

University of Silesia in Katowice
Faculty of Arts and Education Sciences
in Cieszyn

E-learning

Vol. 14

E-learning in the Transformation of Education in Digital Society

Monograph

**Scientific Editor
Eugenia Smyrnova-Trybulska**



Katowice–Cieszyn 2022

Reviewer: *Prof. Juan Arias* – University of Extremadura, Spain

Proofreading by: *Ryszard Kalamarz*

Technical editing and correction by:
Ireneusz Olsza, Eugenia Smyrnova-Trybulska

Cover design by: *Ireneusz Olsza*

E-learning Series is indexed in Journal Factor <http://www.journalfactor.org/>, Academic Research Index <https://www.researchbib.com/>, JIFACTOR.ORG, ceon.pl, Polska Bibliografia Naukowa <https://pbn.nauka.gov.pl> 9th vol., 10th vol., 11th vol., 12th vol. and 13th vol. indexed in Web of Science Core Collection
The E-learning series web-sites:
<https://us.edu.pl/wydzial/wsne/nauka-i-badania/serie-wydawnicze/seria-e-learning>
<http://www.ig.studio-noa.pl/pubusc.html>

© Copyright by University of Silesia in Katowice, Poland, 2022

ISSN 2451-3644 (print edition), **ISSN 2451-3652** (digital edition), **ISBN 978-83-66055-31-5**

Published by: STUDIO NOA for University of Silesia in Katowice
Faculty of Arts and Sciences of Education in Cieszyn

Printed in Poland

Scientific publication co-financed from the statutory research funds

Publication co-financed by the University of Silesia in Katowice



<https://doi.org/10.34916/el.2022.14>

Creative Commons Attribution-ShareAlike 4.0 International



This Monograph contains the Authors' own original work, not printed before in any other sources.

TABLE OF CONTENTS

INTRODUCTION	11
CHAPTER I.	
E-learning in the Transformation of Education in Digital Society	
Martin Drlik & Jan Skalka	
PROPOSAL OF ARTIFICIAL INTELLIGENCE EDUCATIONAL MODEL USING ACTIVE LEARNING IN A VIRTUAL EDUCATIONAL ENVIRONMENT	15
Natalia Sorokina, Oksana Shelomovska, Maryna Romaniukha, & Lyudmila Sorokina	
CURRENT CHALLENGES FOR DIGITIZATION OF THE EDUCATIONAL PROCESS OF UKRAINIAN HIGHER EDUCATION INSTITUTIONS	29
Tetiana Andriushchenko, Liubov Lokhvytska, Oleksandr Semenov, & Nataliia Semenova	
FORMATION OF INFORMATION AND COMMUNICATION COMPETENCE IN SPECIALISTS OF PRESCHOOL EDUCATION AS THE DEMAND OF MODERN TIMES	48
Natalia Kozina & Tatiana Noskova	
POSSIBILITIES OF THE DIGITAL LEARNING SUPPORT ENVIRONMENT IN THE INTEGRATION OF EDUCATIONAL AND EXTRACURRICULAR ACTIVITIES	63
Mariia Umryk & Oksana Strutynska	
EXPERIENCE IN DEVELOPMENT OF THE UNIVERSITY MOOCS ENVIRONMENT TO SUPPORT PRE-SERVICE TEACHER TRAINING	75
Svitlana Skvortsova, Anastasiia Ishchenko, Olha Halitsan, & Yana Haievets	
DIGITAL EDUCATIONAL CONTENT IN THE LEARNING ENVIRONMENT OF EDUCATIONAL INSTITUTIONS IN THE CONTEXT OF DISTANCE AND BLENDED LEARNING IN MATHEMATICS	89
Nataliia Klishevych, Roman Pavliuk, Vadym Sulitskyi, & Tetiana Liakh	
EDUCATION IN THE CONDITIONS OF PANDEMIC AND WAR: UKRAINIAN STUDENTS' REPRESENTATIVE OPINIONS	105
Hennadii Karimov, Marina Romaniukha, Ivan Karimov, & Liudmyla Sorokina	
ASPECTS OF DEVELOPING STUDENTS' INDIVIDUAL EDUCATIONAL TRAJECTORY	120

CHAPTER II.**New Methods and Technologies in E-learning.****Development of Key and Soft Competences by E-learning**

Natalia Morze, Liudmyla Chernikova, & Viktoriia Kuchеровska SELFIE AS A TOOL FOR MEASURING THE DIGITAL COMPETENCE OF PARTICIPANTS IN THE EDUCATIONAL PROCESS.....	132
Jolanta Szulc CREATIVITY AS AN INTERDISCIPLINARY COMPETENCE OF THE INDIVIDUAL AND OF THE ARTIFICIAL INTELLIGENCE	151
Liudmyla Khoruzha, Liliya Hrynevych, Dmytro Bodnenko, Iryna Vakulova, & Volodymyr Proshkin ONLINE EDUCATION AT A MODERN UNIVERSITY: TOOLS FOR INTERACTIVE LEARNING.....	163
Olena Faidiuk, Maryna Lekholetova, & Tetiana Liakh PROFESSIONAL SELF-IMPROVEMENT OF SOCIAL WORKERS IN WORKING WITH FEMALE COMBATANTS: THE POTENTIAL OF THE MOOC	178
Olena Kuzminska, Mariia Mazorchuk, Nataliia Morze, Eugenia Smyrnova-Trybulska, Maria Stec, & Prudencia Gutiérrez-Esteban GRADUATE STUDENTS' ATTITUDES TO THE DEVELOPMENT OF DIGITAL OPPORTUNITIES AT THE LEVEL OF INDIVIDUALS AND EDUCATIONAL ORGANISATIONS	191
Irina Krasteva & Todorka Glushkova BLOCKCHAIN BASED SERVICES IN SCHOOL EDUCATIONAL SPACE.....	205
Nataliia Morze & Tetiana Yefymenko TRAINING OF PRE-SERVICE TEACHERS OF COMPUTER SCIENCE IN COMPUTER GRAPHICS.....	215
Svitlana Skvortsova, Tetiana Symonenko, & Tetiana Britskan METHODOLOGY FOR THE USE OF DIGITAL SERVICES IN THE ORGANISATION OF ONLINE AND OFFLINE EDUCATION OF PRIMARY SCHOOL CHILDREN	229

CHAPTER III.**E-learning in STEM and STEAM Education**

Halyna Henseruk, Bogdan Buyak, Mariya Boyko, Serhii Martyniuk, & Yuliia Henseruk

**PREPARATION OF FUTURE HUMANITIES TEACHERS
FOR THE USE OF STEM TECHNOLOGIES IN PROFESSIONAL
ACTIVITIES** 242

Janka Pecuchova & Martin Drlik

**IDENTIFICATION OF STUDENTS WITH SIMILAR
BEHAVIOURAL PATTERNS USING CLUSTERING
TECHNIQUES** 257

Yuliia Rudenko, Marina Drushlyak, Olha Naboka, Volodymyr Proshkin,
& Olena Semenikhina

**SPECIAL COURSE ON INFORMATION HYGIENE
AS A TOOL FOR DEVELOPING YOUTH'S ABILITY TO RESIST
INFORMATIONAL INFLUENCES** 268



PROFESSIONAL SELF-IMPROVEMENT OF SOCIAL WORKERS IN WORKING WITH FEMALE COMBATANTS: THE POTENTIAL OF THE MOOC

Olena Faidiuk¹, Maryna Lekholetova², & Tetiana Liakh³

Borys Grinchenko Kyiv University, Ukraine

¹ o.faidiuk@kubg.edu.ua, ORCID 0000-0003-3778-6986

² m.lekholetova@kubg.edu.ua, ORCID 0000-0003-4055-991X

³ t.liakh@kubg.edu.ua, ORCID 0000-0002-8807-0497

Abstract: *The processes of digital transformation of all spheres of life in modern Ukrainian society and the introduction of emergency distance learning in wartime in Ukraine have led to the emergence of new challenges in the professional self-improvement of social workers in order to provide quality social services to a new target group of clients – participants in combat operations in conditions of uncertainties and threats of wartime.*

The authors of the article investigated ICT used by social workers of Kyiv (Ukraine) working with combatants in state and non-governmental organisations. The study showed a satisfactory level of ICT use in professional activities with this target group and the need to improve the professional competence of workers providing services to this target group.

The problems of combatants, which are addressed by social workers, were explored. A theoretical analysis of the content and structure of open online courses that can be used for professional self-improvement of social workers related to improving their digital and methodological competence in working with combatants was carried out. To achieve the goal a wide range of theoretical research methods (analysis, synthesis, comparison, generalization, etc.) were used. Based on the analysis of MOOC platforms available on the domestic and international Internet market of educational services, it was found that Coursera, EdEra, and Prometheus are the most popular among social workers. It was found that all courses on MOOC platforms have a similar structure, which includes interactive video lectures, educational resources, online tests of various types, and a forum for discussing issues and organising a discussion.

Keywords: MOOC (Massive open online course); professional competences; information and communication technologies; participants in hostilities, female combatants; professional improvement and self-improvement; social work; wartime.

INTRODUCTION

The relevance of the study is determined by the adaptive conditions of distance work, and, to a certain extent, the risky face-to-face work of specialists during the period of quarantine restrictions and the current state of war in Ukraine due to the full-scale invasion of Russian troops. Currently, the population of Ukraine, in particular, groups in difficult life circumstances, or categories with special needs and requirements, need the protection of their rights and interests, as well as quality social services. However, they have limited access to services. Moreover, specialists providing social assistance and support to the population must also adapt to new, changed working conditions during wartime. These circumstances caused the emergence of new challenges in the professional self-improvement of social workers in order to provide high-quality social services to a new group of social work clients – combatants in the conditions of uncertainty and threats of wartime.

Currently, more than 38,000 women are serving in the Ukrainian army, including civilian positions. In total, there are more than 50,000 women in the army now (Women's war: how many women are now defending Ukraine in the army, 2022). Since the beginning of the war, more than 16,700 service woman have received the combatant status. Three hundred two servicewomen have been given state awards, and over 4,500 have received departmental and other awards since 2014 (How many female military personnel serve in the Armed Forces of Ukraine, 2021). These statistics indicate an increase in the number of female combatants whose requests must be granted now and who will have their specific needs in the future.

Social workers and other specialists who work with combatants should be provided with all the necessary resources and means to provide quality assistance to this target category. In wartime, specialists in extreme and changed conditions requires new abilities and skills in mastering the necessary techniques, technologies, and working methods, which they need to provide to the target audience in person and remotely. The main challenge for social workers today is mastering and using new methods and forms of interaction with clients and colleagues in professional activities. Providing qualified social services to clients requires specialists to improve their skills in using digital technologies, to master the norms and rules of behaviour in the digital environment, which determines the content of the professional development of social workers, especially in remote work conditions and wartime. The availability of MOOC platforms in the modern market of educational services provides specialists with more opportunities to choose online courses according to their professional needs, including those that are important and useful in working with female combatants.

LITERATURE REVIEW

MOOCs (massive open online courses) are quite widely advertised in the mass media, and both paid and free courses are available. Today, even more scholars are focusing their research on the history of MOOCs, the evolution of educational technologies, and open/distance learning (Daniel, 2012; Daniel & Uvalić-Trumbić, 2012a; Lambert, 2019; Guest & Wainwright et al., 2021). They are exploring the results of

using mLearning and MOOCs to understand chaos and complexity in education (de Waard & Abajian et al., 2011; Henderikx & Kreijns et al., 2018), studying deforming and motivating factors that direct students not only to enroll in certain courses, but also to request their own space, the opportunity to create MOOCs (Gil Quintana & Martínez Pérez, 2017).

Researchers do not ignore the social aspects of MOOCs, including the interaction between course participants and the support of learning processes (Castaño Garrido, & Maiz Olazabalaga et al., 2015), social media tools that can contribute to productive social learning processes (Anderson & Gifford et al., 2020), the usage of MOOC courses for health promotion (Gómez Gómez & Munuera Gómez, 2021).

Some MOOCs replicate traditional learning pedagogy by adding multimedia elements such as video lectures. Other MOOCs go above the limits by involving a large number of participants, facilitating discussion, and relying on their input into the course. MOOC platforms usually provide some built-in social tools for this purpose (Facebook, Twitter, and MentorMob) in educational technology MOOCs (Alario-Hoyos & Pérez-Sanagustín et al., 2013; Borrás-Gené & Martínez-Núñez et al., 2019). The researchers indicate that the OpenEdX forum's design faces various issues preventing effective support of participants and, as a result, affecting their experience. Therefore, there are demands for a redesign of MOOC platform forums, more efficient and effective technical assistance interventions, and ultimately, improved learning (Ntourmas & Avouris et al., 2019).

It should be noted that MOOCs are used not only in universities but also are of great interest to practitioners in the social sphere, who need to improve their qualifications and timely respond to social challenges when new knowledge is promptly needed. MOOCs serve as an effective tool for social work professionals to gain knowledge. Therefore, Universities must focus on the needs of professionals when developing open courses. It is particularly true for meeting requests to support parenting skills in preventing the repetition of violent patterns between generations, and strengthening communication processes in the family system (Phayal & Khadka et al., 2015; Giovanni & Durán et al., 2021); to overcome obstacles in providing effective social reintegration and unemployment among female combatants (Ruiz & Díaz, 2019; Asal & Jadoon, 2020), to overcome the consequences of armed violence for rural communities, as well as for their life trajectories and careers (Manrique Rueda, 2021), to restore access to social attitudes, identity, promoting the strengthening of the public benefit of former military personnel (Mcmullin, 2013; Hernández & Morales et al., 2021), and others. MOOCs have two positive outcomes: improving learning and encouraging institutions to develop specific missions, such as those of social workers. This scientific study indicates various points of view on this topic. The scholars study the issue of the impact of ICT on the development of higher education; features and dynamics and expansion of MOOC in the international educational space, measure the use of MOOC in the conditions of transnational education, and analyse the function of MOOC in Ukrainian educational realities (Avshenyuk & Berezan et al., 2018). In particular, these are opportunities for the openness of learning, individualization, interactivity, as well as enrichment of learning content. Scholars also emphasize the need to bring the MOOC phenomenon into educational research and to direct this

research to new social and educational problems (Vázquez Cano et al., 2018, Calvo Salvador & Braga Blanco et al., 2019).

Studying the Characteristics of MOOCs completers, they found that practitioners with the purpose of self-improvement have a greater possibility of completing the course, as they have more previous learning experience (Li & Wan, 2016).

The study by Sharov, Filatova, Biliatska, & Yankova (2021) reveals that MOOCs are effective for learning and self-development. Such training plays an important role in the personal development of the future specialist, as it promotes the development of social competence, communication culture, and leadership skills, as well as skills of conflict avoidance, teamwork, and others.

It is important to emphasise the role of MOOCs in the self-improvement of social workers in providing quality services. For example, in their work with a specific category of social services recipients – female participants in hostilities in Ukraine. The analysis of the mentioned studies, the modern challenges social workers face in the conditions of military operations in Ukraine, and the increase in the number of female combatants due to the Russian-Ukrainian war require a detailed assessment of combatants' needs when they come to social workers. It is important to analyse the content and structure of mass open online courses that can be used for social workers' professional self-improvement, related to the improvement of their digital and methodological competence in working with combatants. These challenges formed the basis of our scientific search.

1. ANALYSIS OF REQUESTS OF COMBATANTS TO SOCIAL SERVICES AND NON-GOVERNMENTAL ORGANISATIONS IN KYIV (UKRAINE)

To fulfil the research task, the research group conducted a survey of social work specialists in Kyiv (Ukraine) who provide social assistance and social services to female combatants.

The purpose of the survey was to determine the main problems and needs of combatants approaching state services and NGOs. The tools used by specialists for working with female military personnel, including those lacking in effective work with this target group, have been studied.

Respondents were invited to participate in the survey by distributing the questionnaire in the online group of the network of social service centres and among non-governmental organizations.

This stage of the research was based on using open and closed questions of the questionnaire, which was designed to study the provision of social support to this category of persons.

The list of the survey included such topics:

- The specifics of the requests and needs of the participants applying for help from state services and NGOs;
- Types and range of services provided by specialists to this target audience;
- Information and communication technologies used by specialists in their professional activities.

The study was conducted in compliance with all confidentiality rules. The responses of participants have been analysed with some minor changes.

The study sample consisted of specialists from the district centres of Social services in Kyiv, specialists from the Departments of Social Protection of the Population, and representatives of NGOs that provide social services to participants in hostilities. The number of interviewed respondents was 70, among those, 85.7% were specialists working in state organisations, and 14.3% were NGO workers.

The main requests combatants address to specialists are receiving information consultation (100%), psychological support (90%), assistance in registering the status, obtaining documents, registering benefits, receiving legal aid; assistance in receiving treatment, medical rehabilitation, and recovery; solving household problems (57.1%); employment promotion; assistance in childcare, child education (42.8%). Other requests addressed by specialists from combatants are the following: receiving humanitarian aid; organisation of children's cultural and recreational activities and rehabilitation of children; obtaining personal hygiene products; consultations of psychotherapists; assistance in carrying out psychological rehabilitation; professional and social adaptation; provision of technical and other means of rehabilitation, and others. These and other needs of combatants are also determined by the state of war in the country. Therefore, female combatants constantly need humanitarian aid. They also need help in taking care of a child or children, being forced to leave their children with other relatives, or put them under the temporary care of the state. Women's participation in hostilities negatively impacts their psychological state, which was indicated by all respondents (100%). Female combatants have various personal problems, such as conflicts in their family, conflicts or breakup of relations with a husband or partner (71.4%). Also, female combatants have difficulties in raising children, conflicts with the environment outside the family; issues with drinking alcohol, drug addiction, and addictive behaviour; personal uncertainty, lack of life prospects, and self-doubt (57.1%). Respondents also noted that female combatants have significant problems with physical health, social isolation, and loneliness.

All 100% of respondents confirmed that female combatants need psychological help. Getting information about rights, opportunities, benefits, etc. is also important (71.4%). The woman soldiers need sufficient material resources; development of resilience, activity support; participation in social initiatives, social action groups, and socially beneficial activities (57.1%). Protection of rights, representation of interests, acquisition or restoration of professional skills, and retraining (42.8%) are among other requests of female service members.

71.4% of respondents answered positively to the question, "Have the needs and requests of combatants changed during the period of martial law?" stating they have changed. The urgent needs and current requests of this target audience are the aggravated psychological state of combatants (anxiety, uncertainty, fears); satisfaction of basic needs; receiving psychological support; the need for humanitarian aid; financial support, including state payments provided for by the current legislation of Ukraine; concerns about physical health, the possibility of receiving medical assistance, and other.

Specialists provide advisory services to all combatants (100%). Other vital services are social support (85.7%), representation of the interests of this target audience (71.4%), social adaptation services (57.1%), crisis intervention services (42.8%), and others. Therefore, the analysis of the results of the study made it possible to highlight the main problems and needs faced by female participants in hostilities (Figure 1).

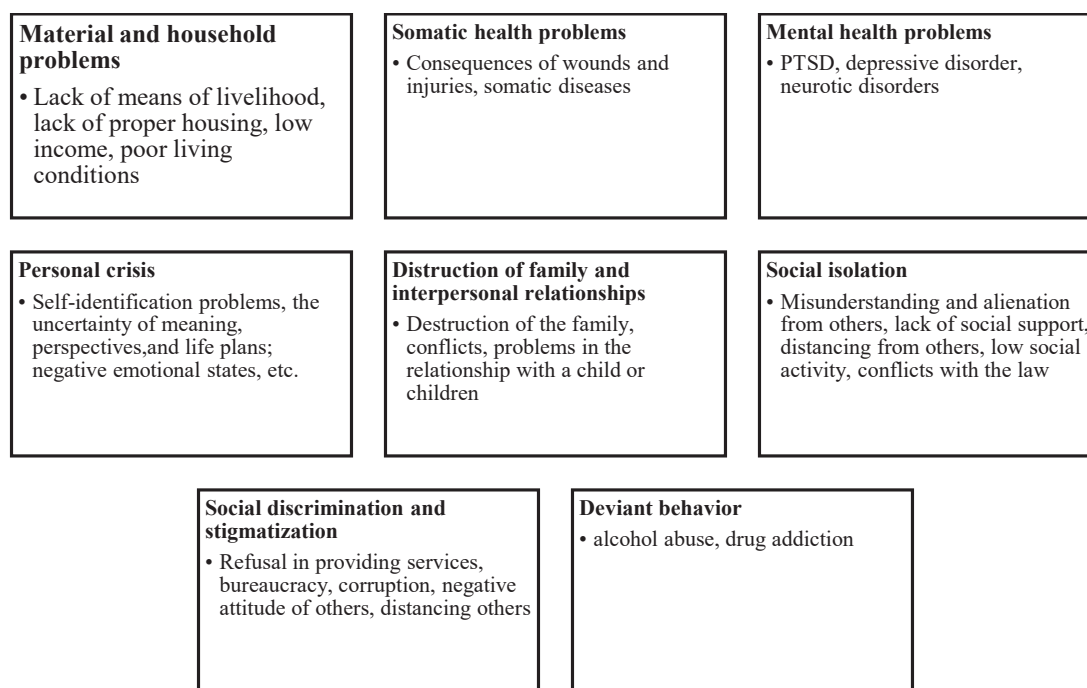


Figure 1. Problems and needs of female combatants addressed to the social workers

Source: Own work.

At this stage of the study, it was found that most often, female combatants apply for such types of social support:

- Medical assistance – receiving quality medical services;
- Legal support – obtaining assistance in providing social benefits, and quarantines such as material aid, land plot, and status registration;
- Material support – receiving targeted material aid, funeral assistance; treatment and rehabilitation of combatants; rehabilitation of children; benefits for housing and communal services; obtaining a plot of land; providing housing, and improving living conditions;
- Socio-pedagogical support – organisation of recreation and leisure for children and other family members; help with child care;
- Psychological support is provided in the form of psychological diagnostics to determine the psycho-emotional state of combatants. The need to receive psychological counselling to reduce psychological stress, and overcome fear and worries about life and health; psychological therapy, psychotherapeutic groups, and self-help groups that help to overcome negative experiences, fear, and psychological exhaustion.

Assessments of the needs and requests of combatants seeking assistance, and analysis of respondents' responses about their professional experience with this target audience lead to the conclusion that social workers, faced with the various needs and requests of combatants, also have their own needs to increase their professional competence. According to the survey results, the following knowledge and skills are important for social workers in working with this target audience: how to recognise anxiety states; how to provide psychological first aid to a person in emergency situations; how to provide pre-medical aid in war conditions; how to carry out career guidance activities in case a person wants to change occupation; how to work with victims of sexual violence or rape; peculiarities of conducting social mediation, and others. These new challenges require social workers to have up-to-date knowledge and skills for effective work with this target audience under martial law in the country.

In addition, it is not always possible to provide services face-to-face under martial law conditions, and remote work with this target audience requires specialists to organise the work process using modern ICT. However, social workers recognize the need for additional training and mastery of relevant technologies to work remotely with female combatants.

2. ANALYSIS OF ICT USED BY SOCIAL WORKERS OF THE CITY OF KYIV (UKRAINE) IN THEIR WORK WITH FEMALE

In the second stage of the research, we obtained the following results by analysing the respondents' answers regarding the information and communication technologies they use in their professional activities in working with female combatants.

Specialists use the following ICT in their professional activities: Google presentation (42.8%), Google search (28.5%), YouTube (28.5%), and Google Doc (14.2%). The following ICT are not used or used very rarely: Cloud (28.5%), Google Classroom (28.5%), Evernote (28.5%), Writing.com (28.5%), Trello (28.5%), Mind Meister (28.5%), Scribblr (28.5%), Red Pen (14.2%) and others.

Specialists use specific models, technologies and methods to provide services to combatants: consultations using information and communication systems, counselling under the SETA program, Telegram, and Viber.

All specialists (100%) working with female combatants have the opportunity to engage specialists who have special training for working with female combatants and also have the opportunity to engage other qualified specialists (psychologists, lawyers, doctors, teachers, and others). Specialists also have at their disposal the premises and equipment necessary for individual and group work (85.7%). However, some specialists do not have experience working with the category of clients with traumatic experiences or in crisis (14.2%), and also do not have experience in implementing social projects (14.2%).

Specialists indicate the following needs in working with combatants as field training for providing services to hostilities participants (85.7%), training on professional burnout (85.7%), professional qualification improvement courses (42.9%), and self-education (28.6%).

The obtained results give us the basis to conclude that female combatants (especially in wartime) have specific needs and requests that state institutions and public organisations must guarantee. Specialists working in these institutions must be ready to provide quality services to this category of clients. Both professional qualities and ICT skills are important for the effective organisation of the workflow.

Based on the present study, it was found that specialists use individual information and communication technologies in their professional activities. The most frequently used ICTs are Google presentation, Google search, and YouTube. Specialists do not know or rarely use other ICTs in their professional activities. Respondents indicated they need special field training for providing services to the target audience; they require training on professional burnout, and courses to improve their professional qualifications. Based on the results of the obtained data, we can conclude that social workers need to improve their ICT skills in order to organise effective remote work with this target audience. The main requests of social workers are as follows: the creation and designing of presentations; the creation of their own websites according to the needs of the target audience; basics of digital literacy; how to spot misinformation and fake news.

3. MOOCS FOR PROFESSIONAL SELF-IMPROVEMENT OF DIGITAL AND METHODOLOGICAL COMPETENCE OF SOCIAL WORKERS WORKING WITH FEMALE COMBATANTS

Focusing on the results of the analysis of combatants' requests to social services and NGOs in Kyiv and the exploration of ICT Kyiv social workers used for working with combatants, the authors selected electronic (open) courses that may be essential and useful for social workers to provide quality social services and ensure readiness to work with combatants and their family members in wartime (Figure 2).

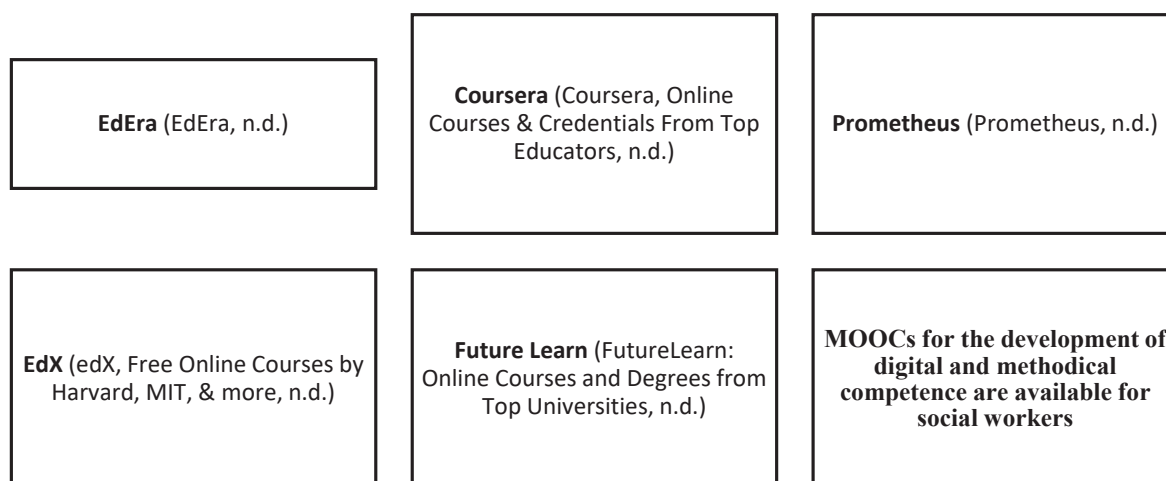


Figure 2. Electronic (open) courses for social workers to provide quality social services and ensure readiness to work with combatants and their family members in wartime

Source: Own work.

The present report provides an analysis of the most accessible educational platforms and interesting, open online courses that specialists can take for free to improve their professional knowledge, skills, and abilities in working with this target audience and for their professional self-development.

The list of recommended courses for professional self-improvement (professional knowledge, skills, and abilities) of social workers working with women participants in hostilities:

1. Dialogues without anxiety (<https://study.ed-era.com/uk/courses/course/265>). Purpose: To recognise anxiety states, reduce the level of anxiety, cope with difficult situations, and overcome work-related fears.
2. House of (NON)SAFETY (<http://nonviolence.ed-era.com>). Purpose: To recognise violence and its types, understand its causes and consequences, and learn how to avoid domestic violence.
3. From place to career (<http://ican.ed-era.com>). Purpose: To prepare for the development of your own business, manage career plans and career assessment
4. Dialogue and mediation skills for public service needs (https://courses.ed-era.com/courses/course-v1:OSCE_EDERA+Med_101+2020/about). Purpose: To master the skills of social mediation.
5. Pre-medical care (<https://courses.ed-era.com/courses/course-v1:EdEra-SmartOsvita+Med+1/about>). Purpose: To master the skills of providing pre-medical care.
6. Social Work: Practice, Policy and Research (<https://cutt.ly/2ZzL51b>). Purpose: To develop skills to empower individuals, families, communities, and organisations to meet their needs and create positive change.
7. Psychological First Aid (<https://www.coursera.org/learn/psychological-first-aid?action=enroll>). Purpose: To learn how to provide psychological first aid to people in emergencies using the RAPID model.
8. Basic psychological assistance in conditions of war (https://courses.prometheus.org.ua/courses/course-v1:Prometheus+BPA101+2022_T2/about). Purpose: To learn how to provide basic psychological assistance in wartime conditions.
9. How do employment centre specialists work with veterans and understand their military experience (https://courses.prometheus.org.ua/courses/course-v1:VETERAN_HUB+VH101+2022_T2/about). Purpose: To master the specifics and skills of working with veterans on career and employment issues
10. First aid in wartime (https://courses.prometheus.org.ua/courses/course-v1:Prometheus+FAW+2022_T2/about). Purpose: To create an idea of pre-medical care in war conditions and to master the MARCHE algorithm.
11. Gender equality and combating sexual harassment in the military sphere (https://courses.prometheus.org.ua/courses/course-v1:Prometheus+GE101+2021_T2/about). Purpose: To master the basic ideas of gender equality; learn how to detect, counter and prevent sexual harassment; find out what to do if you have suffered or witnessed sexual harassment.
12. Find Your Calling: Career Transition Principles for Returning Veterans (<https://www.edx.org/course/find-your-calling-career-transition-principles-for?in>

dex=product&queryID=1acc19585e24eac d430c1926a08ba08c&position=3). Purpose: To develop practical skills for making a successful military-to-civilian career transition.

13. University Studies for Student Veterans (<https://www.edx.org/course/university-studies-for-student-veterans?index=product&query ID=46462f15f9a459f54 dd7e5dd9d7d354c& position=2>). Purpose: To assist students – future military personnel who intend to start or return to education soon, as well as to equip higher education professionals who work to support student-veterans.
14. Field Ready! Planning for Success in a Conflict Zone (<https://www.futurelearn.com/experttracks/planning-for-success-in-conflict-affected-regions>). Purpose: To master the skills of working in a complex conflict zone.

The list of courses for the development of digital and methodological competence of social workers according to the requests of specialists:

1. Pro PowerPoint (https://propowerpoint.com/ua?utm_source=ed era&utm_medium=site&utm_campaign). Purpose: To master the skills of designing presentations in PowerPoint.
2. Basics of web development (HTML, CSS, JAVASCRIPT) (https://courses.ed-era.com/courses/course-v1:EDERA_BBF+WEB+2019/about). Purpose: To get acquainted with the theoretical and practical aspects of front-end development, creating your own websites according to the needs of target groups
3. Key skills for the 21st century (https://courses.ed-era.com/courses/course-v1:British_Council+BC1+2020/about). Purpose: To master the key skills such as critical thinking; communication and cooperation; creativity; digital literacy
4. VERY VERIFIED: online media literacy course (<https://verified.ed-era.com/ua>). Purpose: To learn how to navigate the information and how to recognise misinformation and propaganda.
5. Hours of media literacy (<https://study.ed-era.com/uk/courses/course/824>). Purpose: to master the basics of media literacy about the work of the media, fakes news and verification of information.

CONCLUSION

The results of the study provide key insights into the main problems and needs of combatants when they apply for state services, and NGOs are receiving humanitarian aid, psychological, legal, and material support, medical assistance, and also help with childcare.

Taking into account the analysis of scientific and pedagogical sources and the analysis of the content and structure of mass open online courses on various electronic platforms, we can conclude that MOOC courses provide ample opportunities for improving methodological and digital competences. The advantages of using MOOC courses as a modern trend in the field of providing online services are accessibility, openness, broad involvement of digital technologies, narrow content orientation to the needs of the target audience, and the creation of a national and international professional community.

Prospects for further research include conducting an empirical study on the effectiveness of using the proposed MOOC courses in the context of forming the digital culture of social workers, expanding their knowledge and skills in working with female combatants, and testing its effectiveness experimentally.

ACKNOWLEDGMENTS

The study was conducted in the framework of the scientific theme of the Institute of Human Sciences, Borys Grinchenko Kyiv University “Socialization of vulnerable population groups in the context of territorial community development in Ukraine”, registration number: 0121U112043, term of realization 06.2021–06.2026.

REFERENCES

- Alario-Hoyos, C., Pérez-Sanagustín, M., Delgado-Kloos, C., Parada, G., H.A., Muñoz-Organero, M., & Rodríguez-de-las-Heras, A. (2013). Analyzing the Impact of Built-In and External Social Tools in a MOOC on Educational Technologies. In Hernández-Leo, D., Ley, T., Klamma, R., Harter, A. (Eds.). *Scaling up Learning for Sustained Impact*. EC-TEL 2013. Lecture Notes in Computer Science, vol. 8095. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-40814-4_2.
- Anderson, V., Gifford, J., & Wildman, J. (2020). An evaluation of social learning and learner outcomes in a massive open online course (MOOC): a healthcare sector case study. *Human Resource Development International*, 23:3, 208–237. <https://doi.org/10.1080/13678868.2020.1721982>.
- Asal, V. & Jadoon, A. (2020). When women fight: unemployment, territorial control and the prevalence of female combatants in insurgent organizations. *Dynamics of Asymmetric Conflict*, 13:3, 258–281. <https://doi.org/10.1080/17467586.2019.1700542>.
- Avshenyuk, N., Berezan, V., Bidyuk, N., & Leshchenko, M. (2018). Foreign experience and Ukrainian realities of mass open online courses use in international education area. *Information Technologies and Learning Tools*, 68, 262. <https://doi.org/10.33407/itlt.v68i6.2407>.
- Borrás-Gené, Martínez-Núñez, & Martín-Fernández. (2019). Enhancing Fun Through Gamification to Improve Engagement in MOOCs. *Informatics*, 6(3), 28. MDPI AG. <http://dx.doi.org/10.3390/informatics6030028>.
- Calvo Salvador, M.A., Braga Blanco, G.M., & Fueyo Gutiérrez, M.A. (2019). Abriendo la formación de los profesionales de la educación al campo de los MOOC. Results of a research project at the universities of Cantabria and Oviedo. *Profesorado, Revista De Currículum Y Formación Del Profesorado*, 23(2), 259–276. <https://doi.org/10.30827/profesorado.v23i2.9684>.
- Castaño Garrido, C., Maiz Olazabalaga, I., & Garay Ruiz, U. (2015). Social networks and cooperative learning in a MOOC. *Revista Complutense de Educación*, 26, 119–139. https://doi.org/10.5209/rev_RCED.2015.v26.46328.
- Coursera | *Online Courses & Credentials From Top Educators. Join for Free.* (b. d.). Coursera. <https://www.coursera.org/>.

- Daniel, J. (2012). Making sense of MOOCs: musings in a maze of myth, paradox and possibility. *J. Interact. Media Educ.* 2012(3), Art. 18 (2012). <https://doi.org/10.5334/2012-18>.
- Daniel, J.S. & Uvalić-Trumbić, S. (2012a). Open Educational Resources (OER): The Coming of Age of ICT in Education? Speech to eLearning Korea 2012, 12 September. http://sirjohn.ca/wordpress/?page_id=29.
- de Waard, I., Abajian, S., Gallagher, M.S., Hogue, R., Keskin, N., Koutropoulos, A., & Rodriguez, O.C. (2011). Using mLearning and MOOCs to understand chaos, emergence, and complexity in education. *The International Review of Research in Open and Distributed Learning*, 12(7), 94–115. <https://doi.org/10.19173/irrodl.v12i7.1046>.
- EdEra. (b. d.). EdEra. <https://www.ed-era.com/>.
- edX | Free Online Courses by Harvard, MIT, & more. (b. d.). edX. <https://www.edx.org/>.
- FutureLearn: Online Courses and Degrees from Top Universities. (b. d.). FutureLearn. <https://www.futurelearn.com/>.
- Gil Quintana, J. & Martínez Pérez, J. (2017). El empoderamiento del alumnado en los sMOOC. *Revista Complutense de Educación*, 29(1), 43–60. <https://doi.org/10.5209/RCED.51932>.
- Giovanni, I., Durán, A. del S., Aponte, D.M., & Laverde, D.J. (2021). Factors that facilitate and hinder the processes of reintegration of ex-combatants and their families. *Universitas Psychologica*, 19, 1–17. <https://doi.org/10.11144/Javeriana.upsy19.ffdp>.
- Gómez Gómez, F. & Munuera Gómez, P. (2021). Use of MOOCs in Health Care Training: A Descriptive-Exploratory Case Study in the Setting of the COVID-19 Pandemic. *Sustainability*, 13(19), 10657. MDPI AG. <http://dx.doi.org/10.3390/su131910657>.
- Guest, C., Wainwright, P., Herbert, M., & Smith, I.M. (2021). Driving quality improvement with a massive open online course (MOOC). *BMJ open quality*, 10(1), e000781. <https://doi.org/10.1136/bmjopen-2019-000781>.
- Henderikx, M., Kreijns, K., & Kalz, M. (2018). A Classification of Barriers that Influence Intention Achievement in MOOCs: 13th European Conference on Technology Enhanced Learning, EC-TEL 2018, Leeds, UK, September 3–5, 2018, Proceedings. <https://doi.org/10.1007/978-3-319-98572-51>.
- Hernández, E.A., Morales, M.D., & Vivares, D.V. (2021). Discursos del trabajo en excombatientes de las FARC. Barreras sociolaborales en la reintegration. *América Latina Hoy*, 88, 3–21. <https://doi.org/10.14201/alh.24083>.
- How many female military personnel serving in the Armed Forces of Ukraine – new data from the Personnel Center. (2021). *ArmiyaInform – ArmiyaInform information agency*. <https://armyinform.com.ua/2021/12/04/skilky-zhinok-vijskovosluzhbovcziv-sluzhatu-zbrojnyh-sylah-ukrayiny-novi-dani-kadrovo-go-czentr/>.
- Lambert, S.R. (2019). Six critical dimensions: A model for widening participation in open, online and blended programs. *Australasian Journal of Educational Technology*, 35(6), 161–182. <https://doi.org/10.14742/ajet.5683>.
- Li, Q. & Wan, F. (2016). A case study of the characteristics of MOOCs completers: Taking an online professional training MOOC for example. In *2016 IEEE 16th International Conference on Advanced Learning Technologies (ICALT)*, 503–505. IEEE. <https://doi.org/10.1109/ICALT.2016.2>.

- Manrique Rueda, G. (2021). Travailler dans la violence : récits d'anciens combattants du groupe paramilitaire Héros de Montes de Maria en Colombie. *Criminology*, 54(2), 221–244. <https://doi.org/10.7202/1084295ar>.
- McMullin, J. (2013). Integration or separation? The stigmatization of ex-combatants after war. *Review of International Studies*, 39. <https://doi.org/10.1017/S0260210512000228>.
- Ntourmas, A., Avouris, N., Daskalaki, S., & Dimitriadis, Y. (2019). Evaluation of a Massive Online Course Forum: Design Issues and Their Impact on Learners' Support. In Lamas, D., Loizides, F., Nacke, L., Petrie, H., Winckler, M., Zaphiris, P. (Eds.). *Human-Computer Interaction – INTERACT 2019. INTERACT 2019. Lecture Notes in Computer Science*, vol. 11747. Cham: Springer. https://doi.org/10.1007/978-3-030-29384-0_12.
- Phayal, A., Khadka, P., & Thyne, C. (2015). What Makes an Ex-Combatant Happy? A Micro-Analysis of Disarmament, Demobilization, and Reintegration in South Sudan. *International Studies Quarterly*, 59. <https://doi.org/10.1111/isqu.12186>.
- Prometheus. (b. d.). Prometheus – The best online courses in Ukraine and the world. <https://prometheus.org.ua/>.
- Ruiz, A. & Díaz, O. (2019). En búsqueda de visibilización: experiencias and needs of women ex-combatants of the FARC-EP in the peace building scenario. *Reflexion Política*, 21, 9–28. <https://doi.org/10.29375/01240781.3595>.
- Sharov, S., Filatova, O., Biliatska, V., & Yankova, N. (2021). Analysis of the MOOC Capabilities for Student Training in the Humanities. *International Journal of Emerging Technologies in Learning (IJET)*, 16(22), 113–128. <https://doi.org/10.3991/ijet.v16i22.25071>.
- Vázquez Cano, E., López Meneses, E., Fernández Márquez, E., & Ballesteros Regaña, C. (2018). The new virtual environments of permanent learning (MOOC) and their educational possibilities in social and educational environments. *Pixel-Bit: revista de Medios y Educación*, 53, 179–192. <https://hdl.handle.net/11441/85413>.
- Women's war: how many women are now defending Ukraine in the army. (2022). Vikna. <https://vikna.tv/video/ukrayina/skilky-zhinok-sluzhyt-v-ukrayinskij-armiyi-zaraz/>.