E-Learning developer: specialized training program for online teaching

Doina BANCIU[1], Daniel FODOREAN[1,2]

[1] The Academy of the Romanian Scientists

[2] Baptist Theological Institute of Bucharest

banciudoina@gmail.com, danielfodorean@gmail.com

Abstract: At the end of a period during which most of the education has moved online, it is legitimate to ask ourselves: What are the programs that prepare trainers and teachers for online teaching in Romania? This intersection of pedagogy and technology has been seen differently over the years. Most often technology has been seen as a means of making teaching more efficient, and less as a teaching-learning environment. Without teachers training to understand the online education paradigm, the understanding of this new paradigm of education, namely, online education, and the quality of education will be seriously affected. In this article, we make a brief review of how teachers have been prepared for online teaching in Europe and Romania in recent years, as well as a presentation of the programs that currently exist in Romania in this area. The "E-learning Developer" program is presented as a means of training teachers in recent years.

Keywords: e-learning developer, instructional designer, professional training program, teaching online.

Dezvoltator e-Learning: program de formare specializată pentru predare online

Rezumat: La sfârșitul unei perioade în care cea mai mare parte a educației s-a mutat online, este normal să ne întrebăm: Care sunt programele care pregătesc formatorii și profesorii pentru predarea online în România? Această intersecție dintre pedagogie și tehnologie a fost văzută diferit de-a lungul anilor. Cel mai adesea, tehnologia a fost văzută mai mult ca un mijloc de a eficientiza procesul de predare și mai puțin ca un mediu de predare-învățare. Fără formarea profesorilor pentru a putea înțelege paradigma educației online, înțelegerea acestei noi paradigme a educației, și anume, educația online, precum și calitatea educației vor fi serios afectate. În acest articol, vom face o scurtă trecere în revistă a modului în care profesorii au fost pregătiți pentru predarea online în Europa și România, în ultimii ani, precum și o prezentare a programelor care există în prezent, în România, în acest domeniu. Programul „E-learning Developer" este prezentat ca un mijloc de formare a profesorilor în ultimii ani.

Cuvinte cheie: dezvoltator e-learning, designer de instruire, program de formare profesională, predare online.

1. Introduction

Online education, like traditional education, has the teacher in its composition of the instructive-educational process, even if his role is profoundly changed compared to his role in the traditional classroom. However, his role is not unimportant, but on the contrary, his tasks are more complex, and adequate training is absolutely needed. The relationship between the proper training of teachers for online teaching and the effectiveness of online learning is directly proportional. Who will do this training with the teachers? What are the necessary techno-pedagogical skills that they need to have? What are the training programs available in Romania or internationally?

One of these programs designated for teacher training at EU level is Information and Communication Technology (ICT). Its aim is to develop skills for the use of technology in the teaching-learning process. The very existence of this program, whose importance cannot be denied, makes us to reflect upon the relationship between education and technology, a brief analysis that we will present in the second section of this article. The way in which this relationship is understood is, at least for the authors of this article, one of the essential criteria for analyzing the training programs for teachers and trainers for online teaching. The section will revolve around the following question: "Information and communication technology is a means or an environment for education?".

Sections three and four of this article will deal with specialized teacher training programs for online teaching. First, in section three, we will analyze comparatively two programs with certification that exist in Romania with the aim of delivering online educational content. Then, in our fourth section, we will focus on one of these programs, namely E-learning Developer. It will be

presented the way in which the authors of this article designed this program, based, of course, on the standard approved by the competent bodies in this field in Romania.

2. Information and communication technology, a means or an environment for education?

To integrate technology into the teaching process, ICT (Information and Communication Technology) training sessions were developed in Romania, following the directions established by the European Commission starting the year 2000. Some important milestones in the integration of technology, at the European level in education, are the following: the e-Learning – Designing tomorrow's education (European Commission, 2000), i2010 - A European Information Society for growth and employment (European Commission, 2005), Lifelong Learning Program 2007-13 (European Council, 2006), Digital Agenda for Europe (European Commission, 2010). The contribution of the eLearning Initiative, among others, was that it "analyzed the effective integration of ICT in education and training" and "adopted an action plan setting out the central themes for development in the coming years" (EACEA P9 Eurydice, 2011). Androulla Vassiliou, Commissioner for Education, Culture, Multilingualism, and Youth, in the Foreword of the report "Key data on ICT learning and innovation in schools in Europe - 2011" explains the role and importance of ICT in education. Thus, ICT provides students with digital skills and can customize the learning process by taking into consideration the needs of students (EACEA P9 Eurydice, 2011).

Mrs. Vassiliou explicitly stated that ICT provides tools for classroom education, confirming that, at the time, technology was seen as a supplier of innovative and creative means for learning, not as a teaching-learning environment. The idea of "in the classroom" is mentioned several times below, such as "pedagogical support is generally available in Europe to help teachers put ICT into practice in the classroom" (EACEA P9 Eurydice, 2011). Along with the introduction of new ICT tools, in the perspective of promoting creativity and innovation (EACEA P9 Eurydice, 2011) and based on this association, Commissioner Vassiliou let us understand the teacher training as a point of reference for acquiring ICT skills. The same report acknowledged the critical role played by professors in promoting the new digital education environment and leading the transition from the old to the new teaching-learning paradigm, a paradigm that is more student-centered than before (Learnovation Consortium, 2008).

In addition to what was mentioned above it could be added the fact that "although ICT is included in teacher training regulations, practical ICT-related pedagogical skills are rarely addressed at the central level" (EACEA P9 Eurydice, 2011). Romania has introduced the ICT training of teachers in the training plan of the Didactic Corp House and also in the pre-university school curriculum. There were other private initiatives and other institutions besides those with attributions in the field of education, through which the training of teachers in the field of ICT was carried out. A synthesis of the official documents and the current status of the educational context in Romania can be summarized as follows:

1) The objectives and action plans developed at the European level since 2000 concerning the introduction of information and communication technology in education were aimed at increasing innovation and creativity in the classroom education process and not as a paradigm shift in education. So, the efforts made in these years were aimed at digitizing education, infusing education with ICT tools and developing skills for using these tools, rather than digitalizing it.

2) The real evaluation of how the integration of information and communication technology (ICT) was concretely made in education in Europe, as well as the extent to which teachers actually mastered ICT skills happened during the COVID-19 Pandemic, both at the EU level, as well as in Romania. The "results of this examination" are communicated even by officials, the Romanian Ministry of Education in the official document "Strategy on the Digitalization of Education in Romania" recognizing that the Covid-19 pandemic increased awareness of problems existing in digitalizing education, such as the digital skills, connectivity and the use of technology in education (Ministry of Education and Research, 2021). The same document also refers to the Index of the Digital Economy and Society, which shows, among other things,

that 42% of Europeans do not have basic digital skills. The pandemic highlighted, in addition to these realities, some challenges that Europe is facing with in the field of digitalization, namely: a significant need to increase the number of digital experts and the need for a better and safer digital environment for all participants.

3) The prevailing philosophy of education today supports the concept of information and communication technology (ICT) as a means or tool for effective education, more than the digital technology as a learning environment. This fact lead to treating online education as an "emergency" education, being rather "tolerated" than accepted as a "different kind of education." Among the reasons that lead to such an attitude is the fact that teachers realize that they are unprepared for this way of doing education, which could put them in an inferior position in front of pupils or students who belong to the generation of digital natives. The low level of willingness on behalf of the teachers to learn new things, especially in the field of technology, but also techno-pedagogy and techno-andragogy, which require knowledge of an adequate teaching-learning methodology in an online environment, using digital technology, can be added.

3. Training programs for online instructional and educational activities

All this assessment of the state of integration of technology in education highlights, on the one hand, the need to clarify this new educational paradigm, i.e., the online education, from the point of view of the theory of education, but, on the other hand, it also highlights the need to train teachers and trainers to teach online. The theoretical aspects regarding online education and the relationship of education with digital technology were presented in detail in the book "Education through E-learning" (Banciu et al., 2020). The authors of this book wondered how these theoretical concepts could be transferred, in a very practical way, to teachers and trainers in Romania. They become aware of the importance of developing an accredited training program for teachers/professors taking into consideration different sectors of activity such as higher education, pre-university education, libraries, research institutes in computer science, local administration, and so on. A closer look into the training programs offered in this field within higher education in Romania showed that there were no complete pedagogical training programs for online teaching. Moreover, the number of approved qualifications that allowed organizing authorized training programs was very limited, with a limited focus on online pedagogy or andragogy, this being due also to the way the occupational standard was developed.

The qualifications for which a training program could be developed according to the related standards were: *Instructional Designer* (Classification of Occupations in Romania, 235904) and *E-learning Developer* (Classification of Occupations in Romania, 235905). In Romania, any training program must be developed based on an standard approved by the State. In higher education based on the Nomenclature of fields and specializations / university study programs, the standards are elaborated by the Romanian Agency for Quality Assurance in Higher Education for each specialization. The National Qualifications Authority (ANC) is responsible for the elaboration and approval of standards and qualifications based on which professional training programs can be organized. The mission of ANC is to provide the general framework for continuous vocational training and the development of skills necessary to support a competitive national human resource. In order to organize a vocational training programs, the standards and qualifications for which professional training programs can be organized need to be first elaborated and then approved.

According to the description of the occupational standard, the *Instructional Designer* "is a specialist in education or vocational training who identifies and analyzes the specific training needs of the beneficiaries; designs and implements education/training programs; designs and tests training content and materials; participates in the creation of contents and support materials for e-learning; evaluates and analyzes the efficiency of the education/training programs and the methods used in the training processes" (Miclea et al., 2013a). The standard describes this qualification as an "emerging profession at the intersection of education and IT that will bring, on the one hand, the flexibility of the teaching career and an increase in its attractiveness by creating the possibility for a teacher to acquire this qualification capitalizing on skills already obtained. On the other hand, the new profession is necessary for all institutions/corporations concerned with staff training" (Miclea et al., 2013a). So the instructional designer is, on one hand, a provider of formatted content

e-learning or blended learning, even the production of educational software and e-learning applications, and, on the other hand, is a trainer for initial training activities (educational institutions) or continuous training (other public or private institutions, corporations, IT firms).

The second qualification that relates to the field of online education is the *E-learning Developer* who is "a specialist in education and training that ensures management and development of e-learning education/training programs; develops e-learning policies and strategies and provides the institutional framework for their implementation; ensures the management of education/training programs through e-learning at the organization level; coordinates the activity of the team involved in the elaboration and implementation of education/training programs through eLearning; evaluates education/training programs through e-learning and develops decision recommendations" (Miclea et al., 2013b). A person who has completed this course is authorized to carry out initial and continuing training activities.

A comparative approach to the responsibilities of each qualification, according to the standards, is presented in Table 1.

Table 1. Comparison between the responsibilities of the instructional designer
and the e-learning developer

Instructional designer	E-learning developer
identifies and analyzes the specific training needs of the beneficiaries	provides the management and development of education / training programs through e-learning
designs and implements education/training programs	develops e-learning policies and strategies and provides the institutional framework for their implementation
designs and tests training content and materials	provides the management of education/ training programs through e-learning at the organization level
participates in the creation of content and support materials for e-learning	coordinates the activity of the team involved in the elaboration and implementation of education / training programs through e-learning
evaluates and analyzes the effectiveness of education/training programs and methods used in training processes	evaluates e-learning education / training programs and develops decision recom-mendations

Thus, the responsibilities for the two qualifications are quite similar. However, the tasks for the *instructional designer* are more in the direction of the program and content, while the role of the *e-learning developer* is much more oriented towards management, namely: curriculum management, policy and strategy management, program management, team management, and evaluation management. A more detailed analysis of the two standards, especially with a focus on the competencies pursued in the vocational training for these qualifications, shows that there are quite many similarities. If we consider the meaning of the name of the program, a designer is an "arhitect who deals with the aesthetics of industrial products" (Marcu & Maneca, 1986) or an "arhitect specialist in design" (Marcu, 2000), and instructional means "regarding instruction, instructions" (Marcu, 2000). For an even better understanding, it needs to be mentioned that instruction means "a set of knowledge, skills, and abilities taught to someone or acquired by someone, which aims to acquire a general culture and a professional specialization" (Coteanu, 2010). According to the meaning of the title of the program, an *instructional designer* could be defined as an architect of a certain content, giving it a structure and an aesthetic form of presentation. As well, acording to the meaning of the program title, an e-learning developer is the person who develops, and development means "going through a series of changes to a higher level; to make progress; to advance; to advance; to progress; to prosper; evolve" (Litera International, 2002). In addition to understanding the concept of the developer, we must also understand the concept of e-learning, which is „a word composed of *e* (short for electronic) and *learning*, which communicates the idea of e-learning, a technology-mediated learning" (Fodorean, 2020). Thus, an e-learning developer is a person who deals with the entire process of developing a learning program and the content associated with this program which is delivered and assimilated using electronic means.

4. "E-Learning developer" specialization program

According to the current legal procedures in Romania and based on the standard related to the qualification for which he/she intends to offer the training, each vocational training provider prepares the documentation nedeed for receiving the authorization from the Commission for Authorization of Adult Vocational Training Providers which functions in each county. This documentation also includes the training curriculum which is, in fact, the customization of general competencies provided by the standard approved by the National Qualifications Authority. In the process of defining a personalized curriculum for a particular training course, the objectives and specifics of the training organization must be taken into account, but also the "programs-framework approved according to the law that must be observed in a proportion of at least 75%" (Ministry of Labour, 2003).

These programs are called "adult vocational training courses" and include: "initial vocational training and continuing vocational training, organized in forms other than those specific to the national education system" (Labor Legislation, 2011). As its name implies, "initial vocational training provides training in order to acquire the minimum professional skills necessary to obtain a job" (Labor Legislation, 2011). On the other hand, "continuing vocational training is subsequent to initial training and provides adults with either the development of already acquired professional skills or the acquisition of new skills" (Labor Legislation, 2011). Besides this classification of training courses, namely, initial and continuing formation, these programs can also be classified into advanced and specialized courses.

In 2020, the Institute for Advanced Interdisciplinary Research, under the auspices of the Academy of Romanian Scientists, launched a specialization program for *E-learning Developer* profession due to the awareness of the urgent need to prepare teachers for online teaching, the schools being closed because of the restrictions of the Covid-19 Pandemic. The program was authorized by the Commission for Authorization of Adult Vocational Training Providers of the Municipality of Bucharest (Authorization - series B no. 0012732) in October 2020, under the Methodology for Authorizing Adult Vocational Training Providers, Official Gazette, Part I no. 774 of November 5, 2003. To be officially recognized, the courses must be offered by an authorized training provider. The first series of students who benefited from training through this program was in December 2020.

The *E-learning Developer* Course is a specialization program that requires adults who enroll in the program to have acquired certain skills, without mentioning certain specific prerequisite skills. The ICT skills are intended to be acquired during this course. It is intended for those who have earned a bachelor's degree, regardless of the field of study. Thus, this preparation for the delivery of online content does not consider a certain area of study, but each participant with the competencies acquired after completing the program can ensure the training of others in their own field of study. From this perspective, this program has a high level of admission for those interested, without too many limitations.

The specific competencies that will be acquired during the *E-learning Developer* course are the following:

- implementation of quality standards specific to the field;
- integration of ICT in education and training;
- analysis of e-learning needs;
- implementation of e-learning policies;
- management of education / training programs through e-learning at the organization level;
- development of content and support materials for e-learning education/training systems (LMS – Learning Management System);
- evaluation of education/training programs through e-learning.

The competencies specific to the e-learning developer profession will be transferred to the student through the six intensive thematic modules that make up the theoretical structure of the program and through practical applications, a section that represents 2/3 of the total hours allocated

for this program. The complete training program which includes the name of each module and the number of hours allocated for the theoretical and practical parts is presented in Table 2.

Table 2. Training Curriculum for E-learning Development

No.	Module	Theoretical training (hours)	Practical training (hours)	Total
1	Analysis of training needs and identification of opportunities to integrate e-learning in the instructional-educational process	3	4	7
2	E-learning standards, policies, and strategies	3	3	6
3	Management of the team for defining and implementing education/training programs through e-learning	3	5	8
4	Organizational and educational management in the field of e-learning	4	5	9
5	Development of content and support materials for e-learning	4	20	24
6	Standards, principles, and methods for evaluating e-learning education programs	3	3	6
	Total	20	40	60

A careful observation of the program presented above shows that it has a logical and progressive structure, starting with the analysis of the needs and ending with the evaluation of an e-learrning program. Between these two, the participant in the *E-learning Developer* program will learn about: the standards and procedures to which an e-learning program must relate, about the management of the e-learning program (organizational, financial, educational), and about the creation and delivering educational content through educational platforms.

As can be seen from Table 2, the total time allotted for completing the training program is 60 hours which is divided between theoretical and practical training. The share of theoretical and practical training in the course can be seen in Figure 1. The larger amount of time assigned to practical training indicates the emphasis of this program, namely it aims not only to theorize the procedure for developing e-learning programs, but rather to guide the student in developing such a program with all the necessary elements.
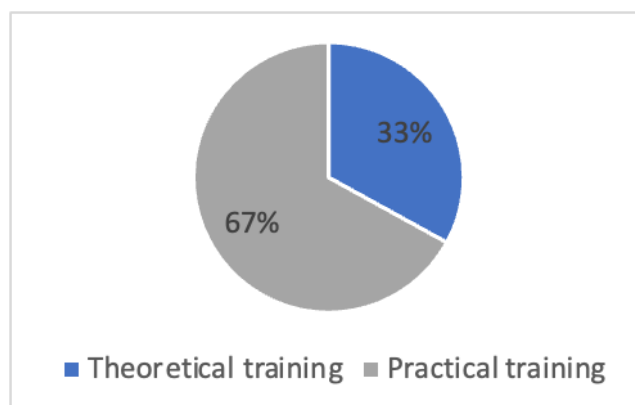

Figure 1. Structure of E-learning Development Program

In the course, the theoretical elements are well integrated with practical elements, in a targeted and way. The plan of practical activities is presented in Table 3.

Table 3. E-learning Development - plan of the practical training

MODULE	THEME OF THE PROJECT	PERFORMANCE CRITERIA
MODULE 1	SWOT analysis on identifying the need for an e-learning course and the course topic	Ability to identify and analyze e-learning needs at the individual and organizational level Ability to perform a SWOT analysis on e-learning strategies in an organizational context
MODULE 2	Based on the information obtained from the SWOT analysis, as well as the standards of the e-learning programs, establish the objectives of the organization in the field of e-learning, define the type of course/e-learning program you want to elaborate and the requirements for this course/program	Ability to set goals for the organization in the field of e-learning in line with the organization's vision Ability to work with the team in developing and implementing e-learning policies and strategies
MODULE 3	Identify financial, human, and technological resources for an e-learning course and develop an implementation plan	Ability to select, monitor, and provide development support for the e-learning course implementation team
MODULE 4	Establish the main sections of the course you are designing and define the elements of the teaching scenario	Ability to design e-learning programs and curriculum Ability to design the teaching scenario and the necessary resources
MODULE 5	Create a course using the Moodle platform	Ability to create a course on the Moodle platform following previously established objectives, curriculum, and teaching scenarios
MODULE 6	Analyze the course created by the other participants in the program and make recommendations, if necessary, to improve the course	Ability to establish assessment tools and apply them to the course Ability to develop professional recom-mendations based on the analysis of evaluation results

At the end of the theoretical training and at the end of the internship, the participants in the professional training programs have to pass the graduation exams. The graduation exams represent a set of theoretical and practical tests that show the acquisition of skills specific to the training program. Passing the graduation exam entitles the participants to receive a graduation certificate.

The strong points of this program are: 1) it provides a complete picture of the stages of the process of designing an online training program; 2) it instructs in the management of this program; 3) it gives a brief idea of how a course can be created and used on an online platform. The weaknesses of this program are: 1) it does not allow too much information about the methodology of online teaching and learning; 2) tends to keep the learner focused on management and technology, while the essential aspects of the online education process remain less visible.

5. Conclusions

In conclusion, by launching the *E-learning Developer* program, the Romanian Academy of Scientists, became aware and came to meet a need that existed and exists today in online education, namely, teacher education in online teaching.

In such a training program the process of knowledge verification is itself a subsystem with well-defined rules which must be intrinsically integrated into the e-learning system. In the eLearning process, the teamwork includes two elements (teams) that must interpenetrate and communicate with each other and inside each other using IT&C support: the teacher-student team and the student-student team. In an online environment, communication and cooperation must be much more consistent and frequent than in an offline environment, with well-established procedural forms, supported by an efficient software with an easy user interface.

The above considerations are the result of the studies, analysis, and experiences of the authors, in both the classical and online teaching, in the university environment. The procedures proposed in the example of the eLearning course were tested by a series of students who followed and graduated them. Of course, for online courses in grades 1-12 or for other categories of students, the proposed procedures must be customized, but the principles of implementation, in our opinion, remain the same.

REFERENCES

1. Banciu, D., Ivașcu, L., Ardelean, B. & Fodorean, D. (2020). *Educația prin E-learning (E-learning Education)*. Romanian Academy of Scientists Publishing House & Technical Publishing House. Bucharest.

2. Coteanu, I. (ed.), (2010). *Micul dicționar academic (Little Academic Dictionary)*, 2nd edition. Encyclopedic Universe Publishing House, Bucharest.

3. European Commission (2000). *e-Learning – Designing tomorrow's education*. Commission of The European Communities, Brussels. Available at: https://eur-lex.europa.eu/LexUriServ/ LexUriServ.do?uri=COM:2000:0318:FIN:EN:PDF, last accesed: 29 of May, 2022.

4. European Commission (2005). *i2010 - A European Information Society for growth and employment*. The European Economic And Social Committee And The Committee Of The Regions, Brussels. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52005DC0229, last accesed: 29 of May, 2022.

5. European Commission (2010). *A Digital Agenda for Europe*, Brussels. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF, last accesed: 29 of May, 2022.

6. European Council (2006). *Lifelong Learning Program 2007-13*, Brussels. Available at: https://eur-lex.europa.eu/EN/legal-content/summary/lifelong-learning-programme-2007-13.html, last accesed: 29 of May, 2022.

7. European Education and Culture Executive Agency - EACEA P9 Eurydice (2011). *Datele cheie referitoare la învățare și inovare prin intermediul TIC în școlile din Europa – 2011* (Key Data on ICT Learning and Innovation in Schools in Europe – 2011). Available at: https://op.europa.eu/en/publication-detail/-/publication/8f864668-0211-4a40-bc14-65bf1a97b6a8, last accesed: 23rd of May, 2022.

8. Fodorean, D. (2020). *E-curs: Ghid Practic pentru crearea, dezvoltarea și utilizarea cursurilor de e-learning* (E-course: A Practical Guide to Creating, Developing and Using E-Learning Courses). Risoprint Publishing House. Cluj-Napoca.

9. Labor Legislation (2011). *Tipuri de Formare Profesională* (Types of Vocational Training). Available at: <https://legislatiamuncii.manager.ro/a/4685/tipuri-de-formare-profesionala.html>, last accesed: 23rd of May, 2022.

10. Learnovation Consortium (2008). *Learnovation Foresight Report*. Available at: https://hal.archives-ouvertes.fr/hal-00592999/document, last accesed: 29 of May, 2022.

11. Litera International (2002). *Noul dicționar explicativ al limbii române* (The New Explanatory Dictionary of Romanian Language). Litera International Publishing House, Bucharest.

12. Marcu, F. & Maneca, C. (eds.) (1986). *Dicționar de neologisme* (Dictionary of Neologisms). Academy Publishing House, Bucharest.

13. Marcu, F. (ed.), (2000). *Marele dicționar de neologisme* (The Grand Dictionary of Neologisms). Saeculum Publishing House. Bucharest.

14. Miclea, M. et. al. (2013b). *Standard Ocupațional Dezvoltator de E-learning* (Occupational Standard E-learning Developer). National Qualifications Authority. Bucharest. Available at:

<http://intern.anc.edu.ro/virtualanc/crud/standarde/standarde_ocupationale/brain/upload/dezvol tator.e-learning.pdf>, last accesed: 23rd of May, 2022.

15. Miclea, M. et. al. (2013a). *Standard Ocupaţional Designer Instrucţional* (Occupational Designer Instructional Standard). National Qualifications Authority. Bucharest. Available at: <http://intern.anc.edu.ro/virtualanc/crud/standarde/standarde_ocupationale/brain/upload/design er.instructional.pdf>, last accesed: 23rd of May, 2022.

16. Ministry of Education and Research (2021). *Strategia privind digitalizarea educaţiei din România* (Strategy on the Digitalization of Education in Romania). Available at: <https://www.smart.edu.ro/ home/strategie-consultare-public%C4%83>, last accesed: 23rd of May, 2022.

17. Ministry of Labour (2003). *Metodologia de autorizare a furnizorilor de formare profesională a adulţilor* (Methodology for Authorizing Adult Vocational Training Providers), part I, no. 774. Official Gazette. Bucharest.

Doina BANCIU este Vicepreședinte al Academiei Oamenilor de Știinţă din România, Președintele Consiliului Științific al Institutului Naţional de Cercetare-Dezvoltare în Informatică – ICI Bucureşti (2017), profesor universitar la Universitatea din Bucureşti, Director General al Institutului Naţional de Cercetare-Dezvoltare în Informatică, ICI Bucureşti (2001-2016). A fost cercetător ştiinţific în cadrul ICI Bucureşti din 1975 şi a ocupat diverse poziţii în structurile de cercetare din institut. A condus programe şi proiecte de cercetare naţionale şi internaţionale. Are numeroase contribuţii teoretice privind informatizarea bibliotecilor şi a condus proiectele de informatizare a Bibliotecii Naţionale a României, Bibliotecii Centrale Universitare Bucureşti, precum şi a mai multor instituţii de informare şi documentare. A condus unul dintre primele programe de reformă a administraţiei publice centrale cu finanţare europeană (2004-2006) şi a fost promotorul aplicării conceptelor şi practicilor privind guvernarea bazată pe noile tehnologii (e-Government). A fost evaluator în cadrul programelor internaţionale de cercetare finanţate de NATO, Comisia Europeană, COST, precum şi în programe naţionale. A condus programul naţional de cercetare Infosoc (2002-2006) şi a contribuit esenţial la dezvoltarea Registrului Naţional al domeniilor „.ro" şi al sistemelor de tip Cloud. A scris 20 de cărţi şi peste 200 de articole publicate în ţară şi în străinătate. A primit premiul „Tudor Tănăsescu" al Academiei Române, acordat pentru domeniul Ştiinţelor Tehnologice şi Informatice, precum şi numeroase alte premii naţionale şi internaţionale. De asemenea, a primit titlul de *Doctor Honoris Causa* din partea mai multor universităţi.

Doina BANCIU the Vice-president of the Romanian Academy of Scientists, the President of the Scientific Council of the National Institute for Research and Development in Informatics – ICI Bucharest (2017), Professor at the University of Bucharest, General Director of the National Institute for Research and Development in Informatics, ICI Bucharest (2001-2016). She has been scientific researcher at ICI since 1975 and has held various positions in the research structures of the Institute. She has led national and international research programs and projects. Mrs. Banciu

has brought numerous theoretical contributions regarding the computerization of libraries and has led the computerization projects of the National Library of Romania, the Central University Library of Bucharest, as well as several information and documentation institutions. She led one of the first programs of reform of the Central European Public Administration with European funding (2004-2006) and was the promoter of applying the concepts and practices regarding the governance based on the new technologies (e-Government). Also, she has acted as an evaluator within international research programs funded by NATO, European Commission, COST, as well as within national programs. She led the national research program Infosoc (2002-2006) and brought essential contributions to the development of the National Register of „.ro" domains and Cloud-type systems. Professor Banciu has written 20 books and over 200 articles published in the country and abroad. She received the „Tudor Tănăsescu" prize of the Romanian Academy, awarded in the field of Technological and Information Sciences, as well as numerous other national and international awards. Also, she received the title of *Doctor Honoris Causa* from several universities.

Daniel FODOREAN este conferențiar universitar, decan al Institutul Teologic Baptist din București, membru asociat al Academiei Oamenilor de Știință din Romania, coordonatorul programului de specializare „Dezvoltator de E-learning" din cadrul Institutului de Cercetări Avansate Interdisciplinare „Constantin Angelescu", profesor asociat la Universitatea Divita Gratiae din Moldova, Director al Leader Formation Institute cu sediul în SUA, coordonator al Antioch Church Network, consultat educațional și profesor la Vox Dei Institute din SUA, profesor la Political Academy. A fost profesor asociat la Liberty University din SUA (2010-2019), profesor asociat la Facultatea de Drept - Universitatea"Titu Maiorescu" (2009-2019), director la Școala Postliceală Sanitară „Hipocrate" din Constanța (2009-2012), fondator și director la Școala Primară „Champions for Life" din Constanța (2011-2019), vicepreședinte executiv al Institutului Româno-American de Studii Juridice, Sociale și Religioase din cadrul Universității „Ovidius" Constanța (2009-2020). Este autorul a mai multe cărți și articole din domeniul educației online, teologiei și dreptului. A obținut premiul „The best book of the year" pentru cartea "Educația prin E-learning" în 2021 Digital Transformation Gala și premiul „Ștefan Odobleja" oferit de Academia Oamenilor de Știință din Romania. Este membru al „The European Distance and E-Learning Network".

Daniel FODOREAN is an associate professor, dean of the Baptist Theological Institute in Bucharest, an associate member of The Academy of the Romanian Scientists, coordinator of the specialization program "E-learning Developer" within the Institute for Advanced Interdisciplinary Research "Constantin Angelescu", associate professor Divita Gratiae from Moldova, Director of Leader Formation Institute, coordinator of the Antioch Church Network, educational consultant and professor at the Vox Dei Institute in the USA, professor at the Political Academy. He was an associate professor at Liberty University in the USA (2010-2019), an associate professor at the Faculty of Law - "Titu Maiorescu" University (2009-2019), director at the "Hipocrate" Sanitary Postgraduate School in Constanța (2009-2012), founder and director of the "Champions for Life" Primary School in Constanța (2011-2019), executive vice-president of the Romanian-American Institute of Legal, Social and Religious Studies within the "Ovidius" University of Constanța (2009-2020). He is the author of several books and articles in the field of online education, theology, and law. He received the "Best book of the year" award for his book "Education through E-learning" from the 2021 Digital Transformation Gala and the "Stefan Odobleja" award offered by the Romanian Academy of Scientists. He is a member of "The European Distance and E-Learning Network".