

Training for new e-learning role profiles: the case of eVirtue project

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Some truths:

- **Instruction is becoming more personalized:** learner-centred, non-linear and self-directed.
- **The distinction between face-to-face and distance education is disappearing through the use of eLearning and Virtual Learning (VL),** which can take place synchronously or asynchronously.
- **Lifelong learning is becoming a necessity that can offer a competitive advantage,** resulting in the need for interoperable, networked learning.
- **Traditional roles in education are changing towards more specialized and “modern” roles** (course designer, tutor, etc).



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One question:

Do learning professionals have the skills required in order to take advantage of the opportunities offered by modern learning technologies?



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One possible answer: The e-Virtue project

The e-VIRTUE project [<http://groupspaces.com/eVirtue/>], funded by the European Commission in the context of LifeLong Learning Programme, aims at **strengthening the pool of available skills that could enable European professionals to take advantage of the opportunities provided by learning technologies.**



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Main project outcomes

e-Virtue aims to:

- identify new emerging job roles (**not job descriptions**) and describe the key competences and skills required to fulfil these roles
 - E-Learning architect
 - E-learning content developer (two versions)
 - E-learning curriculum designer
 - Online tutor
 - Virtual classroom facilitator
- develop a set of Training Guidelines (TG) for Vocational Education and Training (VET) providers, employers and employees.



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The six e-learning role profiles

1. E-learning architect

- is responsible for the development and implementation of an organisation's strategy for the use of learning technologies
- establishes goals for the application of learning technologies within the context of an organisation's business strategy
- engages with key stakeholders
- develops capabilities
- recommends the purchase of e-learning platforms and tools
- reports on progress to senior management



The six e-learning role profiles

2.

**E-learning
content
developer**
(full-time
specialist role)

- develops digital learning content in all its forms
- undertakes sophisticated projects that require the skills only normally found in multi-disciplinary teams including: creative specialists, technical specialists, content specialists.



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The six e-learning role profiles

3. E-learning content developer (one part of a broader role)

- designs and/or develops simpler forms of digital learning content including reference materials, slides, assessments, screencasts, interview videos, podcasts, etc.



The six e-learning role profiles

4. E-learning curriculum designer

- creates designs for new learning programmes
- analyses particular learning needs
- determine the most appropriate methods and media for meeting each of these needs



The six e-learning role profiles

5. Online tutor

- ensures the successful delivery of extended online and blended distance learning programmes
- supports students as they engage in these programmes
- is responsible for grading assignments and for communicating with students



The six e-learning role profiles

5. Virtual classroom facilitator

- designs and delivers real-time, online group training / tutoring sessions using web conferencing tools



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The six e-learning role profiles

E-learning architect

Role title:	E-learning architect		
Also known as:	E-learning manager, learning technologies manager		
Relevant professions:	HR / Learning and Development; those with a background in teaching at any level		
Summary statement:	The e-learning architect is responsible for the development and implementation of an organisation's strategy for the use of learning technologies, as derived from the business strategy. This role may be undertaken by a learning technologies specialist, by a manager with overall responsibility for learning, by external learning consultants or some combination of these.		
Mission:	To establish strategic goals for the application of learning technologies within an organisation and to establish an infrastructure that will support these goals.		
Deliverables:	<i>Accountable</i>	<i>Responsible</i>	<i>Contributor</i>
	<ul style="list-style-type: none"> ▶ The application of learning technologies across an organisation in support of the organisation's strategic goals. 	<ul style="list-style-type: none"> ▶ Agreeing goals, schedules, budgets and responsibilities with regard to the e-learning strategy. ▶ Managing the contributions to the development and implementation of the strategy made by direct reports and external contractors. 	<ul style="list-style-type: none"> ▶ The broader learning strategy for an organisation. ▶ The broader technology strategy for an organisation.



The six e-learning role profiles

Main task/s:	<ul style="list-style-type: none">▶ Analyse strengths, weaknesses, opportunities and threats with regard to the use of e-learning in the organisation.▶ Establish an overall strategy for the use of e-learning.▶ Determine gaps in the skills of those who will be responsible for implementing the strategy and plan to overcome these.▶ Determine gaps in the technical infrastructure and make plans to overcome these.▶ Analyse the sources of resistance to learning technologies among key stakeholders, such as managers, other trainers/teachers and/or students, and make plans to overcome these.▶ Develop a plan for promoting the e-learning strategy and maximising take-up both within the organisation and externally where appropriate.▶ Monitor and report on the KPIs that have been established for the e-learning strategy.
Environment:	<p>The e-learning architect will work within the context of a learning and development team. Depending on the size of the organisation, they may be the leader of the team or just in a specialist role. They may have to influence the actions of learning professionals who do not report directly to them to ensure the strategy is implemented. They are also likely to work extensively with external suppliers and contractors, such as software companies and e-learning content developers.</p>
KPI's:	<ul style="list-style-type: none">▶ Cost and time savings that are achieved through the use of learning technologies (primarily through reduced travel costs, reduced need for teachers and trainers, and less time spent by learners away from the job).▶ Improved learning outcomes achieved through the use of learning technologies, as measured by assessments of learning and competency, as well as improvements made in employee performance.▶ Learner feedback, as evidenced by surveys, focus groups and other methods.

Language versions: [Full Profile for evaluation \[EN\]](#)



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The six e-learning role profiles

Dimension 1 e-Comp. area	A. PLAN	
Dimension 2 e-Competence: Title + generic description	A.8. Sustainable Development Estimates the impact of ICT solutions used for the implementation of the e-learning strategy in terms of eco responsibilities including energy consumption. Advises business and ICT stakeholders on sustainable alternatives that are consistent with the business strategy. Provides advice on an ICT purchasing and sales policy which fulfils eco-responsibilities.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	
	Level 3	Promotes awareness, training and commitment for the deployment of sustainable development and applies the necessary tools for piloting this approach.
	Level 4	Defines objective and strategy of sustainable IS development, within the e-learning strategy, in accordance with the organisation's sustainability policy.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 metrics and indicators related to sustainable development K2 corporate social responsibility (CSR) of stakeholders within the IS infrastructure	
Skills examples <i>Is able to</i>	S1 monitor and measure the ICT energy consumption S2 apply recommendations in projects to support latest sustainable development strategies S3 master regulatory constraints and international standards related to ICT sustainability S4 communicate (including in foreign languages if useful) S5 explain (defend, argue, justify)	

The six e-learning role profiles

Dimension 1 e-Comp. area	E. MANAGE	
Dimension 2 e-Competence: Title + generic description	E.3. Risk Management Advises on the implementation of the management of risk across information systems through the application of the enterprise defined risk management policy and procedure. Assesses risk linked to the activities applied in the field of e-learning to the organisation's business, including web, cloud and mobile resources. Documents potential risk and containment plans.	
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	
	Level 2	Understands the principles of risk management and investigates e-learning solutions to mitigate identified risks.
	Level 3	Advises on appropriate actions required to adapt security and address risk exposure. Evaluates, manages and ensures validation of exceptions.
	Level 4	Provides leadership to define guidelines for developing a policy for risk management by considering all the possible constraints, including technical, economic and political issues. Delegates assignments.
	Level 5	
Dimension 4 Knowledge examples <i>Knows/Aware of/Familiar with</i>	K1 corporate values and interests to apply risk analysis taking into account corporate values and interests K2 the return on investment compared to risk avoidance K3 good practices (methodologies) and standards in risk analysis K4 risk and opportunity assessment techniques K5 evaluation, design and implementation methodologies	
Skills examples <i>Is able to</i>	S1 develop risk management plan to identify required preventative actions S2 communicate and promote the organisation's risk analysis outcomes and risk management processes S3 design and document the processes for risk analysis and management S4 apply mitigation and contingency actions S5 be ethical	



European Frameworks of Qualifications

Because of:

- the European scope of the project (*Greece, France, Germany, Poland, UK*)
- the nature of the professions that are being affected by its findings

these six role profiles are being mapped to different European Frameworks of Qualifications, in order to facilitate adoption.



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European Frameworks of Qualifications

European Qualification Framework (EQF):

The core of EQF concerns 8 reference levels describing what a learner knows, understands and is able to do ('learning outcomes').

European e-Competence Framework (e-CF) ver.3:

A reference framework of 40 ICT competences that can be used and understood by ICT user and supply companies, the public sector, educational and social partners across Europe.

European Credit system for Vocational Education and Training (ECVET):

Aims to ease the validation, recognition and accumulation of work-related skills and knowledge acquired during a stay in another country or in different learning situations (formal, non-formal, informal).



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Training Guidelines

Main Objective

- Developed in three steps
- Present, in a practical way, *a structure of learning units* that should be offered by Vocational Education and Training (VET) organisations in the field of “Virtual Learning professions”



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Training Guidelines

Section 1

- provides an overview of the manual and of the basic principles underlying, determining and structuring learning units.



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Training Guidelines

Section 1

- creates awareness of issues around designing and facilitating the key components of a learning unit, such as
 - **the entry behaviour** (which specific skill participants must have prior to beginning the instruction?)
 - **the learning event** (what is the purpose and your expectations, and how these fit the needs of participants and relate to their individual roles and objectives?) **and**
 - **the assessment** (which is the best approach to measure the results of how the trainee will be able to apply that training?).



Training Guidelines

Section 1

- For each of these components of learning units, the manual provides principles, practices and helpful tips.



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Training Guidelines

Section 2

- The most extensive Section, consists of TG for each of the six role profiles.
- For each role profile:
 - a description of the specific role is provided
 - a presentation of the **suggested learning units** structured from an output-oriented perspective is offered,
 - which contains a specification of learning outcomes as recommended by the European Qualification Framework.



Training Guidelines

Section 2

- Thus, each learning unit suggests the learning outcomes that participants will be able to achieve as a result of completing the training, in order to be qualified to assume virtual learning-related positions in the European labour market.
- Each role profile unit provides guidelines on which **training methods**, **activities** and **additional reading** may be used so that participants meet the learning objectives most effectively.



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Training Guidelines

Section 3

- presents the European Qualification Framework (EQF), the e-Competence Framework (eCF), the European Credit System for Vocational Education and Training (ECVET) systems.



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The DAISy group: about us

- Established in 2001
- Collaborates with Hellenic Open University and Computer Technology Institute
- Longtime R&I expertise in Ambient Intelligence, Pervasive Systems, Middleware, Service Oriented Architectures, Ontologies, Knowledge Extraction and Representation, Multi Agent Systems, Social Systems, New Skills for New Jobs, Peer Learning Platforms, ICT in Education
- Supporting the Postgraduate Study Programme in Pervasive and Mobile Computing Systems, Hellenic Open University
- Participating in ESCO Reference Groups and CEN Committees
- **ADVENT system:** AAL platform providing home care services to the elderly
- **GAS-OS:** middleware and tools for IoT devices enabling the association of heterogeneous devices based on P2P networks
- **PLANTS OS:** middleware and tools that support precision agriculture
- **ASTRA platform:** IoT platform supporting pervasive awareness
- **ATRACO ontologies:** suite of IoT device ontologies with ontology matching algorithms
- **SONETOR platform:** peer learning platform for intercultural mediators
- **FragmEx platform:** web platform enabling dialogue on fragmentation of society and exclusion of people as a result of the financial crisis
- **Tessellation system:** methodology and tools for the development of distance learning courses based on learning outcomes and ontologies
- **OnLabs:** realistic 3D biology laboratory



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The DAISy group: experience

- More than 15 ongoing EU and national projects
- More than 30 projects since 2000
- FP5, FP6, FP7, Lifelong Learning, Erasmus+ frameworks
- Expertise in proposal preparation, project coordination, research and development, end user involvement, dissemination

- **2014-:** **SONETBULL (Erasmus+ / Strategic Partnerships)**
- **2014-:** **TIME (Erasmus+ / Strategic Partnerships)**
- **2014-:** **SEM@Schools (Erasmus+ / Strategic Partnerships)**
- **2014-:** **EPOQUE (Erasmus+ / Strategic Partnerships)**
- **2014-:** **ELTAB (Greece-Turkey bilateral collaboration)**
- **2013-:** **FragmEx (Greece-Germany bilateral collaboration)**
- **2013-:** **EngAGent (Leonardo Da Vinci / Transfer of Innovation)**
- **2013-:** **eCultSkills (Leonardo Da Vinci / Transfer of Innovation)**
- **2013-:** **eVirtue (Leonardo Da Vinci / Transfer of Innovation)**
- **2013-:** **CRITON (Leonardo Da Vinci / Development of Innovation)**
- **2013-:** **TakeCare (Leonardo Da Vinci / Transfer of Innovation)**
- **2013-:** **ADVENT (National Framework SYNERGASIA)**
- **2012-:** **BIOMEDMINE (National Framework Thales)**
- **2012-:** **ONSOCIAL (National Framework Archimedes)**
- **2012-14: SONETOR (Leonardo Da Vinci / Development of Innovation)**
- **2012-13: CompAAL (Leonardo Da Vinci / Development of Innovation)**
- **2010-13: ProInternet (Leonardo Da Vinci / Thematic Networks)**
- **2009-11: VAB (Leonardo Da Vinci / Transfer of Innovation)**
- **2009-10: SoRurAll (Leonardo Da Vinci / Development of Innovation)**
- **2007-11: ATRACO (IST/FET/Pervasive Adaptation)**
- **2007-09: TIPS (Leonardo Da Vinci / Transfer of Innovation)**
- **2006-09: ASTRA (IST/FET/Open)**
- **2004-06: Study on Digital Territories (funded by EU/JRC/IPTS)**
- **2003-08: HEARTS (National Framework EPAN)**
- **2003-06: PLANTS (IST/FET/Open)**
- **2003-06: SOCIAL (IST/FET/Open)**
- **2001-03: E-GADGETS (IST/FET/Disappearing Computer)**



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Research group web site: <http://daissy.eap.gr>
eVirtue project web site: www.evirtue.eu/
eJobs Observatory: www.e-jobs-observatory.eu/



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