

# "UNBORDERING" EDUCATION



Forum Report November 2014 Yerevan, Armenia



# Contents



"UNBORDERING" EDUCATION: the Concept	4
Zooming in: "Borderless" Education - Realities and Trends	6
"Beyond Borders: Global Learning in a Networked World"	7
"e-Learning, a Trojan Horse for Change?"	11
"Exploring Tools and Building MOOCs"	14
"Digital Design and Fabrication - How It Will Change Education and Society"	15
"Education and Society: Shift of Paradigms"	17
Providing Borderless Education	20
KASA Swiss Humanitarian Foundation	21
AGBU Armenian Virtual College	22
National Center of Educational Technologies (NCET)	23
German Federal Enterprise for International Cooperation (GIZ)	24
Syrian Virtual University	25
Learning for the Future: Insights and Loud Thoughts	26
Programme of the Event	28
Behind the Event	29
KASA Swiss Humanitarian Foundation	29
Tumo Center for Creative Technologies	29
The Swiss Embassy in Yerevan	30
PanARMENIAN.NET	30
The Author of the Report	30



# "UNBORDERING" EDUCATION: the Concept

"UNBORDERING" EDUCATION is a one-day forum with a series of side events which together aim at promoting e-Learning in Armenia through providing space for key actors in the field of e-Learning and the larger public to discuss the role of information technology in the scope of education - sharing trends, addressing challenges and discussing opportunities in the field.

With this forum, KASA Swiss Humanitarian Foundation, which is the author of the concept and the main organizer, contributes to the Foundation's long-term goal - to bring innovation and world experience in the field of education and information technologies to Armenia.

Commencing with the key note speech by Stephen Downes, one of the originators of Massive Open Online Courses (MOOCs), the forum led its participants through a discovery of concepts and possibilities for truly borderless education.

My previous experience with e-Learning, which is online education in the field of ICT, has secured me a job, and it motivated me to attend the event and learn more about this topic.

forum participant

Stephen Downes http://www.downes.ca The forum also served as a platform for Armenia-based organizations and institutions, active in the field of e-Learning, to present their activities and offer education opportunities, which are available within and beyond the physical borders of Armenia.

Taking into account the interest and needs of the audience, more practical workshops related to the topics discussed at the forum were offered as a series of side-events organized in various locations in Yerevan during the week following the forum. The side-events targeted professionals and enthusiasts of e-Learning who did not miss their opportunity to get a hands-on experience in the field through direct interaction with the leading specialists and with each other in smaller groups.

The forum had over 160 attendees, and about 40 participants took part in the four side-events.

The online presence was made possible through an encouraged use of **#unbordering** tag in social media and dynamically administered **Facebook page**, which still stays active as a space for interaction and learning.

The presentations used by the speakers and organizations during the forum and the side-events are available for the public on **Slideshare**.

A number of electronic and printed media outlets covered the event, referring to it as a significant educational event in Armenia. The list of relevant publications includes.

- "Yerevan" city magazine
- PanARMENINA.NET
- Mediamax
- Le Courrier d'Erévan
- Tumo Center for Creative Technologies
- KASA gazette

Besides, the team of KASA foundation produced a short video-clip summing-up the forum, which is now available on the foundation's vimeo channel.

"UNBORDERING" EDUCATION brought together local, international and global players in the field of e-Learning, advocates of open education - accessible and tailormade for individual learner's needs.

KASA Swiss Humanitarian Foundation organized the events in cooperation with Tumo Centre for Creative Technologies, the Embassy of Switzerland in Armenia and PanARMENIAN.NET.



A short

video-clip

summing-up the forum is available on

KASA vimeo

channel

See the agenda of the forum for a detailed programme (Programme of the Event page 27)



## Zooming in: "Borderless" Education - Realities and Trends

Though history and tradition, e-Learning in Armenia is rather young; the global heritage in this field counts few decades of success and transformation.

"Zooming in" is the section of the report which focuses on realities and trends of e-Learning globally, presented by and reflected in dialogue with field experts with world-wide recognition or profound knowledge of local reality.

The featuring articles are mainly based on the expert talks given during the forum, few of which were elaborated further during practical workshops, as part of the side-events.

### l am a lecturer, and

since e-Learning is part of nowadays education systems worldwide, I needed theoretical knowledge as well as some practical tools to later incorporate them into my teaching practice.

forum participant





### "Beyond Borders: Global Learning in a Networked World" *Stephen Downes, Canada*

Today's most known institution-based model of MOOC-Massive Open Online Courses (the so-called xMOOC), which can be described as "having harmony through unity" or as "institutional learning for free", has considerably deviated from the original concept of MOOC, the Connectives branch of it established by the originators of MOOCs in 2008.

The philosophy behind Connectivist or cMOOCs is best described as "community based model, having harmony through diversity, free learning, open education".

### What makes cMOOC unique?

- Open education: there are no admission requirements and the mission is the delivery of course content with an assessment system same as in the model of distance education (at first practiced as paper-based learning modules with telephone tutoring);
- Enhanced accessibility: time and place independent, reduction of financial barriers (tuition reduction/subsidised but still not free of charge);
- Progressive pedagogy: demand of materials and structure to step in the content, support in learning and assistance for everyone to succeed (focus on the engagement of the learner with the material, profession, interaction, and community). This started out as content delivery to progress into learning community;
- Open access: free use of learning materials and of software which the learner was permitted to not only access but freely reuse, modify, and share the modification as an expanded idea of openness and development of open resources (software) and content, even before the world wide web.
- Free and participatory content: digital copies of books, open software, open archives, open encyclopaedia. A new approach to content being not something one consumes but equally and importantly something that one creates and shares.

### Could the OER or the Logic Model be an alternative to cMOOC?

Although OERUs (Open education resource universities) or the Logic Model enable learners to access courses based solely on open education resources, offer open student support via "Academic Volunteers International", open assessment from participating institutions and even gaining credits for courses from participating institutions, they still present a traditional form of learning (presentation + remembering + test + degree); and one still pays money to institutions to be assessed and granted credits.

G

Despite having open delivery, it can hardly be called open or free learning.

Learners still remain consumers of learning and not its creators. The open delivery institutions offer objectives and provide packages to choose from, yet in free learning the learner has a sense and skills to organize his/her own learning, and not only choose.

### Why choose free learning?

When speaking about free, connectivist or network learning, we underline that knowledge is within the connections and relations between things, i.e. how things relate and interact together. We do not learn by collecting sentences, we learn by growing connections in our brain. We do not collect knowledge - we become knowledge.

Knowledge is possessed by the community as a whole and is the property of the whole, beyond individual comprehension. Like any individual neuron that is not smart, they compose "intelligence" if you get enough of them together as a "collective whole".

Thus, the main mission of free learning is to build an environment in which one can create and share - this is what makes a network most capable of learning. It is not about everyone learning or knowing the same thing, but rather about communication, distribution, dissemination, and dynamics. Learning is a matter of personal growth, not an accumulation of facts; thus learning is a way of being, living, and becoming rather than something fitting into a curriculum.

There is no body of content to teach - every person in the course is expected to learn something different he/she chooses. Learning takes place through interaction and creativity, around a certain focus - the strange attractor who/ what stimulates interaction (which could basically be anything) to help the integrators, i.e. the learners, in their progression.

Network learning is dynamic - it is learning through changing its connections in diversity, harmony and growth. When emerged in a network, each person finds his/her own learning.

### Creating conditions for free learning

First and foremost factor for the effective process of free learning is student engagement, and to insure it, a number of conditions should be ensured:

### Autonomy

Freeing your mind from prejudgment, having capacity to experience, think and reason, build mental models, freedom to act (build, interact, move, find), maximizing autonomy (realizing the possibilities and using them to the full).



### Diversity

Cognition and learning are impossible without diversity. Many types of entities, different intentions or objectives or desires of these entities, uniqueness of the perspective/point of view, language, attitude, thinking largely constitute this condition. Learning through following other learners to learn more is the mathematics of diversity: multiplication of connections and network extension. Not mesh forms of networks are societies that cannot grow.

### • Openness

Open delivery, content and assessment, as well as open networks with a freedom to form and break those networks - clustering them instead of grouping.

#### Interactivity

Emergence instead of influence - to know that sometimes one should be able to form the right connections to recognize the learning: knowledge is a pattern of recognition; thus learning is based in and around recognition.

The video-recoding of Stephen Downes's speech is available on KASA vimeo channel.



### Who is Stephen Downes

Stephen Downes works for the National Research Council of Canada, based in Moncton, New Brunswick where he has served as a Senior Researcher since 2001.

Affiliated with the Learning and Collaborative Technologies Group, Institute for Information Technology, Downes specializes in the fields of online learning, new media, pedagogy and philosophy.

Downes is perhaps best known as the originator of the Massive Open Online Course (MOOC) and for his daily newsletter, OLDaily, which is distributed to thousands of subscribers around the world. He is a popular speaker, appearing at hundreds of events around the world for the last fifteen years. He has published hundreds of articles both online and in print through two decades of research and development in learning networks and related technologies.

Prior to joining the NRC, Downes worked for the University of Alberta as an information architect, and prior to that, as a distance education and new media design specialist for Assiniboine Community College in Brandon, Manitoba.





### "e-Learning, a Trojan Horse for Change?" Daniel K. Schneider, Switzerland

e-Learning originated in 1960s with a mission to improve education through the use of technology. This is not a way to just consume knowledge, but also a means of interacting with other learners and the teacher/tutor, allowing more learning outside the school happen.

The main function of e-Learning is to create a learning environment through provision of various tools, keeping in mind that technology only supports e-Learning and is not the e-Learning itself.

With the emerging of internet, another function of e-Leanring became the production and sharing of resources and the use of open educational resources for their original purpose.

### Does e-Learning replace formal education?

Education is design for learning and good e-Learning should respect the principles of learning in general:

- The demonstration principle (learning is not education);
- Application principle;
- Connect/activation principle;
- Integration principle;
- Task-centred principle (learning while doing a task).

Supporting that quality is more important than the type of design. It is also possible to say that a good teacher/tutor and quality content are more important than progressive technologies.

Similar to traditional learning, the learners in e-Learning need a formal challenge (in other words what they know and what they need to learn should be within a good distance proportion). In e-Learning, this can be accompanied by new elements like gamification and "earning" learning badges. A certain structure to organize the interaction with the students and a certain level of control may also be needed (do this - get that).

### What are the major differences?

When talking about general pedagogy instruction design, we cannot talk about education (pedagogy) without looking into the subject of study. As opposted to this, in e-Learning often only a framework is provided, which might or might not be planned ahead.



In e-Learning, it is vital to know the dominant learning types, and adopt

relevant strategy to each of them. The educational goal in e-Learning is "what students want to have". Learning is seen as a process to become and as an enhancement to participate in the society. It should be noted though, that the level of activeness in such learning community is rather low, and different learning strategies should be applied.

Thus, if you want to engage people in learning difficult subjects, you need to find a way to keep them focused while working on real cases, solving real problems; provide ways for project oriented learning conditions with an opportunity to read, produce, and discuss.

### **Preconditions**

Having new-wave of learning strategies in place and establishing efficient new pedagogies takes time, and the learning itself happens slower.

Certain base is necessary for utilising new pedagogies: although the "Internet generation" is able to use information technologies for communication purposes, it cannot use the bulk of software to create knowledge. Therefore, gaining the missing skills needs to be enforced.

Good quality learning, and e-Learning amongst it, requires means and strategies. Intentions are not behaviours. Good education is expensive not only in terms of money but also in terms of effort, consistency, and human resources. For the time being, MOOCs are not a solution for the 3rd world education, due to a very different understanding of access and accessibility in different parts of the world.



### Who is Daniel K. Schneider

Daniel K. Schneider is an associate professor at TECFA, a research and teaching unit in the faculty of psychology and education, University of Geneva. Holding a PhD in political science, he has been working in educational technology since 1988 and participating in various innovative pedagogical and technological projects. He has been a prime mover towards the introduction of creative pedagogical strategies and ICTs technologies. His long-term R&D interests focus on modular, flexible and open Internet architectures supporting rich and effective educational designs. His current interests include digital design and fabrication (e.g. 3D printing), learning process analytics, and learning in citizen science. Within TECFA's "blended" master program in educational technology (MALTT), he teaches educational information & communication systems, foundations of educational technology and research methodology.





### "Exploring Tools and Building MOOCs" Stephen Downes, Canada

Looking at some massive open online courses (MOOCs) and in particular the connectivist MOOCs offered by Downes and Siemens using the Grasshopper application, Downes offered a look behind the scenes - the administration and management features of the application, showing how different aspects of the MOOC were prepared and delivered.

On the day of the forum, offering a more theoretic insight to building connectivist MOOCs and sharing a set of tools, Downes only slightly opened up the magic box, and only on the day of the practical workshop "the magic happened". The ideology of connectivist MOOCs is hidden right here - there is no other way to learn how to build a MOOC than while building one.

### So, what should be kept in mind while building a connectivist MOOC?

- There is no central/core feature no core content, group, etc.
- Course design is a network, a map, or a community,
- Resources are distributed and aggregated among the learners,
- Participants are encouraged to create their own resources, communities and groups.

In a sense, this is a process of building a community around the "tag" or a content topic. Starting with a loose connection of people encouraging interaction on the "entry" topic and the content they generate - this is what a connectivist MOOC is.

Of course, there is a need to create a setup for the course using multimedia tools, yet not limiting the learners to the use of them. Some of the offered tools were:

- Audosity free software for audio recording and broadcasting;
- Webcasting through Youtube account and interacting with the audience using Google Hangout;
- Using Grasshoppers as a platform to create the outline for the MOOC;
- Wikia, which is a board of ideas to pin;
- And much more (for sharing slides, documents, etc.).

Constant interaction with learners, taking into account their needs and preferences, allowing and inviting them to use and modify the offered tools and to introduce new ones is very important in the whole course of a connectivist MOOC. If the course implies live interaction with learners, the technical and ethical side of the interaction should be taken into account as well.



Using tools which dynamically reflect the process of the development of the course (such as subscription to RSS feeds, synchronizations of information

on different platforms, mixing and adding resources, connecting them) and at the same time taking care of learners' privacy, their rights, securing and conserving information, regularly compiling and sharing it (via newsletters) - all these make a connectivist course rather than just a course.

Participation in a connectivist MOOC is open, and when saying "open" we should really create prerequisites for it (no registration for using the produced resources, since the data is fully open). But if people sign up for the newsletter to get information on regular basis, we can say they are committed to their learning in that course. Moreover, those who do an RSS sign up are the learners who are also contributing to the course. Thus, the exact number of connectivist MOOC participants is rather fluid and not possible (it is also fair to say unnecessary) to count.

### MOOC do-s and don't-s

- An optimal length for a MOOC is 8-12 weeks;
- Key events during the MOOC should be scheduled in advance and happen on regular times, to enable learners schedule their life around it. It is highly appreciated if the features of the website of a MOOC enable use of calendars and similar tools;
- Best time for world-wide events is 1pm Atlantic time (which would be 8pm Armenian time) - time to capture most of the world audience. Some simple hints like linking a time converter to the date and time of event can be rather handy;
- Optimal frequency of events is twice a week, out of which one could be used for active input and the other for a weekly wrap-up;
- Live webcast should be engaging the audience into active conversation, interaction and should be accompanied with verbal instruction.

Some examples of connectivist MOOCs can be found at:

connect.downes.ca change.mooc.ca



### "Digital Design and Fabrication -How It Will Change Education and Society" Daniel Schneider, Switzerland

The session during the forum provided insights into the educational potential of "Maker Spaces", "Fab Labs", "Public Labs", "Hacker Spaces" and "Tech Shops". This rather theoretic session at the forum was complemented with a practical workshop at the office of Instigate CJSC.



The session allowed to explore certain trends and developments in the field of digital design and fabrication, particularly 3D printing, cutting plotters, laser cutting, and digital embroidery; and particularly focused on the possible implication of the latter in educational activities.

# Why is it important to integrate digital design and fabrication in education?

- Children should learn how to design tangible things and understand how design and content are inseparable;
- The ability to create and construct something makes the society rich;
- Bringing the idea to life is a core entrepreneurial skill, and at present, there is a vast need for entrepreneurs;
- We need project entrepreneurs who can develop through running such projects starting from their school;
- Parallel to "making" the students improve their knowledge of ICT (information and communications technology);
- While teaching design, the learner is "smuggled" to develop in other subjects as well, like mathematics, programming, etc. This can also enhance learning signs and languages. The whole possible set of development areas can be called "Stream" - science, technology, engineering, arts and mathematics;
- Creating tangible objects is better than educational robotics it is a chance to create real stuff to take home and to have a daily use of.

Getting involved in digital design and fabrication today is more accessible than one could imagine: many tools which used to be "specialized software" now are open/free online platforms to design and produce.

The existence of "Fab Labs", "Maker Spaces", "Hacker Spaces", "Public Labs", etc. are not only making the physical access to technology easy, but mostly being socialist, liberal, top-down organizations are conveying the message of open and free use of technology for global development.

# Why it is important to encourage the use of digital design and fabrication in schools?

- Today, when the virtual reality is very much present in everyday life, this is a statement which proves that not everything is immaterial, the future is not fully digital, and that even smart clothes need prototyping.
- We have a lack of design thinking which is an absolute must for being competitive tomorrow.
- Design and creation interconnect different subjects and disciplines, prepare future adults, who are adoptable to the changing world and who correspond to the demands of the job market, where most workplaces require interdisciplinary and multidisciplinary education.
- Teaching digital design and fabrication takes substantial amount of resources, but investing in school system and sponsoring this type of education society is investing in its future.





Presented during the side-even at "Espaces" Educational Centre on November 3, 2014

### "Education and Society: Shift of Paradigms" Eric Lupi, Switzerland

Each type of society and every education system is based on specific paradigms. The strong interaction between the society and its education system make those interdependent.

In the recent 60 years, in Europe and the USA, the society has moved from "company production and mass consumption" towards "information economy and knowledge society". This resulted in a parallel change of the concept of education, transforming it from the "basic education" to an approach of "knowledge creation." The latter implies a use of technology, information management, effective communication and cooperation, interdisciplinary approach, and learning autonomy apart from the common activity taught by professors.

The shift of paradigms is most visible through the following table:

# Company production and mass consumption

- A little number of individuals acquire advanced competences and a large number of competences are the minimal required ones.
- Standardization of processes and products
- Programmes focus on knowledge around certain disciplines
- (4) Knowledge is an established fact
- 5 The teacher holds the central authority and shares information
- 6 Individual work
- Technology is perceived as a supplement
- 8 Centralization of education and hierarchic school structure

# Information economy and knowledge society

- A large number of individuals acquire advanced competences
- Personalization of processes and individualization of results
- 3 Knowledge of certain disciplines is created through other competences, namely: cooperation, communication, and problem-solving
- 4 Knowledge is created
- 5 The students are both the learners and conscious creators of knowledge; the teacher cooperates to offer models of learning
- 6 Collaborative projects
- Technology has central role
- 8 Decentralization of education and horizontal school structure



To be able to identify the trends in the field of education and to address those, it is necessary to have a full picture of:

- What the nature of the changes taking place in the society of the country is;
- What possible historic events have contributed to that change;
- What similarities and differences there are with the rest of the world (Eastern and Western societies);
- What prospects of the future and what aspirations the society has.

Even having identified the trends, it is important to note that the change in the society and hence, the shift of educational paradigms require certain preconditions:

- Constant presence of movements (often underground), which promote change;
- The importance to network for change;
- Change is slow and it takes patience;
- The necessity of efficient management of the time spend between innovation and adaptation.



forum participant

### About Eric Lupi

Eric Lupi was born in Mendrisio, canton of Ticino - the Italian-speaking part of Switzerland, 70 years ago. He studied psychology at Geneva University, as well as Social Work and Group Facilitation in the University of Lausanne.

Eric is self-taught in IT for almost 30 years (his first computer being "Commodore 128") and trained on the use of IT in work with disabled people. He is engaged in activities round various social issues, mostly related to migrants.

Since 2004, Eric works with KASA Swiss Humanitarian Foundation as a consultant on development and promotion of IT and on e-Learning projects carried out by KASA.

He is fascinated by the philosophical and theological reflection.







### **Providing Borderless Education**

Within this section of the report, the reader is invited to find out more about organizations providing e-Learning opportunities in Armenia and in Syria (basing the choice of the latter on the fact that information on such educational opportunity is highly demanded among a large number of Syrian refugees in Armenia).

The featuring organizations were presented either during the forum or at the sideevents, linking their experience with the demands of the market as well as the interest fields of the present audience.

My main motivation to participate was to try to understand the benefit of MOOCs for Armenia and to see how the participating organisations assist Armenians to gain specialized skills using MOOCs.

forum participant



### **KASA Swiss Humanitarian Foundation**

www.kasa.am elearning.kasa.am

Recent developments of the web, particularly the ease of communication and possibilities of aggregators to filter information, have fundamentally changed the context of learning. People can now learn outside educational institutions, through online networks, and depending on the quality of the course and the connection made, their learning experience is quite different. Consequently, the role of a teacher has also changed: teachers now have harnessed the power of information and communication technologies bringing dramatic change in the educational landscape, resulting in a paradigm shift.

To reduce the social, cultural and digital divide between the capital Yerevan and other regions of Armenia and provide population in rural areas with access to education, KASA has designed an e-Learning platform to support people in taking online courses and getting necessary knowledge to find a job, hence eventually reducing unemployment in Armenia.

e-Learning has several benefits:

- It reduces travel time and travel costs and provides flexibility to study from anywhere
- It accommodates different learning styles and facilitates learning through a variety of activities
- It develops knowledge of the Internet and computer skills necessary for career development
- It gives confidence and encourages students to take responsibility for their learning

Since 2007, KASA has invested in creating a platform and environment for e-Learning, and one of the first steps towards that was the translation of Moodle Learning Management System into Armenian. We encourage people to use new technologies by conducting trainings on article publishing on the web, spreading the philosophy of Free software, and contributing to the publication of articles on Wikipedia. KASA has contributed over 100 articles in Armenian about internet culture to the Armenian Wikipedia. Besides, we use methods of non-formal education to ensure lifelong learning of the students.

Currently, KASA uses e-Learning in all its programs by combining course meetings with e-Learning, as well as provides online courses in Armenian to interested people, both in Yerevan and the regions. In addition to the lessons, participants get access to online discussion forums, assignments and quizzes to better connect with their peers and trainers.







### **AGBU Armenian Virtual College**

www.avc-agbu.org

The AGBU Armenian Virtual College (AVC) is the world's leading online educational institution that aims to facilitate Armenian studies through modern technologies. AVC multimedia e-Book series and courses in Armenian language, history, and culture, are offered in seven languages. AVC classes are open to anyone who is interested in Armenian studies, delivering a virtual classroom to students who do not have access to traditional, face-to-face Armenian educational programs, while supplementing the curriculum of those who do. AVC provides a virtual learning community that fosters cultural, educational and social ties across the globe.

The mission of the Armenian Virtual College is to provide learners around the world with the opportunity to receive a full-fledged education in Armenian Studies, regardless of their age, country of residence, or knowledge level. With the latest advances in the world of virtual education, AVC strives to create a virtual learning community that fosters both the cultural education and social communication otherwise out of the reach of students who wish to pursue education in the field of Armenian Studies.

Core Values of AVC are:

- Academic and technology excellence
- Supportive online atmosphere
- Creativity and innovation
- Promotion of lifelong learning for career and personal growth
- Maintenance and revitalization of the Armenian culture
- Continuous partnerships with Armenian communities

The Armenian Virtual College offers Armenian education to about 4000 students (mainly Armenians or residents of Armenia) covering the following subject domains:

- Armenian Language
- Armenian History
- Armenian Culture
- Architecture
- Music
- Chess

Courses are offered in seven languages of instruction: Eastern Armenian, Western Armenian, English, French, Russian, Spanish, and Turkish.

To enrich the educational experience of their students, AVC presents Multimedia e-Book Series, Hybrid Program blending traditional and online education, and Virtual Tours for AVC students round the world.





### National Center of Educational Technologies (NCET)

eng.ktak.am learning.armedu.am

The "National Center of Educational Technologies" (NCET) was established on March 11, 2004, following Decision #408 of the Government of the Republic of Armenia, to underline that information and communication technologies (ICT) are of great importance from the point of view of developing the Armenian Educational system and providing its compliance with the international standards. It is impossible to develop contemporary educational environment, introducing new teaching methods and measures without them.

NCET mission is to develop contemporary educational environment in Armenia.

NCET objective is to introduce ICT in general (secondary) schools in Armenia and ensure their further availability.

NCET main activities are:

- Provision of general schools with up to date computer facilities;
- Integrating universal computer network among general schools and insured access of schools to Internet;
- Opening computer training centers in general schools;
- Systemizing educational ICT curriculums in Armenia;
- Improvement of computer competence of the teachers through training;
- Development and operation of general schools' internet portals;
- Developing, publishing and provision of computer teaching materials and curriculums for the general schools;
- Creation of educational information and communication environment, gradually involving in the common computer network also the vocational and higher education institutions.

NCET acts as a Partner Support Agency (PSA) for eTwinning programme which is part of the European Union's Lifelong Learning programme and provides an online platform for educational staff to communicate, collaborate, develop projects and be part of the most exciting learning community in Europe. The function of NCET in this capacity is to provide training and support for the schools and teachers who have been selected to participate in the programme from Armenia.

NCET also provides online courses for groups of teachers (up to 30 persons at a time). Among those available currently are:

- Foreign languages (English for beginners and intermediate levels);
- Use of multimedia tools for effective project realization;
- Development of assessment culture in education process;
- Professional development course for high-school vice-principals;
- Methodologies for teaching various subjects in school, and more.



### German Federal Enterprise for International Cooperation (GIZ) Armenian e-Learning Network

Ims.elearning.am

GIZ E-Academy for worldwide learning - the Global Campus 21 E-Academy enables professional expertise, managerial skills and leadership experience to be gained, extended and passed on in developing countries by means of new learning media. Participants from all over the world use online courses and learning space to learn together, share experiences and collaborate on projects.

The GC21 E-Academy aims to convey more than just knowledge. It is intended to offer a different type of e-Learning that combines important topics based on the idea of one world and reciprocal learning, thereby overcoming political and cultural obstacles. Within the GC21 E-Academy, "how" and "with whom" are just as important as "what".

The programme operates on different levels:

- Individual;
- Institutional (mainly with higher and vocational education institutions);
- National cooperation (through exchange of resources, methodology, experts, content);
- International cooperation (information and experience exchange, sharing best practice in Central Asia).

GIZ undertook the development of Armenian e-Learning Network (ArmeLNet) as community of practice. The Armenian e-Learning Network (ArmeLNet) is a joint initiative of eight public and private training and education organizations from Armenia. The objective of ArmeLNet is to promote e-Learning to the Armenian Education landscape and to support member organizations throughout Armenia in the development and deployment of e-Learning activities.

The ArmeLNet supports the quality assurance of e-Learning courses and modules produced by its members by providing an effective assessment tool (Caucasus e-Learning Quality Assessment).

The Portal of the eLearning Centre (eLC) was created with the goal of development and support of any form of e-Learning at educational institutions and enhancement of the capacities of instructors and students, to achieve quality educational and scientific activities of educational institutions.

The Portal allows each participant of the learning process to have individual access to learning, in accordance with the developed plan. Currently the Portal offers e-Learning courses on various subjects to its member institutions, as well as two courses open for general audience:



• How to look for a job;

• PowerPoint programme.

### Syrian Virtual University

### Presented by Sami Khiami, Instructor in SVU since 2003 www.svuonline.org

Established by the Syrian Ministry of Higher Education in September 2002, Syrian Presented Virtual University is the first virtual education institution in the region. Since its during the side-event beginning, parallel to creating the local content and the AHND, much effort was at "Espaces" put to training and retraining of tutors, as well as internal and external verification. Educational Centre on

Some of the available programmes at SYU are:

- $\odot$ EHND, AHND, English studies
- $\odot$ Information system engineering
- $\odot$ Law Bachelor
- Education diplomat (Professional)  $\odot$
- $\odot$ Master of web science (Academic)
- $\odot$ Master of business administration
- $\odot$ Currently preparing Ph.D. joined program

In the design of each course, an authoring team composed of main author (+instructional designer), academic reviewer, language reviewer and an IT team leader is involved, to:

- $\odot$ Isolate learning objectives for each subject;
- $\odot$ Check intersection and dependencies with other materials;
- $\odot$ Create program dependency map on the level of learning objectives;
- $\odot$ Get the Program manager and university board approval;
- $\odot$ Select relevant resources.

As for the methodology, the following sequence of "remembering - understanding - applying - analysing - evaluating - creating" is applied. It is task-centred approach, , based on activation of previous knowledge, demonstration of skills and application of acquired knowledge, followed by integration of the acquired learning in the everyday life.

Education is focused on tutoring and not lecturing, there is much room for discussion and question, materials are both synchronous and asynchronous.

Political and economic crises, such as the situation in Syria caused by the war, are normally associated with periodical security, social and financial instability. In such situation e-Learning becomes most relevant:

- $\odot$ Available anytime (regardless of resources instability, electricity cuts) and anywhere (many students and teachers had to leave the country, there is no need to move from the secure place);
- Data is redundant (data centres are anywhere, data is backed-up).  $\odot$



November 6,

2014



### Learning for the Future: Insights and Loud Thoughts Challenges and Open Questions

Regardless of all the mentioned advantages of open education and the showcased examples of successful implementation of e-Learning, it is rather evident that certain challenges restrain the true burst of the field.

One of the main challenges of e-Learning today is how to deal with the confrontation of the two approaches in education: "need of degree" vs. "need of knowledge". Approach of "education beyond degree" can become a barrier for further extension of e-Learning. At the same time, the possibility of creating personal learning environment can be a motive.

In the same light, the question of assessment and credentials remains open. e-Learning can become the drive to move beyond institutional credentials and give possibility for own unique life-long and life-wide learning. It is also possible to imagine an assessment mechanism through interaction within the network, assuming that knowledge acquired and possessed within the network is more important than the given degree (similar to trusting a doctor through their experience, their way towards becoming from an intern to a "real doctor" post credential assessment and "trust" of their network).

Nonetheless, the individual need and the social demand for "real knowledge" (at least for certain set of subjects) and the relativity of open learning cannot be neglected. This is especially true in regards to verification component of the knowledge. How does one know whether his/her learning is correct as a whole? Is the society able to get off the rails and become self-destructive? How do we know if the question-matter is "true"? And what is the source or instance of verification? These are some of the questions which remain highly debatable.

Learning in a network takes much time - first of all the time which is required for the maturity of the network itself. And though the instructor-led method is faster, it is also narrowing the learning: learning only one "dot" does not guarantee the capacity for further thought, action, and the skill to "connect dots". In other words, while learning outside the network, it is never possible to acquire more than something very specific. Learning in the network could mean taking each piece of communication, each observation and point of view to construct a totality of information; it requires listening to many people, their experiences, getting a broad cross-section, aggregating information from diverse sources, and trying to understand whether the totality - the social knowledge is right.



Thus, there is no independent verification system, it depends on trust in the process and the method (the semantic condition), and in case a dynamic network is formed, the learning verification will happen automatically, based on the process.

### To Conclude:

There are certain preconditions for the "new type" of learning to succeed:

- Government should assume a new role of the provider of digital infrastructure and policies on digital rights (both to protect those and to enable sharing and reusing the resources).
- There must be an ongoing support for creating and modifying structures, systems, tools, resources, and technology for learning.
- Certain approaches on pricing, social and virtual presence, accessibility of e-Learning are needed, both on the level of individual providers of e-Learning and on a policy level.
- There is a need to educate and prepare the learners for the new way of learning, and this should be done from a level as low as the basic information literacy.

The future of learning, though impossible to predict, will reflect the trends and be the results of the changes in the society. The bulk of learning will happen outside the class, in the community, through network use of the resource and infrastructure. To insure effectiveness of this process, the community should be engaged in making tools for learning.

Research as well as education, in general, will need to become interdisciplinary; therefore, a person cannot be put in a box and learn only one discipline at a time. The motivation of the learners will mainly become a self-managed task and will be based on their willingness and interest in the content and methodology of the subject of interest. If learning is based on the FLOW (or gaming) theory - hard enough to be a challenge and at the same time easy enough to be possible, the learners will be encouraged to proceed even without the "real presence" of an instructor or a hierarchic system.

The purposes of learning can be different: learning for the sake of learning, learning for the sake of being productive or many other purposes. This is individual for everyone. Though "learning for the sake of learning" is thought to be useless, the society finds such "learners" useful. It is important to accept, that people have different needs to study and each need is equally valid and justified. Moreover, if one does not choose what to pursue, most likely the others will choose it for him/ her.



### **Programme of the Event**







This section of the report compiles brief information on organizations and institutions which made the Forum and the side events possible, and which strive for multiplication of this and similar educational initiatives.



www.kasa.am elearning.kasa.am

### **KASA Swiss Humanitarian Foundation**

KASA Swiss Humanitarian Foundation, which in Switzerland is known as "Komitas" Action Swiss-Armenia benevolent union, is a non-profit organization, which started its activities in 2001, and in the beginning it was implementing mainly humanitarian, construction or psychological projects.

Walking along with the time pace, starting from 2008 the organization mainly implements projects focusing on education, e-Learning, formation of civil society and on the sustainable development of the country.

KASA is committed to the sustainable development in Armenia by means of education, social-economic and social-cultural inclusion.



www.tumo.org

### **Tumo Center for Creative Technologies**

Tumo Center for Creative Technologies is a new kind of after-school learning environment where thousands of students, aged 12-18, are in charge of their own learning. Guided by skilled educators and mentored by media professionals, students navigate through their personal learning plans via the Tumo World, a special learning interface that prepares them for handson practice. Specialized workshops, guest lectures and community events give students a chance to apply their knowledge and skills to the world around them.

### The Swiss Embassy in Yerevan

The Swiss Embassy in Yerevan is the competent representation for diplomatic relations with Armenia; it covers all matters concerning diplomatic relations between the two countries, represents Swiss interests in the areas of political, economic and financial affairs, legal arrangements.

Along with its other activity, the embassy fosters collaboration in the areas of science, technology and education with the aim of strengthening cooperation between the two countries in terms of research and innovation.

### PanARMENIAN.NET

PanARMENIAN.NET is the first Armenian online news and analytical agency and one of the most cited Armenian informational resources worldwide. The agency's full information flow is being published on PanARMENIAN.NET website in three languages.

The website contains news feed, analytic materials, reviews, interviews, photo sets and topic-peculiar information.



Anna Yeghoyan has been working in the field of youth work, training and youth policy in Armenia for over 10 years, she has been an active advocate of youth participation on all levels: from community development to policy making. Anna has significant experience in capacity development, voluntary work and non-formal education. She has been organising, facilitating and documenting large-scale non-formal education events on local and international levels.

Anna is an active user of MOOCs and true believer in accessibility of education for all. For more information you can see her *TOY profile*.



### 30

Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Ambassade de Suisse en Arménie

0

www.eda.admin.ch/yerevan











Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra



Ambassade de Suisse en Arménie



Yerevan, Armenia 2014









