OPPORTUNITIES AND CHALLENGES OF KNOWLEDGE MANAGEMENT ON ELECTRONIC PLATFORM FOR ADULT LEARNING IN EUROPE

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Abstract

Knowledge and their management are vitally important for all firms and organizations in the contemporary world. The ability to create, acquire, integrate, deploy distributed knowledge is fundamental organizational capability. For successful functioning firms and organizations must not only exploit already existing knowledge, but must also invest into permanent exploring and creating new knowledge as strategic options for future development and competitive advantage.

In this case the knowledge systems especially specialized are very important and useful. Of course, such knowledge systems create a lot of opportunities for users but at the same time raise some challenges and problems also (for example, lack or limits of knowledge managing, information seeking, self-directed learning and other skills). In this presentation opportunities and challenges of such knowledge management are analyzed on the bases of the Electronic Platform for Adult Learning in Europe ("Epale"). The exceptional feature of this platform is that active users can not only use the information, but also create or reconstruct, in other words, manage, the content of the platform also

Aim of the platform is to become the main reference point for adult learning professionals in Europe. It offers a place to meet and discuss important adult learning topics, as well as to exchange ideas and materials to support professional practice. This type of community platform is the first of its kind for the sector of adult learning, especially non-formal.

The research deal with the main aspects of the development of knowledge and e-learning management system in an institution or organization based on content analysis of scientific sources, documents and analysis of empirical data.

Keywords: knowledge management, knowledge management systems, informational and communicational technologies.

1 INTRUDUCTION

Knowledge and their management are vitally important for all firms and organizations in the contemporary world. The ability to create, acquire, integrate, deploy distributed knowledge is fundamental organizational capability. For successful functioning firms and organizations must not only exploit already existing knowledge, but must also invest into permanent exploring and creating new knowledge as strategic options for future development and competitive advantage. (Woudstra, Van den Hooff, Schouten, 2015).

There is general agreement that adult learning by 2030 will be able to take advantage of an abundance of learning materials including open educational resources (OER), produced in multiple and collaborative ways, offered by many different providers and players, and used/reused by learners, enabling strong personalisation of the learning processes. Fluidity will be the key to allowing learners to move easily from one educational setting to another without impediments, according to their own interests and needs of the moment. This vision is not necessarily new but is becoming more likely as we move towards a digital networked society. (Castaño Muñoz, Redecker, Vuorikari & Punie, 2013).

In this case the knowledge systems especially specialized are very important and useful. Of course, such knowledge systems create a lot of opportunities for users but at the same time raise some challenges and problems also (for example, lack or limits of knowledge managing, information seeking, self-directed learning and other skills). In this presentation opportunities and challenges of such knowledge management are analyzed on the bases of the Electronic Platform for Adult Learning in Europe ("Epale"). The exceptional feature of this platform is that active users can not only use the information, but also create or reconstruct, in other words, manage, the content of the platform also. This offers opportunities for creative thinking and the application of technological tools to support pedagogy, which, in turn, will empower us to participate in our societies knowledgeably and with respect for all. (Grassian, 2017, p.232-239)

Aim of the platform, as all the academic platforms or social networks (Jeng, DesAutels, He & Li, 2017) is to become the main reference point for adult learning professionals in Europe. It offers a place to meet and discuss important adult learning topics, as well as to exchange ideas and materials to support professional practice. This type of community platform is the first of its kind for the sector of adult learning, especially non-formal.

When measuring aspects directly related to navigation performance such as time and lostness, path complexity plays an important role. During navigation, expandable menus are more beneficial than sequential menus, especially for people with low spatial skills and when the semantic similarity between the information goal and the navigation path is high. When measuring aspects only related to information retrieval, once navigation has occurred, the effects of menu type depend on the spatial skills and the difficulty of the task itself. Participants with high skills perform well in all conditions. Participants with low spatial skills benefit from the use of expandable menus showing only problems with the sequential menu and when the tasks demanded more than simply combining information from different locations on a web page. (Puerta Melguizo, Vidya, & van Oostendorp, 2012).

Electronic Platform for Adult Learning in Europe ("Epale") is a multilingual electronic platform operating from 2015. It

connects adult teachers, lecturers, researchers, academics, policy makers and all other adult education and training professionals from all over Europe.

The main goal of "Epale" is to bring together the community of adult education professionals in a multilingual, dynamic, interactive and innovative space. The platform is intended for adult educators, andragogues, lecturers, volunteers, as well as policy makers, researchers and lecturers working in the field of adult education, in other words, for all, who in one or another way is interested in adult education and quality improvement. It enables adult educators, experts to get acquainted with the latest trends in adult education in Europe, exchange experiences in cyberspace, comment on the information provided in the platform, participate in practical communities of "Epale", discuss relevant adult education issues, search partners for project activities, etc.

The exceptional feature of this platform is that active users can not only use the information, but also create or reconstruct, in other words, manage, the content of the platform also.

This type of community platform is the first of its kind for the sector of adult learning, especially non-formal.

2 Methodology

The research deal with the main aspects of the development of knowledge and e-learning management system in an institution or organization based on content analysis of scientific sources, documents and analysis of empirical data.

The quantitative research method chosen to attain the objectives of the study provides the opportunity to find out the basic concepts and the generalized opinion of the users about the platform and identify the main possibilities and trends for its improvement (Bitinas, 2006; Bitinas et al., 2008). The study data was processed by the PSPP (open source software, an alternative to the SPSS (Statistic Package for Social Science) software, and Windows Microsoft programs. The quantitative data descriptive statistics procedure and content analysis were applied. The responses of respondents to open questions are processed using the method of content analysis.

Research Ethics. The research is based on the principles of benevolence, respect for personal dignity and justice. Respondents are guaranteed confidentiality.

Research instruments. An anonymous electronic questionnaire survey using closed and open-ended questions was used to collect data. This choice was determined by the benefits of the group questionnaire survey, for example the survey can be carried out remotely, the survey ensures a sufficient sampling rate, 100% or close to questionnaire reciprocity, the questionnaire takes less time than the interview (Luobikienė, 2003, p. 84).

The survey sample. In total, the study involved 126 respondents. As demographic characteristics did not have a significant impact on the results of the study, they will be summarized as a general characteristic, enabling better reflection of the respondents and understanding of the results of the study.

The survey respondents were mostly middle-aged (57.1% - 41-50 years old and 33.3% - 31-40 years old), women (95.4%),

working in cities (52.4%) and small towns (23, 8%). It is broadly in line with the main characteristics of the community of adult educators. 76.2 percent are registered on "Epale" platform users, i.e. they can not only read the material provided on the platform but also place it, comment on it, participate in practical communities and groups, search for partners, etc.

3 Results

When analyzing how "Epale" responds to the needs of respondents' education and upgrading their qualification, they were asked what competencies (educational, managemental, research or general) would be most relevant to them. Educational competencies were named as the most important ones; other competencies were mentioned only by individual users. Although the need of the respondents in the development of other competences is the lowest, in particular general competences, the "Epale" platform should not be abandoned to fill the resources of this topic, primarily because the relevance of general competences is increasingly highlighted by employers (for example, the TOP 20 skills identified by the World Economic Forum in 2016, etc.). In addition, the content of already recognized competences, as well as their educational capabilities and methodologies, vary greatly. Therefore, enough attention should be paid to the development of general and other competences on the "Epale" platform. Similarly, some themes may appear on the platform to be new or separate, more relevant or more specific to the various educational themes.

The 5 main topics are presented on "Epale": "Life skills", "Quality', "Learning environment", "Support for students" and "Politics". Which topics are more prioritized by respondents is shown in Table 1.

Table 1. Distribution of respondents according to which topics they prioritize

Topics	Percentage (%)
Life skills	81
Quality	42,9
Learning environment	81
Support for students	61,9
Politics	15

Of the five themes outlined in the platform, 3 - "Life skills" and "Learning environment" (81%) and "Support for students" (61.9%) - are most important for our respondents.

Table 2 shows that the reasonableness of the opinion of the respondents can be relied upon.

Table 2. Distribution of respondents according to how often they visit the "Epale" platform

Quantity	Percentage (%)
1-2 times a week	10
Not less than once a month	80
Less than once a month	10

Most respondents visit the platform at least once a month, what means that the information they provide on the platform is needed and relevant.

Respondents were asked to evaluate the relevance of the "Epale" resources for each of the five key topics "Life Skills", "Quality", "Learning Environment", "Support for Students" and "Politics".

The respondents' opinion on the relevance of the themes of "Life skills" is presented in Table 3.

Table 3. Distribution of respondents according to the themes of "Life skills" topic

Themes	Percentage (%)
Financial literacy	9,5
Languages	47,6
Cultural education	85,7
Basic Skills	9,5
Entrepreneurship and employment	28,6

It is obvious that in this group of subjects, according to respondents, the most relevant theme is cultural education; the second issue would be language education. The problems of entrepreneurship and employability are relevant for about one quarter of respondents. The most relevant themes are the Basic skills and financial literacy.

The respondents' opinion on the relevance of the "Quality" themes is presented in Table 4.

Table 4. Distribution of respondents according to the relevance of "Quality" themes

Themes	Percentage (%)
Impact assessment	9,5
Professional development of personnel	81
Service Providers approval	23,8
Quality assurance	28,3

In "Quality" topic the most relevant for respondents is the professional development of personnel, the second place is for quality assurance and approval of service providers.

The respondents' opinion on the relevance of the topic "Learning Environment" is given in Table 5.

Table 5. Distribution of respondents according to the topics of the "Learning environment"

Themes	Percentage (%)
Community learning	19
E-learning	76,2
Learning in prison	4,8
Non-formal and informal learning	9,5
Second Chance Schools	4,8
Learning at work	71,4

Regarding educational environments, respondents considered the most relevant is E-learning and learning at work. Such a choice of respondents is understandable, because both themes have been highlighted in both theory and practice in recent times. In addition, in the context of the rapid development of information and communication technologies and in the context of the IV Industrial Revolution, their relevance will only increase. Due to the increasing need for assessment and recognition

of competences acquired in non-formal and informal learning, which is becoming increasingly common in the past, different types of resources for non-formal and informal learning will be even more relevant.

The respondents' opinion on the relevance of the themes for "Support for students" is presented in Table 6.

Table 6. Distribution of respondents according to the relevance of "Support for Students" themes

Themes	Percentage (%)
Recognition of prior learning	20
Immigrants	-
Learning disabilities	20
Disabled people	5
Social inclusion	45
Elderly people	60

As far as support for students is concerned, it is obvious that the theme of elderly education is most relevant here, since adult educators, especially in the field of non-formal education, mainly work with elderly people. On the other hand, acknowledgment of previous learning, social inclusion and the analysis of learning disruptions and their overcoming is becoming more and more relevant - almost one third of respondents approve it. Meanwhile, it would be difficult to say that the organization of immigrant and disability education is becoming less relevant. Maybe it is more likely to believe that the need for these themes has been largely satisfied (education of disabled people), or that the need is more localized (such as immigrants, for example). On the other hand, the fact that respondents have less emphasis on some topics means that their demand for them is not so much felt today as many others. Moreover, this result may have been due to the fact that it was necessary to provide the themes to be rendered, assigning the same number to only one variant of the answer.

The respondents' opinion on the relevance of the themes of "Politics" is presented in Table 7.

Table 7. Distribution of respondents according to the relevance of "Politics" themes

Themes	Percentage (%)
European policy, projects and funding	45

National Policy and Financing	35
The best research and evaluation policy	20

European policy, projects and funding are the most relevant for respondents, although national policies and funding are also interesting. Apparently, for this reason, "Epale"s topical business is a partner search service.

Summing up the respondents' views on the topics presented in the "Epale" platform and their relevance for adult educators, we can say that all topics are focused and needed. Some of them might even be even fragmented. This would help them find out more quickly and use the knowledge gained during their studies to improve the quality of adult learning.

Although registered visitors, the vast majority of respondents are passive users, although 50%. They are not on the platform of a tangible article, blog, event information, or resource, most likely because they do not have the relevant information they can put on the platform. However, knowing how many different events take place in adult education, this is unbelievable. On the other hand, it in a sense indicates that adult educators underestimate their experience, the significance and uniqueness of their activities, and therefore most actual and unique events, methodologies, and experiences are not shared. At the same time, this once again justifies the need for "Epale" experts - as a result of them, a large part of this type of information is recognizable, appreciated, and presented on the platform. Like the rest of the respondents who did not know that every adult educator could fill the content of "Epale", or knew about such an opportunity, but did not do it. These reasons also reaffirm the need for and the need for expert activity, the "Epale" platform and opportunities (which, in fact, are fast enough, evolving).

Obviously, more than half of the respondents tend to be active in commenting on or evaluating other articles and other resources embedded in the "Epale" platform. On the other hand, even here they like to be at least active. The activity of respondents in commenting and evaluating resources only reaffirms that on this platform their informational behavior is similar to behavior on other web sites, i.e. they tend to perform their usual activities: marking "likes" or "dislikes", commenting, evaluating the information provided by others, but not putting them on their own.

Most of them do not have experience in practical "Epale" platform communities or groups. This may be explained by the fact that they do not like to comment or evaluate, or because this activity on the platform is new enough. Non-participation is also explained by the ignorance of such a possibility (it should be remembered that this activity is sufficiently new on the platform) or lackluster. All cases indicate that there is a need for another person, i.e. in most cases, most likely, expert assistance.

Although 50% Respondents are passive users of the platform, they are very pleased with the platform's usefulness to its professional activities.

Table 8. Distribution of respondents according to "Epale"s utility for their professional activities (%)

Statements	Agree	Difficult to say	Do not agree
It's clear, how to log in / sign in to the "Epale" platform	71,4	14,3	-
I like the aesthetic look of "Epale" platform	66,7	28,6	4,8
I understand the structure of "Epale" platform	66,7		-
I find it convenient to use "Epale" platform capabilities	61,9	28,6	-
I quickly find the information I'm interested in on the "Epale" platform	66,7	28,6	4,8
I know how to leave a comment, initiate a discussion, a blog	61,9	38,1	-
I know how to post an advert, article or other source	23,8	61,9	9,5
I can find partners for project activities	57,1	38,1	-
I can join the practical "Epale" communities	57,1	33,3	4,8

Respondent agree with almost all (except "I know how to post an advert, article or other source") statements. It means that they confirm utility of "Epale" platform for their professional activities

A general assessment of the respondents' views on the utility of "Epale" for their professional activities has once again confirmed the provisions discussed above. Respondents were asked to evaluate the utility using scale from 1 till 5, where 1 means the lowest utility and 5 – the biggest.

Table 9. Distribution of respondents according to "Epale"s utility for their professional activities (in marks)

Criteria	Points (%)				
	1	2	3	4	5
Usefulness for their professional activities	-	15	25	20	40

By specifying in which areas, according to respondents, the platform is most useful to them, the opinions were distributed accordingly (see table 10)

Table 10. Distribution of respondents according to "Epale"s utility for their professional activities (in marks)

Statements	Percentage (%)
I can find information for improving my andragogy activity	23,8
I can discuss various relevant adult education topics	38,1
I can find out about events taking place in Lithuania and in the field of adult education and get acquainted with their content	57,1
I can share my experiences and learn about other adult education experiences	52,4
I can find colleagues who like to initiate and run new projects	47,6
I can read scientific articles about adult education trends in Lithuania, Europe and the world	42,9
I can find out about people who are active in adult education and their merits	19
I can publish information on adult education	38,1
I can communicate with other by blogs (blogs), discussions, comments	23,8
I can find legal information for me in adult education	23,8
I can participate in the "Epale" community	4,8

According to respondents, the most useful professional activity is the possibility to find out about events taking place in Lithuania and in the field of adult education (57.1%), as well as the opportunity to share their experiences and learn about others' experiences in adult education 52.4, to find I am able to read scientific articles about the tendencies of adult education in Lithuania, Europe and the world for 42,9, as well as colleagues who are thinking of new projects. The general assessment reaffirmed the opinion of the respondents about the possibility of communicating with other blogs (blogs), discussions, comments, which are not very relevant to the respondents and which they find useful for their profession (23.8%), but the

least useful is participation in practical "Epale" communities (4.8 percent).

The fact that the "Epale" Platform is a useful, up-to-date and positively evaluated platform is due to the fact that almost 76.2% respondents would recommend their colleagues, friends and peers become registered visitors to the "Epale" platform, which means they will be able to not only read the information provided there, but also actively participate in information placement, possess the platform's methodological and other resources, comment on the participation in practical "Epale", communities and groups by finding or becoming participants, partners, etc. of projects, conferences or other activities.

Respondents also expressed their views on how "Epale" can better meet the needs of target users. Information seeking is only one aspect of information behaviour: other activities (which may play a part in information discovery) include information exchange or sharing, information transfer to others whose needs are known, as well as the avoidance and rejection of information. (Wilson, 2016).

In a summary assessment of the respondents' opinion on the utility of "Epale" for their professional activities, the provisions discussed above were reaffirmed (see Table 11).

Table 11. Distribution of respondents' opinion on how "Epale" could better meet the needs of target users

Statements	Percentage (%)
More scientific information on adult education issues in Lithuania and in the world	14,3
More statistical information on adult education issues in Lithuania and in the world	14,3
More interesting facts about adult education in Lithuania and in the world	23,8
More various methodological tools that can be used to improve andragogical practice	14,3
More online seminars (webinars) on adult education	42,9
More blogs, discussions (blogs) on topical adult education issues	14,3
More legal information on adult education and clarification	9,5
More information on the most active adult educators and their performance	14,3
More specific examples of good practice	42,9

An analysis of respondents' answers suggests that they would prefer more concrete presentations of good practice (42.9%) and more webinars (42.9%) on adult education. Interesting andragogical experience of respondents and adult educators and their activities in adult education in Lithuania and Europe and in the world (more interesting facts, events about adult education in Lithuania, Europe and the world (23.8%).

4 Conclusions

- 1. Summarizing the demographic data of the respondents, it can be stated that women from the age of 30 to 50 have been most actively involved in the survey on the "Epale" platform and the possibilities for its improvement, most of whom work in the largest cities of Lithuania in the field of non-formal education with young adults and people in qualification.
- 2. Respondents believe that the platform is most conducive to educational (their educational need remains the highest) and general competences. Although the opinion of the respondents is that the competence of the latter is the smallest one, the "Epale" platform should not be abandoned by the resources of this topic, primarily because the relevance of the general competences is increasingly emphasized by employers, and the content of the already known competences is very variable as well and the possibilities and methods of their education.
- 3. All "Epale" platform ("Life skills", "Quality", "Learning environment", "Help for students" and "Politics") and their relevance are appreciated by adult educators, although they are "Life skills" most relevant to them. "Learning environment" and "Support for students". On the other hand, some of them might even be even fragmented. This would help them find out more quickly and use the knowledge gained during their studies to improve the quality of adult learning.
- 4. Topical topics were identified as "Cultural Education" ("Life Skills"), "Professional Development of Personnel" ("Quality"), "Learning at Work" and "E-Learning" ("Learning Environment"), "Senior ("Student Aid") and "European Policy, Projects and Financing" ("Policy"). On the other hand, the fact that respondents have less emphasis on some topics means that their demand for them is not so much felt today as many others.
- 5. Although registered visitors, the vast majority of respondents are passive users. They are not on the platform of a tangible article, blog, event information, or resource, most likely because they do not have the relevant information they can put on the platform. However, knowing how many different events take place in adult education, this is unbelievable. On the other hand, it in a sense indicates that adult educators underestimate their experience, the significance and uniqueness of their activities, and therefore most actual and unique events, methodologies, and experiences are not shared. At the same time, this once again substantiates the need for "Epale" experts.
- 6. Obviously, more than half of the respondents tend to be active in commenting or evaluating articles and other resources embedded in the "Epale" platform. On the other hand, even here they like to be at least active. And on this platform their informational behavior is similar to behavior on other websites, i.e. they tend to perform their usual activities: marking "likes" or "dislikes", commenting, evaluating the information provided by others, but not putting them on their own.
- 7. Most of them do not have experience in the practical "Epale" platform communities or groups. This may be explained by the fact that they do not like to comment or evaluate, or because this activity on the platform is new enough. Non-participation is also explained by the ignorance of such a possibility (it should be remembered that this activity is sufficiently new on the platform) or lackluster. All cases indicate that there is a need for another person, i.e. in most cases, most likely, expert assistance.
- 8. According to the respondents, the most useful professional activities are the possibility to learn about events taking place in Lithuania and in the field of adult education, to get acquainted with their content, to share their experiences and learn about other experiences in adult education 52.4, to find colleagues who are interested in initiating and implementing new projects. 47,6, I can read scientific articles about adult education trends in Lithuania, Europe and the world 42,9.

- 9. The fact that the information provided on the "Epale" platform is relevant and useful is also well illustrated by the opinion of the respondents on recommending that other colleagues, associates become registered visitors to the platform. Three guarters of respondents tend to do this.
- 10. Upgrading the platform's capabilities should pay more attention to hosting more specific best-practice presentations, more online seminars. This is a clear indication that IT is increasingly coming to our lives, but at the same time implies the need for new competencies. These are self-governing learning competencies.
- 11. Most respondents would need relevant video material, publications and online seminars. This is likely to save time and return and review relevant information for any respondent at a convenient time or at the appropriate time. About one fifth of the wishes and verbal consultations.
- 12. The activities of the least interested and useful to their occupation are the ability to communicate with other blogs (blogs), discussions, comments; opportunities to discuss various relevant adult education topics and participate in practical "Epale" communities.

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