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From Accredited Qualification to Certified Skills: The Summer Knowledge Academy – New Educational Approach in the State University of Library Studies and Information Technologies

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Abstract

At the process of development of the modern information society, the science, knowledge and information have been established as leading factors of the economic prosperity of the society. The dissemination and transfer of knowledge are essential for the development of the knowledge based economy. The new knowledge appears on the basis of the existing studies, exchange of ideas, linking different social practices or connecting real and virtual paradigms. This knowledge is on the basis of the UNESCO contemporary educational paradigm – from accredited qualifications to certified skills[1]. The aim of the current paper is to promote the new educational approach towards a transition from accredited qualification to certified skills in the Summer Knowledge Academy at the State University of Library Studies and Information Technologies (SULSIT), the Academy was renamed on the 1st of January 2015 from the Summer Knowledge Academy to the University Youth Knowledge Academy (UNYKA). The paper consists of four main parts: the first one is being the relevant and essence of the problem of knowledge management; the second one looks at the necessity of knowledge management at SULSIT; the third part is a presentation of the Academy's organizational structure; and lastly, the fourth part outlines the streamlines of scientific and applied activities with basic conclusions and recommendations.

Keywords: knowledge management, summer academy, accredited qualification, certified skills, educational approach

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[1] Trencheva, T., Denchev, S. 2015. The University's R&D Institutes as a New Educational Approach. In *Proceedings of the International Technology, Education and Development Conference* (Madrid, Spain, March 02-04, 2015, pp. 951-957.

Introduction

At the beginning of the 15th century the famous English philosopher Francis Bacon said that *"knowledge is power"* and centuries after, it is accepted to consider that he talked about the knowledge and skills of the individual. Today, five centuries later and by the distance of time, experts in the field of corporate management are beginning to realize how the future of the different organizations depend largely on the skill and *"knowledge capital"* to be used and managed effectively. The term Knowledge Management in the new context appears to have been used for the first time at McKinsey. They realized quickly that they had a compelling new product. Ernst and Young organized the first conference on KM in 1992 in Boston (Prusak, 1999).

Interest in this part of management called *"knowledge management"* (KM) is growing in the last years of the 20th century along with the complexity of new high technologies – the development and introduction of easily accessible computer networks, Internet communication tools based on mobile technology and and etc. Entrepreneurial culture and businesses receive higher approval by society than ever before, and the international business is encouraged and assisted. The results are present – international economics of knowledge is based on the fast pace of changing technology and scientific discoveries.

In the first years of KM the main focus is on creating knowledge repositories to enable organizations to "know what they know." In practice pioneers are large consulting firms and multinational companies. During this period dominated by the technological approach to KM related to: using technology to improve efficiency and competitiveness; creating organizational databases and collection development, use and dissemination of knowledge in the organization; use of ICT to support various activities in the organization. In the first generation of KM there is a limitation by the technical forms of realization and solving problems with their creation and maintenance. Moreover, the technology is implemented according to a decision of management (top-down) without taking into account the real needs of the employees of ICT.

In the second generation dominates the humanitarian factor of KM. There is a growing awareness of the importance of human and cultural dimensions of KM, as well as the understanding that people are central bearers of knowledge, and KM must support the full use of the capabilities of people. At this stage, the emphasis is also on issues related to psychology and sociology, human resource management, organizational behavior, change management, organizational learning and improve knowledge sharing and the development of social networks among experts in and outside the organization. The main question is: *"if you know who knows"* and the approach of implementing KM is bottom-up, in which after the motivating employees and taking into account their needs are achieved significantly better results in practical KM (Maier, 2007).

KM is currently in its third generation, it aims at managing content, context and case studies. This stage is characterized by the emergence of

metadata and metaknowledge to describe and manage data and knowledge, creating taxonomies and ontologies to alleviate finding knowledge and others. At this stage they overcame deviations in the first and second generation of KM and dominated perceptions of synergies between the use of ICT and the creative and intellectual abilities of individuals and the need to link the theories of organizational, collective and individual learning with real possibilities of IT infrastructure. In this context, the education sector needs to be developed according to the needs of learners and the requirements of the the labor market. Investment in education is an investment in the successful future (Baren, 2011).

In March 2001 in Stockholm, the European Council adopted three main strategic objectives for education and training and 13 specific tasks. In 2002 it approved a program of work to implement these goals and objectives. Emphasis is an integrated policy for education and training, informing citizens through communication programs, involvement of universities in the *"Europe of Knowledge"*. One of the strategic goals is to transform education and continuous training in the long process to build a society and economy based on knowledge (Dalkir, 2005).

It also will be used far more of all education and training existing systems, in particular popular programs Erasmus, e-education and multilingual education. One of the tasks of the *"Horizon 2020"* is to create: systems for assessing the quality of secondary education; more dynamic university programs; mobile teachers; education has a direct connection to culture, science, values and the business sector in the EU; special communication platform *"The role of universities in building a "Europe of Knowledge".*

In today's knowledge-based economy, educational institutions and centers for the development of human resources are essential for the economic growth of countries and their development. Keeping this in mind any modern organization tries to take into account in their policies need to develop its scientific potential and strive to create operational capabilities to solve traditional problems with scientific methods. It is universally agrees that self-education is one of the main ways to achieve a competitive advantage and efficient adaptation to the environment (McInerney, 2011).

Bulgaria as a member state of the European Union requires to meet the adopted programs initiatives for wider implementation of the use of European values in the quality of education. In this regard, the establishment of research centers aims to meet these needs and to prepare and encourage young people to participate in scientific and cultural processes to support and encourage their computer and information literacy, scientific and creative activity and, to attract innovative and experimental activities based on digital technologies (Denchev & Trencheva 2015).

The Knowledge Management at SULSIT

The self-realization of each person depends on their ability to promptly find, receive, adequately acquire and use productively both the available and the newly arriving information. Knowledge and information play an important role in today's society. Among the competitive edge of modern university structures stand out the effective gathering and using information in order to create and receive new knowledge, team work, sharing good practices, putting into practice innovative scientific and applied approaches, acquiring and sharing of new knowledge.

The dynamic and fast-changing world we live in, whose basic hallmark has been the process of information and respectively globalization, have faced up different states with new and hard to foresee challenges and issues, whose solution requires comprehensive, interdisciplinary knowledge, professional skills, analytical abilities and quick and adequate responses (Wenger et al. 1999).

What we need to do is build and constantly develop a culture of continuity of the accumulated knowledge and experience as well as a high degree of information culture including alongside knowledge and skills a critical interpretation of the content and value of information sources. Thus, for example, scientists, tutors and researchers with a lot of work experience in a given university structure do have invaluable hands-on experience of the processes and practices within this structure, but unfortunately the administrative aspect of this knowledge is not always well-managed. In the future, it is the social networks and professional communities that will be the most natural and powerful resources for knowledge acquisition and the creation of interactive models of learning based on information resources knowledge management.

That is why the efforts to come should be directed and focused namely on learning communities. In this aspect, the State University of Library Studies and Information Technologies (SULSIT) initiative to begin long-term scientific research on the issues of knowledge management is prompt, currently relevant and useful. As a natural heir to the Center of Science Studies (Science of Science) with the Bulgarian Academy of Science, in 2013 SULSIT established the Summer Knowledge Academy (SKA) – part of the State University of Library Studies and Information Technologies.

The Academy is in fact a university scientific and methodology unit. The aim of SKA is to help the participating students, PhD students and young scientists from SULSIT with declared interests in the spheres of Book Studies, Intellectual Property, Library Sciences, National Security, Information and Communication Technologies, Cryptography, Science Studies (Science of Science) and Cultural Heritage willing to develop in these spheres through doing research and development in areas of social life, to present their point of view and suggestions on possible solutions to existing problems.

We are convinced that among of the present participants in SKA, there are the future politicians, statespeople and managers of Bulgaria. Our aspiration is

that their work in the Academy will contribute to the development of their abilities as well as ensuring their efficient preparation in the task of providing adequate answers and solutions to national security problems and challenges that the modern world poses to our country and society.

The University Youth Knowledge Academy (UNYKA) at SULSIT

The Knowledge Triangle at SULSIT – Education – Research – Innovation

Among the advantages of the modern university structures stand out effective collection and use of information to create and acquire new knowledge, working together in teams, sharing of best practices, innovative ones, acquisition and sharing of new knowledge, creating a favourable for ideas information environment.

The State University of Library Studies and Information Technologies (SULSIT) is a leading university in Bulgaria for the training of specialists in the field of library science, cultural heritage and information science. SULSIT provides training in educational and qualification degrees "Bachelor", "Master" and "PhD". SULSIT has two faculties - Faculty of Information Sciences and Faculty of Library Science and Cultural Heritage. The University is accredited by the National Agency for Assessment and Accreditation and has more than 20 BA programs in computer science, information and communication technology, information brokering, information security, informing science, library science, library and information management, print communications, information resource of tourism and cultural heritage and 26 master's programs and 5 doctoral programs. Basic structural units of SULSIT are:

- Faculty of Library Science and Cultural Heritage;
- Faculty of Information Science;
- Department of general education courses with the Centre for Foreign Language Teaching;
- Institute for Research on Cultural and Historical Heritage – (IRCHH);
- Institute for Library and Information Science Studies and Doctoral Fellowship;
- Institute for Research and Development of Leadership in the Information Environment (Leadership Institute);
- University Youth Knowledge Academy (UNYCA).
- The UNESCO Interfaculty Chair - ICT in Library Science, Education and Cultural Heritage.

SULSIT's graduates can work in libraries, publishers, book-trade companies, public administration, in the information and communication business, information centers and services in archives, museums, galleries and other cultural institutions.

SULSIT as educational institution take the necessary action to build the "knowledge triangle" – research, education and innovation. The University has actively undertaken the implementation of the integrative relationship between research institutes and university information environment. (Figure 1).

Figure 1. *The Knowledge Triangle of the Academy*
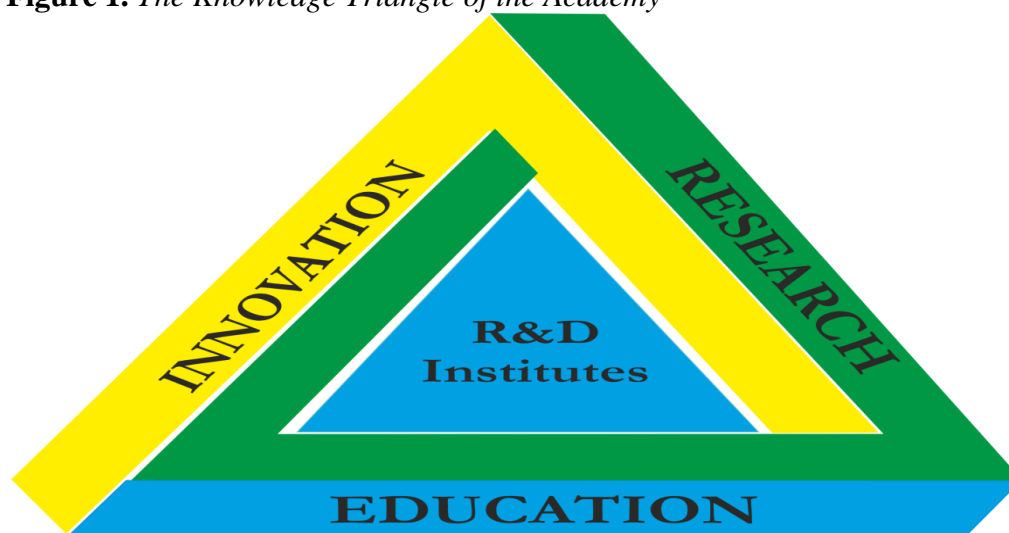
Source: UNYKA Archive

As it was mentioned already, the purpose of the current paper is to promote the new educational approach towards a transition from accredited qualification to certified skills in the Summer Knowledge Academy at the State University of Library Studies and Information Technologies (SULSIT).

A Short Overview of the Academy

The Academy was formed as the Summer Knowledge Academy (SKA) in 2013 and was renamed on the 1st of January 2015 from the Summer Knowledge Academy to University Youth Knowledge Academy (UNYKA) (From this part forwards will be used the new abbreviation of the Academy – UNYKA). The Academy has its own Logo, which is used to all documents of the Academy and it's presented on Figure 2.

Figure 2. *The Logo of the Academy*

*Source***:** UNYKA Archive

The Academy is led by the Rector of SULSIT, who is also its Chairman. The operational management is carried out by the Deputy Chair and Executive Organizational Secretary.

There are several expert groups in the Academy with training and educational nature, take part, which have the task of preparing specialists in the following scientific fields: 1) Books and Society; 2) Intellectual Property; 3) Library Science; 4) Information and Communication Technologies; 5) Cyber Defense and Cryptography; 6) National Security; 7) Knowledge Management; 8) Cultural and Historical Heritage.

The Academy precisely focuses on the relationship **theory-practice**. The students are placed in real environment, where can apply their accredited knowledge through participation in projects, seminars, summer practices, meetings with external experts from theory and practice, master classes, webinars and etc. Thus accumulated experience makes them prepared for tomorrow's realization in a competitive environment.

The rewarding symbol of the Academy is shown on Figure 3. It is "apple of knowledge", which is given in different categories like "distinguished scientist", "distinguished young scientist" "distinguished doctor", "distinguished students". The rewards of the Academy are given every year at a special ceremony in the year's conference of UNYKA.

Figure 3. *The "Apple of Knowledge" – the Symbol of the Academy*

Source: UNYKA Archive

The Experience of ICT Certification in SULSIT

The Academy successfully provides training and certification in academic programs at companies such as Oracle and MikroTik. This is one of the best practices in SULSIT for transition from an accredited through certified education in ICT. The interest towards transition from an accredited to certified

education is particularly strong in the field of information and communication technologies (ICT). Analyzing currently established certification training programs can be established that the certificates are granted for a specified period or are not bounded by a deadline and re-certification, and with specific product or service. Because the ICT mark continuous growth and are a major source of innovation, a common practice in certification is the continuing education.

In the field of ICT certification programs can be classified in the following categories: 1) Total certification; 2) External certification; 3. Certification by the manufacturer or service provider.

This convergence between accreditation and certification education in the ICT field is a topic that needs in-depth studies and analyzes, which are not subject of this publication. Its purpose is to identify the main trends, advantages and problems in integrating certified and accredited education. Certified training has already piloted a set of best practices that change the established ones in accredited educational institutions.

The Academy – Past, Present and Future

The first event of the Academy was its First Scientific Conference with the slogan "Contemporary Strategies and Innovation for Knowledge Management". In the conference participated famous scientists, young scientists, PhD-candidates and students, members of the Academy. They presented their own views of current problems, related to the Knowledge Management in the different scientific fields. It was provoked a dialog in the different scientific fields of the Academy.

Another important event of the Academy was held on the 27th -28th April 2015. "Get up, stand up. For music." was the emotional slogan of the International Intellectual Property Day this year - 26 April. On this date 14 years yet the world celebrates the feast, paying particular attention to the products of creative intellectual work of the people.

The music in the context of modern market economy as business problems and future was the challenge facing 20 young scientists who participated in the Third National Seminar "Intellectual property - a formula for success, creativity and innovation" in the State University of Library Studies and Information Technologies. The forum was dedicated to the International Intellectual Property Day - April 26th, and two another anniversaries – 65-years of SULSIT and 70-years of UNESCO.

The Seminar - brainchild of the UNYKA is included for the third consecutive year in the calendar of celebrations of the World Intellectual Property Organization, and is visible through its interactive map (Figure 4). The poster of the event is part of the Gallery of the World Intellectual Property Organization.

On the 27th and 28th April this year the hall "Ceremonial" in SULSIT became a temple of positive thinking, creativity, solidarity and cooperation, a place to share ideas for meetings of supporters of conversations between artists,

for whom this forum another step in understanding and active work in the field of intellectual property in the academic community.

Figure 4. *The World Map of IP Day Events 2015*

Source: UNYKA Archive

Conclusion

The transition from accredited education to certified knowledge in most countries of Eastern Europe is accompanied by a number of unfavorable factors. Over the past 25 years, the former Eastern Block can not shake off the serious accumulations of the socialist planned economy, which is still significantly felt in the field of social sciences and humanities.

The private problems of this long process is set by the individual failing lines: Family nature of the business, which does not accept accredited or certified specialists, competition, often unfair in information and creative industries, introduction of new alternative technologies for generating and adopting information and much more. Under these conditions, real skills can hardly be recognized, whether as obtained in accredited and certified in the system of acquiring knowledge.

More and more young people and senior professionals are convinced that professional success is not due to skills and knowledge, and a combination of penetration, good luck and appropriate friends. Of course, in this situation we need to think more about educational model in the field of social sciences and humanities, which combines education accreditation and certification. They

must be rather a system of interconnected vessels that combine long-term knowledge and experience of the professional sector.

In economic, cultural and social situation in Bulgaria the best preparation of students can be done by way of a smooth transition from theory to practice in a controlled learning environment that allows students to put into practice their knowledge to gain real practical experience and confidence to meet people from the real sector.

UNYKA can contribute to such a transition, offering students academic non-classroom training in a controlled environment. The principle of role play under the supervision of academics, leading young specialists will simulate actual working conditions. The aim is to create a group of interconnected master classes to simulate components of a company in real business.

The concept of such non-classroom training, which is to approach as close to actual conditions - to stop the electricity or the boss to chastise you is a reality, this will prepare future professionals and will help them more easily to penetrate in his professional career.

Attracting established representatives of information and creative industries will have a number of positive aspects on students - building relationships and professional confidence, preparing the portfolio, getting an easily recognizable certificate that they can add as adding value to the accreditation level of the the bazaar of labor. In the medium and long term, such an idea can create intellectual potential to contribute to the finalization of the transition from planned to market economy, restoration of the system of recognizable to all professional competencies and raising the prestige of the profession. Of course we must find a balance and to manage to reasonably manage at national level machine spitting online certificates, because in terms of oversupply of diplomas in the line of accredited education we already have a similar crisis in Bulgaria.

References

Baren A. 2011. Skills for Knowledge Management Leaders. retrieved 21 April 2016 from http://alanbaren.blogspot.dk/2005/09/skills-for-knowledge-management.html

Dalkir K. 2005, Knowledge Management in Theory and Practice, Elsevier Inc.

Denchev, S., Trencheva, T. 2015. The Summer Knowledge Academy as a Part of the University Research and Educational Environment. In *Proceedings of the International Conference*: *The New Perspectives in Science Education* (Florence, Italy, March 20-21, 2015) Simonelli Ed., Vol. 4, pp. 262-265.

Maier, R. 2007. Knowledge management systems, 3rd edition, Springer.

McInerney, Claire. M and Koenig, Michael E. D., 2011, Knowledge Management (KM) processes in Organizations: Theoretical Foundations and Practice , Morgan and Claypool.

Prusak, Larry. 1999, Where did Knowledge Management Come From?. Knowledge Directions, 1(1), 90-96.

Trencheva, T., & Denchev, S. 2015. The University's R&D Institutes as a New Educational Approach. In *Proceedings of the International Technology,*

Education and Development Conference (Madrid, Spain, March 02-04, 2015) pp. 951-957.

Wenger, Etienne C. & Snyder, W. M. 1999, Communities of practice: The organizational frontier. Harvard Business Review, 78 (1), 139-145.