

INNOVATIVE APPROACHES FOR TEACHING MASTERS ENGLISH AND DIGITAL TECHNOLOGIES APPLICATION IN FINANCIAL LAW

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Abstract

The paper covers the necessity to expand the training programs for masters of arts (Law) at international universities launching innovative interdisciplinary English-language courses in the field of financial law amid digital technologies' development. The analysis of legal disciplines taught in the English language revealed the certainty for this in-depth research. The purpose of the study is to point out the importance of developing interdisciplinary English-language educational course "Financial-legal institutions amid digital technologies' development" for masters of arts studying at Law Institute, RUDN University. The object of the research is the process of teaching masters studying in the intercultural environment of RUDN University (non-immigrant students from CIS, Cyprus, Iran, Vietnam...). The subject of the study is the Federal State educational standards of higher professional education, Common European Framework of Reference for Languages, normative legal acts in the sphere of financial-legal institutions' regulation amid digital technologies development. The methodological bases of the study are the conceptual provisions of Russian and foreign scientists in the field of jurisprudence, IT, theory and methodology of teaching foreign languages and vocational training. The key role of digital technologies' development causing significant changes in law and education is accentuated. As a result, regulatory materials were selected, assignments and exercises were developed to expand IT-based professional terminology, develop skills necessary for professional English-language communication in the field of State, corporate, municipal management, banking sector throughout digital technologies' development, indispensable to the competitive professional interaction of graduates of Law Institute, RUDN University. The results of this study can be applied by scientists and practitioners interested in teaching English and Law in interdisciplinary context amid digital technologies' development.

Keywords: digital technologies, financial-legal institutions, masters' interdisciplinary training, interaction in English.

1 INTRODUCTION

The issues covered in this paper are devoted to the financial-legal institutions' transformation amid the development of digital technologies that caused the need to expand masters' training programmes in international universities. The analysis of the experience of teaching legal disciplines and the English language in the field of jurisprudence in the context of intercultural environment of the Institute of Law, Peoples' Friendship University of Russia (RUDN University), other law universities in Russia and foreign countries revealed the need for a more in-depth study of these issues. As a result of research in the fields of interrelation of law, digital technologies and artificial intelligence, the legal and regulatory framework, authentic materials were selected, assignments and exercises were developed to expand the vocabulary,

professional terminology and to develop writing and speaking skills necessary for professionally focused English language communication in the field of State, corporate, municipal management, financial market, in the banking sector; a fund of evaluation tools was formed to use in the educational process for masters' relevant professional competences development and consolidation of knowledge. The acquired knowledge within the framework of this training course is indispensable to the competitive professional English language interaction of masters of arts – graduates of the Institute of Law, RUDN University.

Many researchers, academicians and practitioners in their many years' study focus on the issues of interrelation of law and digital technologies (e.g. Antonopoulos, A.A., 2017, Franco, P., 2015, Jerry, Brito Et Al., 2015, Makarchuk, Z.V., 2017, Swan, M., 2015, Tapscott, Don & Tapscott, Alex, 2016, and many others). The necessity for advanced curriculum in the English language at non-linguistic faculties of universities in the context of subject-specific (professional) and general cultural competences attracted the attention of Emelyanova, T.V. (Emelyanova, T.V., 2017a, 2017b). Modern society actively uses artificial intelligence and digital technologies in all spheres of life; this process develops in high gear, in particular, in 2011 the data of studies related to information using and processing were published, according to which the volume of digital data after 2002 exceeded the volume of analogue data and continues to increase exponentially. In 2007, the volume of analogue data was exceeded by the volume of digital data by almost 15 times, amounting to 280 exabytes of digital data to 19 of analogue data as it was stated by Hilbert & López, and Hilbert M. (Hilbert, M., & López, P., 2011, Hilbert, M., 2015).

1.1 The objective of the Paper

The purpose of this research is to indicate the importance of developing and implementing an interdisciplinary educational course in the English language for masters of arts: "Financial and legal institutions amid digital technologies development". The object of the study is the process of teaching masters of arts studying in the intercultural environment of the Institute of Law, RUDN University (non-immigrant master from CIS, Afghanistan, Cyprus, Iran, Vietnam, Mongolia, Syria, and many others). The subject of the research is the Federal State educational standards of higher professional education which determine the order, structure and requirements imposed to educational programmes for masters; normative legal acts in the sphere of regulation of financial and legal institutions amid artificial intelligence and digital technologies development; the draft laws, the programme documents of the Russian Federation setting up the basis of the use and implementation of digital technologies in the financial sphere; Common European Framework of Reference for Languages.

2 METHODOLOGY

The methodological bases of the study are the conceptual provisions of Russian and foreign researchers in the field of jurisprudence, linguistics, theory and methodology of teaching foreign languages and vocational training. The works and publications of international scientists in the field of artificial intelligence, digital technologies, law, English for special purposes, intercultural interaction, forensics, linguistics, psycholinguistics, theories and techniques of vocational education have formed the theoretical basis of this study.

The legal environment is also exposed to serious reform. Particularly tangible changes are taking place in the legal areas directly regulating the fields of activities dealing with information and other close to them affairs. The new terms "digital law", "cyber law", etc., are actively used by lawyers, but the content of these concepts is still very vague. The remaining areas of legal regulation are also experiencing an active digital impact. In particular, if to speak about the subject of this research, financial-legal relations, there are new legal institutions (legal regulation of payment systems, payment service providers, legal regulation of the crypto-currency circulation, legal regulation of use a block chain technology in settlements, etc.). The procedures of regulation of the existing relations: budgetary, tax, banking, etc. are being made more or less significant changes. Proceeding from the concept of the continental law school, legal institutions traditionally form the branch of financial law such as budget law, tax law, state financial control, monetary circulation, banking regulation, etc. Thus, they are moving to a new stage of their development.

Digital and artificial intelligence technologies form new approaches to legal technology, suggest new ways of implementing financial transactions, which in turn is reflected in the issues of law. The digitalization of the economy impacts on the taxation procedure, new objects of property rights have already arisen and will continue to expand – various types of crypto-currencies, other digital assets, new activities-mining, validation, etc., and therefore, this will lead to the allocation of new objects of taxation, perhaps even new tax payments. Block chain technology has huge prospects in relation to the budgetary practice, the activity connected with crediting, lending, settlements and calculations, payments that can strongly change the

budget and banking regulations.

The process of development in this direction is in high gear; it poses a certain challenge to the system of vocational education. In addition, a contemporary lawyer in the field of financial activities is a citizen of the world. The financial sphere actively develops being one of the triggering mechanisms of globalization. Banking institutions, the financial market, audit, relations in the field of cash settlements, monetary payments – all these areas go beyond the scope of domestic legal regulation. In order to prepare highly qualified specialists in this field, it is necessary to know universal tendencies and teach adequate terminology both in the Russian and English languages, proficiency of terms' implementation, and develop masters' skills of professional communication in English with counterparts or clients according to global trends.

The listed above information reveals the need to rethink and reconsider traditional and even modern teaching methods, educational tools that are used to prepare masters in the field of financial law; thus, it determines the relevance of this study. The authors, aiming to draw attention to this problem, try to offer a possible option for its solution: to develop and implement an interdisciplinary educational course for masters in the English language: "Financial-legal institutions amid digital technologies development".

2.1 Materials and Methods

The main scientific methods such as analysis, synthesis, systematization of research material, comparative legal and formal legal methods helped to investigate the norms of the current Russian legislation that regulate the educational process and the actual individual financial relations. Brief analysis and monitoring of some training programmes and curricula offered to the masters by the world's leading universities revealed that educational institutions actively try to respond to the challenges of our time and include into their programmes interdisciplinary courses one way or another delving into digital technologies, for example, Harvard's Institute for Applied Computational Science offers the training program "Master of Science degree", that is actually Harvard's first degree program in Computational Science and Engineering (2018). It is an intensive year of coursework leading to the Master of Science throughout which lots of crucial questions of this era in science and technology will be centered on 'big data' and machine learning, thus, masters can answer them after completing this program at Harvard University.

The Oxford University Faculty of Law offers an interdisciplinary training program "The Oxford Master of Science in Taxation" (2018), that is a postgraduate degree taught in association with the Oxford University Center for Business Taxation based at Saïd Business School, which focuses on various professional issues with the special angle on the use and implementation of digital and other modern information technologies. There are special programs on digital technologies in many other universities of the world, for example, "MSc in Data Science" at Dundee University and the University of Edinburgh (2018). They proclaim that the person being able to excel at the manipulation and analysis of data, especially large data sets (so-called "Big Data") that do not fit easily into tabular structures must be called a data scientist.

An attempt to be made aware of the experience of teaching legal disciplines focused on the use of digital technologies and artificial intelligence in law revealed the problem of insufficient attention on the part of law universities and faculties regarding the issues mentioned. Only a few masters' programmes aimed at training specialists in the field of information and digital law were identified, however, they are aimed at training masters who will work in the field of communications, information and telecommunication technologies but does not pay special attention to the issues of financial law. Thus, the authors of the article decided on the necessity to develop a special original course in the English language for masters of law, aimed at gaining, expanding, deepening and implementing knowledge in the field of financial institutions' activities using digital technologies. The banking and settlement relations, the relations forming the sphere of the financial market belong to these institutions first of all.

The Institute of Law, RUDN University launched master's programme "Legal Regulation of Block chain Technology", the realization of which is carried out jointly with Kutafin Moscow State Law University. The program is designed for two years and includes basic disciplines, disciplines of the variable cycle and elective disciplines. The course offered by the authors of this paper suits to the variable part of the program. The complexity of this task is determined by need to develop an integrated comprehensive interdisciplinary approach to the definition of the subject and content of this educational course which has to include simultaneously knowledge and skills in the field of law, information technologies and the English language. As a methodological basis for the preparation of this course, it is necessary to refer to the provisions and requirements of Common European Framework of Reference for Languages (2002), Federal State educational standards for higher professional education (2011) and the Federal Law "On Education in the Russian Federation" (2019). Based on the mentioned Federal Law, all educational standards, in particular,

for the discipline “Jurisprudence”, have to be applied by all Russian State Universities. These standards are updated to meet the newest demands and changes in the world; they are also based on the international agreements like the Lisbon Convention (1997) that Russia is also guided by, through participation in the important Bologna process. The goal of international cooperation in this area is the formation of a single European educational space.

The main innovations were targeted at the achievement of the priority task to bridge the gap among the demands of practice, employers and education programs; for this purpose, the basic criteria of the graduates’ professional competences were formulated and approved. Based on these standards, a graduate of any Russian Law University has to form and expand special professional competencies in law-making, numerous law enforcement activities, expert-consulting activities, pedagogical and research professional activities, and a foreign-language communicative competence. It is precisely these tasks that are aimed to solve throughout the interdisciplinary educational course in the English language for masters: "Financial-legal institutions amid digital technologies development" proposed by the authors of this article. Therefore, key professional competencies were identified; masters and participants of the course should be aimed at the formation of them, in particular, competences in the field of:

- Law enforcement – the ability and skills to competently apply regulatory legal acts in the field of financial activities related to the use of digital technologies; to implement the norms of substantive and procedural law in professional activities;
- Expert-consulting activities – the ability and skills to interpret in a qualified manner the regulatory legal acts regulating financial relations, including those related to the use of digital technologies; to participate in legal expertise of draft normative legal acts, to provide qualified legal opinions, consultations and draw the conclusions in the field of financial activities related to the use of artificial intelligence and digital technologies;
- Research activities – the ability and skills to carry out research in the field of financial law, financial-legal institutions in the conditions of development of digital technologies.

As it was stated by Emelyanova (Emelyanova, T.V., 2017a), we view masters’ of arts (law) professionally directed communicative competence for interaction in the English language as the totality of linguistic, socio-linguistic, sociocultural knowledge, communicative and pragmatic skills of professionally focused communication and culture of interaction in various specialized fields and situations, as well as personal qualities: attraction, causal attribution, communicability, identification, reflection, responsibility, tactfulness, tolerance; it is a meaningful generalization of theoretical and practical knowledge of specialized communication, represented in the form of specific legal concepts, principles, significant positions and situations necessary for successful professional interaction (Emelyanova, 2017a, p.343). To form these competencies and achieve the above objectives, a proper structure of the course was outlined, an appropriate content was chosen, the necessary specialized literature and digital sources in both the Russian and English languages were selected and, finally, a fund of assessment tools was formed, the form and procedure for the results’ assessment were determined.

3 RESULTS AND DISCUSSIONS

The study of special scientific literature, non-fiction and publications on the issues of digital technologies and artificial intelligence, their implementation in the legal field and the sphere of finance made it possible to identify several important thematic blocks that can be taken as a basis for the development of the interdisciplinary educational course in the English language for masters: "Financial-legal institutions amid digital technologies development". The authors consider it possible and appropriate to single out an introductory section and four main sections covering the issues of the impact of digital technologies on some definite financial-legal institutions. In the introductory section there are defined the general goals and objectives of the course, which were covered above, it also contains the basic concepts and terms, the proper understanding of which is necessary for the correct comprehension of special regulations, normative documents and work in the designated area.

The definition of these terms is still purely encyclopaedic or doctrinal. However, several draft laws have already been developed in the Russian Federation, proposing to consolidate the meaning and significance of these terms at the legislative level. In particular, the Draft Federal Law "On Digital Financial Assets", which was prepared by the Ministry of Finance of the Russian Federation in 2013 in Article 1 defined that by this Federal Law the relations arising in the creation, issue, storage and circulation of digital financial assets are regulated, as well as the exercise of the rights and performance of obligations under smart contracts (2013). Based on the provisions of this law, we find it reasonable to fix and use the following proposed concepts:

- Digital financial asset means property in an electronic form created using encryption (cryptographic) means. Ownership of this property is certified by making digital entries in the registry of digital transactions. Digital financial assets include crypto-currency and token. Digital financial assets are not a legal means of payment in the territory of the Russian Federation;
- Digital transaction means an action or sequence of actions aimed at the creation, issuance, circulation of digital financial assets;
- Digital record means information about digital financial assets recorded in the registry of digital transactions;
- Registry of digital transactions is a systematised database of digital records formed at a certain point in time;
- Distributed registry of digital transactions is a systematic database of digital transactions that are stored, simultaneously created and updated on all carriers for all participants of the registry on the basis of the set algorithms providing and ensuring its identity with all users of the registry;
- The registry of digital transactions' members are the persons performing digital transactions in accordance with the rules of maintaining the registry of digital transactions;
- Validator means a legal entity or an individual who is a member of the digital transaction registry and performs activities for the validation of digital records in the digital transaction registry in accordance with the rules for maintaining the digital transaction registry;
- Mining means an entrepreneurial activity aimed at creating crypto-currency and/or validation in order to receive compensation/ remuneration in the form of crypto-currency;
- Crypto-currency is a type of digital financial asset created and registered in the distributed registry of digital transactions by the participants of this registry in accordance with the rules of maintaining the registry of digital transactions;
- token is a type of a digital financial asset that is issued by a legal entity or an individual entrepreneur (hereinafter referred to as an issuer) in order to attract financing, and is registered in the registry of digital records;
- Smart contract means a contract in electronic form, the execution of rights, liabilities and obligations is carried out by automatic digital transactions in a distributed registry of digital transactions in a strictly defined sequence and at approach of the certain circumstances determined by it. Protection of the rights of the parties of the smart contract is carried out in the manner similar to the procedure for the protection of the rights of the parties to the contract, concluded in an electronic form;
- Digital wallet or e-wallet means a software and hardware tool that allows to store information about digital records and provides access to the registry of digital transactions. The digital wallet is opened by the operator of the exchange of digital financial assets only after passing the procedures of the identification of its owner in accordance with the Federal Law on "the Counteraction of the Legitimization (Laundering) of the Proceeds of Crime and the Financing of Terrorism" (2018).

Except the specified terms having important legal value and defining a legal regime of permissible transactions with digital financial assets, to understand the possibilities of using digital technologies, it is necessary to study other concepts and terms those do not have legal content, but allow penetrating into the essence of the processes themselves. Thus, one of the key concepts in the sphere of work with large volumes of information is "Business intelligence" (hereinafter referred to as BI) – the designation of the computer methods and tools providing the transfer of the transactional business information in a form, convenient for human perception, and also means for mass work with such processed information. The goal of BI is to process a large amount of data, focusing attention only on key performance factors of efficiency, modelling an outcome of various options of actions, tracking the results of decision-making.

The term big data refers to structured and unstructured data of huge volumes and significant diversity, which are processed using special software tools that appeared in the late 2000s. In a broad sense, the "big data" is referred to as a socio-economic phenomenon associated with the emergence of technological capabilities to analyse huge amounts of data, and in some problem areas - the entire world data volume as evidenced from mentioned above Hilbert & López recent study (2011). Here there is a need to clarify the concepts of "structured and unstructured data", "horizontal and vertical scaling" and many other terms used in connection with modern information technologies. As practical tasks while working with the introductory part of the

course, non-immigrant students could be asked to find and compare similar concepts in the legislative sources of the States they came from (CIS, Afghanistan, Cyprus, Iran, Vietnam, Mongolia, Syria and many others), and to try to formulate separate concepts independently both in the Russian and English languages.

After studying the materials presented in the introduction of the described course, masters move on to sections that are directly aimed at understanding the impact of digital technologies on individual financial and legal institutions. The authors identified four sections:

1. the impact of digital technologies on the regulation of budgetary relations;
2. the impact of digital technologies on the regulation of taxation;
3. the impact of digital technologies on the regulation of monetary relations;
4. the opportunities of using digital technologies in the field of financial control.

According to the intention of the authors, the programme of classroom activities during the study of these special sections of the course were designed and compiled in such a way that the lessons should be conducted both in the Russian and English languages. In each of the proposed sections, an informative block is formed by studying the relevant legislative acts, their projects and policy documents. This block is studied in Russian on the basis of the Russian legal framework, for example, in the section devoted to the study of the impact of information technology on regulation of budgetary relations, masters could study the articles of the Budget Law that regulate the expenditure of funds for scientific research in the field of digital technologies, the development of technological processes and the introduction of blockchain technology. It is also necessary to refer to the Forecast of socio-economic development of the Russian Federation for 2018 and the planning period of 2019 and 2020, where it is, in particular, stated that in order to further automate the processes of accounting and registration actions, a pilot project involving the introduction of blockchain technology has been developing.

In the section on the impact of digital technologies on monetary relations, the role of the main document for the study was given to the mentioned above draft law "On Digital Financial Assets" (2013). Concerning the problems related to the procedure of the issue and circulation of so-called tokens, the authors also found it necessary to study the provisions of the Federal Law "Concerning the Securities Market" (2018). This is due to the fact that, by its legal nature proceeding from the meaning of the above-mentioned Law, tokens are a kind of digital financial assets, an object of property rights, similar to those that are traded on the financial market (securities market). To issue the tokens, the Issuer needs:

- To publish a public offer, an investment Memorandum (the draft contains lists of information that these documents should contain), as well as other documents required for the issue;
- To conclude contracts, including the form of a smart contract, for the alienation and payment of tokens by their purchasers... etc.

As a search for literature for masters' self-study, they are provided and invited to refer to various Internet resources and numerous non-fiction and scientific papers and books on this subject matter especially in the English language, but excluding those that are not trustworthy as the presented in them information is often of advertising character, mostly not scientific and objective, but creating and causing an artificial excitement around digital issues. In our opinion, masters' knowledge of the issues covered in this paper could be widened due to the given overview of legislative innovations that somehow relate to the regulation of issues connected with digital assets, crypto-currency in different countries, in particular, Russia, Austria, Canada, Germany, the United Kingdom and the United States, etc. The developed English-language interdisciplinary course covers many important topics, for example offences in the sphere of production and circulation of crypto-currencies, including those related to the illegal actions (money laundering) and terrorist activities' financing, taxation, securities' legislation, consumer protection, currency law, etc.

4 CONCLUSION

Various directions of legal regulation are influenced by active development of artificial intelligence and digital technologies – the result of research in these fields is the interdisciplinary educational course in the English language for masters: "Financial-legal institutions amid digital technologies development". The legal and regulatory framework, authentic materials were selected, assignments and exercises were created and compiled to expand masters' vocabulary, professional terminology, writing and speaking skills necessary for professionally oriented English language communication in the field of State, corporate, municipal management, financial market, in the banking sector; a fund of evaluation tools was formed to be used in the educational process for masters' relevant professional competences development and consolidation of

knowledge.

The main innovations were targeted at the achievement of the priority task to bridge the gap among the demands of practice, employers and education programs in the era of digitalization; for this purpose, the basic criteria of the professional competences of the graduates were formulated and approved. It is precisely these tasks that are aimed at solving throughout this interdisciplinary educational course in the English language for masters. Therefore, key professional competencies were developed. The acquired knowledge, formed and expanded special professional competencies in law-making, numerous law enforcement activities, expert-consulting activities, pedagogical and research professional activities, and the English language communicative competence within the framework of this training course are indispensable to the competitive professional English language interaction of masters – graduates of the Institute of Law, RUDN University. The results of this study can be applied by researchers and teachers of law faculties and universities who face the need to educate masters both in the English and Russian languages in interdisciplinary context amid the development of artificial intelligence and digital technologies.

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