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JOURNALISM EDUCATION BASED ON SERIOUS GAMES

Abstract. The article substantiates the use of serious games for training in the specialty 061 Journalism. Serious games are viewed as information and communication technologies for training journalists. Well-known serious games of journalistic direction are analyzed. The role of serious games in the courses «Internet Journalism», «Blogging», «International Journalism», «Fact-Checking», «Art Journalism», etc. is determined. The project of a serious game «J-chess» for journalists using the universal modeling language (UML) is described. It identified the benefits of serious games for learning journalists: work the principles of active- and problem-based learning, a pleasant and deep immersion in professional issues and educational topics. Serious games are also a basis for strengthening the interdisciplinary links between mandatory and selective disciplines of journalists' professional training. The content and principles of serious games contribute to reaching learning outcomes defined in the Higher Education Standard in journalism. It confirmed this by the four-year results of students' surveys. Problematic issues for the practice of serious games in the educational process are shown: digital inequality, availability of video games, lack of integration of serious games with electronic learning systems, students' readiness to play, the didactic impact of the game, and ethical dilemmas. Emphasis is placed on the need to create methodological aids for serious games, determine their role and place in the discipline's structure, formulate the principles and algorithms for pedagogical support of serious games. Solving these problems will promote the academic and practical training of future journalists through serious games, intensify the development of serious games, bring together the gaming industry and education. Integrating serious games with online learning will be the basis for trans-media learning. And this will increase the quality of education and the level of satisfaction of graduates and stakeholders.

Keywords: journalism education; serious games; game training; deeper learning; game design in the method of teaching disciplines; trans-media learning; information and communication learning technologies

Statement and substantiation of the urgency of the problem. The Higher Education Standard for bachelors in the specialty 061 Journalism defines the main integral competence: «The ability to solve complex specialized tasks and practical problems in social communications provides the provisions and methods application of social communication and other sciences and characterized by the uncertainty of conditions» (Standard, 2019). The main accents of journalism education are specialization, practical orientation, interdisciplinary (ability to apply the methods of different sciences of the social-communication cycle), adaptability to uncertain working conditions. Knowledge management ideologues write: «In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge. When markets shift, technologies proliferate, competitors multiply, and products become obsolete almost overnight, successful companies are those that consistently create new knowledge, disseminate it widely throughout the organization, and quickly embody it in new technologies and products. These activities define the «knowledge-creating» company, whose sole business is continuous innovation» (Nonaka, 2007, p. 162).

This approach to knowledge is clear in journalistic work. This encourages the search for the most effective methods of achieving learning outcomes in the professional program for journalism education. These methods should combine to get acquisition of basic knowledge by students, the hard- and soft skills practice. Critical thinking, adaptability, and efficiency

first. In these circumstances, serious games are a relevant means of educating journalists. It is already well-established that serious games are learning games. They always promote independent, enjoyable and deep learning (Ratan & Ritterfeld, 2009, p. 11). Serious games offer great opportunities for training, coaching, and informing (Michael & Chen, 2006), (Stapleton, 2004). They can be used for training and learning throughout life. Given the rapid development of the gaming industry, student-centered education (ESG, 2015), and its focus on the fast-paced demands of the labor market, serious games are becoming a resource pedagogical tool for forming important competencies of information professionals, including journalists.

Literature Review. Analysis of recent studies and publications showed the lack of fundamental works on serious games for training journalists. As of 03.08.2021, the scientific platform Google Scholar does not find any relevant research in Ukrainian or English. Although there are all the prerequisites for the emergence of journalism education based on serious games as a special scientific field. The foundation is a rich historiography of journalism education theory, practical aspects of journalists' training, in-game learning, the theory of serious games, the creation of professional-oriented game environments. In particular, various aspects of journalism education were analyzed: its problems in modern Ukraine (Kvit, 2006), features in the conditions of the WEB.3.0 (Gabor, 2018). Have investigated the issues of distinguishing journalistic training from the theory of mass communications (Tymoshyk, 2021), features of production practice of journalists (Andreieva, 2021), formation of sociocultural (Bobal, 2013), and communicative (Luhova & Pankevych, 2019) competencies of future journalists.

There is significant scientific works on theory of serious games (Ratan & Ritterfeld, 2009), game-based learning (Gee, 2003). We have also developed the canvas-oriented approach to game design, deeper learning through video games (Blazhko, Gdowska, Gawel, Dziabenko, & Luhova, 2017), implementation of principles of game design in the learning process (Luhova T. , 2021).

It is worth noting adjacent works on gamification as a technology for developing media literacy of students (Prykhodkina, 2020), development of educational video games and software-simulation for training managers (Luhova T. A., 2020), (Prykhodkina, 2020), (Shevchuk, 2017).

We should note that there is a lack of fundamental works on serious games as a teaching method in the journalists' training. There is an acute social need for scientific substantiation of various aspects of the development and use of serious games in training professional journalists as well.

The research goal of the study is to substantiate the use of serious games for training majoring in the specialty 061 «Journalism».

Objectives of the study:

- analyze the well-known serious games of the journalistic direction;
- determine the place and role of serious games in the training courses «Internet Journalism», «Blogging», «International Journalism», «Fact-checking», «Art journalism» etc.;
- describe the project of a professionally-oriented serious game «J-chess» for journalists;
- identify the advantages and disadvantages (problem areas) of serious games for training journalists.

Research methods. We have applied the following methods to achieve the purpose and tasks of the study:

- analysis of sources and literature to clarify the state of scientific elaboration of the research topic;
- comparative analysis of learning outcomes according to the Standard of Higher Education for the specialty 061 Journalism (Standard, 2019) and serious games skills,
- information modeling (UML) (Fowler, 2004) to create a project of a professionally-oriented serious game «J-chess» for journalists,
- intelligence mapping for visualization of interdisciplinary connections based on serious games,
- generalizations for conclusions.

Presentation of the main material with justification of the obtained results. Serious games as an imitation of real business or professional processes have significant opportunities for the practice of professional skills, development of cognitive abilities, the competence to solve various problems. Thus, serious games, along with various educational practices, can be used in training future journalists. However, problem issues are choosing professionally-oriented content of existing serious games, determining their place in the learning process, time management (how much time should be devoted to a game within the discipline), the requirements for pedagogical support of serious games.

An analysis of the well-known site «Game for change» showed the significant number of professionally-oriented serious games. As of August 2021, the most revealing to teach journalists are (Fibber, 2012), (Breaking Harmony Square, 2021), (1979 Revolution: Black Friday, 2016), and (Not For Broadcast, 2020), (DataK, 2016), (Idle streamer).

An important competency of a journalist is the ability to separate facts from comments, immunity from misinformation, and information manipulation. According to the Standard of Higher Education for journalists, general competence is «GC03. The ability to be critical and self-critical» (Standard, 2019). So it will be appropriate to use the game «Fibber» by Seek Change. They based the game event on Election 2012 US (game's release date). The player's goal is to determine the true or false of the proposed statements of then-American President Barack Obama and Republican candidate Mitt Romney. The game uses statements from various sources of news, documents, the campaign- and public speeches. «Guess whether it's fact or fib, and try not to lose your shirt!» (Fibber, 2012) is the motto of the game. Because a game's fun (the player's emotional state) is provided by the «undressing» mechanics.

The aim of the game is learning News Literacy, «to raise self-awareness and personal fact-checking in a world inundated with misleading political ads, social media, and personal bias» (Fibber, 2012). Consequently, they develop fact-checking skills, instill an objective view of events, the ability to understand personal prejudices (perceived as «truth»), work with information materials from various sources (political propaganda, official announcements of press centers, social media, etc.). «Fibber» game teaches working with sources of information, using certain search and verification algorithms, and thus corresponds to the learning outcomes set by the Standard: «LO 08. Identify in production situations facts, events, information, processes about which there is a lack of knowledge, and develop ways and sources of obtaining that knowledge», «LO 04. Search, process, and analyze information from various sources» (Standard, 2019).

«Outside» analysis ensures objectivity as a principle of journalistic activity in this game: how other players react, what statements they have incorrectly guessed, and why. This allows players to better analyze how and why they perceive certain information as true or false. This matches to: «LO 03. Evaluate your own or someone else's information product, information campaign, which is organized and conducted independently or together with colleagues», «LO 09. Evaluate the colleagues' activities as bearers of rights and responsibilities of members of society, representatives of civil society» (Standard, 2019).

«Fibber» has a social pragmatic impact. The information gathered by the game transmits through social networks to further promote fact-checking, which allows the game not only to expose the error but also to correct it. This approach to information activity creates in players/students a sense of responsibility for their actions and connection with the real world. This game can be an interdisciplinary basis for practicing skills in the courses «Fact-checking», «Internet Journalism», «Journalistic Investigation», «International Journalism», «Media Law». In particular, the major methods and technologies of information verification are the subject of the discipline «Fact-checking». The truthfulness and objectivity of information content are the basis of the quality of online journalism. The ability to prove the truth, to search and verify based on journalistic ethics and the media law is the «cornerstone» of journalistic investigations. And since the theme of the game concerns the politics of another country, «Fibber» relates to «International Journalism». Because it is a kind of case for revealing the relationship between politics, press, government. This game develops the critical thinking of students, instilling the ability to argue their own views based on knowledge of different media models. «Breaking Harmony Square» is a free-to-play online game about fake news. In this game, players learn how political misinformation is produced and spread (Breaking Harmony Square, 2021). This game is also useful for journalistic disciplines that reveal topics of misinformation and information manipulation.

In a game simulator of propaganda «Not for Broadcast» the player must affect tomorrow, taking control of the National Nightly News. The game's action unfolds in the alternative radical world eighties of the XX century. «In this immersive, high-pressure, propaganda sim, you control what the people see and determine what's Not For Broadcast» (Not For Broadcast, 2020). The Live News director has to do many simultaneous acts. E.g., to switch between four cameras; control the audio and video streams in real- and delay mode; choose and install commercials to remove obscene vocabulary. At the finish of the game session, players can see the errors statistics. In particular, the game allows us to look behind the scenes, how the presenters responded to screen events, hear their voice dialogs. The destinies of the country and the main character depend on the player's choice. They can reject the news by censorship, and get rewards, or open the truth. So, the game is a convenient and interesting tool to achieve such learning outcomes as: «LO 13. Provide the audience response to the information product or information promotions, given the provisions and methods of socio-communication sciences», «LO 14. Generate information content on a topic using accessible and mandatory sources of information», «LO 15. Create a competent media product on a topic and specific genre, considering the distribution channel or publishing platform», «LO 13. Anticipate the audience response to the information product or information promotions, given the provisions and methods of the Social Communications of Sciences» (Standard, 2019). Such a game is a case for skills practice in the disciplines framework «Television journalism», «Fact-checking», «Internet journalism» in the part of the convergent media, «Blogging», «Media Law».

The narrative game managed by choice «1979 Revolution: Black Friday» presents an alternative revolutionary Iran. The protagonist is a beginner photojournalist. The motto of the game: «Decide who to trust and what you stand for — as the world is set ablaze around you» (1979 Revolution: Black Friday, 2016). Game based on real first hand testimonies of freedom fighters, witnesses and casualties of the revolution. This is a game of fateful decisions and trust. It teaches novice journalists the basics of behavior in hot spots, forms the ability to partner cooperation, capability for mercy, and decisive action. And this helps to achieve a learning outcome «LO 06. Plan self- and team activities, considering goals, restrictions, and expected risks» (Standard, 2019). Soft skills, instilled by this game, will be expedient within the discipline «International Journalism», «Fact-checking», «Military Journalism», «Safety of a journalist's professional activity», «Media Law», «Journalist Investigation».

«DataK» (DataK, 2016) is a serious RTS game aimed at raising public awareness about the effects of data protection, personal data, and Big data. They based the game on the 18-month journalistic investigation conducted by the radio program «EN Parle». The player as an Assistant Data Manager faces various daily dilemmas and specific questions from DataVille's mayor, such as whether to approve a project to install CCTV cameras in the town and whether to pass on citizens' data to companies or political parties. Every decision impacts the organization of the community, the player's progress in the game, and the trainee's private life (DataK, 2016). Competences formed by this game are in line with the objectives of disciplines «Data Journalism», «Journalist Investigations», «Media Law», «Internet Journalism».

For the discipline «Blogging» is a useful game «Idle streamer» (Idle streamer) - a mobile game that shows the technical skills of channel development: increase the commentary of the blog or site, increase views, editorial work and so on.

«Art journalism» is a specific discipline bordering on art history and cultural studies. The course should teach students to feel the limits of artistic actionism, PR, and journalism. It learns to distinguish between the functions of critic and journalist in the art community, and on this basis to write journalistic texts in a certain genre. An art journalist does not have to be an expert in culture and the arts. But they must have skills in art criticism, fact-checking, understanding industry trends, contacts with leading art experts. Serious games of historical and cultural orientation can instill the skills of a columnist, commentator of the creative industry. E.g., «Discovery Tour by Assassin's Creed: Ancient Egypt», developed by Ubisoft (Discovery Tour, 2018). This game trip through Ancient Egypt becomes a kind of excursion-immersion in the past, a practical platform to skills practice of creating informational texts about events in art and culture; assimilation of the knowledge for the basic genres and formats of art journalism; development of skills of perception and description of works of art and cultural events. The ability to select descriptive words for artworks will help to form through the game (ARTigo, 1999). It scores points for the coincidence of selected words to describe a particular work of art. This develops the journalist's artistic intuition, a subconscious sense of the most frequent, universal, close to most descriptions of-the-art world.

In teaching journalists the art of commenting, you can use any serious game that has clear narrative boundaries (initial data - based action - result) on significant topics. E.g., a game about refugee problems (Darfur is Dying, 2006), or about disasters (Stop Disaster, 2018), etc.

It is important to note that all serious games, as modern educational and entertaining Internet multimedia platforms using cross-media technologies, contribute to ICT-skills: «PO05. Use modern information and communication technologies and specialized software to solve professional problems» (Standard, 2019). This is formed by «hard-skills-games»: «Not For Broadcast», «Idle streamer».

All the above makes it possible to include serious journalistic games in teaching and learning methods that provide specific competencies under the Standard of Higher Education in the specialty 061 Journalism (Standard, 2019) (Table 1).

Table 1.
Matching of journalists outcomes learning to serious games

The learning outcomes according to the Standard of Higher Education 061 Journalism	A topics selection of an academic discipline	Serious games
«Internet Journalism»		
LO 05. Use modern information and communication technologies and specialized software to solve professional problems.	Fact-checking and investigative journalism on the Internet	(Fibber, 2012)
	Video report and video interview for	(Not For Broadcast,

	online publication	2020)
	Data storytelling	(Datak, 2016)
	Increasing the commentary of Internet materials.	(Idle streamer)
LO 17. Post up-to-date information about own media product on accessible online platforms.	Resonance of topics in online journalism.	(Not For Broadcast, 2020)
	Types of blogs. Features of the genre.	(Idle streamer).
«Fact-checking»		
LO 04. Search, process, and analyze information from various sources.	Channels of dissemination of false information, means of manipulation.	(Not For Broadcast, 2020)
LO 03. Evaluate your own or someone else's information product, information campaign, which is organized and conducted independently or together with colleagues. LO 04. Search, process, and analyze information from various sources.	Information verification systems. Software tools for photo and video verification.	(Fibber, 2012)
«Blogging»		
LO 17. Post up-to-date information about own media product on accessible online platforms.	Sensation technologies.	(Not For Broadcast, 2020)
LO 05. Use modern information and communication technologies and specialized software to solve professional problems.	Technical equipment of blog activity. Increasing blog commentary.	(Idle streamer)
LO 04. Search, process, and analyze information from various sources.	Ethics in the blogosphere.	(Datak, 2016)
«International Journalism»		
LO 14. Generate information content on a topic using accessible and mandatory sources of information.	Government and mass media as a leading source of international information.	(Fibber, 2012)
LO 02. Apply knowledge in specialization subject to create an information product or to conduct an information campaign. LO 18. Use the necessary knowledge and technologies to overcome crisis communication situations based on tolerance, dialogue and cooperation.	The work specifics of an international journalist in «hot spots» and impartial reporting.	(1979 Revolution: Black Friday, 2016)

All the above made it possible to present an intelligence map of journalistic training based on serious games (Figure 1).



Fig. 1. The mind-map of serious games in interdisciplinary training of journalists

It is unnecessary to understand the use of serious games to study journalism disciplines or the duplication of one game in different disciplines as imperative. This means the use of serious games as effective tools to achieve goals and learning outcomes. The gaming industry is growing, with games becoming obsolete and new ones emerging. Thus, teachers in the educational-professional program in the specialty 061 Journalism must track the information space of new games. Instead, the re-use of one game for several disciplines also seems useful. Because it helps to embody interdisciplinary links, shows the specifics of the discipline by changing the perspective of game analysis and the original setting of pedagogical tasks (Figure 2).

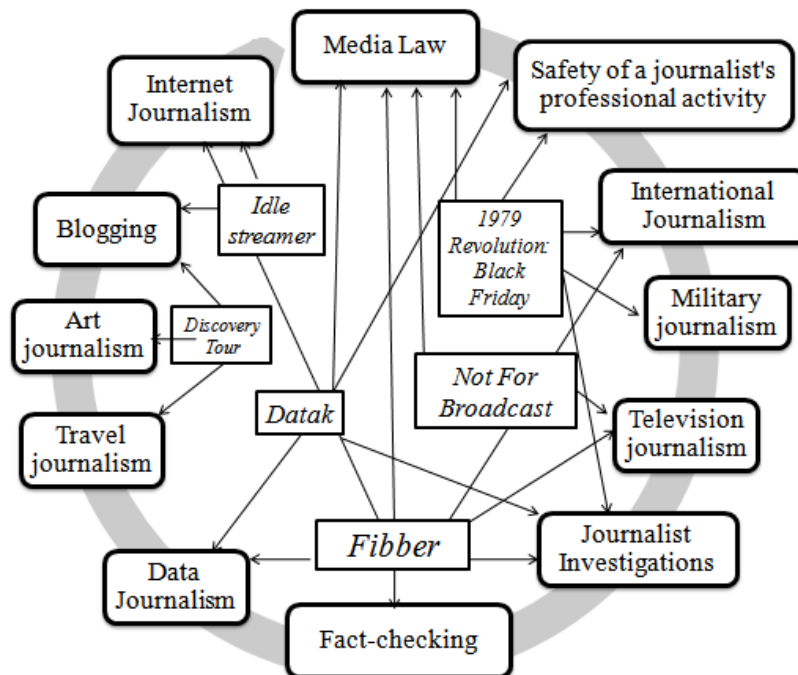


Fig. 2. Serious games as interdisciplinary connections of journalistic disciplines (samples)

The advantages of professionally-oriented serious games include the embodiment of interdisciplinary connections; immersion in journalistic cases as active- and problem-based learning; deeper learning (Blazhko, Gdowska, Gawel, Dziabenko, & Luhova, 2017), the formation of the hard- and soft skills, and all the benefits provided by game-based learning (Gee, 2003).

Problem areas for the use of serious games in the journalists' training are:

1. Partial unavailability of serious games. There are free games («Fibber», Breaking Harmony Square», «Datak», «Idle streamer») and paid games («Not For Broadcast», «1979 Revolution: Black Friday»). Besides, there are global problems with digital inequality. E.g., access to the Internet of all students and teachers, technical and software capabilities. After all, some serious games use only one online platform («Fibber», «Datak»), Android («Idle streamer»), or on all: Android, iOS, Mac, PC, PS4, Xbox One («1979 Revolution: Black Friday»).
2. Lack of opportunity for the teacher to watch the progress of students within a certain serious game. It does not build serious games into any online educational system. Thus, educator feedback is based on the results of joint debates, conversations, discussions, colloquial, interviews, etc.
3. Ethical dilemma: The learning task is mandatory. Instead, the game is always voluntary and does not allow coercion. Consequently, the use of serious games in the practice of skills should be motivated by the teacher.
4. Time management of serious games in the study process: how much space should be devoted to a game. Games have different depths of the story and the duration of the session. We see this in the comparison of the games «Idle streamer» and «1979 Revolution: Black Friday» as opposite in time and depth. If the first takes about 15 minutes, the second - a few days or weeks. Therefore, games with a deep tale or open-world (such as «Minecraft») should be fragmented under the educational objectives of the discipline. This is important to consider in the learning process.
5. The above causes create requirements for pedagogical support and examination of serious games. E.g.: assessment of the process, model, and concepts of the game (Emmerich & Bockholt, 2016), its guidelines, and narrative basis (Luhova T. A., 2020) didactic impact, instruction for access and game setting, motivation, feedback, educational tasks (analysis, attention, description, commentary, essay, etc.) under the serious games or their specific fragments. Delimitation of learning- and game tasks, the definition of points of contact for didactic influence.
6. Determining the place of serious games in the educational process. The appropriateness of their use in the laboratory or within the students' independent work by so-called flipped learning (Bergmann & Sams, 2008). The first lesson is instruction, demonstration of the first game scenes or levels (if possible), providing training directives. The second practice is a results' discussion (feedback), role-playing or board game on a specific topic, giving new material, consultation to home independent work, and passing a serious game. It is innovative for students to develop concepts of journalistic majors' serious games under course projects, co-creation. All this motivates students to do homework and independent work.

The results and discussion. During 2017–2020, within the disciplines «International Journalism», «Internet Journalism» and the student research group «Serious Games» at the Humanities Faculty of Odessa National Polytechnic University (Odessa Polytechnic State University at present) game-based learning was applied. In particular, undergraduate students majoring in 061 Journalism explored certain disciplines topics with games such as (Fibber,

2012), (Datak, 2016), (Darfur is Dying, 2006), (Stop Disaster, 2018). In four years, 57 journalism major' students were interviewed (Table II). Of these, 22 students studied the discipline of «Internet Journalism», 35 students – «International Journalism».

Table 2.

Questionnaire for students majoring in 061 Journalism to find out opinions about the use of serious games in the educational process

Please mark your agreement / disagreement with the statements:	Yes	No
The game «Fibber» has formed fact-checking skills.	55	2
The game «Fibber» demonstrated information technology of manipulation in the international media.	34	1
The games helped to master the skills of commenting.	53	4
The game «Stop Disaster» taught me to write about ecology and globalism, international topics.	32	3
The game «Datak» taught to compose stories based on data.	20	2
The game «Darfur is Dying» taught to write on sharply social topics that have gained international significance.	31	4
On occasion, I will use serious games in the future.	54	3

Most respondents generally indicated that the use of serious games significantly improves and facilitates an understanding of the professional activities content, helped to master the skills of commenting, fact-checking, creating information content on a topic, using information and communication platforms. The same percentage of students showed their wish to learn through serious games. About 7% of respondents indicated technical difficulties (Internet access, availability of computer equipment), insufficient level of computer literacy, lack of motivation, and unwillingness to play (Figure 3).

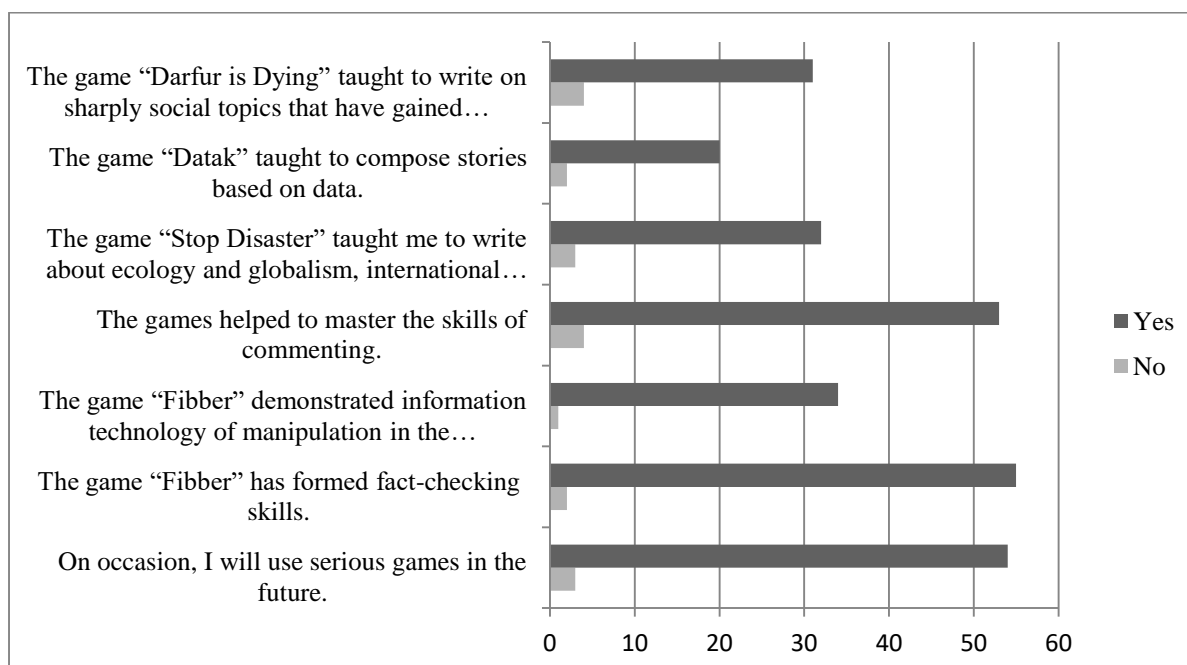


Fig. 3. A survey results to identify student opinions on the learning based on serious games

It should be noted that under the Educational program «Journalism» 2017-2019 (Educational program "Journalism"), the course «International Journalism» was taught in the first semester, and «Internet Journalism» - in the sixth. Therefore, by the third-year students were already ready for game learning and therefore the percentage of satisfaction with game

methods was higher. Since 2021, the discipline “International Journalism” has become selective and is read in the fifth semester of study. Therefore, strategies for choosing serious games for training journalists should be flexible and adaptive under changes in educational programs.

The experience of designing and prototyping serious games by educators and students proved useful. E.g., based on chess mechanics, new game actions metaphors were given with an operative commentary on the international theme «Journalistic chess» («J-chess»). The idea authors, with the teacher, were students G. Ukolov and J. Shinkarenko (IZH-171). In this game, white and black chess reflects the conflict between the two countries’ states (e.g., West and East). The figures of the Kings represent the presidents of the conflicting states. The Queen is an ally that supports and helps. The Rook is a right governed by the state, i.e. direct sanctions from the government or its supporters. The Bishop (Elephant) is a religion, may show religious conflicts. The Knight are threats to the parties (direct or indirect), they can be, e.g., nuclear bombs. That is a spare move during the retreat. The Pawns are ordinary residents of a country. They do what the government imposes or orders them to do. Pawn depends on them, but they play a big role in the game. «J-chess» is not a battle between the two sides. The law guides it, political norms, journalistic commentary under ethics standards, media law. Four people can take part in the offered game. Two people play with each other, the other two assists, sounding from a journalistic point of view the events of the battlefield - a chessboard. A desktop prototype of this game was presented at a training session on «International Journalism», and playability testing was conducted. The Use Case diagram (Fowler, 2004) presents the game interaction of «J-chess» (Figure 4).

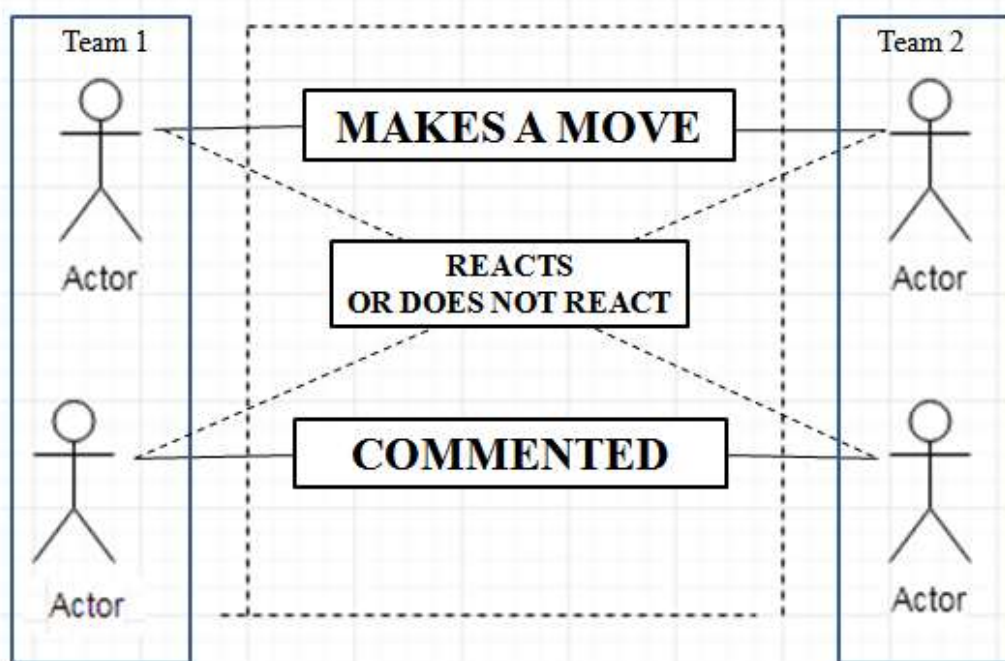


Fig. 4. Use Case diagram of the game «J-chess»

The «J-chess» Use Case diagram shows that communication between players is a so-called «circular decentralized communication network» composed of basic and additional communication channels that connect all participants. It is believed that this type of interaction creates a favorable moral and psychological climate, helps to unite people, facilitates the exchange of information and ideas, stimulates creative processes (Chernovol-Tkachenko, 2010). This game reveals «subjective-object» (manipulation, suggestion, management by players-commentators) and «subject-subjective» communicative connections

(equal participation of all players) also important for the training of journalists. The result of testing the board game was the introduction of a new rule to enhance the role of the journalist: if the player-commentator could not timely formulate a message about the event on the chessboard, his team misses the move. In addition, the teacher can provide challenging tasks for students who are playing the role of international journalists. E.g., commenting in the style of continental (analytical) or island (factual) journalism, etc. This concept of serious games can be used to achieve learning outcomes in the course «Sports Journalism».

Conclusions and prospects for further research. An analysis of serious games showed that the content and teaching principles of these games contribute to achieving the learning outcomes defined by the Higher Education Standard in Journalism (Standard, 2019). Serious games reflect the development trends of the media sphere and thus help to achieve the main integrative objectives of journalism education: media literacy, media criticism, responsibility, efficiency, creativity, the ability to solve complex specialized tasks in the uncertainty of conditions.

We have described games «Fibber», «Breaking Harmony Square», «1979 Revolution: Black Friday», «Not For Broadcast», «DataK», «Idle streamer», «Darfur is Dying», «Discovery Tour», «ARTigo». These are only examples of techno-creative methods for journalism education. In the gaming industry, in particular on the site «Games for Change», new serious games appear. They are no less interesting and useful for training journalists. It will be analyzed in further research.

The place and role of serious games in the training courses «Internet Journalism», «Blogging», «International Journalism», «Fact-Checking», «Art Journalism» have been determined. Serious games are a methodological and technological basis for focusing the academic disciplines on training journalists capable of using various information technologies, in particular, multimedia, cross-media, convergent, etc. Serious games are also a basis for strengthening the interdisciplinary links between mandatory and selective courses for journalists.

The advantages and disadvantages of serious games for training journalists have been identified. It confirmed this by the four-year results of students' surveys. Serious games are fundamentals of active-, problem-based learning and game-based learning. Therefore, they offer a deeper (Blazhko, Gdowska, Gawel, Dziabenko, & Luhova, 2017), active and pleasant immersion in professional issues, educational topics. Problem areas for the practice of serious games in the academic process are accessibility, readiness to play, didactic influence, and ethical dilemmas. Important tasks are to create the methodological support of the serious game, define the place and role in the discipline of teaching, formulate guidelines, and algorithms of pedagogical expertise.

Addressing these issues would result in using serious games as teaching and learning methods, achieving the learning outcomes set by the Education Standard, and thus adhering to the principle of «fitness for purpose» (NAQA, 2020). Future journalists' academic and practical training through serious games can be the basis for trans-media learning (Raybourn, 2014). This will lead to an increase in the quality of education and the level of satisfaction of graduates and stakeholders.

A project of the game «J-chess» has been described using UML charts. It is a game focused on journalistic. Experience shows the expediency of students designing professional games, which leads to a deep understanding of communicative processes in the process of professional activity.

Prospects for further research are in the development of concepts of professionally-oriented serious games for training journalists, implementation of elements of game design (Luhova T. , 2021) in curricula and textbooks on the «Internet Journalism», «International

Journalism», «Fact-checking», «Blogging», «Art journalism», «Agency Journalism». Further investigation of serious games in pedagogical and humanitarian expertise seems useful.

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ЖУРНАЛІСТСЬКА ОСВІТА НА ОСНОВІ СЕРЙОЗНИХ ІГОР

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Анотація. У статті обґрунтовано використання серйозних ігор для навчання за спеціальністю 061 Журналістика. Серйозні ігри розглядаються як інформаційно-комунікаційні технології навчання журналістів. Проаналізовано відомі серйозні ігри журналістського напрямку. Визначено роль серйозних ігор у курсах «Інтернет-журналістика», «Блогінг», «Міжнародна журналістика», «Фактчекінг», «Арт-журналістика» тощо. Описано проект серйозної гри «J-chess» для журналістів, використовуючи універсальну мову моделювання (UML). Це дало можливість виявити переваги застосування серйозних ігор у журналістській освіті: застосування принципів активного та проблемно-орієнтованого навчання на основі ігор, приємного та глибокого занурення у професійні питання та освітні теми. Серйозні ігри також є основою для зміцнення міжпредметних зв'язків обов'язкових і вибіркових дисциплін професійної підготовки журналістів. Зміст та принципи серйозних ігор сприяють досягненню результатів навчання, визначених Стандартом вищої освіти у галузі журналістики. Це підтвердили результати чотирирічних опитувань студентів. Висвітлюються проблемні питання для практики серйозних ігор у навчальному процесі: цифрова нерівність, доступність відеоігор, відсутність інтеграції серйозних ігор з електронними системами навчання, готовність учнів до гри, дидактичний вплив гри та етичні дилеми. Акцентовано на необхідності створення методичного забезпечення серйозних ігор, визначення їхньої ролі і місця у структурі навчальної дисципліни, формулювання принципів та алгоритмів педагогічного супроводу серйозних ігор. Розв'язання цих проблем сприятиме розвитку академічної та практичної підготовки майбутніх журналістів за допомогою серйозних ігор, активізує розробку серйозних ігор, зближить галузі ігрової індустрії та освіти. Інтеграція серйозних ігор з онлайн-навчанням стане основою для трансмедіа навчання. А це призведе до підвищення якості освіти та рівня задоволеності випускників та зацікавлених сторін.

Ключові слова: журналістська освіта; серйозні ігри; ігрове навчання; глибоке навчання; ігрове проектування в методиці викладання дисциплін; трансмедіа навчання; інформаційно-комунікаційні технології навчання