

Open Educational Resources for e-leadership skills

Research findings & Needs Analysis

Synthesis report



May, 2016





Le@d3.0 Academy is a project that intends to create a long lasting Knowledge Alliance between Academy and Industry. The challenge is to widespread the use of social learning and Open Educational Resources (OER) by teachers and trainers, so they can develop Strategic e-Leadership Skills in their students and trainees. Such skills as decision making, people management, strategic vision, design, creativity, etc. are required by the labour market in the Digital Age.

Le@d3.0 Academy intends to become the EU reference in defining Strategic e-Leadership Skills and providing training programmes for teachers and trainers from universities, business schools and corporate academies, as well as for managers from companies, including SMEs.

Training will be delivered through a learning virtual platform using Open Educational Resources and involving different communities of teachers, trainers and managers.

The project is based on an open approach to learning processes in terms of producing and sharing knowledge, as well as in terms of acquisition and transfer of methodologies.

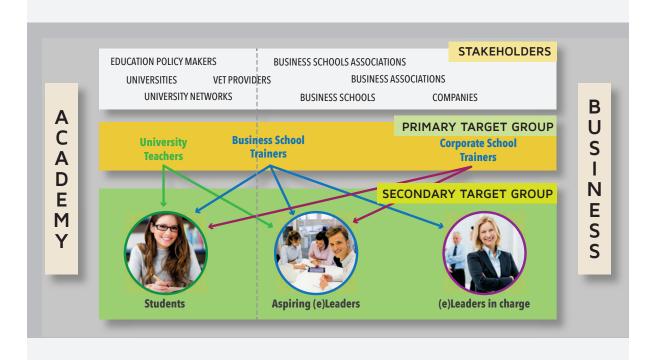
The project workplan stretches over 3 years, beginning in January 2015.

The project reports this document is based upon are:

- 1. D3.2 Literature review report
- 2. D3.2 Annex 1 Interviews to managers and trainers Main findings
- 3. D3.3 Case Studies
- 4. D3.4 Preliminary selection of Open source technologies and Open Access Resources for Web enhanced learning
- 5. D3.5 Need Analysis Report

All the deliverables can be downloaded here:www.eleaderacademy.eu/deliverable/

For contact – Project Manager Maria Laura Fornaci, MFornaci@istud.it



CONTENTS

Executive Summary	2
Introduction to the Project	3
e-Leadership Skills	
What is e-leadership and who is concerned?	5
Is leadership in the digital economy different from the traditional economy?	6
Who do we consider an e-leader?	6
What specific competences and skills do managers need to be successful in e-leadership?	7
Gap Analysis of e-Leadership Skills	9
Content and Format of an e-Leadership Programme	12
Conclusions and Recommendations	15
Footnotes & List of complete reports	16

EXECUTIVE SUMMARY

In many ways this project is breaking new ground. The field research particularly brought home that the concept of e-skills is somewhat new to many in the target audiences however both the concept and the skills themselves are valued across both languages and national borders.

Furthermore, for each group, distinct e-skills' priorities emerged, meaning that these priorities will need to be more closely examined during the next step when the final content is developed based on a combination of desk and field research.

Looking at best practices in terms of both content and delivery for e-skills, specifically e-leadership skills, the general nature of the majority of online courses on leadership means that there is no clear one example to follow. The contribution here of the Le@d3.0 Academy will be significant.

Further to the analysis of both the desk and field research results carried out over six months and by partners in six countries, the project team recommends a blended approach to learning e-leadership skills within the scope of the Le@d3.0 Academy where in-class instruction will be supplemented with online resources. While using a blended approach is not novel, the recommendation here is based on observations of current training practices (largely classroom based) coupled with the desire to develop an economically viable and sustainable content using Open Educational Resources (OER). Le@d3.0 will then make a clear contribution since trainers are already convinced of the relevancy (91% for OER and 85% for MOOCs) of using digital tools.

Project next steps include: to shape, deploy and test an open virtual environment; to formulate an educational toolkit for trainers enabling learning processes aimed at e-skills, primarily strategic e-leadership skills; and finally to set up a Community of Practice of trainers to use Web3.0/OER in soft e-skills education.

Introduction to the Project

The project aims at creating a Knowledge Alliance between Academy and Industry to extensively spread the use of Web3.0/OER by trainers thus developing the e-skills, specifically the strategic e-leadership skills, required by the labour market in the Digital Age.

In this document, the term "e-skills" is based on the understanding proposed by Gareis, K. et al (2014) in the report: "e-Skills for jobs in Europe: measuring progress and moving ahead". The term, which in the above report is given as "e-skills for competitiveness and innovation", covers ICT practitioner skills, ICT user skills and e-leadership skills.

In this project however, following an assessment of the current situation, three target groups are identified: teachers and trainers as a primary target and students and managers as a secondary target.

Expressed more concretely, the project's operational objectives are:

- To identify new leaders' soft skills needs within the digital business environment, both at personal level and at a strategic or organisational level;
- To identify trainers' readiness and willingness to make use of learning programmes and approaches based on Web3.0 and OER for improving soft skills;
- To shape, deploy and test an open virtual environment as well as an educational toolkit for trainers enabling web-based learning processes aimed at strategic e-leadership skills;
- To set up a community of practice of trainers to use Web3.0 and to co-develop OERs for developing e-leadership skills.



This synthesis report is based on literature review, best practice analysis and field research carried out by the project partnership on e-skills (with a particular focus on strategic e-leadership skills), combined with a review of Open Educational Resources (OER). The aim is to develop a solid scientific and operational foundation for future project operations.

The desk and field research coupled with the needs analysis were done in order to answer some fundamental questions addressed by the project:

- Within the new or digital economy, do leaders require new (e-)skills? And who is concerned by these requirements?
- Which are the main e-skills that a leader must have in order to effectively drive change, innovate societal practices, establish new business models, attract, develop and manage talents (i.e. being an e-Leader)?
- Which are the main e-skill gaps for managers, now and in the future (students), that trainers need to address?
- Can the soft e-skills be acquired through learning processes supported by web-based tools and technologies? Which are the most effective technology based solutions for training e-leadership skills? And which are the main issues underpinning the design of effective teaching strategies and processes?
- Are trainers/teachers prepared to run this training?
 Have they already embedded these e-skills in their training programmes?

This report distils the main insights coming from the desk research and need analyses results. It first explores the theoretical side, namely the new e-leadership paradigm and related soft skill set according to labour market needs. Secondly, there is a section devoted to the main findings from the field research, in order to highlight the main detected skill gaps, related needs and training priorities for different sub-groups (students, managers, and trainers).

Thirdly, there is a section devoted to the main findings from the analysis of different programmes currently available, confronting this with the literature to establish the required programme content. This transitions into a review of the available online teaching resources and learning management systems in order to identify the most effective for soft e-skills development. Finally, there is a discussion of the best way to online teaching approaches.

All these elements prepare the project partners for the next steps in the project. Le@d3.0 Academy aims to become the EU reference in defining e-leadership skills and providing training programmes for teachers and trainers from universities, business schools and corporate academies, and for managers from enterprises, including SMEs.



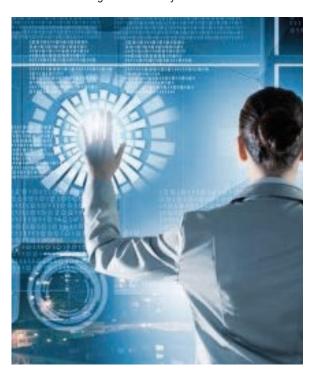
E-LEADERSHIP SKILLS

WHAT IS E-LEADERSHIP AND WHO IS CONCERNED?

Before the issue of e-leadership is addressed, it is important to understand the context in which this leadership will be required, namely that of the new or digital economy.

The term digital economy was coined by Don Tapscott in 1994² but, with the evolution of the reality of this economy and its increasing overlap with the regular economy, what is and what is not included within digital economy is subject to debate.

A useful definition is offered in technological terms by a working group of the Directorate Taxation and Customs Union: "The digital economy is the result of the



transformational effects of new General-Purpose Technologies (GPT) in the fields of information and communication. It has impacted all the sectors of the economy and social activities, for instance: retail, transports, financial services, manufacturing, education, healthcare, media and so on. It has implications much beyond the Information and Communication Technology (ICT) sector. In addition, the internet is empowering people in a new and different way to create and share their ideas, giving rise to new content, entrepreneurs and markets."

But why is this important? In its description of the digital economy, the European Union glossary puts emphasis on its size and growth rate: "[t]he digital economy currently represents 7% of EU GDP and is a major source of yearly employment growth (4.1 %). ICT contributed to 1/3 of EU GDP growth between 1995 and 2007. There are more than 4 million ICT workers across many sectors in Europe, but the potential is much greater."⁴

Furthermore, the European Commission states that: "It is the single most important driver of innovation, competitiveness and growth, and it holds huge potential for European entrepreneurs and small and medium-sized enterprises (SMEs). Unfortunately, only two per cent of European enterprises are currently taking full advantage of new digital opportunities. How European businesses adopt digital technologies will be a key determinant of their future growth."⁵

Successful exploitation of opportunities in this new economic environment is clearly of vital importance to business leaders and managers.

Is LEADERSHIP IN THE DIGITAL ECONOMY DIFFERENT FROM THE TRADITIONAL ECONOMY?

Now that we better understand the context, we need to consider what new challenges there are for these business leaders and managers. Do they need different skills to lead in this environment?

The answer is yes. The current form of the digital space is Web 2.0, where the producer of content already overlaps with the consumer in the creation of content. In the forthcoming Web 3.0 or semantic web, content will be co-produced and mediated by technology through Advanced Information Systems (AIS). To set up or manage a business, technical (technological and business) skills should therefore be complemented by skills that enable change, innovation of societal practices, attract, develop and manage talents.

Furthermore, Internet Communication Technologies have flattened hierarchies, making organisations more horizontal and leading to different working patterns in which leaders must treat their employees as collaborators. In virtual teams there is a greater requirement for autonomy and thus a greater need for communication, trust and cooperation between the team leader and its members. And, since the advantages of the digital economy lie in the opportunities it provides for entrepreneurship and innovation to create growth, the ability to foster co-innovation therefore becomes a key skill.

Referring to the work of Barton, Grant and Horn (2012)⁶, the literature review carried out by our project team, highlights four additional elements that are key and different in the digital economy.

Globalisation

Leaders are required to present strategies that are designed to not only be competitive in the local environment, but also to take on emerging economies.

24/7 nature of business

Technology advances have overcome barriers to communication and it has become common place for business leaders to work flexibly across time zones to ensure the most effective maintaining of business operations.

On-going personal development

The rapid progress of business forces leaders to not only continually develop their organisations but themselves too.

Uncertain decision making

Global networked business models mean that managers need to react to changes around the world and with the breadth of the scope they need to cover, uncertainty plays a much larger role in decision-making.

The elements create a new reality that managers and business leaders need to navigate e-leadership skills. In the eLab project, empirica and INSEAD offered the following definition: "e-Leadership skills enable people with strong ICT skills to lead qualified staff from different disciplines towards identifying and designing business models and exploiting key innovation opportunities, making best use of developments in ICT and delivering value to their organisations".⁷



WHO DO WE CONSIDER AN E-LEADER?

The most obvious answer is the manager within the IT function. However, with the growing overlap of the digital economy and the traditional economy, the scope needs to be extended fully into business function. Our project therefore addresses the common skills needed by managers in the digital economy.

WHAT SPECIFIC COMPETENCES AND SKILLS DO MANAGERS NEED TO BE SUCCESSFUL IN E-LEADERSHIP?

In the literature review, several theoretical options were reviewed for establishing the list of required e-skills. Included was the digital competence framework suggested by Ferrari (2012)⁸. This categorised digital or e-skills:

- **Technical operations**: use technology and media to perform tasks through digital tools.
- Information management: identify, locate, access, retrieve, store and organise information.
- Creation of content and knowledge: integrate and re-elaborate previous knowledge and content, as well as to construct new knowledge.
- Evaluation and problem solving: identify digital needs, to solve problems through digital means and to assess the information retrieved.
- Collaboration: facilitate linking with others, to participate in online networks and communities and to interact constructively.
- Communication and sharing: communicate through online tools, to respect privacy including safety and the "netiquette".
- **Ethics and responsibility**: behave in an ethical and responsive way, being aware of legal frames.

An alternative breakdown based on the work of Tobias Husing et al (2013)⁹ offers the following grouping:

- **Strategic management skills** focused on the general management skills relevant for both IT and business;
- Hybrid market-IT skills focused on the combination of IT and business skills in order to better exploit IT for business goals;
- Industry-specific skills focused on the understanding and exploitation of IT for business goals in a specific sector, with specific knowledge of the industry and its requirements.

Taking a closer look at the first point, of particular relevance to this project, strategic skills are the skills needed by entrepreneurs and managers, combining a mastery of e-related issues with abilities to think and act strategically. These may include a set of transversal skills and competences (e.g. leadership and entrepreneurial abilities, project and innovation management competences, using data, negotiation, ethics, flexibility, creativity, etc.), as well as the capacity to inspire and manage multi-cultural, multi-disciplinary and virtual teams.

Indeed, skills for working in virtual teams was a recurring topic in the literature with the following dimensions: increased need for autonomy, trust, inter-cultural communication and a new approach to leadership. In addition, the topic of innovation, specifically with reference to co-creation, was explored by the several authors. By means of focus groups, the project partners then confronted these theoretical elements with the reality of trainers, establishing the following list of skill domains:

- Technical skills
- Project management skills
- Problem solving skills
- Self-management skills
- Communication skills
- Leadership (mentoring) and teamwork skills



It is worth observing that the primary differences between the elements raised in the literature and in the focus group and subsequent interviews are with respect to creation or innovation (this can however be seen in anticipating potential digital trends' impact on business), ethics, responsibility and self-management.

A further analysis encourages the separation of e-skills into two categories: technical (hard) skills and interpersonal (soft). Four underlying principles were identified for soft skills:

- Foster collaboration and networking
- Foster co-innovation
- Harness trust among networks and teams
- Be a lifelong learner

According to these principles, the soft skills needed, have been clustered into six main groups of soft skills:

1. Digital Literacy

- The technical knowledge that leaders need in order to be able to execute their leadership skills.
- The knowledge of different communication and management tools that support leaders in their functions.

2. E-communication skills

- The ability to convey thoughts with clarity and confidence, both in written and oral forms, to be active listener while providing the necessary response; and to enable employees to communicate effectively, particularly through the usage of ICT and Web 3.0 technologies.
- The ability to persuade collaborators, colleagues, followers and subordinates through the usage of such technologies.

3. E-team working skills

- The ability to work and cooperate with people from various social, cultural and professional backgrounds, inside and outside the organisation, in order to achieve a common goal through the usage of ICT and Web 3.0 technologies.
- The ability to understand the role of a "leader" and the one of a "group member", and to be able to carry out those roles interchangeably as needed.



4. E-entrepreneurial and innovation skills

- The ability to venture into the discovery, evaluation and exploitation of business opportunities while creating risk awareness.
- The ability to identify innovative business opportunities and be able to prepare, build, and exploit business models (which eventually leads to self-employment). It entails the ability to extract value from digital networks, which requires knowledge of digital marketing channels and a strategic thinking perspective.

5. **E-reputation skills**

- The required skills (and attitudes) to develop, foster and maintain trusting relationships to achieve organisational success.
- The demands for harnessing ethics and professional moral within the organisation and among networks of collaboration and innovation.

6. E-lifelong learning building skills

- The required skills to apply acquired knowledge.
- The skills to think in a critical, creative, innovative and analytical manner about a problem, situation or opportunity.
- The ability to expand and improve thinking skills, to provide ideas, and alternative solutions.
- The ability to do self-regulated learning such as skills required to search for relevant information from various sources and be able to manage them efficiently.
- This set of skills requires knowledge on the usage of digital learning tools, such as MOOCs, OER, etc.

GAP ANALYSIS OF E-LEADERSHIP SKILLS

Once the list of skills required by e-leaders had been formulated, the next step was to determine the delta between the existing and the required level of competence for these e-skills. Questionnaires were designed and made available online to the project's three target groups: managers, students and trainers.

The three separate questionnaires were offered in six different languages: English, French, German, Italian, Polish and Portuguese. 821 completed questionnaires were gathered (421 managers, 86 trainers and 314 students). For managers, questionnaires have been completed by people working all over Europe but also in Brazil, Chile, China, Colombia, Mexico, Venezuela. The questionnaires were submitted from July to December 2015.

This field research allowed the project partners to detect the main gaps, as self-perceived by each target group, for the e-skills previously determined. The questionnaires also provided the basis for a needs analysis and the means to bring to light the perceived training priorities; priorities that can be addressed in Le@d3.0 Academy.

The results are summarised below¹⁰.

Managers

Of the respondents, over 40% of the managers do not yet use big data for decision making, anticipation of trends, or for the analysis of the risks related to their projects, because they are not able to or, in some instances, because they do not perceive its importance in their fields of work.

In contrast the digital company seems to be increasingly associated with social media and social networks, with 70% of decision makers surveyed satisfied with their ability to use these effectively in their business management.

However, almost one third of them voiced a lack of expertise in the management of internal and external networks through digital channels.

Among the items for which they feel the strongest need for training are: the use of big data for decision-making (training need for 41% of those declaring the skill gap), analysing and managing risk in a digital environment.

In terms of priorities, these were in line with stated needs: 1) use of big data and 2) analysing and managing risk.

Looking at soft skills, these are clearly a concern in the virtual sphere: about 39% of managers do not feel comfortable in the use of digital tools for the resolution of conflicts.

An interesting fact is that related to the **construction of digital trust**. In the era of the sharing economy, the raw material of the new markets of sharing, is the trust, which becomes both a target and a resource to manage for all business functions and at all levels of work. Whilst in the past reputation and trust building with customers and consumers was under the responsibility of the marketing and communication offices, today, in the digital age, this becomes a pervasive element that falls on the entire organisation, from the CEO, human resources, the various professionals working in the company. Along with the use of digital tools in the resolution of conflict training in the area of e-trust and managing internal and external teams through digital channels were considered the highest level of need.

In terms of training priorities, they were coherent: 1) e-trust building followed by 2) use of virtual tools in conflict solving.

Students

The results from students are in line with those of the managers with 40% who consider that they need training in the use of big data. What is of even greater note is that almost half (47%) state they need further



training in analysing and managing risk in a digital environment. Along with security and privacy issues related to digital tools, this is considered the highest need for training. This provides an interesting contrast to the managers' responses.

In terms of training priorities for hard skills, these were coherent, primarily focused on management and closely linked to the identified training needs: 1) business risk-taking in a digital environment and 2) analysing and managing business risk.

With regards to their views on soft skills, the knowledge required to manage virtual teams, including negotiation and inter-cultural awareness, scored highly in terms of the gap analysis with one out of two respondents pointing to a lack in this area. Specifically, **supporting and enhancing professional development within virtual teams and delegation** were considered crucial with over 30% of respondents listing them. Another significant need echoed that of the managers, namely the management of internal and external networks through digital channels.

With regards to soft skills, the prioritisation was surprising: 1) online negotiation and 2) oral communication. They were ranked fourth and last in terms of skill gaps.

Trainers

The questionnaire for this group was formulated differently as they were asked whether and to what extent they already covered the e-skills presented. With 14 elements this questionnaire was also somewhat longer.

In terms of hard skills, while the percentage of trainers who considered it to be a skill gap - was comparable to that of managers at 40%, using big data was by no means the most important element in the gap analysis. Indeed, over half of trainers cited rather understanding how technologies can reshape life, business and value chains. Use of knowledge management tools as well as analysing and managing business risk in a virtual environment came next at around 44%.

The highest need for training (over 30%) echoed the order of the gap analysis with understanding how technologies can reshape life, business and value chains followed by the use of knowledge management tools. Managing risk was at 25%.

Hard skills priorities were: 1) understanding how technologies can reshape life, business and value chains 2) the use of knowledge management tools and business innovation arising from the digitalisation of business sectors.





For trainers it is worth noting the high importance of soft versus hard skills for the virtual space. There were five skills in the gap analysis at or around the 50% mark namely e-trust building, active listening through digital channels, online negotiation and the use of digital tools in the resolution of conflict. It is interesting to observe that the overlap between the managers and trainers is at the point of e-trust and conflict resolution while for students, the overlap in terms of highest need is for negotiation.

Training needs were given as follows: e-trust building (37%), use of virtual tools in conflict solving (35%), delegation within virtual teams (just shy of 33%) and finally supporting and enhancing professional development (31%).

Soft skills training priorities were however 1) driving change in a multicultural/geographically distributed organisation and the role of e-reputation and identity (despite the latter not being in the top 5 needs);
2) e-trust building and virtual management of multicultural teams; followed by 3) online negotiation, conflict solving, motivating and influencing teams as well as managing internal and external teams through digital channels.

The difference in the priorities with regards to the needs analysis rankings may be worth exploring in the next phase of the project. In addition, while the focus of the questionnaires was different for each target group, the different weighting given by managers and trainers to specific topics is something to be further taken into consideration.

Trainer preparedness for providing e-skill training

Trainers were further questioned with regards to the use of digital tools and techniques in their teaching. While the level of comfort with regards to using these resources fluctuated substantially depending on the tool – for social media only 13% of the respondents were not confident in their use compared to 38% for MOOCs – they noted overwhelmingly (65%) that their training strategy and design had changed significantly or totally due to these new elements.

Furthermore, the trainers' attitudes to and readiness to use digital tools and resources to train managers and students in the acquisition of e-skills was highly positive. Only 8% considered social media in their training as not being useful, whereas 43% would be willing to attend training in this area. 3% of the group's respondents considered online communities irrelevant, while 47% were open to training. For webinars, OER and MOOCs, the percentage of trainers who did not think they were useful was low, from 9 to 15% depending on the tool, whereas those who thought they would attend training was very high, ranging from 56-61%.

In terms of priorities, the highest priority for training (30%) was given to webinars, followed very closely by social media. Online communities and OER were medium at about 25% while MOOCs were given low priority.

CONTENT AND FORMAT OF AN E-LEADERSHIP PROGRAMME

The theoretical elements from the literature review coupled with the gap analyses provide a good basis for establishing the content of a training programme. An exploration of available online training programmes covering these skills brings to light a number of key points to take into account:

1) the terminology used to refer to e-skills and e-leadership skills is not yet locked down and the research on the subject is developing rapidly and 2) the fact that there appear to be few well published programmes that cover the full range of e-leadership skills required to foster competitiveness and innovation in a digital world (Gareis, K. et al, 2014).

The terminological complication came to light through both desk research and field research, namely during the focus group. The specific concept of e-Leadeship was not familiar to the majority of the attendees. Some participants related e-Leadership to ICT and innovation, some linked the concept to globalisation and distance-based teams but none of the participants had previous knowledge about the concept. Within the focus group the taxonomy proposed under the Le@d3.0 Academy was well received by all the participants. The issue was also raised in the interviews with trainers who

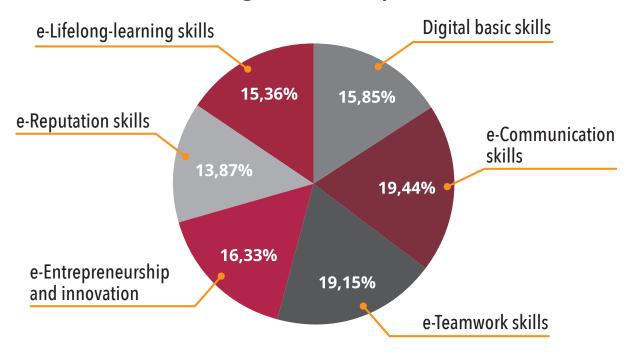
could not further name the kind of skills managers needed to "demonstrate or exemplify" by using ICT.

A cross check in several languages (English, French and Spanish) confirmed that this issue was not limited to one linguistic domain. Finally, this same issue hampered desk research for best practices with the result that the MOOCs and online programmes we found cover different aspects of leadership relevant to e-leadership but few actually appear to deal with the e-skill gaps we identified in our field research.

Programme content

Following the literature review, a field research was conducted to determine needs analysis as perceived by all respondents. Six areas of e-skills were identified and weighted: digital basic skills, e-communication skills, e-teamworking skills, e-entrepreneurship & innovation, e-reputation and finally e-lifelong learning skills. Interesting to note is that only e-teamworking skills and e-communication skills were considered significantly more important than the other four skill groups and that this preference was true for all three groups of respondents. The graph below represents the trainers' responses.

Strategic e-Leadership skills





The desk research identified 11 online programmes incorporating OER or using MOOCs¹¹ that focused on leadership skills in a way that was relevant to e-leadership. These programmes are primarily provided by trainers affiliated with respected organisations, benefit from high visibility when a Google search is conducted and finally offered on reliable Learning Management Platforms. The strengths and weaknesses of each programme, which ranged from short courses to a Bachelor's degree, were identified.

This was confronted with the analysis carried on the theoretical side (literature review and desk research¹²) and on the practical side (in depth interviews and focus groups with managers and trainers¹³) and allowed the project partners to overcome the obstacles linked to a scarcity of programmes entirely focused on e-skills.

Format and delivery

Three organisations providing online courses were then evaluated in-depth: Coursera, Lynda.com and Skillsoft. Lynda.com and Skillsoft (the Welch Way) are blended systems while Coursera is entirely online. The question to

answer is then whether or not to focus on online teaching elements as ancillary to class based training or stand alone.

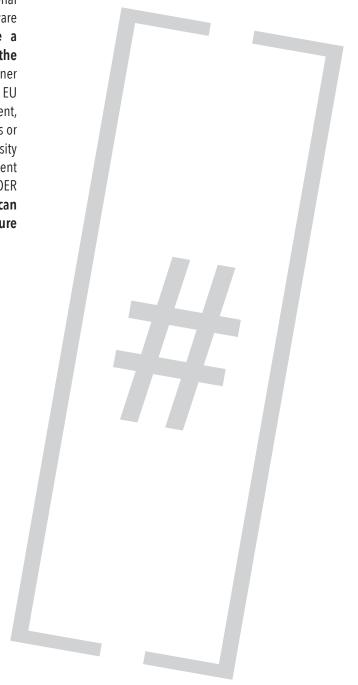
There is a significant body of literature showing that hard skills (knowledge) can be successfully acquired asynchronously via a programme offered entirely online. Soft skills (behaviours) require substantial interaction, in other words synchronous learning. Since few of the trainers who responded to our questionnaire are completely comfortable with the tools and resources necessary to provide online training, the best approach would be to **position online materials as a complement to in-classroom training**. Otherwise they may perceive them as "competitors" and will not accept the shift to online teaching.

In addition to evaluating the objectives and the technical platforms of these organisations, an analysis of the business models was carried out where possible, namely for Coursera and Lynda.com. This analysis will constitute the basis for the development of a Le@d 3.0 Academy business model.

Learning Management Systems (LMS)

Finally, nine LMS used by academic institutions and MOOC providers were reviewed during the course of the project. Additional elements taken into account to create the short list were collated reviews of the system, flexibility of the resource and licensing costs. A final list of three, namely Moodle, edX and Sakai, was retained for the project's use. The relative advantages of each one was catalogued for future use in the next project phase.

In addition, an inventory of available Open Educational Resources (OER), OER repositories and Open Courseware (OCW) was carried out14. This allowed to make a selection of OER repositories that could serve the project's needs based on the repository's owner reputation, language of content (English or other EU language), subject relevance (business, management, ICT or economics) and availability (Creative Commons or similar license). These were divided into University Non-University Content Repositories, Repositories, Content Aggregators and Non-OER repositories and commented so that trainers can identify the most relevant content for their future e-skills courses.



CONCLUSIONS AND RECOMMENDATIONS

While the concept of e-skills is new to the target audiences, it is valued by them, no matter their language or national specificities. One of the first objectives of the Le@d3.0 Academy then needs to be promoting and explaining the concept of e-skills – and of e-leadership in particular.

The needs analysis clearly indicates a requirement for training and the desk research shows an inadequate offer: the Le@d3.0 Academy will fill a real need.

Considering the general nature of the majority of courses on leadership that were evaluated, the programmes may require more development than initially foreseen if it is to be based on OER resources as there is no clear practice to follow. Again, Le@d3.0 will make a clear contribution by creating a model for trainers who are convinced of their relevancy. In the meantime, some general elements have been formulated.

Strategic e-leadership skills should be taught to managers or students using web based methodologies, tools and content:

 A blended approach offers the greater portion of the content online but leaves scope for (in classroom and synchronous) practicing of e-leadership skills and increases the likelihood of buy-in for implementation by trainers.

- A low percentage of trainers already use digital tools and resources, but many are willing to attend training on how to use them.
- The target training group managers or students affects the prioritisation of the e-skill training.
- The target group managers or students and the ICT user skill level of the trainers impacts the final choice of technology, teaching strategy and digital tools.
- The target group also affects both the role of trainers and the assessment process, something we know from in-class training.

A final comment is related to effects on training designing and delivering of the use to digital tools: most of the trainers declare that using digital tools and techniques, have significantly (if not totally) changed the way they design and plan their training programs. They are open to new models.





Footnotes

- 1 Gareis, K et al. e-Skills for jobs in Europe: measuring progress and moving ahead, February 2014.
- 2 Tapscott, D. The Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence, New York: McGraw-Hill, 2015.
- 3 Working Paper: Digital Economy Facts & Figures, EXPERT GROUP ON TAXATION OF THE DIGITAL ECONOMY, DIRECTORATE-GENERAL TAXATION AND CUSTOMS UNION, Brussels, 4 March 2014.
- 4 https://ec.europa.eu/digital-agenda/en/glossary#d.
- 5 http://ec.europa.eu/growth/sectors/digital-economy/importance/index_en.htm.
- 6 Barton, D., Grant, A., & Horn, M. (2012). Leading in the 21st century. McKinsey Quarterly, 3, 30-47.
- 7 IDC report for the DG Enterprise & Industry, ICTTRENDS 2020 Main Trends for Information and Communication Technologies (ICT) and their Implications for e-LEADERSHIP SKILLS, August 2014.
- 8 Ferrari, A. (2012). Digital Competence in practice: An analysis of frameworks. Seville: JRC-IPTS.
- 9 Hüsing, T., Korte, W. B., Fonstad, N., Lanvin, B., Welsum, D. V., Cattaneo, G., ... & Lifonti, R. (2013). *E-skills for competitiveness and innovation vision, roadmap and foresight scenarios*. Final report, European Commission.
- 10 D3.5 Need Analysis Report (Field Research).
- 11 Details of these programmes can be found in D3.3 Case studies Report.
- 12 See D.3.2. Literature Review Report.
- 13 See Interviews to Managers and Trainers Main Findings.
- 14 See D3.4 Preliminary selection of Open Sources Technologies and Open Access Resources for web enhanced learning.

List of complete reports

- 1. D3.2 Literature Review Report
- 2. D3.2 Annex 1 Interviews to Managers and Trainers Main Findings
- 3. D3.3 Case Studies Report
- 4. D3.4 Preliminary selection of Open Source Technologies and Open Access Resources Report
- 5. D3.5 Need Analysis Report

LEAD PARTNER



PARTNERS

















Contact info

Le@d3.0 Academy

Project Manager **Maria Laura Fornaci** Italy, Baveno (VB) Strada Nazionale del Sempione Oltrefiume, 25

info@eleaderacademy.eu www.eleaderacademy.eu

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