

DOI: <https://doi.org/10.33739/2587-5434-2019-2-2-110-114>**MEDIA EDUCATION TECHNOLOGIES IN DEVELOPING STUDENTS' PROFESSIONAL COMPETENCE****Volodymyr Biletsky****Doctor of Technical Sciences, Professor****National Technical University "Kharkiv Polytechnic Institute"**

(Kharkiv, Ukraine)

e-mail: [ukcdb@i.ua](mailto:ukcdb@i.ua)**Hanna Onkovych****Doctor of Pedagogical Sciences, Professor****Kyiv Medical University**

(Kyiv, Ukraine)

e-mail: [onkan@ukr.net](mailto:onkan@ukr.net)**Olha Yanyshyn****Candidate of Pedagogical Sciences, Associate Professor****Ivano-Frankivsk National Technical University of Oil and Gas**

(Ivano-Frankivsk, Ukraine)

e-mail: [yanyshyn\\_olha@nung.edu.ua](mailto:yanyshyn_olha@nung.edu.ua)

**Abstract.** The article concerns new media education technologies — social networks-based ‘pedagogical’ author’s pages, Knyhospalah didactics, Wikididactics — in the professional training at universities. We define ‘pedagogical’ author’s pages on social networks (blogs and social networking sites) as ‘pedagogical blog-didactics’, ‘scientific blog-didactics’, or ‘pedagogical scientific blog-didactics’. Involving concepts ‘wiki-media developer’, ‘wikipedists’, ‘wiki-teacher’, and ‘wiki-didacticist’, the term ‘Wikididactics’ concerns Internet technologies dealing with using Wikipedia articles in the education process, among them first ‘pedagogical pages’ kept by ‘techies’ groups on the Facebook-page ‘WICIDIDACTICS’, new Ukrainian Facebook-pages ‘Education by the Specialty ‘Petroleum Engineering and Technology’ and ‘Petroleum Education’ aimed at making speciality popular in Ukraine. In Ukrainian higher education, media education technologies, self-elaborated media education techniques, social networks-based ‘pedagogical’ author’s pages, ‘pedagogical blog-didactics’, ‘scientific blog-didactics’, Knyhospalah didactics, and Wikididactics proved appropriate in the professional training.

**Keywords:** information literacy, media didactics, higher education, professionally oriented media education, pedagogical blog-didactics, pedagogical scientific blog-didactics, Wikididactics, Petroleum Education

**МЕДІАОБРАЗОВАТЕЛЬНЫЕ ТЕХНОЛОГИИ В РАЗВИТИИ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ****Владимир Билецкий****Доктор технических наук, профессор****(Национальный технический университет "Харьковский политехнический институт"**

(Харьков, Украина)

e-mail: [ukcdb@i.ua](mailto:ukcdb@i.ua)**Анна Онкович****Доктор педагогических наук, профессор****(Киевский медицинский университет)**

(Киев, Украина)

e-mail: [onkan@ukr.net](mailto:onkan@ukr.net)**Ольга Янышин****Кандидат педагогических наук, доцент****(Ивано-Франковский национальный технический университет нефти и газа)**

(Ивано-Франковск, Украина)

e-mail: [yanyshyn\\_olha@nung.edu.ua](mailto:yanyshyn_olha@nung.edu.ua)

**Аннотация.** Статья посвящена новым технологиям медиаобразования - «педагогическим» страницам в социальных сетях: викидидактике, блогодидактике, книгоспалах-дидактике - в профессиональной подготовке будущих специалистов. Авторские «педагогические» страницы, блоги и сайты сегодня – это «педагогическая блогодидактика», «научная блогодидактика», «научно-педагогическая блогодидактика». Термин «викидидактика» объединяет интернет-технологии, связанные с использованием статей Википедии в образовательном пространстве. Викидидактика включает понятия «викиразработчик», «википользователь», «вikipедист», «вikipедагог» и «викидидакт». Среди первых «педагогических страниц» на Facebook-странице «Викидидактика» новые украинские Facebook-страницы для студентов технических специальностей - «Нефтегазовое образование» и «Образование по специальности "Нефтегазовая инженерия и технологии", целью которых является популяризация специальности в Украине. В украинском высшем образовании технологии медиаобразования, самостоятельно разработанные методики медиаобразования, авторские «педагогические» страницы на основе социальных сетей, «педагогическая блогодидактика», «книгоспалах-дидактика» и «викидидактика» оказались

актуальными для повышения профессиональной квалификации и самообразования, их применение иллюстрирует успешное развитие современной медиадидактики.

**Ключевые слова:** медиаграмотность, информационная грамотность, медиаобразование, медиадидактика, высшее образование, профессионально ориентированное медиаобразование, педагогическая блогодидактика, научно-педагогическая блогодидактика, викидидактика, нефтегазовое образование

**INTRODUCTION.** The rapid development of mass media/communication and their involvement in education and upbringing process have significantly intensified the creative search of teachers in many countries. The innovative activity of those dissatisfied with the traditional conditions, methods, and ways of training and educating teachers was oriented not only onto the novelty of the content of their efforts realization but, first of all, onto the qualitatively new results. As a result, media education was singled out as a separate branch, which is human-centered in its content. Its appearance in the educational space is an innovative educational process, conditioned by the social needs.

**LITERATURE REVIEW.** At one time, we already drew attention to the potential of professionally-oriented media education in higher education, which can significantly promote the formation of media and information literacy of specialists to-be (Gorun 2015, Onkovych 1997, Onkovych G., Onkovych, A 2014). We also showed that foreign and Ukrainian scientists differently interpret some terms such as 'information literacy', 'media literacy', 'media information literacy', and 'media competence of a specialist' (Onkovych 2013, Onkovych 2014, Fedorov, Chelysheva 2004). We also argued that the umbrella concept of 'media-information literacy' should be seen as a basic one in the modern, knowledge, society (Onkovych G., Onkovych A 2014).

The analysis of the recent issue-relevant research and articles confirms the accelerated velocity of introducing media education technologies into the higher school education process. To be convinced that media education approach can modernize the educational process, one should get acquainted with the thesis papers by R. Buzhikov, Y. Horun, I. Hurinenko, N. Dukhanina, O. Kalitseva, I. Sakhnevych, O. Yanyshyn and others.

The researchers proved media education tools to be effective for professional training of future professionals (economists, editors, fire inspectors, computer scientists, lawyers, petroleum engineers, and records information managers) and suggested self-elaborated techniques to do this.

**TERMINOLOGY.** Accessible in media education technologies potential encourages their active promotion and dissemination in educational institutions of different training profiles. It is highly urgent to stimulate media didactics in higher education (Onkovych 2013) (by the way, German scientists call it "Hochschuldidaktik", Ludwig Huber: Hochschuldidaktik als Theorie der Bildung und Ausbildung In: Dieter Lenzen (Hrsg.): Enzyklopädie Erziehungswissenschaft. Ausbildung und Sozialisation in der Hochschule, Band 10. Klett, Stuttgart / Dresden 1995, ISBN 978-3-12-939954-5, S. 114-138). Since "didactics is a part of pedagogy (...) that validates and explains the content of knowledge, methods and organizational forms of education", hence media didactics, in our opinion, is a set of organized knowledge about the principles, content, methods, means and forms of organizing educational process using mass media materials in teaching media pedagogy or other study subjects that ensure gaining teaching and educational goals with the help of the media.

As a branch of pedagogy, media education came into being in the second half of the twentieth century when it became necessary to prepare students for living in the information society and to make them capable of using any form of information, of communicating, of understanding the impact the means of information, especially - mass media can have on the person and its consequences (Dychkivska 2004:352). Now media education has become widespread. In particular, there are research institutes in Germany that carry out scientific research in this field.

German experts, for example, divide media education into two interrelated areas:

1) socially critical media education, which aims to change society through its means, such as the ability of ideological criticism; the ability to influence the media system; the ability to use alternative media;

2) politically motivated media education, which aims to fight against manipulations with the help of media. (Robak 2006: 278).

An essential aim of media education is to make young people ready for the critical perception of media. Media didactics concerns using media in the teaching-learning process. For some scientists, media education means mass journalism education (that is, the acquiring knowledge of journalism by non-journalists - that is "journalism for the masses").

Today media education technologies make use of 'traditional' media such as periodicals, radio, television, cinema, and contemporary information technologies such as software, hardware, and computer-based technology in the educational process; employs modern methods and information exchange systems for collecting, storing, processing, and transferring information (Dychkivska 2013: 337). In fact, such phenomena came into being in the society the moment the media emerged. However, it was not until recently that the new concepts emerged, were absorbed in the 'media' and began to be actively used in various areas of public life. In particular, let's recollect the gains of the language educators in teaching foreign languages reached in the 1990s. They suggested forming information interests of foreign students with the help of journalism (G. Onkovich), using TV programs "Vremia" to improve communicative skills (I. Yershov-Babenko), and using motion pictures and filmstrips in the educational process and others.

Now the concept of "media didactics" has become an "umbrella concept" for these and other concepts. In its turn, one of them - the concept of "Internet didactics" - has also become an 'umbrella notion' for the brand-new terms that appeared definitely because the Internet came into being. Among them – wiki-didactics, blog- (site-) didactics (pedagogical, scientific) etc. Therefore, now we can state that there are such segments of media didactics as television

didactics, movie-didactics, multimedia didactics (including - Internet didactics) etc. depending on the specifics type of the mass media employed.

### THE AIM AND METHODOLOGY

#### The aim

Our goal now is to draw public attention to using "pedagogical" author's pages from social networks for education and self-education. They are blogs, social networking sites, etc., the content of which we define by the term "pedagogical blog-didactics», «scientific blog-didactics", and "pedagogical scientific blog-didactics". It is especially valuable that their authors are practical educators. The blogs kept by practical educators are professionally-oriented. Keeping such blogs is an unique way to inform pupils, students, and colleagues with one's own innovative know-how and applied methods of scientific cognition/It is also a great way to form and improve one's research, cognitive and personal competence.

#### The methodology

Through real virtual collaboration with colleagues and other blog-educators, such subject-oriented blogs, websites and Internet pages help to form one's competence in self-education (the ability to motivate and organize oneself to self-education) and social competence. It also results in better understanding one's role in the ongoing education process in the country.

#### Findings

Through the real virtual collaboration with colleagues and other blog-educators, such subject-oriented blogs, websites and Internet pages help you to form your competence in self-education (the ability to motivate and organize oneself to self-education) and to improve your social competence. Through real virtual collaboration with colleagues and other blog-educators, such subject-oriented blogs, websites and Internet pages help to form one's competence in self-education (the ability to motivate and organize oneself to self-education) and one's social one's competence. It also helps to better understand one's role in the country's ongoing education process. In the creation of such pages in Ukraine, school teachers led the way since they fully appreciated the advantages of using blog-didactics for communicating with the students, for disseminating subject knowledge, for exchanging experience with colleagues and the like. Recently the Ukrainian Internet space witnessed the emergence of the new page "Education by the specialty "Petroleum engineering and technology» which actually is the first "education page" kept by the "techies" group (accessible at [https://www.facebook.com/groups/145315129579851/?fb\\_dtsg\\_ag=AdzaSkzFx-OV4-ran\\_zgiMJfsA675yvulSckOIjMoH7qYA%3AAAdyPt2SHLx4GdjlcymilgmaTiaXTc1M8g3bqu\\_MUuz6VrA](https://www.facebook.com/groups/145315129579851/?fb_dtsg_ag=AdzaSkzFx-OV4-ran_zgiMJfsA675yvulSckOIjMoH7qYA%3AAAdyPt2SHLx4GdjlcymilgmaTiaXTc1M8g3bqu_MUuz6VrA)).

The presentation of the post accentuates "The philosophy of this group aims at making petroleum engineering education popular in Ukraine", what exactly the page's correspondents successfully implement. Its administrators are well-known specialists in the field. Now the page can simultaneously be regarded as an example of media education technologies, media didactics of higher school, and subject media education.

The group "Education by the speciality "Petroleum Engineering and Technology"" illustrates the use of the latest media didactic technologies, such as multi-media didactics and Internet didactics, examples of which are also sites "Drillers Club Knowledge Box" (<https://www.facebook.com/groups/drillersclub/about/>), «Drillers Club Jobs» (<https://www.facebook.com/groups/559636290799507/>), «Drillingformulas.Com Fan Page» ([https://www.facebook.com/drillingformulas/?hc\\_ref=ARS6I2OWCn0vE5wM7A5ddXRLHyEzvh-vDK11Qb3UMPXh9iS3Sv5PG\\_ekguIyumN3Ys0&fref=hf&hc\\_location=group](https://www.facebook.com/drillingformulas/?hc_ref=ARS6I2OWCn0vE5wM7A5ddXRLHyEzvh-vDK11Qb3UMPXh9iS3Sv5PG_ekguIyumN3Ys0&fref=hf&hc_location=group)) and "Petroleum Education" ([https://www.facebook.com/groups/866495553505940/?multi\\_permaLinks=1011581418997352%2C1011564658999028&notif\\_id=1520964697188878&notif\\_t=group\\_activity&ref=notif](https://www.facebook.com/groups/866495553505940/?multi_permaLinks=1011581418997352%2C1011564658999028&notif_id=1520964697188878&notif_t=group_activity&ref=notif)) on Facebook.

On these web-pages, you can find various full texts education materials (manuals, lectures and workshops, reference books, dictionaries and specified encyclopedias) and scientific volumes (monographs and articles) as well as some trailers and educational films, animation clips, which visualize the design and principles of devices functioning and the various technology and natural processes and post job listings, as well as the results of scientific research. Here you see how temporal effects (slow motion and accelerated motion pictures, animated cartoons etc.) combine with professional programs used to simulate natural and technical objects such as SolidWorks, STATGRAPHICS Plus for Windows, software such as Smedvig Technologies, Roxar Software Solutions, Western Atlas, Landmark Graphics, Paradigm Geophysical, CogniSeis, CGG Petrosystems, PGS Tigress, Seismic Microtechnology, GeoMatic, Quick Look, Tigress, Western Atlas, DV-Geo. Facebook administers online group discussions and reports current and pre-planned events such as roundtables, conferences, announcements of launching important objects, etc. Moreover, chat (English chat) as a network tool for fast real-time text messaging among Internet users, in particular via Skype, enables conducting online lectures. These pages offer various online courses elaborated on several platforms such as Khan Academy platform ([khanacademy.org](http://khanacademy.org)), EdX Online Courses of Harvard University and the Massachusetts Institute of Technology ([edx.org](http://edx.org)), Coursera courses from the Universities of Stanford, Princeton, Michigan and Pennsylvania University ([coursera.org](http://coursera.org)) and Project Prometheus (Kyiv Taras Shevchenko National University, Kyiv Polytechnical University and Kyiv-Mohyla Academy, Lviv IT schools), etc.

However, there is a difference in the content of the described national media educational tools "Education by the speciality "Petroleum Engineering and Technology" and "Petroleum Education" and their international analogue "Drillers Club Knowledge Box". Domestic pages are integrative by nature and substantially cover the whole range of disciplines studied by students majoring in "Petroleum Engineering and Technologies", among them petroleum geology, well construction (drilling, cementing, exploitation, replacement, etc.), primary processing of well-extracted fluid (oil, condensate, natural gas) in industries, transportation of petroleum, petroleum products and natural gas and their

processing at petroleum refining and gas processing enterprises. At the same time, the whole set of the technologies and technical means employed is covered, including control, automation and dispatching, modelling of objects

As concerns the international page "Drillers Club Knowledge Box", it is rather limited, specialized and narrowly focused concentrating on drilling of the wells, especially on the technique and technologies used to drill them. In the future, such specialization is likely to be implemented in the domestic educational Internet space as well. That is how the colleagues-"technicians" have approached the development of the professionally-oriented media education and promote it the development of professionally-oriented media didactics.

The term "wiki-didactics" involves another branch of media education - Internet technologies (Onkovych 2017, Onkovych 2007) dealing with technology of using Wikipedia articles in the education process. Now there are 299 language sections in Wikipedia, with respective websites to be used in the educational process of a certain country. The usability of Wikipedia materials is unlimited.

In addition to the wiki-user concept, there are some other concepts:

- a wiki-media developer – a software creator;
- a wikipedists – an author and editor of wiki-articles;
- a wiki-teacher – a school teacher, a college instructor or a university lecturer who uses Wikipedia for teaching and training;

- a wiki-didacticist – a tutor who teaches how to write and edit Wikipedia articles and creates teaching aids, etc.

These processes have been monitored on the page "Wicididactics." In Facebook since September 2016 ([<https://www.facebook.com/groups/1796426670616724/>]).

The Wikipedia educational programs are implemented in different ways. Some of them are traditional. However, thanks to the wikipedists' enthusiasm and wiki-didactics many new forms have recently appeared in Ukraine. Let's overview the activities of the Wikimedia Ukraine Foundation, which holds wikis/wiki-trainings based on editing Wikipedia.

Such forms of training are carried out in different regions of Ukraine. Wikipedia International Education Program's focus is on inspiring students to create their entries on Wikipedia as an alternative form of their independent work. The program involves the dissemination of writing entries as a practical form of self-study for students universities and other schools. Some certain experience was gained from 2007 to 2014 by the lecturers of Donetsk National Technical University (DonNTU) who actively used Wikipedia in lectures on the earth sciences and processing of minerals. Wikipedia Project: *Thematic Replenishment/Index Mining* is the largest among Wikipedia's language sectors (including English and German).

In 2013, Kharkiv Polytechnic Institute, instead of summaries, introduced students' writing entries to the Ukrainian section of the online encyclopedia. Even earlier, a number of universities, in particular, DonNTU practised master's theses approbation in the form of 2-3 entries into Wikipedia. The practice of Chernihiv Pedagogical University demonstrates the interesting form of work in the students' scientific society. In O.M. Lazarevsky Education and Research Institute of History, Ethnology, and Law, they created the WikiStudio related to historical subjects [<https://www.facebook.com/groups/1565189783740050/?fref=ts>]. Through Wikipedia articles, the research performed by studio members immediately becomes a global asset. As you see, various forms of Wikididactics are adequate for various types of higher education institutions (Onkovych 2007).

Wikididactics is a part of pedagogy that deals with introducing Wikipedia into the educational process, developing and testing new didactic materials based on Wikipedia. the tasks of Wikididactics are, in particular, developing and practicing non-traditional kinds of classes (wiki-lessons, subject lessons (literature, geography, history, etc.), "A Person from Wikipedia", "People before Wikipedia", lesson-tours, wikiproject-based lessons, lessons based on the of photo competitions materials, etc.); wiki-training; development and implementation of different types of lectures for students: wiki-lectures, subject studies; establishing wiki-studios and wiki-schools in universities; writing entries, essays and review articles etc. The variety of Wiki lessons is spreading. They are lessons based on Wikipedia materials. Wiki lessons can be 1) content-oriented taking into account the materials of the discipline under study, and 2) Wikipedia-oriented aiming at introducing new articles into the Free encyclopedia (Onkovych 2018). In many regions of Ukraine, such work is carried out by teachers who are now working to make up the manual "Wikipedia in School." [<https://www.facebook.com/groups/495748843947287/?fref=ts>].

**CONCLUSION.** It is the indisputable fact that media pedagogy, media education, and media didactics have come into being in many countries of the world and their pedagogical achievements often become an innovative benchmark for us. As the analysis of national experience shows, Ukraine leads in some positions. The opportunities to develop media education technologies in higher education seem to be almost unlimited.

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### For citation:

Biletsky, V., Onkovych, H. & Yanyshyn, O. (2019) MEDIA EDUCATION TECHNOLOGIES IN DEVELOPING STUDENTS' PROFESSIONAL COMPETENCE // *International Scientific-Pedagogical Organization of Philologists “ WEST-EAST ” (ISPOP). Scientific Journal WEST-EAST. Vol 2/2 N1 (October, 2019). p. 110-114. doi: <https://doi.org/10.33739/2587-5434-2019-2-2-110-114>*

### Для цитирования:

Билецкий, В., Онкович, А., Янышин, О. (2019) МЕДИАОБРАЗОВАТЕЛЬНЫЕ ТЕХНОЛОГИИ В РАЗВИТИИ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ СТУДЕНТОВ // *International Scientific-Pedagogical Organization of Philologists “ WEST-EAST ” (ISPOP). Scientific Journal WEST-EAST. Vol 2/2 N1 (October, 2019). С. 110-114. doi: <https://doi.org/10.33739/2587-5434-2019-2-2-110-114>*

### Information about the authors:

**Volodymyr Biletsky** - Doctor of technical sciences, professor, National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine.

e-mail: [ukcdb@i.ua](mailto:ukcdb@i.ua)

**Anna Onkovych** - Doctor of pedagogical sciences, professor, Kyiv Medical University, Kyiv, Ukraine

e-mail: [onkan@ukr.net](mailto:onkan@ukr.net)

**Olha Yanyshyn** - Candidate of pedagogical sciences, dependant, Ivano-Frankivsk National Technical University of Oil and Gas, Ivano-Frankivsk, Ukraine.

e-mail: [yanyshyn\\_olha@nung.edu.ua](mailto:yanyshyn_olha@nung.edu.ua)

### Сведения об авторах:

**Владимир Билецкий** - доктор технических наук, профессор, Национальный технический университет "Харьковский политехнический институт", Харьков, Украина.

e-mail: [ukcdb@i.ua](mailto:ukcdb@i.ua)

**Анна Онкович** - доктор педагогических наук, профессор, Киевский медицинский университет,

Киев, Украина

e-mail: [onkan@ukr.net](mailto:onkan@ukr.net)

**Ольга Янышин** - кандидат педагогических наук, доцент, Ивано-Франковский национальный технический университет нефти и газа, Ивано-Франковск, Украина

e-mail: [yanyshyn\\_olha@nung.edu.ua](mailto:yanyshyn_olha@nung.edu.ua)

Manuscript received: 05/02/2019 Accepted for publication: 09/20/2019