## SEMANTIC WEB AS INFORMATION AND COMMUNICATION COMPONENT OF SOCIAL ADAPTATION

## Viktor Grygorovych

Information Systems and Networks Department, Lviv Polytechnic National University, S. Bandery Str., 12, Lviv, 79013, UKRAINE, E-mail: <a href="wiktor.grigorovich@gmail.com">wiktor.grigorovich@gmail.com</a>

To socially adapt persons with disabilities is to provide them with education. This important part of their socialization depends on many factors: the availability of the space, the lack of barriers to education and information. The level of the space availability for people with various forms of restrictions remains one of the most pressing problems. The difficulty in ensuring the people with restrictions with the accessibility is that it requires different types of the accessibility. Modern information technology, including Web 3.0 and the Semantic Web, contribute to breaking barriers to the education and the information by implementing educational and information systems that take into account the individual characteristics of the user, his/her possible limitations and, consequently, the special needs. This paper considers the prospects of the Web 3.0 technologies application in the implementation of the intelligent educational systems that train persons with disabilities. There are three areas of the Web 3.0 technologies use in teaching people with special needs: (1) the student-oriented design of knowledge and databases for people with special needs, (2) the support networks of the personality-oriented education of persons with special needs, and (3) the administration process of the student-centered learning for persons with special needs. Obviously, the biggest challenge in realizing the full Semantic Web is the task of transferring the existing Web content into the "semantic" form, i.e. the construction of the "second level" for the existing content: the contemporary web is human-oriented (the vast majority of its content has the form suitable for processing only by a human being). A second machine-oriented level should be built to provide the content form suitable for processing by machines. This content, such as the education, should be formed taking into account the possibility of its use by persons with disabilities. Now we are witnessing only the first steps in developing the technology Web 3.0 and the Semantic Web. However, it is important to immediately determine what future we want to get, how you can use the new technology. By answering these questions, the research efforts will be focused on the implementation of selected areas. Taking into account the interests of persons with disabilities in the design and the construction of the future technology can neutralize the difference between the individual members of the society, as far as the access to the education is concerned and the level of the social adaptation in general.

Keywords – Web 3.0, Semantic Web, people with disabilities, social adaptation