# **Digital Curator**

# Marina S. TSVETKOVA, Vladimir M. KIRYUKHIN

Russian Academy of Natural History, Moscow, Russian Federation e-mails: ms-tsv@mail.ru; vkiryukh@gmail.com

**Abstract.** This article is the announcement of a chapter "Advanced digital competence of teachers" in the new scientific publication "Teacher Education in the 21st Century" (IntechOpen, London, 2019, academic edition Reginald Monyai,). This chapter is distributed under the terms of the Creative Commons Attribution License\*.

Keywords: digital economy, digital pedagogy, digital competence of teachers, digital school, digital curator.

### 1. Introduction

The school as a social institution has taken these digital waves upon itself, and this has influenced the extremely dynamic renewal and expansion of teachers' competencies – from traditional to digital. This demanded from governments to pay close attention to the digital competencies of citizens, and especially teachers, who form these competencies in children not spontaneously, but systematically for the socialization of the younger generation in the information society.

A modern digital society educator must continuously enrich and complement his or her digital competence by working with the growing digital generation of aboriginal children in the digital society.

Any adult, not only a teacher, will always face a new digital wave during his life, which is generated by more and more technically advanced information and communication technologies. In this sense, an adult, and a teacher also, in the community of children, always remains an emigrant of the digital society in the new digital wave.

Now we are experiencing a digital wave of artificial intelligence – the 4th industrial revolution and the electronic economy (RDEP, 2018). It is connected with the penetration of numbers in the artificial world of things, which became possible to manage thanks to artificial intelligence already in the global information space through the Internet and mobile devices not only in the workplace but also in everyday life. In this new digital world, a teacher forms a willingness to live in a new civilization.

<sup>\*</sup> https://www.intechopen.com/books/teacher-education-in-the-21st-century

Existing experience shows that user competencies (digital literacy) in the new conditions of the digital economy are transforming and include not only common for all user (life) digital competencies, but also professional digital competencies (profession digitalization) and new social digital competencies in the global information world. Consider this triangle of new advanced digital competencies for a teacher in the conditions of the 4th digital wave.

Cyber-worlds, in which children of our digital wave already live, are a natural environment of normal human activity, filled with virtual analogues: cyber art, cyber education, cyber offices, cyber banks, cyber police, cyber libraries, cyber enterprises, cyber medicine... All this should be included in the basic digital competence of the teacher to teach children to live in a digital world and to have an idea of the penetration of all new digital devices into it. Life digital competence of a competent user becomes a natural component of the general culture of the digital world.

The new mission of a digital pedagogy teacher is to teach children to learn in a digital environment throughout their lives. It is also important that each teacher brings to the children's community information about new professions in their subject area (ICT, 2011). Children are focused on the future. Their professional choice is formed in school, and professions are formed by the digital economy and the new digital wave also defines the digitalization of the professions.

In addition to the professions of a programmer, web designer and system administrator, which are traditionally digital for the beginning of the 21st century, the digital economy is rapidly enriching all professions with numbers and creating new professions. New professions of the near future show the dynamic addition of the surrounding world with the cyber world. Knowing about these professions, helping children to get basic professional skills with the involvement of business partners in school are the most important task for the professional choice of the child, his readiness for the challenges of the digital world.

Social digital competence of the teacher is not only psycho-oriented, but is aimed to form in children the value of education and general media literacy in working with information in the Internet and global media, prevention of cybercrime and cyber mania, fostering a culture of cyber security and Internet etiquette in global knowledge networks as opposed to entertainment. Here the teacher should act like a digital curator for the socialization of children in the digital world.

#### 2. Digital Curator

In the new digital wave, social digital competencies require special attention for teachers to work with children. It is necessary to strengthen the environment of development of social digital competences of teachers. In many countries, teachers have already appeared-digital curators in libraries, social adaptation centers, but it is important that they are in every school.

Professional standard "Consultant in the field of digital literacy (digital curator)" is approved in Russia from 31.10.2018 by the Ministry of labor and social protection

(DC 2018). The responsible organization-developer of the professional standard was the all-Russian public and state educational organization "Knowledge" (RS, 2018).

The purpose of the new type of professional activity is to advise on the use of information and communication technologies in various spheres of life, to promote the development of digital literacy of different groups of the population.

The competencies of the digital curator are the following:

- Conducting direct reception of citizens' appeals.
- Electronic communication on citizens' appeals.
- Search and processing of information required for consultations in accordance with the work assignment.
- Visual and remote placement of information and consultations.
- Maintaining a database of citizens who have applied for advice.
- Explanation and demonstration of the ICT application algorithm.
- Informing about the most common threats when working in the network, using the means of communication.
- Informing about the main methods of combating cyber threats.
- Conducting surveys and questionnaires on the results of activities aimed at the development of digital literacy.
- Development of programs of information and educational activities for the development of digital literacy of various groups of citizens and the promotion of consulting services.
- Diagnostics of the level of digital literacy of the citizen who applied for consultation.
- Analysis of the market of digital products and services, digital literacy of the citizens and resources for their development (information resources, educational and enlightening programs).
- Organization of the introduction of modern methods, techniques and forms of counseling on digital literacy development, dissemination of positive experience of counseling; etc.

Digital curator should know the rules of business correspondence and written etiquette; rules of business communication and speech etiquette; requirements for documentation; norms of the native language; principles and mechanisms of search engines, functionality of popular search services. He needs to know the legislation of the country law in the field of intellectual property, personal data, types and basic user characteristics of mobile devices; basic principles of organization and functioning of computer networks. He should be familiar with the main online services for the provision of electronic services, state portals and municipal services, including services provided with the use of electronic social cards, electronic payments, electronic queues, and electronic reception. He is required to get acquainted with the trends in the development of information and communication technologies and digital literacy; the market of modern educational programs aimed at the development of digital literacy; directions and prospects for the development of ICT for the citizens; modern approaches, forms, methods and techniques of additional education and enlightenment, features of additional education and education on the development of digital literacy, etc.

# Reference

DC (2018). Professional Standard "Consultant in the Field of Digital Literacy Development (Digital Curator)". http://www.consultant.ru/document/cons\_doc\_LAW\_311506/

ICT (2011). The Structure of ICT Competences of Teachers / UNESCO Recommendations. http://unesdoc.unesco.org/images/0021/002134/213475r.pdf

RDEP (2018). Russian Digital Economy Program. http://data-economy.ru

RS (2018). Russian Society "Knowledge".

https://www.znanierussia.ru/useful/Pages/digital-curator.aspx



**M.S. Tsvetkova**, professor of the Russian Academy of Natural Sciences, PhD in pedagogic science, prize-winner of competition "The Teacher of Year of Moscow" (1998). Since 2002 she is a member of the Central methodical commission of the Russian Olympiad in informatics, the pedagogic coach of the Russian team on the IOI. She is the author of many papers and books in Russia on the informatization of education and methods of development of talented students. Since 2013 she is the Russian team leader. Expert of Committee on Education and Science State Duma of the Russian Federation (since 2017).



**V.M. Kiryukhin** is professor of the Russian Academy of Natural Sciences. He is the author of many papers and books in Russia on development of Olympiad movements in informatics and preparations for the Olympiads in informatics. He is the exclusive representative who took part at all IOI from 1989 to 2017 as a member of the IOI International Committee (1989–1992, 1999–2002, 2013–2017) and as the Russian team leader (1989, 1993–1998, 2003–2012). He received the IOI Distinguished Service Award at IOI 2003, the IOI Distinguished Service Award at IOI 2008 as one of the founders of the IOI making his long term distinguished service to the IOI from 1989 to 2008 and the medal "20 Years since the First International Olympiad in Informatics" at the IOI 2009.