

# Chapter 11

## Techno–Social Systems in the Internet as a Tool for Social Adaptation of the Visually Impaired

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### ABSTRACT

*The chapter deals with issues related to social adaptation of the visually impaired in techno-social systems of the internet. The current legislation providing access for visually impaired people to such techno-social systems is analyzed, as well as the way the legislation is implemented. Traditions and innovations in the field of accessibility of techno-social systems for visually impaired people in Russia are discussed. The opportunities of the electronic banking system of the European Union and Great Britain for the visually impaired are analyzed.*

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## **INTRODUCTION**

In today's Russian society, the issue of social inequality is extremely crucial (Sushko et al., 2016b). Social inequality leads to stratification of the society into various levels of quality of life (Moser & Robin, 2006; Sushko et al., 2016a). One of the most important kinds of inequality is currently that of access to the information (Monakhov & Pronchev, 2015; Khodakova, 2009). It is not only the welfare of man but also his physical survival that depend on the opportunity of access to the relevant information (Goncharova & Pronchev, 2016; Pronchev et al., 2013).

This is especially urgent for people with health limitations (Goncharova & Pronchev, 2015). The current limited condition of social opportunities of the disabled persons urges finding the new ways for socially adapting the disabled into life of the civic society which by default is the "society of the healthy". The authors believe the problem will keep its relevance also in case the disabled persons make up the majority of the society or even if it all consists only of the disabled (Muravjov et al., 2013).

Techno-social systems created on the basis of multimedia Internet technologies can become a quite efficient means for leveling out the information inequality (Pronchev et al., 2016; Pronchev & Goncharova, 2016). Using the Internet services currently available, various social groups can if not overcome the inequality of access to the relevant information completely but anyway advance in this direction considerably (Pronchev, G.B. et al., 2016). Thus, prerequisites are built up for the disabled to adapt to ordinary life and for so-called barrier-free environment to be created.

The rapidly developing network technologies for processing big data arrays, the Big Data, also open up new opportunities in the sphere of social adaptation for people having health limitations. First of all, this is true for the ever growing volume of data and information sources. According to the forecast of the seventh annual research "IDC Digital Universe" (IDC, 2014), by the year 2020 the world volume of digital information will have grown up 10-fold, with 10% of the volume to be created by various gauges. In Russia, the growth tempo will be slower, so by 2020 the increase will have amounted to about 980 exabyte (2,2% of the world volume). Currently, the volume of information in Russia is estimated to be 155 exabyte (2,4% of the world volume). Researchers believe that the growth of information volume in Russia will be promoted by a higher number of the Internet users, people using social networks and smartphones, as well as by transition from analog television to the digital one.

The prospect for using the social data from techno-social systems opens up, including one to encompass the data from mobile devices into the Big Data. As a result, social workers will get broader opportunities for operational analysis of the new data streams and increasing the value of already accumulated data. The main

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