

ICTE in Regional Development

# Lifelong Learning Strategy Framework for the Vidzeme Region

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## Abstract

In today's rapidly changing environment, lifelong learning is becoming a part of everyday life. Latvian regions face problems due to the fact that many well-educated people choose to work in the capital. There is no comprehensive strategy or technological support for lifelong learning in the Latvian regions which could upgrade people's competences and allow them to combine learning with work and family life. In this regard, it is important to create an overall strategy for lifelong learning which would incorporate learning as part of an ongoing lifelong process. The goal of the paper is to create a theoretical framework and provide new perspectives on the development of lifelong learning in the Vidzeme region. The paper is focused on identifying the major steps needed to make lifelong learning technologically viable in the Vidzeme region. The requirements and potential of each Vidzeme municipality have been researched for the purpose of improving the efficiency and quality of lifelong learning in the region. The paper represents the theoretical preconditions for qualitative development of lifelong learning in the region and presents a technological model which would provide the lifelong learning process with ongoing technological support.

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## 1. Introduction

The information age is connected to the production and usage of information. Knowledge and skills for quick orientation in a large-scale information flow are of great value. In recent years, the creation and usage of information has been growing very rapidly. Currently, it is possible to be a professional in any field without continuous lifelong

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learning. The problem which Latvia faces is the fact that many people move abroad in search of job possibilities and the problem which the Latvian regions face is the fact that many well-educated people choose to work in the capital.

In the period from 2007- 2014, depopulation took place in all regions of Latvia but the Vidzeme region occupies the second place after the Latgale region in this respect with a decrease of 12.9% in the population<sup>1</sup>. There is no overall strategy or technological support for lifelong learning (LLL) in Latvian regions which could upgrade people's competences and help them combine learning with work and family life. The problem is that there is no all-inclusive technological support or roadmap available for adult education in the regions of Latvia which could foster the identification and acquisition of the required knowledge and skills and serve as a uniting element for learning, work and personal time. The same problem also exists in many other European countries<sup>2,3,4,5</sup>.

The objective of the paper is to create a theoretical framework and provide new perspectives on the practical development of LLL in the Vidzeme region. The main study issue is to find basic guidelines and technological support for LLL in the Vidzeme region. The paper is focused on defining the major steps needed to make lifelong learning technologically viable in the Vidzeme region.

## 2. Theoretical grounds of lifelong learning in the EU

Europe 2020 has put forward three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation;
- Sustainable growth: promoting a more resource-efficient, greener and more competitive economy;
- Inclusive growth: fostering high-employment economy and social and territorial cohesion<sup>6</sup>.

The Commission has put forward seven flagship initiatives to catalyse progress under each priority theme and two of them are focused on education: "Youth on the move" to enhance the performance of education systems and to facilitate the entry of young people into the labour market; "An agenda for new skills and jobs" to modernise labour markets and empower people by developing their skills throughout their lifecycle with a view to increase labour participation and better match of labour supply and demand, including through labour mobility<sup>6</sup>. The final report of "Adult Learners in Digital Learning Environments (EAC-2013-0563)" recommends governments and adult learning providers across the EU to contribute to the development of innovative adult learning using ICTs (Information and Communication Technologies) and OER (Open Educational Resources). This can be achieved through effective organisational strategies, increasing the educators' skills and knowledge in innovative use of ICTs and OER, and focusing the institutional ICT infrastructure on sustainable ICT development as well as orienting the OER to the specific needs of adult learners. An enriched information base for adult learning across Europe can improve policy development<sup>7</sup>.

Many European countries do not have a clear national strategy for the use of innovative or enhanced learning technologies in adult education and training. The existing legal framework however foresees measures for enhanced ICT and OER use in educational environments; though the vast majority of these measures are addressed to school education (primary and secondary in particular). Some measures have been foreseen for higher education, too, but very little has been foreseen for adult education after formal schooling.

The main focus of the lifelong learning strategy for adult learners is the following:

- To train the labour force and enhance its capability of renewing/updating knowledge and skills for the entire life span (largely focuses on training and employment);
- To promote a comprehensive development of human personality, to develop broader social and cultural skills;
- To make available a multitude of quality learning alternatives to the citizens in order to engage them in lifelong learning programmes, adapting them to individual needs and inclinations.

According to the existing literature, in addition to the general provisional framework, there is a small number of bodies which implement the existing policies on adult education and LLL in practice without essentially focusing on ICT enhanced learning and which are in principle accountable to the Ministries of Education. The emerging challenges are summarized in the relevant literature as follows:

- increase of the percentage of the population aged 24-65 participating in LLL;
- decrease of the percentage of 16-64 year old early education leavers (drop-outs);
- inter-ministerial cooperation for the coordination on issues of LLL at a national level;
- validation and accreditation of LLL service providers, registry of providers in the NNLL and their connection to the LLL portal;
- consideration of complementarities and synergies among the providers with a view to upgrading quality and saving resources in LLL;
- strategic restructuring of the LLL services in terms of their field, content, tools, methods, procedures and their beneficiaries, in order for those services to be of high quality, adapted to the citizens' needs and interests, easily and equally accessible to *all*, directly connected to the labour market and to society, part of the broader education and training framework, thus enabling mobility<sup>8</sup>.

There has not been a fundamental conception of why LLL is vital for regional development in general<sup>9</sup>. In some regions, LLL is regarded to be a neglected subject and it has been pointed out that LLL is both critical to the lives of residents and supportive in tackling important economic, social and political tasks in the regions<sup>10</sup>. In this regard, it is important to create an overall strategy for LLL which would incorporate learning as part of an ongoing lifelong process. Besides the official legislative documents which focus on government actions, to improve the take up of adult learning, a small number of recent country reports and research studies reflecting the current situation and focusing on the role of ICT and OER in adult learning, and on developing an innovative learning environments includes the following:

- Pedagogic practices promoted by distance learning educational material on adult education<sup>11</sup>;
- Factors influencing adult distance teaching and learning processes<sup>12,13</sup>.

Based on the above documents, the general impression is that there is some political commitment to improve the supply rather than the quality of adult learning using the ICT and OER approaches. The current national policies on adult education and LLL include some initiatives that foster the development of ICT enhanced learning particularly in higher education environments. Until 2010, there was a large number of programmes which focused on developing basic ICT skills but with no interest in using the ICT as a medium for learning. There is also a very small number of programmes that focus on ICT supported learning by SMEs. A comprehensive system for adult education combining different aspects of education (formal, non-formal) has already been developed in some aspects. The main aim of this system is to offer multiple possibilities for learning and create an adequate learning environment, to reinforce the employability of the adult population, combat social exclusion and discrimination, as well as contribute to a social, cultural, economic, and sustainable development. This in its turn demands a well-developed education system, which also includes a lifelong learning strategy. Thus, new ideas and ways of how to give new momentum to lifelong learning should be found. The flourishing of different new technologies including highly popular mobile technologies might promise to provide some clues from the technological perspective. Enhanced ways of teaching and learning such as e-learning, m-learning and t-learning could probably cover the gap in education accessibility.

### 3. Lifelong learning perspectives in a regional context

Northern countries are in the forefront of Europe's lifelong learning and Finland's lifelong learning system is one of the most innovative and successful in Europe. Finland's Regional Development Strategy 2020 establishes strategic goals for the development of Finland's regions which are influenced by globalization, economical rises and falls, immigration, the availability of services, the changes in employment and the development of the populated regions<sup>14</sup>. This document outlines several scenarios for regional development. Some of them could be perspective

also for Latvia. At the same time, the LLL situation in Latvia has some similarities with that of Estonia<sup>15</sup>, Lithuania<sup>16</sup> and also with that of Greece<sup>17</sup> where LLL is much less developed than in Latvia. In many countries the LLL strategy has been elaborated by the Ministry of Education in co-operation with other state agencies mainly based on the following dimensions:

- the continuum of different forms of learning on a lifelong basis;
- the interaction of formal, non-formal and informal modes of learning, so that lifelong learning is extended to every aspect of life (school, workplace, social and personal life);
- the lifelong learning strategies are implemented through the education system.

The Sustainable Development Strategy of Latvia until 2030 is based on the idea that the education system and employers should encourage the culture of lifelong learning in society and constantly motivate people to hone their knowledge and skills outside formal education<sup>19</sup>. The basic guidelines of the lifelong learning policy in the Vidzeme region involve four main factors which affect the development of regional LLL:

- Basic guidelines of the LLL policy
- Development planning documents
- LLL indicators for assessment
- Structure of LLL

The main aim of such schemes and initiatives is to encourage adults to continuously participate in the learning process. The target groups of such programs include single parent families, socially disadvantaged communities, immigrants, the unemployed, the illiterate, etc. whereas the measures supporting the projects and actions are networking strategies, a framework for areas of learning and methodologies, raising awareness and dissemination, evaluation procedures and distance learning. Lifelong learning is identified not as an accumulation of academic knowledge or training of a limited range. Instead, it has more to do with the acquisition of multilateralism in the domains of communication, information and entrepreneurship.

#### **4. Knowledge fostering the technological model for the development of adult education in the Vidzeme region**

Online learning systems are widely used for collaborative learning which complements multi-person learning styles, and independent adults have also found online courses to be well-suited to their needs<sup>20</sup>.

The main learning management system for the Vidzeme region could be described from two aspects – from the aspect of the targeted knowledge fostering technological model for adult education (see Fig.1)<sup>21</sup> and from the teaching/learning aspect (see Fig.2).

The system includes all teaching providers in a single place and provides information on all activities in the system. There is also a possibility to request special courses, knowledge and skills from the relevant enterprise or municipality management. A specific approach is used to acquire information on the required skills and competences – the demands acquisition system (DAS) which performs the acquisition of data on the required competences from the parties involved. The details of the DAS are still being worked out. As a result, a list of skills, knowledge and competences and functionality options which should be acquired in adult education has been drawn. Defining and fostering the technological model which serves as a roadmap for adult education stakeholders in the Vidzeme region. This model implies that Moodle is not only used as a platform for hosting the adult learners' profiles, different adult education providers' profiles and the offered study courses in the Vidzeme region, but it provides also valuable statistics and reports for the local governments of the region and for the national government as well.

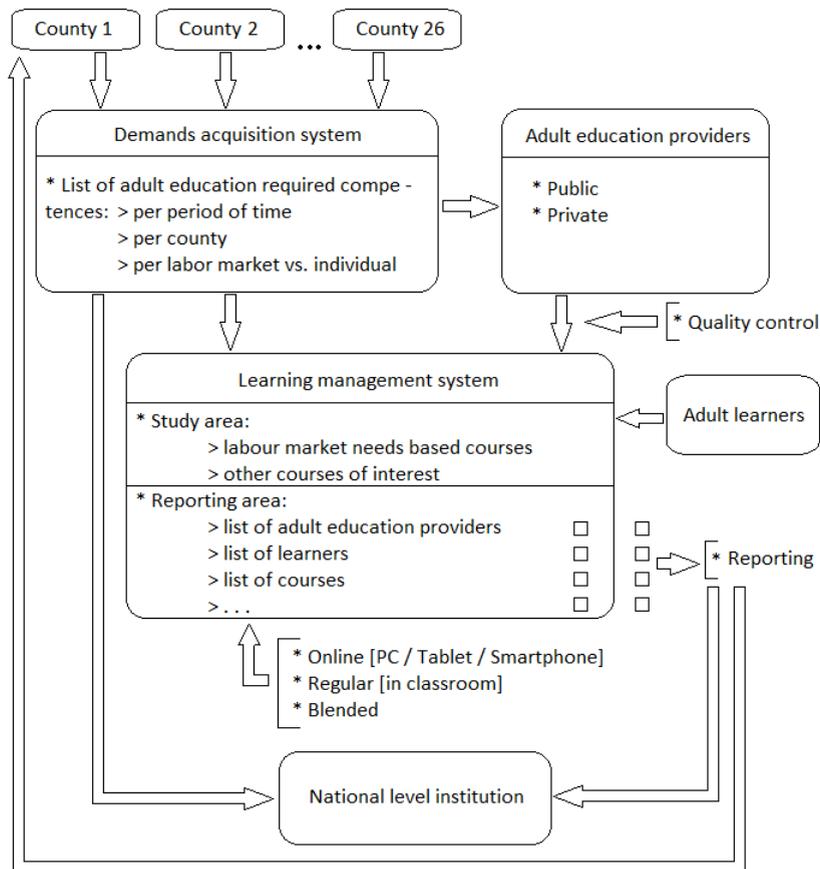


Fig. 1. Targeted knowledge fostering technological model for the development of adult education in the Vidzeme Region<sup>21</sup>

Current technology is an integral part of third generation (3G) wireless networks, and is being employed across a wide variety of communication devices, including cell phones, laptop computers, PDAs, television sets, and pagers. Privacy issues are typically addressed by allowing a high degree of user-defined control, allowing people to select conditions in which they are detectable, for example<sup>22</sup>. It has been said that a unified communication system is the next big thing in networking, but presence may be the next big thing in unified communications. In case you are not familiar with it, presence, put simply, is real-time information about a person's availability. The virtual information system (VIS) actualizes all actions in the system and informs all participants about new possibilities. On the other hand, the VIS gives feedback reports for the municipalities to organize all processes.

The reason that presence is such a powerful tool is that people no longer use a single communication mechanism. Today, nobody uses only the phone or e-mail. Instead, people often use office phones, cell phones, e-mail, instant messaging and videoconferencing, to name just a few types of communication. Unified messaging brings all of these forms of communication together, but the problem has always been in knowing which communication mechanism is best suited to a specific instance. For example, suppose that you need to get in touch with one of your co-workers<sup>23</sup>.

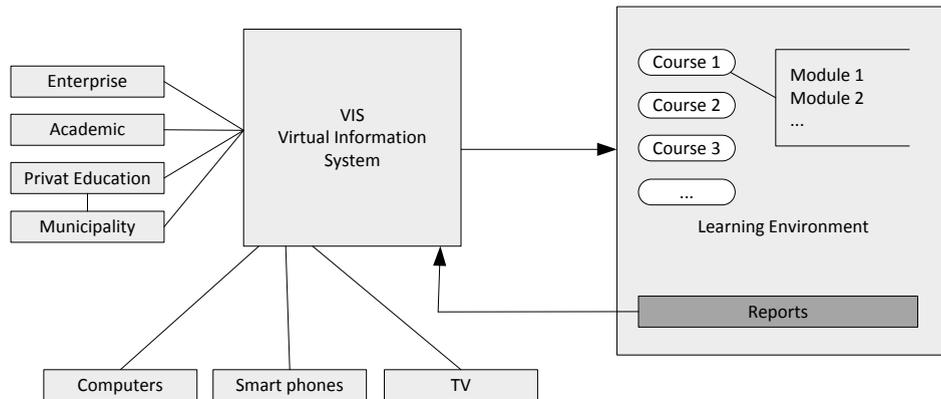


Fig. 2. Learning management system

With technologies constantly evolving, authors are debating another relationship, and that is between education and technology, as adults are getting used to new technologies and expect more flexible learning schemes. Optimal results cannot be reached by quantitative actions alone as long as the current processes and procedures of technology adaptation are shape-shifting while sticking to the same old contents.

## 5. Lifelong learning development framework for the Vidzeme region

The vast majority of commodities and services are connected to knowledge and information in today's knowledge society. Therefore the task of education is to ensure that the majority of people have skills and knowledge which has a high added value. Today's knowledge can be characterized in the following way:

- Knowledge is expensive;
- In developed countries 20% of the GDP (Gross Domestic Product) is spent on knowledge;
- 10 % is spent on basic education (in comparison with 2% in 1910);
- Employers spend 5% on education;
- 1-5% of the GDP is spent on scientific research – on finding new knowledge;
- The creation of new knowledge requires large investments in many European countries;
- The productivity created by knowledge is different in various countries.

One of the tasks of research is to understand the reasons of differences in productivity created by knowledge and to offer recommendations for the development of LLL in the Vidzeme region using an appropriate ICT system and tools for raising the average level of productivity created by knowledge. LLL should promote the comprehension of the technical, organizational and commercial levels of the global network. It includes 3 different mutually complementing learning ways based on technology: e-learning (the use of the computer and the internet), m-learning (the use of mobile devices), t-learning (the use of the TV).

This system merges the widescreen TV coaching, everyday mobile technology and high-speed internet connections. It offers the possibility to the course participants to use different channels for learning (depending on the choice and accessibility) or a combination of some of them providing learning availability to everybody in any time and place. It contains the technological solution of eBig3<sup>24</sup>.

## 6. Results

Adult education supported by the technological model combines several areas of the adult education process in the Vidzeme region: the involvement of different types of stakeholders in the development process, competences and skills, demands and the acquisition system, public and private adult education providers and the study process, several reporting options and statistics. Such a technological and strategical framework helps to plan and to perform educational activities, and to evaluate the obtained results of the Vidzeme region adult education process in a longer period of time.

As a result of the research, the LLL framework of the strategy for the Vidzeme region offers recommendations on:

- Lifelong learning and transition to knowledge society
- Technology development trends and lifelong-learning priorities
- Recent developments in lifelong learning in Latvia in the period from 1995 to 2015
- The Latvian National Development Plan 2014-2020 on strategic challenges related to the development of LLL
- EU Program Horizon2020 and Lifelong learning innovation
- Lifelong learning challenges for Vidzeme University of Applied Sciences during the transition to knowledge society
- Globalisation and new opportunities
- Competence Centres of lifelong learning, e-learning and knowledge society technologies
- Lifelong learning strategy and network activities in Vidzeme and at Latvian universities
- ERAF program priorities on lifelong learning
- E-learning, lifelong learning and the students' knowledge entering the Vidzeme University of Applied Sciences
- Staff development for lifelong learning sustainability
- Research and doctoral studies in lifelong learning/e-learning domain
- IT Infrastructure in Vidzeme and virtual learning environments
- Entering the lifelong learning users' community
- International cooperation
- Design of learning objects
- Joint activities of universities and schools
- Copyright
- Quality
- Competitions and awards
- Consultancy in the fields of lifelong learning and e-learning
- Lifelong learning, e-learning and integration of society
- Lifelong learning and e-learning for regional development
- Lifelong learning, e-learning and telework.

## 7. Conclusion

The development of the technological model and framework supporting adult education and the LLL strategy in the Vidzeme region offers a new, more efficient approach to the management of a next generation technologically enhanced lifelong learning process. The next step is to introduce the developed technological model supporting adult education as a working prototype in the Vidzeme region. The next step involves developing the demands acquisition system and the quality control mechanism, and to configure the chosen learning management system platform accordingly to support both the study process and the extended reporting process.

There is a possibility in the future to also build an agent system for supporting communication between course providers, learners, the municipality and industry.

From the results of the research and the authors' conclusions, it follows that the learning management system must more actively deal with the assessment, change and the improvement of individual skills and behaviour, for it is a tool for raising adult satisfaction and improving the quality of their life:

- Technology has the power not just to entertain but to enhance our work-life experience. Technology advances, and we can expect to see more activities taken over by technology;
- It is necessary to personalize the study process according to each adult's needs in order to promote group cohesiveness and thus decrease social loafing in online group work;
- Innovations in the learning process need to be real and simple enough to help the adults to find a way to solve their problems;

Only an innovative approach, full use of opportunities provided by the increasing knowledge potential, the transformation of traditional procedures, and the use of the opportunities of the ICT in each and every sector and work present a new way of thinking and mode of action. At the same time, one has to recognize that computer technology is a facilitator of knowledge management, or a tool to assist individuals and groups in acquiring organizational knowledge.

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