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Covid-19 Crisis – a wake-up call for

Romanian Higher Education System

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Abstract: The Covid-19 pandemic has had a tremendous impact on the life of people from around the world in almost every way. We are taking this situation very seriously and we acknowledge and fully support the various travel and public gathering restrictions to help slow down the spread of the virus. The purpose of this study is to provide the most suitable solutions for Romanian Higher Education System in order to tackle this global crisis. Current knowledge states the importance of e-learning activities in providing educational services all over the world. In light of these new circumstances, we feel obligated to let our academic network know how we are addressing this challenge while continuing to support all of our professors, students, staff, with the aim of maximizing the safety of our community at large. To ensure the safety of peoples, some of our academic activities are held in an interactive, live online setting, thanks to the possibility of using our e-learning platform: Danubius Online. Secondly, all community collaboration activities were moved in on-line, in order to avoid any possible health risk regarding the Covid-19 outbreak. This paper aims to represent a reflection on current academia reality, as the coronavirus situation evolves, because the COVID-19 crisis moves faster than decision-makers, and under these circumstances, re-thinking Higher Education System becomes a priority.

Keywords: online education; digital skills; knowledge management; information technologies; innovation

JEL Classification: I23; I28; I18; I12

1. Introduction

The coronavirus outbreak allows us to better understand and diagnose Romanian Higher Education System. The extraordinary situation generated by the SARS-CoV-2 coronavirus pandemic revealed some of the problems that Romanian universities are facing: poor infrastructure; insufficient training of both teachers and students in using ICT; the reluctance of decisional factors for e-learning activities, lack of experience in on-line communication, etcetera.

This continues to be an unprecedented time that we live in, with impacts on health, institution and business environments, and also the way we live our daily lives. As we all continue to navigate through these evolving challenges, we want to identify some possible solutions in order to support the academic community as best we can because Universities have to adapt to these new sets of circumstances, and also to find ways to continue to support our policy communities during these difficult times.

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Throughout the years, Danubius University of Galati, which is a private university in South-East Region of Romania, has come across an outstanding tool that helped us operate in a more agile way and serve our community more effectively – the e-learning platform: *Danubius On-line*.

The «new normal» impose by this pandemic, has necessitated swift action on the HEIs' part to adapt to new sets of circumstances, but also to find ways to continue our research and learning activities during these difficult times. The most obvious changes have been the shift of didactic activities, conferences and other events in on-line environment, for the foreseeable future, while social gathering is impossible.

For instance, since the coronavirus outbreak, at Danubius University, all didactic activities have been held as webinars through the *Meetings* tool provided by the e-learning platform: *Danubius On-line*. We were familiarized with different tools of Danubius Online platform, such as: *Syllabus*, *Resources*, *Themes*, *Messages*, *Tests*, *Chat*, and etcetera, because of using them in distance-learning programs, but using *Meetings* for the first time for the entire teaching activities was very much an experiment. Despite some initial external technological issues, we managed to make it happen. It was a „learning by doing" lesson for teachers and students as well. In addition, virtual laboratories for professional development were provided to students through the e-learning platform: *Danubius On-line,* as a part of activities under different European projects. Further, given the need to comply with the recommendations for conduct in preventing the spread of corona-virus (COVID-19) *Danubius On-line* platform proved to be very effective in organizing meetings between academic staff at different level of decisions: Department meetings, Faculty Council University Senate. Moreover, major scientific events such as traditional conferences are organized on *Danubius On-line* platform, linking researchers around the world.

So, these difficult times represents an opportunity to prove that the quality of education is not related to the environment in which different activities take place (classical or on-line), but in the nourishing of content and consistency of information shared.

The evidence and experiences presented in this paper are incontestable prove that it is right time to ensure that Romanian Higher Education System transforms and continues to perform a valuable and relevant role at this time. Thus, the aim of this paper is to identify new ways of development for our higher education system, because it is our social responsibility to offer policy advice to national decision-makers in order to take quick decisions in an efficient and effective manner. It is time to think about measures to digitize the education system, but not only as a measure of adaptation to the pandemic situation.

2. A Reflection on Current Academia Reality

The rapid development of new technologies has generated new ways of working and training so that, in the recent years, we observe how the international academic environment has increasingly implemented in their educational offer, online teaching-learning methodologies.

Along the same line of thinking, in the context of creating a European knowledge-based society, the European Commission supports this form of education, especially at the level of university studies. The Council of the European Union also recommends "to promote a wide range of methods and learning environments, including the proper use of digital technologies in education, training and learning environments".

These European and international initiatives should help to renewal of the education and training policies in our country but, unfortunately, in Romania, the transition from the ***information society*** to the ***knowledge society*** (a knowledge that everyone has access to, regardless of the area they are in and the training they have) is a great unknown for the education system. Thus, the use of e-learning tools is hampered by *the insufficient number of national platforms* and constrained by *reduced flexibility in generating and using digital educational content*.

According to the SWOT analysis on the use of ICT in education, presented in the **National Strategy on the Digital Agenda for Romania 2020**, "the pedagogical and methodical training of the teachers regarding the integration of ICT in the educational process, achieved through the initial training, is modest." (pp. 138). The same document points out "lack of transparency and consistency for the initial and continuous training of teachers". (pp. 139)

In this context, it is obvious that the entire higher education system should be reconfigured in order to be adapted to the digital age.

3. Covid-19 Moves Faster than Decision-Makers

Pandemic crisis caused by Coronavirus has shown to everyone that online environment is **a must**. Military orders imposed social isolation. E-learning platforms and other applications in the online environment began to be used in the education system to ensure the continuation of the activity.

The pressure exerted by the pandemic crisis has led the ministry to **accept** and **recognize** *the need to use alternative learning methods*:

📖 Decree no.195/2020 on the establishment of the state of emergency in Romania;

📖 Decision of the National Committee for Special Emergency Situations (CNSSU) no.7/2020 on the approval of the Decision of the Technical-Scientific Support Group on the Management of Highly Contagious Diseases in Romania no.9/2020;

📖 Order 4020/2020 on the derogation from the legal provisions in the field of higher education, during the state of emergency on the Romanian territory;

📖 Emergency Ordinance 58/2020 on taking measures for the proper functioning of the education system

Hence, during the state of emergency and until the removal of restrictions on public meetings by the relevant authorities:

✎ all activities of *teaching-learning-assessment* related to the second semester of the academic year 2019-2020, the *graduation exams* for bachelor's, master's or postgraduate study programs, *doctoral thesis*, *habilitation theses*, can be achieved in **online mode** for all the forms of organization of curricula (frequency, low frequency, distance learning);

✎ HEIs from the national education system, based on the university autonomy, respecting the quality of the didactic act and assuming the public responsibility, use the **online mode** as *an alternative didactic teaching method*.

✎ the *admission process to university studies* can also be carried out in **online mode**.

It required a pandemic, to react? Isn't it more effective and efficient to be proactive and take action when technical means allow us?

The lesson taught by Covid-19 is simple - The training and learning process must be constantly updated and adapted to the new tendencies generated by the digital revolution, and in doing so, the *periodic training of teachers regarding the news in the ICT-assisted education sector* becomes **a necessity**.

4. Addressing Solution: re-Thinking Romania Higher Education System

Contemporary knowledge is characterized by <u>enhanced dynamics</u>, the cognitive skills and abilities acquired at one point, proving to be *insufficient*, *phase-out* and sometimes *non-operational*. The stake of education is the radiant power to spread, in time and space, the accumulation of values of human society.

In the age of digitalization, the presentation of information is becoming more *interactive*, reconfiguring the relationships between people, but also between them and information. Basically, the barriers (spatial, temporal, and financial) in the path of knowledge are easy to overcome today. The *accessibility* to the sources of knowledge has increased considerably as a result of the emergence of **virtual libraries**, where the information is presented in a digital format.

Information technologies are entering the early life of people, digital literacy starting diffused, from the earliest ages. *Various applications educate and inform, teaching users*.

In this context, knowledge management in teaching is a great challenge for teachers. **Knowledge management** involves a process of collecting and organizing collective intelligence in order to *develop practical solutions to real problems*.

University, as promoter of contemporary knowledge, has the mission to strengthen the intellectual capital and to perfect the reuse of the sources of knowledge by encouraging cooperation, shared knowledge, but also by increasing the possibilities of continuous training and self-improvement.

4.1. Digitizing Education

Rethinking education in line with the new pressures of globalization and technology implies a radical *transformation of the teaching ideology*. There are also major differences between generations and the way they perceive and use digital technology. Although many of them are familiar with the Internet and various 'social media' applications, we cannot say that they are necessarily digital literate.

Education in the online environment implies, inter alia, a rethinking of the role of each party involved in the teaching-learning process - the relationship between the issuer of knowledge (the teacher) and its beneficiary (the student), from the perspective of the *degree of responsibility*; of *decision-making autonomy*, *freedom of action*; of *(self) control*, *(self) evaluation*, etc.. At the same time, the protagonists of learning process through the e-learning platforms must demonstrate some *minimum digital literacy skills*. To have minimal skills in operating with new technologies is a necessary condition for activating this way of doing education. Also, for the effective use of the opportunities offered by the online environment, both teachers and students must to understand *the importance of communicative competence* in the exchange of information, knowledge, experiences, values and

attitudes. Learning facilitated by new technologies is a new hypostasis of the educational act, which implies a new relationship between students, but also between teacher and students. Online learning is based on a digital media, which influences the ability of sensing stimuli differently. The contents that are delivered support a specific processing, the architecture of the educational services being extremely flexible. In this approach, it is necessary to *encourage teachers to be as autonomous as possible in their thinking, in the way of organizing and processing their information*. Teaching in the online environment requires a certain *intervention on the content of knowledge*. It must be adapted to be transposed into a certain format. The content that is delivered through the new technologies must be redefined and resized so that, through the new educational path, the student will be able to use what he has learned in the current activity. In this regard, it is necessary *to train teachers to understand the new training needs of students*, generated by the rapid pace of technological changes. E-learning implies a **change** in the functionality of the methods, another way of running them, a new 'face' of the contents, a redefinition and a recomposing of the technical elements, which preside over the activity of incorporating some values. In this context, *teachers need to be trained to become promoters of change and innovation in education*. Professor in the 2020s works in didactic circumstances specific to the digitalization era and hence the need to develop those skills necessary to design an appropriate educational offer.

4.2. Professor in the 2020s

Professor in the 2020s works in didactic circumstances specific to the digitalization era and hence the need to develop those skills necessary to design an appropriate educational offer.

In this section we intend to outline **the desirable competence profile for the teaching staff** so they can use of *alternative didactic methods* in the process of training and learning of the students.

Based on the common European vision regarding teaching, transposed into Romanian legislation, we can draw the current profile of the teaching staff in higher education.

👤 The teaching staff must prove the **competences provided by the doctoral studies programs[1]**:

☑ professional skills (content, cognitive and research) specific to the field of study:

- ᔕ advanced knowledge in the field;

- ᔕ the ability to identify, formulate and solve research problems;

- ᔕ mastery of advanced research methods and techniques;

- ᔕ knowledge regarding the management of research projects;

- ᔕ mastery of new processes and solutions in research;

- ᔕ abilities to document, elaborate and use scientific works;

- ᔕ linguistic academic skills in international languages necessary for documentation and elaboration of scientific papers;

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[1] In accordance with Government of Romania - Annex of June 29, 2011, Annex regarding the code of doctoral university studies, from 29.06.2011, entered in force from August 3, 2011. The consolidation version from June 2, 2016 is based on the publication in the Official Gazette, Part I no. 551 of August 3, 2011 and includes the amendments made by the following acts: GD 134/2016; Last amendment on March 10, 2016.

    ✫   understanding and ability to apply the principles and values of the ethics of scientific research in the respective field.

☑ cross-cutting skills:

    ✫   communication skills, written and oral, in the field of science and culture;

    ✫   advanced linguistic skills in languages of international circulation;

    ✫   use of information and communication technology;

    ✫   inter-networking skills and teamwork;

    ✫   knowledge of human, material and financial resources management;

    ✫   leadership qualities;

    ✫   knowledge on career management, as well as learning techniques for finding a job and creating jobs for others;

    ✫   knowledge regarding the management of risk, crisis and failure;

    ✫   knowledge regarding the use of legislation in the field of intellectual property rights;

    ✫   economic, technological and social entrepreneurship capabilities.

The teaching staff must demonstrate the competences provided by the programs of university studies in the field of Education Sciences, delivered by the Training Department of the Teaching Staff:

☑ professional competences:

    ✫   training and development of cognitive skills in the field of educational psycho-pedagogy;

    ✫   designing the educational instructional process for different age / training levels of the students;

    ✫   carrying out the specific activities of the educational process in pre-university education;

    ✫   evaluation of learning processes, results and progress of students.

☑ cross-cutting skills:

    ✫   applying the principles and norms of professional deontology, based on explicit value options, specific to the specialist in the educational sciences;

    ✫   effective cooperation in professional, interdisciplinary work teams, specific to the development of projects and programs in the field of education sciences;

    ✫   the use of effective methods and techniques of lifelong learning, for continuous training and professional development.

General skills for teachers that encompass the *key competences for lifelong learning*[1], which teachers have to develop among students in order to facilitate their integration into more diversified, digitized and globalized societies.

In the light of the foregoing, the specialized literature sets out a series of requirements regarding the activity of the teaching staff working in higher education.

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[1] https://ec.europa.eu/education/education-in-the-eu/council-recommendation-on-key-competences-for-lifelong-learning_ro.

- 📖 *identifying, formulating, solving problems;*

- 📖 *ability to think in organizational, institutional and financial terms;*

- 📖 *openness to pluralism, multiculturalism and polycentrism;;*

- 📖 *creativity and intellectual curiosity;*

- 📖 *critical thinking and systemic thinking;*

- 📖 *interpersonal and collaborative skills;*

- 📖 *social responsibility;*

- 📖 *openness to the multidisciplinary approach;*

- 📖 *intelligence and media skills;*

- 📖 *self-assessment and self-training skills;*

- 📖 *responsibility and adaptability;*

- 📖 *communication skills.*

These requirements may be considered as targets of the training programs, in the process of 'lifelong learning' (professional development).

But the intelligent dissemination of knowledge implies the compatibility between technology and education demands.

According to the *Descriptive of European key competences*, digital competence is transposed into:

✍ **knowledge** – the understanding and knowledge of the nature, role and opportunities of information society technology (IST) in everyday contexts: in personal, social, professional life;

Includes main applications such as: word processing spreadsheet, databases, information storage and management; understanding necessary opportunities and potential risks of the Internet and of communication via electronic media (e-mail, network) in the context of: work, leisure, exchange of experiences, network collaboration, learning, research; understanding how TSI supports creativity and innovation, raising awareness of issues related to the validity and authenticity of the information available and about the legal and ethical principles involved in the interactive use of IST.

✍ skills – the ability to search, collect and process information and to use it in a critical and systematic way, appreciating its relevance, differentiating between the real and virtual and recognizing the links between them; ability to use digital tools to produce, present and understand complex information; ability to access, search and use Internet-based services; using IST to support critical thinking, creativity and innovation;

✍ **attitudes** – critical and reflective attitude towards the information available, responsibility for the use of interactive media, interest for involvement in communities and networks for cultural, social and / or professional purposes.

Moreover, the digital age and the globalized society bring to the fore the need *to develop certain skills among the teaching staff*, in terms of thinking, understanding, teamwork and use of new technologies:

computer and digital literacy involve the analysis, approach, management, integration,

evaluation and creation of information in different environments;

 visual literacy involves developing skills in visualizing and interpreting images, the ability to observe certain patterns and to communicate through images;

 information literacy includes effective and effective access to information, critically evaluating information and using it creatively and accurately;

 cultural literacy and global awareness refer to the knowledge, understanding and respect for other cultures, in a global society in which interaction, partnership and competition are at the foreground;

 adaptability to change implies the ability to sense and respond to changes promptly; in addition to the ability to analyse and identify new conditions, they must be able to consider backup plans, anticipate changes, and understand the mutual connection between the elements within the system;

 curiosity, creativity and risk are the preconditions of continuous learning, thus contributing to improving the quality of life and the intellectual capital of the society; without them, many of the discoveries, inventions and knowledge would not exist today; creativity is a mental process that includes generating new ideas or concepts, or generating new associations between existing ideas and concepts; creativity is associated with innovation;

 high level thinking and reasoning – thinking skills are about creative thinking, decision making, problem solving, analysing things and the ability to know how to learn, while reasoning refers to the ability to plan, create, implement and evaluate solutions;

 collaboration is an intellectual effort of a creative nature, which is materialized by sharing knowledge, learning and reaching a consensus in solving different problems; in the 21st century, information technologies play a key role in ensuring successful collaboration between teams and individuals, the E-mail, fax, voice mail, video conferences, chat, shared documents and virtual workplaces being the most common forms of collaboration;

 cooperation through the use of technology aims at the simultaneous processing of multiple shared resources at the same time, to create a much more complex system, which can have a much greater significance than its individual parts;

 communication through the use of technology includes synchronous and asynchronous communication, such as e-mail, group interactions and virtual learning sites, chat rooms, interactive video conferences, telephone and interactions through stimuli and models; such interactions require knowledge of the typical behaviour for a given environment; specific to the 21st century is global communication, which involves scheduling appointments and meetings taking into account the time zone, different cultures and languages.

Education based on skills development implies the reorganization of the entire education system in Romania. Our society needs creative and innovative people, and for this effect to be visible there is a need for a drastic improvement in the quality of the educational process.

5. Final Remarks: Covid-19 – the Rocket Launcher for Romanian Online Education

Knowledge management in didactic activity is a big challenge for teachers. Knowledge management involves a process of collecting and organizing collective intelligence in order to develop *practical solutions to real problems*.

The university, as a promoter of contemporary knowledge, has the mission to enhance intellectual capital and to perfect the reuse of knowledge sources by encouraging cooperation, shared knowledge, but also by increasing the possibilities of continuous training and self-improvement.

Covid-19 crisis has shown us that Education in the 2020s assumed to know how to "surf" smart in new information spaces, to be able to integrate information at the level of knowledge and to have the necessary ability to convert knowledge at the level of good practice into current activity.

The professional skills of teachers must be appropriate to the knowledge society; therefore, they must be adapted to the teaching-learning potential offered by modern means of communication. Responsible teacher training, in order to manage, exploit and create new learning opportunities, involves updating the skills of teachers in terms of educational methodologies.

This paper intended to provide a set of teaching guidelines for developing the skills needed by teachers to organize and provide courses in online environments, respectively in promoting **new learning methods**, and also to raise awareness of Romanian Agency for Quality Assurance in Higher Education (ARACIS) and the Minister of Education and Research on **the need to promote alternative educational methods** in accordance with the *needs of the student*, the *capacity of the Universities* and the *requirements of the society*.

6. Acknowledgement

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