

## **Networked Curricula:**

### **Fostering transnational partnerships in open and distance education and blended learning**

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#### **Abstract**

The general aim of the NetCU project is to develop models, guidelines and strategies for transnational networked curricula that supply a broader range of content and learning activities, supported by innovative ICT. This is done in a series of actions:

As a first step a comprehensive overview of existing networked curricula was drawn and presented in an on-line map. A set of key areas on networked curricula were analysed, e.g. the educational model, the ways of sharing of content, the role of mobility, issues of assessment, recognition and quality assurance, language provision, the role and usage of ICT in the curriculum, its management and business model. Which advantages has the curriculum for the partners and which obstacles were/are faced? How do the students embrace it? How are the national, legal and institutional frameworks defined. Information on these and further questions will deliver comprehensive data for deriving systematic models of networked curricula in ODE and blended learning.

The analyses of existing models has led to a publication of a handbook on networked curricula. The models of specific cases were transferred into common features of networked curricula in ODE and blended learning and translated into viable guidelines for developing and implementing transnational networked curricula. To strengthen the important technological dimension of networked curricula in ODE and blended learning innovative ICT solutions were shared, analysed and plugged into one of the case studies for testing and enhancing.

The results achieved will stimulate and facilitate the set-up of new networked curricula and improve existing ones and thus trigger the positive effects as described in the previous part of this document.

In this paper presentation we will address the success factors identified in the analysed 19 networked curricula, the definition of models in networked curricula as well as the support offered by the ICT toolbox on social media and learning platforms.

**Coordination:** European Association of distance Teaching Universities (EADTU)

**Consortium partners:** EADTU (NL), Uninettuno (IT), UNED (ES), Tallinn University (EE), FernUni Hagen (DE), KU Leuven (BE), OUNL (NL), Anadolu (TR), Universidade Aberta (PT), Vrije Universiteit Brussels (BE), Kaunas University of Technology (LT), Hungarian e-University network (HU), Open University of Cyprus (CY), CADUV (CZ), FernSchweiz (CH), MESI (RU)

#### **Keywords**

Networked curricula, networked education, networked learning, virtual mobility,

## NetCu: Networked Curricula

### Fostering transnational partnerships in open and distance education and blended learning

#### 1. Capturing the models in networked curricula; the NetCU approach

Networked curricula are operational throughout Europe. They offer students a broader range of content, better quality and an improved international learning experience. This does not only attract students and qualified staff, it is also a major step towards the realization of a European Higher Education Area as part of the Bologna process. However, most networked curricula so far are delivered in a traditional face-to-face setting and do therefore not cover the needs of a growing number of students like lifelong learners and non-mobile students. Also for university curricula development there is a lot to gain from further cooperation.

The NetCu project is therefore contributing to facilitated future set-up of networked curricula by HE institutions and potentially lead to more transnational partnerships in ODE and blended learning. Universities will receive strategic and practical support for improving the quality of their curricula and for strengthening their international portfolio. Students will find access to more and better learning opportunities and will enhance their ICT and international skills. On the European level the transparency and convergence will grow and a European identity of study programmes in ODE and blended learning will be created. As a consortium we want to stimulate this by developing guidelines and recommendations for further networked education, based on research.

The NetCu consortium consists of in total 16 European partners representing 19 good practices of networked curricula. All examples have started spontaneously without a structured approach. Our main aim in this project now is to analyse and understand the various elements of these running examples and come to guidelines and recommendations for other universities to start international networked education. This way, new to be established networks can learn from earlier examples and work more efficiently towards the goals set. It also lowers the threshold for universities to start working on networked education as many foreseen problems are within the guidelines linked with solutions from practice. The collection of success factors from existing models will help new initiatives to become successful as well.

#### 2. Approach

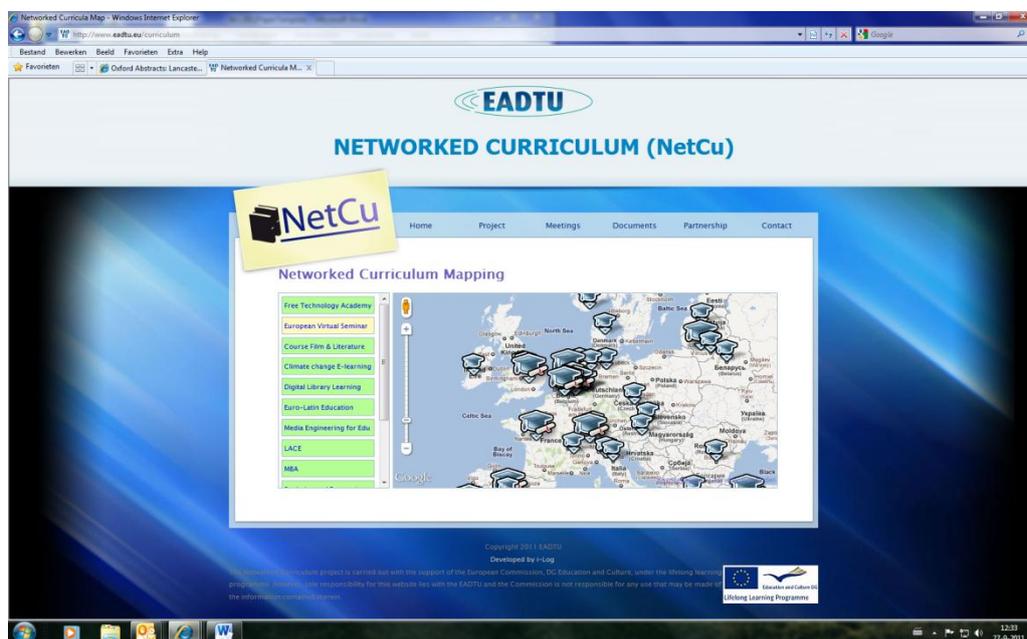
The project worked with a variety of European representative examples of networked curricula. In the table below we give an overview of the 19 different Networked Curricula that participate in this project.

Table 1 Involved networked curricula

<i>Partner</i>	<b>Name of curriculum</b>
<i>VUB</i>	Blended learning program for statistics and research methodology: BLODA
<i>Uninettuno</i>	Med Net'U –Mediterranean Network of Universities
<i>Uninettuno</i>	Information and Communication Technologies Engineering
<i>UNED</i>	Euromime 1
<i>TU</i>	Digital Library Learning
<i>OUNL</i>	Free Technology Academy
<i>El Gate</i>	El Gate University International Department Management

<i>OUC SLU</i>	OUC-SLU Educational Studies
<i>CADUV</i>	Konstruktivismus
<i>FERNUNI</i>	LECHE The Lived Experience of Climate Change e-learning
<i>OUNL</i>	European Virtual Seminar on Sustainable Development (EVS)
<i>KULeuven</i>	LACE (Literature And Change in Europe)
<i>ANADOLOU</i>	Anadolu University-Empire State College, State University of New York e-MBA Program
<i>DMAD</i>	Doctor's Degree in Digital Media-Arts
<i>KTU</i>	Distance Learning Systems and Theory
<i>KTU</i>	Support Systems in Distance Education
<i>MINSE</i>	International Master in Heat Treatment and Surface Engineering
<i>UFSchweiz</i>	Bachelor of Science Wirtschaftswissenschaft
<i>UFSchweiz</i>	Sciences économiques

An interactive map was designed to show the participating universities per example and also present the European coverage of these examples.



The examples mentioned above form the basis for our analysis to come to models, guidelines and strategies for networked curricula.

The consortium therefore started a structured approach of data collection to grasp the essential common and distinguishing elements of the various models of networked education within our consortium. For this purpose a questionnaire was developed and distributed on the specific characteristics of every networked curriculum example.

The main questions to be answered were directly related to the operational and didactic models each example represents, under 8 main topics:

1. Basic info of the Networked Curriculum
2. Management
3. Teaching and learning
4. Didactic tools
5. Technical aspects
6. Mobility
7. Quality assurance
8. Key aspects in networked curricula design

The data generated by the questionnaires showed great diversity on all topics, including very sophisticated models. In all, a very representative data collection for the whole of Europe was achieved.

### **3. Main outcomes**

The consortium core group of researchers analyzed these data on successful models, success factors, proven solutions, ICT support and many more essential elements of running and new to start up practices.

There are for example clear differences on where the initiative is taken, the number of universities involved and the impact of this on the process of developing such a curriculum. Often examples started with a few partners and ended up with many. It is for our analyses interesting to see how it all started: the funding, the formal and informal meetings etc. and how these resulted in fully operational programmes with different success rates and success factors on the 8 identified main topics of networked curricula.

#### **3.1 Identified Models**

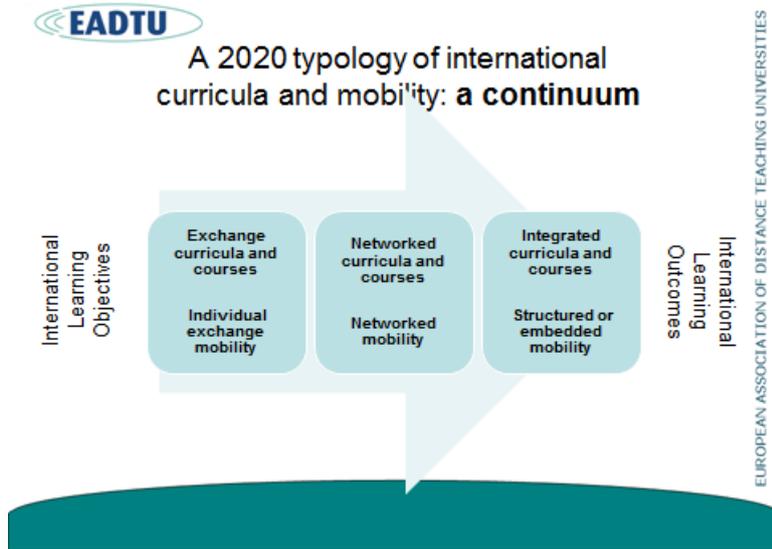
The majority of the NetCu examples don't have a very long history, most were established in 2008 or later. The orientation of the participating curricula is mainly international, only three curricula are orientated on the national level. Most programs have been created thanks to a grant (national or international) but some are based on university investments. In relation to this, it is important to know what the objectives of institutions are to start-up a networked curriculum.

In practice the commitment and involvement of students and/or institutions can be different. At this point we can distinguish three models under which we can categorize them as follows:

- *Exchange curricula with exchange mobility*: students choose a study abroad at a host university in a framework of (in most cases Erasmus) agreements, according to an individual mobility arrangement. The mobility period is recognized by the home university, that will award the final degree.
- *Networked curricula with networked mobility*: students choose complementary courses/options/ project or thesis work in the partnership's network, which can deliver a double certificate or double degree. It is still

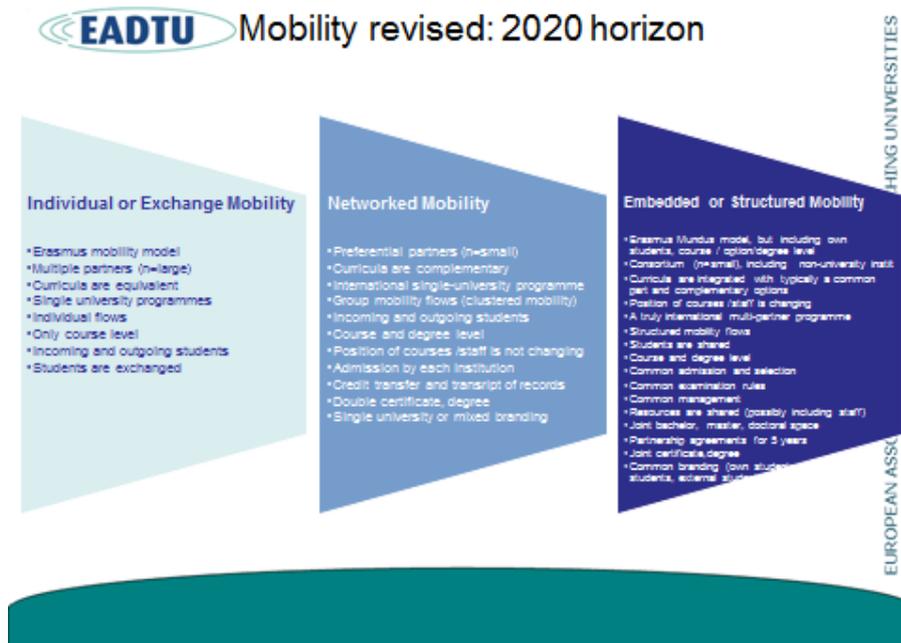
individual mobility. Each partner runs its own programme separately, but agreements on mobility for groups of students, who basically want to specialize in a domain, are made.

- *Integrated curricula with integrated or embedded mobility*: a curriculum is designed as one single, common programme and mobility flows for all students are embedded in this structure, which will deliver joint certificates/degrees. Mobility is conceived in pre-designed mobility paths (individual study programmes or ISP's, which by definition contain mobility).



(Fig. 1a)

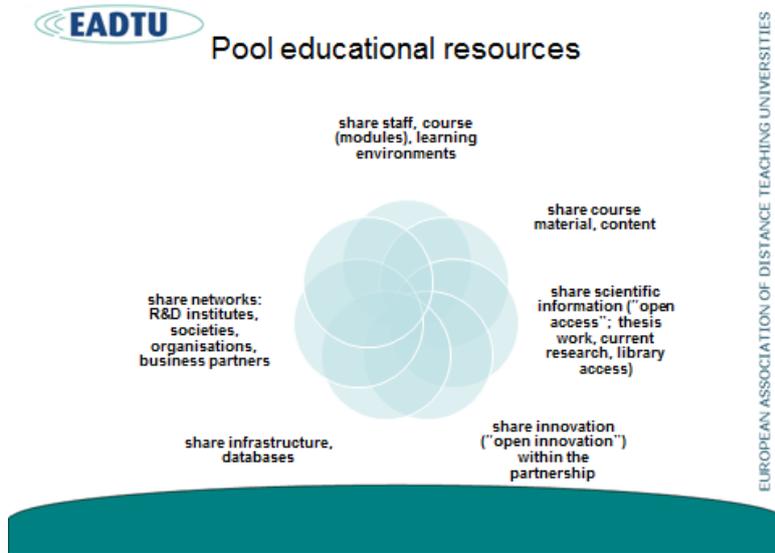
This can be further worked out in details and characteristics per model as shown below:



(Fig. 1b)

The examples of the NetCu project can be placed in the framework of these 3 models.

Relevant levels of cooperation are: course, curriculum or institutional level. In addition the intensity of cooperation is relevant on the level of shared staff, shared innovation, shared infrastructure, shared information, shared courses and networks as shown in fig. 2.



(Fig. 2)

The orientation of cooperation can further be specified as follows:

- student career
- teacher oriented
- institutional
- market orientation
- research
- innovation
- content
- quality

All these, or a combination of these orientations build the goals of the networked curriculum.

The combination of the goals and the target groups forms the main ingredient for the format and design of the networked curriculum model. The formats are built on a wide range variables. The NetCu Guide on networked curricula addresses these elements and guides the reader in making choices and decisions.

### 3.2 Identified benefits of networked curricula

Global aims of networked curricula are intrinsically related with the benefits which are expected to be obtained after its implementation. The benefits of these programmes affect academics and students involved, but also institutions and the wider society. Some of the benefits perceived by the NetCU partners are the following:

**a) Benefits for academics**

- High quality of curriculum resources due to the international and multidisciplinary approaches
- Innovation in their respective fields
- High level of academic discussion with the participation of experts from all the world
- Developing intercultural communication skills
- Developing skills in advanced information and communication systems
- Developing skills in distance teaching and tutoring
- Gaining international experience
- Mobility and capacity to operate in a wider context
- Sharing of knowledge and resources
- Better exploitation of research results
- Open possibilities for further cooperation

**b) Benefits for students**

- Mobility and capacity to operate in a wider context
- Development of intercultural communication skills
- Sharing of knowledge and resources
- Learning from different approaches and through a variety of methodologies in an emerging environment
- Meet, interact and participate together with people from all over the world
- Improve the value of their respective Degrees

**c) Benefits for institutions**

- Improve technical infrastructure
- Enhance academic potential
- Easier implementation of the EHEA
- Offer an internationally recognized curricula
- Establish relationships with other institutions
- Integrate best expertise
- Develop more efficient and effective cooperation models
- Innovation
- Opportunity to take a pioneer role in an emerging field
- Increase their autonomy

**d) Benefits for the wider society**

- More democratic access to knowledge
- Promote educational reforms in peripheral countries and regions
- Development of socially important fields such as climate change or sustainable development

Often, the objectives of networked curricula are not well stated or restricted to the direct involved departments. New initiatives would gain from this support on defining the objectives more extensively by using the NetCu Guide's references to possible benefits.

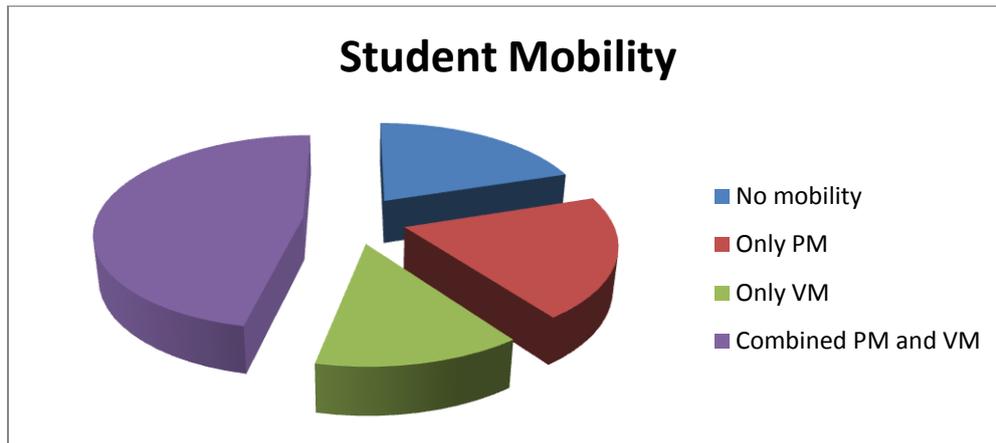
### **3.3 Mobility**

Referring to student mobility, usually means referring to the highly successful mobility programmes under the EU Erasmus scheme. To use the full potential of university's proximity universities can also use their virtual proximity next to physical proximity. This means that any university nowadays can offer access to programmes,

knowledge and even interaction with fellow students and staff within a virtual mobility scheme. Although not common practice for all universities, but only by the combination of a physical and virtual mobility programmes, universities use the full potential of giving access to international students and staff.

As is shown in Fig. 4, mobility and especially the combination of PM and VM are important factors in networked curricula. Only 3 of the 15 examples operate without any form of mobility. These are programmes that solely operate at national programmes. 3 Examples operate with only PM and 2 with only VM. The majority of examples (7) operates in a combined scheme of PM and VM.

(Fig. 3) Number of (combined) PM and VM models used for staff and students



The components of student mobility include activities like:

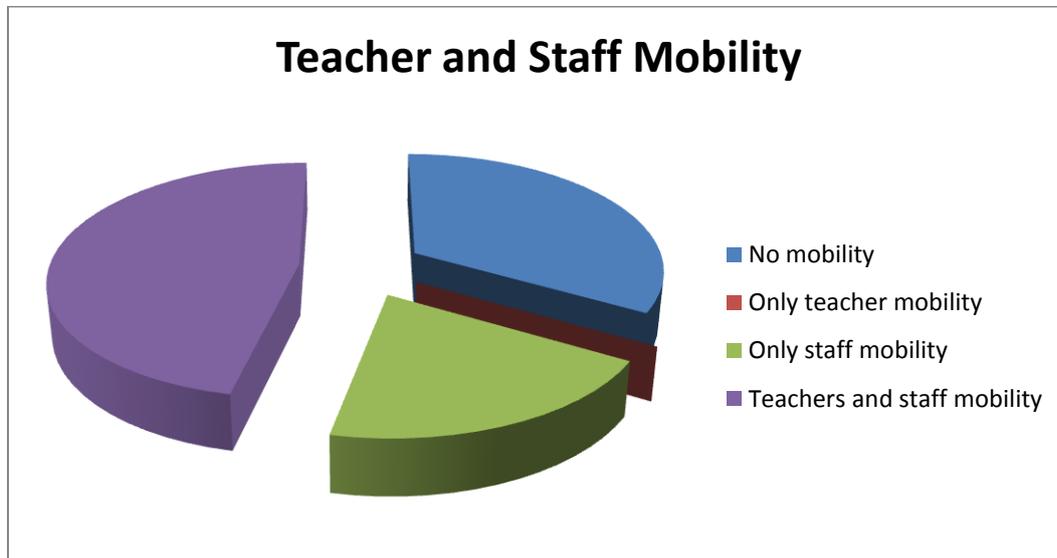
- Training on the job for students
- Spending terms at different universities
- Students are taught by different tutors (on-line)
- Practical training
- Internships
- Collaboration with other students
- Exams face to face

For staff, activities within mobility have more to do with:

- Meetings and seminars
- Sharing experiences and training
- Teaching different groups of students

Mobility brings diversity in disciplinary, sociocultural and geographical perspectives. It is therefore considered to be an essential part of organizing networked curricula. From our consortium 10 out of 12 examples of international networked curricula offer mobility for the staff and teachers.

(Fig. 4) Number of (combined) teacher and staff mobility



The reason for (spontaneously) setting up networked curricula and investing in international mobility schemes are to be found in the direct added value universities find by international cooperation. Networked curricula are clearly in the direct interest of the program as well as for the participation of students and staff. Benefits Indicated by the NetCu consortium for mobility are:

- Sharing common didactic methodology
- International internships: added value and increased placement possibilities for students
- Sharing content and procedures
- International and cultural experience
- Mobility needed to support the networked curriculum
- To improve personal relationships within the networked curriculum
- Learning new skills of virtual collaboration
- Mobility creates an inspiring environment for new ideas and innovations

It is therefore that (co-)funding is always found by the participating universities. The most common funding schemes are:

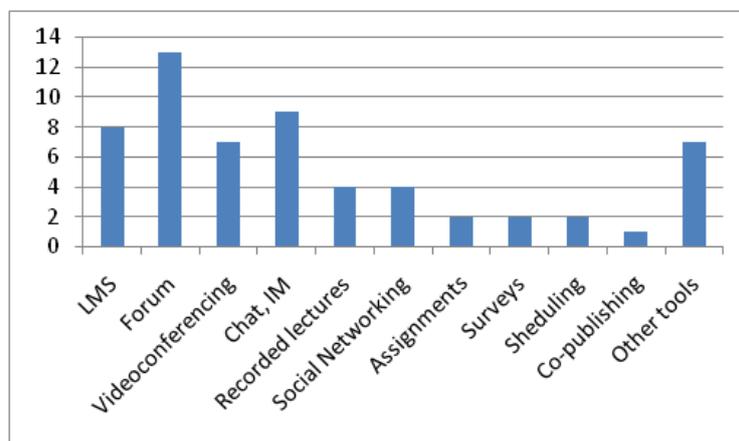
- Project funding
- Self-financed by the students
- University funding
- Erasmus and Erasmus Mundus

### 3.4 NetCu survey on ICT Tools in networked curricula

During the implementation of the NetCu project the survey about delivery of Networked Curricula included 16 filled in questionnaires analysed by making generalisation on didactic tools and technologies used for Networked Curricula. Didactic tools were addressed just by one question section 4 of the Questionnaire “Please list the most important didactic tools (chat, videoconferences, forums, social networks, etc.) adopted to create interactions among students and between students and teachers. Describe how the tools are used and how important they are in the learning process. (not only successful tools should be listed, even experiences of ineffective tools can be useful)”, while Technical aspects were addressed by 4 questions in section 5:

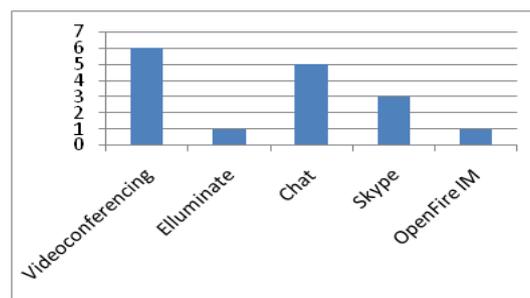
- 5.1) Which kind of web-platform is used for distance learning?
- 5.2) Who is responsible of the web-platform management?
- 5.3) Are all the web-platform features integrated?
- 5.4) Which languages the web-platform supports?

Different interpretation of term didactic tools resulted into LMS categorization as a didactic tool in 8 out of 16 cases. Tools have been spited into separate categories where in explanation LMS was broken down to separate tools.



(Fig. 5) Use of didactic Tools

As we see from the results asynchronous discussion forums dominating among other tools, while e-mail was mentioned just once. Among synchronous tools we can distinguish videoconferences as one of the most used technologies.



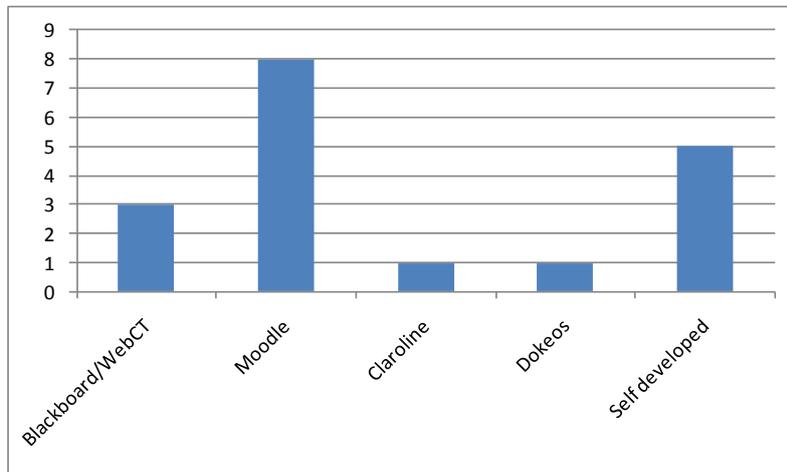
(Fig. 6) Use of synchronous tools

Among the used social networking (SN) platforms there were mentioned Mahara, Facebook, Joomla based SN and some unnamed SN. Some other tools mentioned includes:

- Assignment tools (LMS, DropBox);
- Survey tools;
- Scheduling&Agenda building;
- Co-publishing (Media Wiki);
- Blogging (Wordpress);

- Annotation tool;
- Certificate generator;
- HTM pages for embedding other tools.

From the technical platform point of view the most popular platform is Moodle.



(Fig. 1) Platforms used in Networked Curricula delivery

Among self-developed platforms there were mentioned IVA, Customized Moodle, Joomla or other unnamed solutions. Responsibility for the platform management usually lies on the single partner and just in one case it was mentioned that responsibility is shared.

Considering needs of Networked Curricula it is important to provide a toolbox of learning tools and with some recommendation to Higher education institutions that could be used in joined Networked Curricula. This could involve recommendations how to integrate institutional LMS (e.g. Moodle) with other tools and services, how to setup communication among institutional LMS's (e.g. MNET for Moodle), what extensions could be used etc. The NetCu consortium is currently experimenting with all those tools and technologies and will provide with some solutions in the nearest future.

#### 4. Concluding remarks

The questionnaires analysis has evidenced several interesting results on the different aspects of networked curricula. It has offered a good overview of different kinds of networked programs at national and international level. Next to the topics mentioned in this paper the NetCu consortium will further work on networked learning related issues like legal aspects, quality issues and partnerships. A fully worked out Guide on designing and implementing successful networked curricula and a compendium of showcases of networked curricula will be launched in September 2012 by EADTU.

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