# Modern education quality requirements and information technologies in academic teachers' activities

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**Abstract:** This article analyses and compares the approaches and procedures of education quality evaluation at the universities participating in the IRNet project. Based on data obtained from a teachers' survey at three universities of Poland, Russia, and Ukraine, it is possible to formulate a set of internal and external factors, which influence the process of implementation of ICT and e-learning in educational activities. The aim of this article is to elaborate recommendations for the development of an educational institution policy in the field of e-learning and educational interactions management in the digital environment of a modern university.

**Keywords:** life-long learning; e-learning; quality of education; information environment; education; educational activities.

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## 1 Introduction

Analysis of recent research and publications shows the influence of macro-trends on the higher education system (European E-competence Framework, 2013). These include the emergence of new professions hierarchy that determines the need for new skills, competencies and lifelong learning; demographic changes, requiring that education become more personalised; globalisation is defined as the need for new competencies and new risks (UNESCO, 2014). Modern higher education is designed to prepare professionals with high potential for self-development, aware of the value of the advanced professional knowledge, ready for professional development and practical

fulfilment (Open Education Europa, 2014). In the future, the most demanded skills for a successful career, in many ways due to changing conditions of the professional information activities in various spheres, will include: the ability to quickly interact with large volumes of information; the ability to isolate the most important; the ability to effectively use information; the ability to make decisions in reliance on automation, information technology and artificial intelligence. Of particular importance are critical and adaptive thinking skills for effective interaction in an electronic environment and appropriate social skills and intercultural competence (Kukharenko, 2014). Students have expectations in the field of using ICT and e-learning for support of education in formal and extracurricular activities. The academic staff needs knowledge in the use of contemporary digital tools and methods in their didactic and scientific work (Digital Agenda for Europe. A Europe 2020 Initiative, 2014).

In this regard, the implementation of ICT and e-learning in educational activities is recognised as a significant factor affecting the quality of education (Noskova, 2007). The quality of education means the balance between the educational process and the educational results; between the educational system and the established requirements, objectives and standards. The quality of higher education includes many components, such as: the organisation of learning and teaching, scientific-pedagogical personnel, material and technical basis, educational electronic environment, academic achievement of students, education management system and scientific research results. An electronic educational environment is a necessary component of the educational environment of any educational institution. Practice shows that the processes of the implementation of ICT and e-learning in education do not occur simultaneously; availability of technologies often does not play a decisive role. Targeted measures to manage these processes are required from educational institutions. In turn, teachers should be receptive to new opportunities, have a motivational readiness to develop new tools of educational interaction; be aware of possible barriers to implement these new tools. It is important to understand what potential is included in various information tools and technologies in terms of achieving the required parameters of quality of education. We need to take into account changing procedures of evaluation and assessment for quality of educational process in high schools (Cullen, 2003; Green, 2014).

This article analyses and compares the approaches and procedures of education quality evaluation in the universities, participating in the IRNet project. On the basis of data obtained from a teachers' survey at several universities, participating in the IRNet project [Herzen State Pedagogical University of Russia (HSPU); the University of Silesia (US) in Katowice, Poland; and Borys Grinchenko Kyiv University (BGKU), Ukraine], it is possible to formulate a set of internal and external factors which influence the process of use of ICT in the educational activities (Kommers et al., 2014). The aim of this article is to elaborate recommendations for the development of an educational institution policy in the field of e-learning and educational interactions management in the digital environment of a modern university.