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New Horizons of Internationalisation through E-learning: Developing Teacher Digital Competence

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Abstract

The European programmes and strategies to internationalise higher education are considered to be important stimulators and facilitators for the internationalisation of higher education in Europe and elsewhere in the world including Russia. With the Bologna process, the internationalisation of higher education in Russia has been taken to the national level. According to the National Program Education Development for 2013-2020, the internationalisation of higher education is considered as a means to improve the quality of higher education. The present article contains theoretical and practical results of the research, which fall into three parts. In the first part the authors systematise the issue of internationalisation by giving an overview. The paper focuses on the policies of internationalisation and the rationale of the internationalisation for Russian Universities which gleam in the growing importance of national and international rankings especially for evaluation of quality teaching and competitiveness of universities. The second part focuses on E-learning as particular aspect of internationalisation. The authors present the historic perspective of digital learning and dwell upon numerous initiatives on the digital revolution. The third part proves that professional development is an essential element of teacher education and professional advancement. Such a continuous learning and training assures a high level of knowledge and enables teachers to keep their professional skills and knowledge up-to-date. All three parts of the study are logically interconnected and serve the main objective of the research to prove that such processes as Internationalisation has considerable effect on developing Teacher Digital Competence.

Key words: internationalisation, higher education, e-learning, digital learning, digital competence, quality teaching, professional development

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Introduction

Internationalisation continues to be on the agenda of higher education worldwide as it has great significance for the sustainability of higher education at the national level. Internationalisation then is multifaceted and has implications for the entire university sector, and for everyone working within a higher education institution.

Despite internationalisation remaining a central strategic objective for universities, for many high education practitioners it is still a messy concept. It is variously interpreted, and it intersects with numerous other national agendas in higher education; it often builds upon narrow preconceptions limited to one of its facets – attracting international students, for example. It is also subject to multiple theoretical positions associated with globalisation which, together with individual institutional profile and strategic direction, has led to some diversity in the way in which internationalisation is positioned, and the mechanisms through which it is to be achieved.

In the context of education, the term ‘internationalisation’ became popular at the end of the 1980s. For almost two decades it was mainly defined only at the institutional level as a set of activities (Arum 1992). Later, J. Knight updated the definition of internationalisation as “the process of integrating an international, intercultural or global dimension into the teaching, research and service functions of the institution” (Knight 2003). She also suggested distinguishing external internationalisation which is “international academic mobility (education abroad, cross-country education, trans-border education)” and internal internationalisation (that is the “implementation of world educational standards, intercultural programmes, internationalisation of educational programmes and courses”) (Knight 2003, 2007). In the European Parliament study, published in 2015, the definition of internationalisation was expanded to “the intentional process of integrating an international, intercultural or global dimension into the purpose, functions, and delivery of postsecondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society” (de Wit et al. 2015). Still, a broader definition, which goes beyond the specific dimensions of teaching, research, and service, was offered only a year later and goes as “Internationalisation is an ongoing process of change whose objective is to integrate the institution and its key stakeholders (its students and faculty) into the emerging global knowledge economy” (Hawawini 2016). It calls for changes in the institutions’ existing structure, operating modes, and mindsets in order for the institutions to join and contribute to the shaping of the global knowledge economy. This transformation of the definition shows that the concept of the internationalisation of higher education is moved from the fringe of institutional interest to the very core of national interests (Makeeva & Lopukhova 2018).

1.2 Present situation

It is necessary to point out the growing importance of national and international rankings especially for evaluation of competitiveness and quality teaching of universities. University rankings have important functions in informing stakeholders about universities and acting as instruments of transparency and image-building for universities at the national and international levels. The analysis of national and international rankings shows the low level of internationalisation of many regional universities in Russia. According to the National Ranking 2018, among low indicators there are a lack of top academics from European universities, a lack of joint and double educational programmes with foreign universities and cooperation with international researchers, low level of student and academic mobility. One of the reasons for that is Russian regional (provincial) universities joined international processes later than leading

Russian universities from the project “5/100”. As a rule, regional universities have no “old” relations and experience as a basis for new partnerships and they have to actively develop international cooperation based on the best European models and international centres of excellence. But still, most universities do not have clear institutional strategies of internationalisation. And one of the ways to force internationalisation of regional universities is to develop E-learning.

Since E-learning found its way into higher education institutions, there have been discussions about whether the increasing digitalisation might present a threat to the physical nature of universities. Especially when massive open online courses (MOOCs) became a hype around 2012, scepticism arose with regard to the didactical quality of online teaching in higher education (Siemens 2013). Research on the digitalisation of higher education usually concludes that, while E-learning poses a challenge to universities, these institutions have always been facing challenges over the centuries of their existence. Thus, the capability of adapting to a changing society belongs to their inert qualities and interaction between students and university staff and teachers – whether digitally or personally – will certainly remain a crucial educational experience for students (Amirault 2012).

Dr. Dorothea Rüländ, DAAD general secretary and chair of the group, concludes: “The widespread media penetration of higher education is already in full swing. The age of digital learning and teaching scenarios is giving rise to new value chains for HEIs – its global scope is being expanded, opening up opportunities for advancing the strategic internationalisation of German HEIs. In this regard, internationalisation is not an end in itself, but rather proves to be a central factor for increasing the quality of research and teaching” (Rüländ 2017). The working group sees key potentials in preparing students online for future stays in abroad countries and in building international digital learning groups for putting virtual mobility into practice.

Development of E-learning is connected to development, technical improvement and also better affordability of computers. Already in the late eighties and the nineties of the last century the first form of electronic education Computer-Based Training was born. This is considered as the cornerstone of today’s E-learning (Hubackova 2015).

With some advance E-learning was used first particularly by large companies, who did not mind the relatively high initial financial demand. Its benefits, however, were quickly realised also by rectors and academic university senates. The trend towards web-based learning increased substantially between 1996 and 2000. Since the beginning of this millennium the introduction of E-learning at universities has gained rather fast pace.

During this period, E-learning has completed its first phase of development: from the first idea to the radical experiences in the application in higher education, and now even in primary. Early applications coincided with changes experienced by Web itself: since Web just for reading (Web 1.0) to Web-resources for reading, writing, communication and collaboration (Web 2.0).

Definitions of E-learning were then provided from different perspectives:

1. Just presenting E-learning as a new way of learning, e.g. “E-learning is the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchange and collaboration” (Alonso et al. 2005) and “E-learning is defined as information and communication technologies used to support students to improve their learning” (Ellis, Ginns, & Piggott 2009);

2. Describing E-learning as a means of accessing knowledge (through learning, teaching, or training), e.g. “E-learning is an online education defined as the self-paced or real-time delivery of training

and education over the internet to an end-user device” (Lee & Lee 2006) or “E-learning is the delivery of education (all activities relevant to instructing, teaching, and learning) through various electronic media” (Koochang & Harman 2005);

3. Stressing that E-learning is a tool for communication, interaction, and collaboration, e.g. “E-learning is education that uses computerised communication systems as an environment for communication, the exchange of information and interaction between students and instructors” (Bermejo 2005);

4. Emphasising the technological aspects of E-learning, while presenting the rest of its characteristics as secondary, e.g. “E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters” (Guri-Rosenblit 2005).

In recent years the term has also been substituted by others, such as “computer-based learning”, “technology-based training”, and “computer-based training”, which actually predate the first mention of E-learning in the mid-1990s (Friesen 2009) or the more recent “online learning”. Moreover, some people confuse the concept of E-learning with the concepts of a virtual campus or online courses, which can be part of the E-learning universe but do not sufficiently define it.

Methodology

This paper focuses on the problem of using courses from the “Russian national platform of open learning” and Moodle (Modular Object-Oriented Dynamic Learning Environment) in the educational process which are the parts of E-learning. To get an insight into teachers’ experiences regarding MOOCs and the Moodle E-learning platform, an empirical study was conducted. Information was derived from surveying 100 teachers of Samara State Technical University and Samara State University of Social Sciences and Education who got in touch with MOOCs. The questionnaire used for this purpose consisted of 8 questions, whereby three of them were open ones. Of the 100 respondents who were surveyed, 70 claimed that they have never attended any MOOC course or the Moodle E-learning platform. 20 respondent who used any MOOC courses were sceptical about them, but positive about the Moodle E-learning platform (all of them could not work with it) and only 10 teachers claimed that they would recommend MOOCs.

Teachers were also asked about advantages and disadvantages in correlation with MOOCs and the Moodle E-learning platform. 10 out of 10 respondents who used MOOCs and the Moodle E-learning platform claimed that time flexibility is a main advantage, it is possible to adapt any online courses to the individual learning pace. One more advantage which was mentioned is the teacher can become a facilitator presenting the initial contents to the students and guiding them through their own learning. Challenges of using MOOCs were identified by the respondents too. The lack of self-discipline to finish the MOOC is mentioned as a hurdle compared to lectures with compulsory attendance at university. Challenges for lecturers were identified (e.g. costly to create to contents and develop the videos, need of special equipment and infrastructure for the video recording and production, focus on a small area of content) as well as for students who are confronted with theoretical input only online. Taking a course only online, respondents would miss the chance to ask the lecturer for rephrasing, discuss the content in real time and learning in interaction with others.

Two open question was devoted to internationalisation and ways of its realisation. There is still much discussion about internationalisation of the curriculum (and of learning outcomes) and the need to

pay greater attention to developing an international dimension for all students, not just the mobile minority. For some teachers the question has not yet been addressed as a strategic priority, while for others it is understood as teaching in another language, predominantly English, or offering joint and/or double programmes. Such programmes are clearly growing in number and importance in Russian universities as a key tool for internationalisation. On the other hand, digital learning and in particular MOOCs have been at the centre of many higher education teachers' debates, and yet the question can be asked whether HEIs seek to develop digital learning as part of their internationalisation strategy. Despite its high profile, there is very little sign of any significant activity in the development of digital learning in Russia. As the survey on this topic illustrates, digital learning is still in its early stages, especially in regional universities, and is likely to enter higher education in a range of different and often blended forms of teaching and learning.

Results

Internationalisation is now an integral part of higher education and it cannot be avoided. At the same time, this process requires new approaches to education organization and management. Russian universities participating in Erasmus projects and programmes highlights the issue of using of E-learning in educational process. Thus, the project "Entrepreneurs for Tomorrow" (E4T) was running for two years in three main cities of the Volga Basin (Nizhniy Novgorod, Samara and Saransk). The main E-learning tool used during the project was the Moodle E-learning platform or learning management system (LMS) - a free software package designed to help educators create effective online courses. At the moment, Moodle provides one the most flexible tool-sets to support both blended learning and online courses which is very helpful for teachers when they have to integrate E-learning environment support and traditional methods of face-to-face learning or combine face-to-face instruction with computer-mediated instruction and blended-learning thus increasing options for better quality and quantity of human interaction in a learning environment in conditions when face-to-face communication is problematic and even impossible.

So, to support the project "Entrepreneurs for Tomorrow", participating universities decided to stick to Moodle, which is available for use in all countries and universities involved in the project.

In reality, Moodle gives a less sophisticated and structured environment than a full-fledged commercial LMS. As a result of the OS development model, Moodle looks more like a set of tools that share an environment, while commercial LMS support a complete development process and provide complex management tools. Thus, given the simple necessities of its potential users, and the fact that online courses do not have any dedicated management process, this set of tools was far enough for our requirements.

It was decided to create a Moodle course available online to students of all participating universities. The course was designed to be used for three semesters and contained the following blocks: Academic Skills, Entrepreneurial Leadership, Sustainable Business Development, Leadership and Business Ethics, Regional Economics, New Business Concepting, International Business: International law, International Business: Finance & Accounting, International Business: Sustainable Marketing, Cross Cultural Management, Strategic Marketing & Management and others. Each block was developed and managed by several teachers from different universities who created and stored E-learning materials in the system and specified the sequence of studying them.

The blocks enumerated above contained materials and assignments of different types starting from online booklets, a variety of questions in text and quiz formats, lecture notes; including any kind of text-based or Html-formatted documents, multimedia resources such as graphics, video or audio (e.g., MP3

files), PowerPoint, Flash-based applications, etc. From a didactic point of view, the usage of multimedia tools to create attractive activities made the learning process friendlier for students. As a consequence, these activities increased the interest of the students in their studies (which is quite evident in the course logs) as teachers provided students with a large amount of resources that they cannot usually show in the classroom due to time constraints. The Forums and especially the weekly chats eased the interaction with students in real-time and facilitated interaction on an even level allowing students to share their opinions and suggestions; as a learning community, it allowed students to share and discuss their knowledge and difficulties, and also help each other. We noticed that at the beginning of the project there were few students who participated in the chat. Over time the number of students who participated increased and more importantly there was an increase in the number of active students who asked questions and contributed to the discussion.

Due to the fact that access to the Moodle system is carried out through the Internet or other networks, students could work there anytime and from anywhere in their own way of learning. The electronic format allowed using not only texts as textbooks, but also integrating many interactive resources of any format (electronic encyclopedias and dictionaries, audios and videos, pictures and photos, virtual laboratories and simulators). All course materials are still stored in the system and are organized with shortcuts, tags and hypertext links to provide quick access to them. In addition, the Moodle e-learning platform provided teachers and learners from different universities with a variety of tools to organize teacher-student and student-student interaction, namely wikis, forums, blogs and chats. That such interaction was carried out both asynchronously (when communication is executed in written form) or in real time through online seminars especially at the final stage of the project when students were busy writing their master thesis. As the system supports the file exchange of any format both between the teacher and the student, as well as between the students, it was no problem to have a scientific advisor from another country.

On the national level, there also have been attempts to introduce E-learning more widely. One of the most famous projects is known as the “Russian national platform of open learning” (available at: <https://openedu.ru/>). This initiative aimed to present the various online offerings of Russian universities on one website, and to develop a platform for further development of high-quality online education in the country (Sigalov & Skuratov 2012). Its long-term goal was and still is to make a full analogue of university curricula which will allow to get knowledge of the same level and quality as during academic education. It implies high requirements to the developing programs and their effectiveness. Students will have an opportunity to successfully complete the basic education programs staying at home. This resource is expected to raise higher education to the next level and improve overall quality in regional universities and affiliated structures.

The project started with eight of the leading Russian universities (among them National Research Nuclear University “MEPhI”, Ural Federal University, Lomonosov Moscow State University, National University of Science and Technology MISiS, ITMO University, Saint Petersburg University and St. Petersburg Polytechnic University) – each of which initially offered four courses on the website. These universities hope that the establishment of a national educational online platform and the advancement of Internet education in universities will enable Russian universities to strengthen their positions in the area of higher education.

The platform, used for publishing online courses created by the members of the Association, facilitates the adoption of international standards, formulates its own requirements concerning the quality

of online courses and collaborates with providers of higher educational programs, which are implemented using online courses hosted on the platform. Each course undergoes an internal expertise at a university, and a review by the Association to ensure compliance with the “Requirements and Recommendations for Online Courses on the National Open Education Platform”, co-developed by members of the Association. In contrast to other online educational resource, Open Education is designed primarily for university students. Nearly all the offered courses are part of higher education programs and are compulsory modules in higher education curricula. Upon successful completion of the course, learners get a course certificate, and credits for the course can be counted towards the students’ curriculum at any university in Russia. In the future, students will be able to master a major part of their university program online by taking courses on this platform. Since the teacher’s role as supplier of reading lists and teaching materials is diminishing, such courses are likely to accelerate changes in the traditional teaching role and the evolution of more independent learners. Most university authorities believe that the quality of education in Russia will grow thanks to the fact that any student from any Russian university will be able to take courses at top Russian universities wherever and whenever they choose.

In 2017 when we had just started researching the effect of digital education and E-learning on developing teacher digital competence, the choice of courses on the platform was limited to 194 (Lopukhova & Makeeva 2017). It was the goal of the Russian Ministry of Education and Science to incorporate more universities in this national open learning initiative and to increase the number of courses offered via this gateway; up to 250 courses by the end of 2017. At that time, the Russian Ministry of Education was preparing to grant accreditation to courses taken on this platform by students of all Russian higher education institutions and was planning to draft new regulations to allow all Russian universities to include Open Education courses in their programs. Now we see that these plans have been only partially implemented as, on the one hand, the number of courses has increased up to 353 (as for April 8, 2019) but there are still the same 8 universities that use the platform regularly, so there’s still much work to be done.

Discussion

The ultimate goal of the program (E4T) was to improve the quality of education in regional universities and make the educational process in Russia more modern, and improve teachers’ and students’ digital competence. The main outcomes which were achieved during the project is that E-learning increased the responsibility of the students in and during their learning. At the same time, the teacher has become a facilitator, since it simply functions as a moderator or tutor, presenting the initial contents to the students and guiding them through their own learning. In this methodology of learning, the student should be responsible for the management of time, availability and understanding of his/her commitment when attending a course. Supported by technology, E-learning proves more than ever to be an effective teaching/learning method, capable of training and equipping its participants with the more diverse subjects and subjects of learning. The collaboration between the participants (student-pupil and teacher) becomes an effective and interesting means of sharing of information and ideas, and promoting debate to reach conclusions and problem solving in an efficient and interesting way. For the efficiency of this whole process, it is necessary to use Learning Management Systems (LMS). Equipped with tools and resources for dynamic and interactive content sharing, information and users, assessments, etc., these learning systems are the centre of the whole production and dissemination of learning materials. The student only focuses on the platform and course or training he/she is attending, while the teacher is responsible for resources for selective and improved learning.

But positive and fruitful changes achieved during the project by using E-learning tools did not allow to change the situation with Teacher Digital Competence at university in the whole.

At the moment in Russian HEIs there are many individual initiatives in place, but even at the level of individual institutions, clear strategies and policies on the use of E-learning technologies are lacking.

The aim of the ongoing research is to highlight the development in practice of the teacher's digital competence in HEIs, with a special stress in its influence on the professional development of university teachers. We can point to a group of E-learning activities that help teachers to develop their digital competence. Among them we highlight four that have been more significant for the teaching staff.

The first is the development of digital content and tools for students' learning. The development of a specific digital tool of the disciplinary area, the production of videos and presentations about the subject matter, the creation of content in blogs, wikis and in different formats, and the collaboration in the design of software for research, which has been used for student's learning activities. The teaching staff emphasized that all these activities require a process of continuous improvement, and also a pedagogical perspective, perseverance, resources and the support of others.

The second one is the participation and design of blended and virtual courses (e.g. MOOC courses). This set of experiences referred, on the one hand, to the participation of teachers in online courses as students because this helped to understand certain implications of the virtual modality for learning. Almost all teachers have had experiences in this regard. On the other hand, was found the design and participation as tutors of blended or online courses for students or teachers as a part of teachers' training; this experiences was located in the group of teachers in Russia.

The third one is the creation of the Moodle E-learning courses that can be linked to any resources that are uploaded to one's server or that are available on the Internet. It seems to us that the integration of this platforms into university education at all levels deserves special attention and should be included in educational settings, despite all confrontation from those who are against E-learning or are just not technologically advanced to create E-courses for the disciplines they teach.

The fourth one is the coordination of inter-institutional and mixed networks with online support. The collaboration between teachers, educational institutions and other groups mediated by digital environments was another experience that some teachers recognized as important. It includes the coordination of inter-institutional peer networks in face-to-face and online meetings, the mixed working groups (university community, collectives of different spheres and citizenship), and in inter-institutional training projects for teachers or students.

Conclusion

There are also several areas within the process of internationalisation in which Russian higher education system needs to improve. These include having a more uniform, structured approach to digital learning, including MOOCs. At the moment there are many individual initiatives in place, but even at the level of individual institutions, clear strategies and policies on the use of information and communication technologies are lacking. It is a false impression that the teacher is "replaced" or "will be replaced" by the computer; the teacher has the important role of valuing the enormous potential of the virtual learning environment, of creating and coordinating a much more subtle informational support and a more productive system of teaching- learning- evaluation and, at the same time, of solving the socio-emotional problems (states of conflict, social inequalities etc.) that a computer is not able to sense. It is a new task of the teacher, a new place and a new role that the teacher assumes. In order to be able to operate in the virtual

space, to efficiently value the possibilities and advantages offered by the virtual teaching platforms, the teachers have to assume a series of knowledge and abilities that will allow them to use the computer, they have to know the work instruments offered by the online environment, complete the scope of the teaching methods with the use of computers, not only in what concerns teaching but also individual study. E-learning does not exclude the traditional learning methods, but can facilitate and lead to a more efficient learning process and can motivate the student.

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