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

#### Adamantia Spanaka

Hellenic Open University Greece madspa@otenet.gr

#### **Achilles Kameas**

Hellenic Open University Greece kameas @eap.gr



#### 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).



#### **One question:**

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



### 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.



### Main project outcomes

- e-Virtue aims to:
- identify new emerging job roles (not job descriptions) and describe the key comptetences 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.





- 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

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.



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





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





- 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





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





#### **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.						
	Accountable	Responsible	Contributor				
Deliverables:	<ul> <li>The application of learning technologies across an organisation in support of the organisation's strategic goals.</li> </ul>	<ul> <li>Agreeing goals, schedules, budgets and responsibilities with regard to the e- learning strategy.</li> <li>Managing the contributions to the development and implementation of the strategy made by direct reports and external contractors.</li> </ul>	<ul> <li>The broader learning strategy for an organisation.</li> <li>The broader technology strategy for an organisation.</li> </ul>				



	Main task/s:	<ul> <li>Analyse strengths, weaknesses, opportunities and threats with regard to the use of e-learning in the organisation.</li> <li>Establish an overall strategy for the use of e-learning.</li> <li>Determine gaps in the skills of those who will be responsible for implementing the strategy and plan to overcome these.</li> <li>Determine gaps in the technical infrastructure and make plans to overcome these.</li> <li>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.</li> <li>Develop a plan for promoting the e-learning strategy and maximising take-up both within the organisation and externally where appropriate.</li> <li>Monitor and report on the KPIs that have been established for the e-learning strategy.</li> </ul>	
devel leade Environment: actio strate supp		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 eader 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.	
Ir	KPI's:	<ul> <li>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).</li> <li>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.</li> <li>Learner feedback, as evidenced by surveys, focus groups and other methods.</li> </ul>	

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

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

#### on The Future of Education

#### **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.



#### **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).

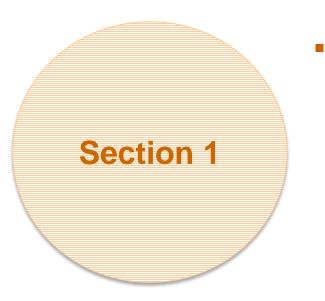




- Developed in three steps
- Present, in a practical way, a structure of learning units that should be offered by
   Vocational Education and Training (VET)
   organisations in the field of "Virtual Learning
   professions"



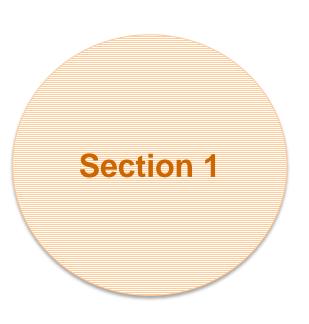




provides an overview of the manual and of the basic principles underlying, determining and structuring learning units.







- 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 mesure the results of how the trainee will be able to apply that training?).

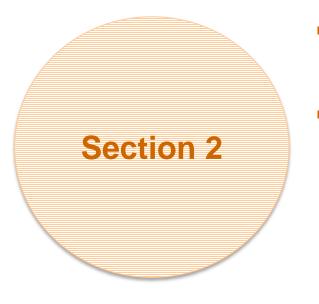




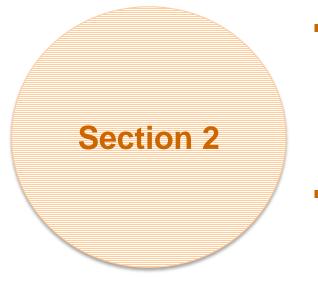
 For each of these components of learning units, the manual provides principles, practices and helpful tips.





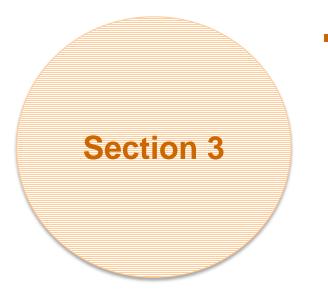


- The most extensive Section, consists of TG for each of the six role profiles.
- For each role profile:
  - a description of the specific role is provided
  - a presentation of the suggested learning units structured from an output-oriented perspective is offered,
  - which contains a specification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



- 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.





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





### The DAISSy 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

#### Future ofEducation

## International Conference The Future of Education

.

### The DAISSy group: experience

- More than 15 ongoing EU and national projects •
- More than 30 projects since 2000 ٠
- 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) ٠
- **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 ٠ 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 ٠ of Innovation)
- 2010-13: ProInternet (Leonardo Da Vinci / Thematic Networks)
- 2009-11: VAB (Leonardo Da Vinci / Transfer of ٠ Innovation)
- 2009-10: SoRurAll (Leonardo Da Vinci / Development • of Innovation)
- 2007-11: ATRACO (IST/FET/Pervasive Adaptation) ٠
- 2007-09: TIPS (Leonardo Da Vinci / Transfer of ٠ Innovation)
- 2006-09: ASTRA (IST/FET/Open)
- 2004-06: Study on Digital Territories (funded by • EU/JRC/IPTS)
- 2003-08: HEARTS (National Framework EPAN) ٠
- 2003-06: PLANTS (IST/FET/Open) ٠
- 2003-06: SOCIAL (IST/FET/Open)
- 2001-03: E-GADGETS (IST/FET/Disappearing Computer) International Confer

#### The Future of Education

http://daissy.eap.gr

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



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

