<tr>
<td></td>
<td>wages)</td>
<td>wages)</td>
</tr>
<tr>
<td>High employer support</td>
<td>Medium employer support</td>
<td>Lower employer support</td>
</tr>
</tbody>
</table>
Thank you for your attention!

Edmundo Tovar
(edmundo.tovar@upm.es)

- Contact the consortium via moocknowledge@ou.nl