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INSPIRING FUTURE COMMUNITY LEADERS: DIGITAL INSTRUMENTS OF TEAMWORK WITHIN THE E-COURSE ON STRATEGIC MANAGEMENT

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INTRODUCTION

One of the priority activities that public administration authorities should prioritise is strategic planning for the development of territories and communities, focused at least on the period of office of elected members of village, township, district, local and regional councils, heads of municipalities, etc. At the same time, even well-designed development strategies alone do not automatically ensure that communities will move to a new stage of development. The successful implementation of such strategies requires competent, professional strategic management, which is possible if managers – local government officials – have analytical skills, strategic and project competencies, and is supported by appropriate methodological, technological, organisational, institutional and resource support. That is why developing strategic and project competences of civil servants in modern context is critically important[1].

From September 2023 to February 2024, the authors were involved in the international modular programme "Teaching Online in Wartime and After" (U-train), which involves professors from Ivan Franko University of Lviv and Dnipro University of Technology. The project is being implemented in cooperation with the Department of Computer and System Sciences at Stockholm University (Sweden), the NGO "Ukrainian Distance Learning System" and Khazar University (Azerbaijan)[2].

The first four modules of the 4 ECTS programme: AI in higher education; Course design, Communication, and Evaluation; Digital examinations and peer assessment; Students and teachers' wellbeing in wartime, motivation and incentives, – contributed to the development of a vision of the changes needed to improve the teaching of the course "Strategic Management and Change

[1] Маматова Т., *Чикаренко,* І. Використання штучного інтелекту у процесах розвитку стратегічних і проєктних компетентностей публічних управлінців. *Публічне управління та місцеве самоврядування.* 2023. Вип. 4. С. 45–53. DOI: https://doi.org/10.32782/2414-4436/2023-4-7.

[2] Викладачі Львівського університету – учасники програми Teaching Online in Wartime and After (U-train). *Львівський національний університет імені Івана Франка : веб-сайт*. 26.09.2023. URL: https://lnu.edu.ua/vykladachi-lvivskoho-universytetu-uchasnyky-prohramy-teaching-online-in-wartime-and-after-u-train/.

Management in the Public Sphere", which is mandatory for master's degree students in the educational and professional programmes "Public Management and Administration" and "Digital Governance".

Mastering the above four training modules and further support from mentors from Stockholm University (Sweden) resulted in proposals for improving the digital part of the discipline teaching using the corporate services of Dnipro University of Technology MS Teams and Moodle for online and asynchronous teaching. The proposals were submitted in the form of a project application: Design Online Course Improvement Activity (OCIA). The OCIA was approved by the international project team of the U-train programme for further processing. The OCIA-project implementation phase ended with the report, which was verified according to a defined system of criteria and peer-review, revised to reflect the suggestions for improvement and discussed during a public presentation.

1. Strategic Management and Change Management in the Public Sector: the peculiarities of implementation in a time of war

Course "Strategic Management and Change Management in the Public Sector" description:

– compulsory discipline of 1.5-year master's programmes "Public Administration and Management" and "Digital Governance";

– course volume – 4 ECTS credits (48 classroom hours, 72 hours of individual work);

– taught over 6 weeks in the 1st semester (2nd quarter) of the 1st year of study.

Characteristics of a master's student group while piloting changes to improve course quality in October-December 2023: 27 full-time students, a few post-bachelor's degree students, the rest are second degree students; 60 part-time students, the vast majority of whom have a second degree, public administration practitioners, and some who are currently serving in the Armed Forces of Ukraine.

The educational process in 2023-2025 is implemented using MS Office 365 corporate services: Teams, Forms, Whiteboard, OneNote. (Fig. 1). According to the university's requirements, the e-course was also developed on the corporate Moodle platform in the format of a "resource platform" (Fig. 2). Master-students are offered self-registration for the e-course (corporate Moodle) as an alternative resource platform.

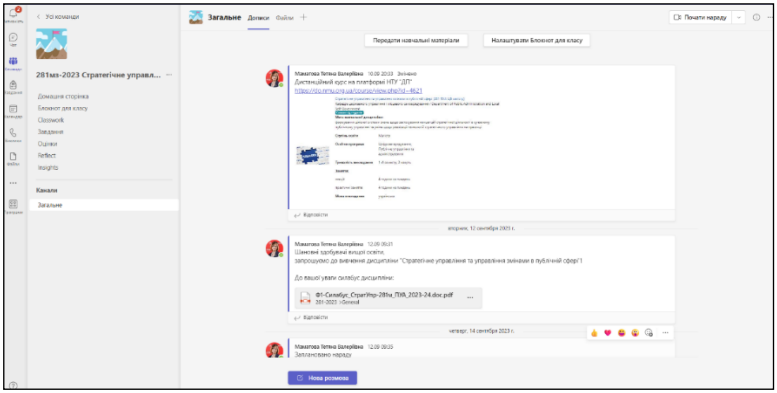

Fig. 1. “Team” of the course “Strategic Management and Change Management in the Public Sector” (MS Teams)

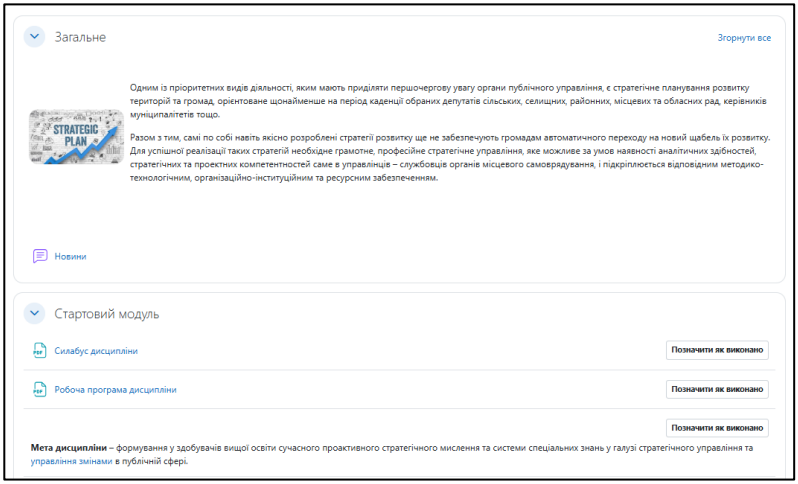

Fig. 2. Fragment of the e-course “Strategic management and change management in the public sector” (corporate platform of Moodle in the “resource platform” format)

The OCIA-project team has identified two aspects of the problem that the OCIA project will address:

1. In the context of russia’s full-scale invasion of Ukraine, offline teaching is not possible, online teaching is constantly interrupted by missiles’ and

kamikaze drones' attacks (when the educational process' participants must be in shelters), and there is a threat of blackouts (many students and teachers are unable to access electricity and the Internet). Therefore, the problem arises of being present in class and carrying out practical tasks in a synchronous manner. This problem is complemented by the need to motivate participants and make the tasks exciting.

2. The second aspect of the problem is related to the need to update the methods of developing strategic planning and project management skills in view of global trends in sustainable development and digital transformation.

The problem makes it difficult to provide the educational service in complete, and negatively affects its quality.

The statement of the problem led to the definition of the goal of transforming digital content and learning activities in teaching the discipline: to update the existing course by implementing a set of changes in teaching methods:

1. Add a team-based cross-cutting practical exercise to develop the strategic and project competencies of future civil servants and leaders of territorial communities, based on the example of a real territorial community with the distribution of roles in a "working group"[3].

2. Focus participants on the importance of taking into account global trends in sustainable development and digital transformation in strategic and project activities.

3. To add the use of artificial intelligence to the learning activities to further motivate the development of digital competencies.

4. Improve the student feedback system to receive feedback on satisfaction with the discipline and individual innovations.

5. Transforming the e-course on Moodle from a resource platform into a course that offers an asynchronous format and certain innovations for students (e.g., the use of AI), as well as the possibility of saving time for teachers, will help to increase efficiency and effectiveness.

The achievement of the defined objectives will be facilitated:

1. For lecturers: to ensure the resilience of the course, to be able to provide an educational service at a time when students have access to the Internet and electricity, and a safe environment for learning; to be able to set tasks, give advice at a time when the lecturer has access to the Internet and electricity, and is in a safe place.

[3] Стратегічне управління та управління змінами в публічній сфері : навч. наоч. посіб. / І. А. Чикаренко, Т. В. Маматова, Т. В. Кравцова ; М-во освіти і науки України, Нац. техн. ун-т «Дніпровська політехніка». Дніпро : НТУ «ДП», 2023. URL : https://palsg.nmu.org.ua/ua/literature/stratupr2023.pdf

2. For students: access to the course 24/7 (if there is internet and electricity), assignments that are engaging, have a practical focus on community development, and innovative learning tools that were not offered in other courses.

The corresponding delimitations were also identified:

– as part of the OCIA project, improvements will be implemented for selected parts of the course:

– a learning activity that involves the use of an artificial intelligence system for additional motivation to develop digital competencies will be implemented in stage 7 "Competitive advantages of the territory".

– the focus of the participants' attention will be on stage 8 "Decomposition of strategic goals to the project level" of the cross-cutting practical exercise;

– improving the student feedback system to obtain feedback on satisfaction with the course and individual innovations will be implemented by updating the participant satisfaction survey form upon completion of the course.

– the transformation of the course format in Moodle from a "resource platform" to an "e-course" planned to be implemented step by step until September 2024.

2. Three groups of sources which were used to implement the OCIA

To implement the project to improve the strategic planning course for future and current civil servants of the master's programme, three groups of resources were analysed:

1. Sources that highlight the critical importance of developing the strategic and project competencies of public managers in the context of war and post-war recovery.

2. Sources that contributed to a better understanding of the state of AI use in public administration.

3. Sources on the use of AI in educational activities.

In the context of ensuring the resilience of territories and communities in the context of full-scale war and post-war recovery, the strategic and project competencies of public managers are becoming critical[4]. Data management, strategic planning, and project management skills are key not only to ensuring the resilience of territorial communities, but also to the further reconstruction of the country, when without strengthening the capacity to develop appropriate strategies and project portfolios and programmes that are aimed at achieving strategic goals, rural and smaller urban communities will not be

[4] Дарковіч А., Савісько М. Фактори стійкості громад під час війни. Дослідження впливу економіки, управління та залученості. *VoxUkraine*. 12.09.2023. URL: https://voxukraine.org/faktory-stijkosti-gromad-pid-chas-vijny-doslidzhennya-vplyvu-ekonomiky-upravlinnya-ta-zaluchenosti.

able to compete equally with large cities for donor resources for reconstruction[5].

One of the factors in ensuring the success of strategic planning in public administration, in particular at the regional and territorial community levels, is the formation of strategic and project competencies of public servants. This thesis is supported by the conclusions presented in the papers of: O. Antonova on the components of strategic competence of civil servants[6]; B. Jałochaa, H. P. Kraneb, A. Ekambaramc and G. Prawelska-Skrzypekd on the key competencies of public sector project managers[7]; the authors of the collective monograph on determining the critical importance of strategic and project competences for the success of decentralisation processes in Ukraine[8]; A. Ushakova on formation of project competences of local government officials in the context of decentralisation of governance[9].

Publications on the use of AI at different levels of education were useful in terms of organising the educational process, taking into account the benefits and risks of AI: I. Vizniuk, N. Buhlai, L. Kutsak, A. Polishchuk and V. Kylyvnyk explored various aspects of AI at different levels of education[10]; G. Biagini necessitating AI literacy as a fundamental component of modern education[11]; N. Arslan, M. Haj Youssef, R. Ghandour explored how artificial

[5] Савіськo М., Гацко В. Проєктний менеджмент на рівні територіальних громад: проблеми та можливі рішення : аналітична записка. Київ: KSI, 2023. https://kse.ua/wp-content/uploads/2023/09/Zapiska.-Proektnii---menedzhment-v-gromadah.pdf.

[6] Антонова О. В. Стратегічна компетентність державних службовців : монографія. Дніпро : ДРІДУ НАДУ, 2017. 332 с.

[7] Jałochaa B., Kraneb H. P., Ekambaramc A., Prawelska-Skrzypekd G. Key competences of public sector project managers. 27th IPMA World Congress Procedia – Social and Behavioral Science. Elsevier Ltd., 2019. Vol. 119. P. 247–256. URL: http://www.sciencedirect.com/science/article/pii/S187704281402120X.

[8] Децентралізація влади в Україні: оцінювання результатів формування та розвитку самодостатніх громад : монографія / за заг. та наук. ред. С. М. Серьогіна, І. А. Чикаренко. Дніпро : ДРІДУ НАДУ, 2019. 292 с.

[9] Ушакова А. С. Формування проєктних компетентностей посадових осіб місцевого самоврядування в умовах децентралізації влади : дисертація на здобуття наукового ступеня доктора філософії за спеціальністю 281 «Публічне управління та адміністрування». Дніпро: ДРІДУ НАДУ. 2021. 289 с.

[10] Візнюк І. М., Буглай Н. М., Куцак Л. В., Поліщук А. С., Киливник В. В. Використання штучного інтелекту в освіті. *Сучасні інформаційні технології та інноваційні методики навчання в підготовці фахівців: методологія, теорія, досвід, проблеми*. 2021. Вип. 59. С. 14–22. https://doi.org/10.31652/2412-1142-2021-59-14-22.

[11] Biagini, G. Towards an AI-Literate Future: A Systematic Literature Review Exploring Education, Ethics, and Applications. *Int J Artif Intell Educ* (2025). https://doi.org/10.1007/s40593-025-00466-w.

intelligence tools influence the academic success and adaptation of international students in higher education[12].

The application of artificial intelligence and data analytics in public administration can significantly improve decision-making processes, anticipate problems, and identify trends[13]. AI can automate many routine tasks, provide analysis of large amounts of data[14], and help make more informed decisions[15]. Experts also believe that in the field of public administration, AI will significantly help ensure effective management and rational use of resources, improve productivity, ensure the security and economic efficiency of regional and local development[16], and contribute to Ukraine's competitiveness in the post-war period[17]. At the same time, it is necessary to take into account the possibility of numerous risks and take measures to manage them[18].

Other sources of knowledge which were used to implement the OCIA. Significant value and influence on the course implementation, the emergence of ideas, and the change in the vision of the OCIA-project product came from the following sources:

– discussions during webinars in the first 4 modules of the U-Train Programme;

– resources posted on the e-learning platform by U-train module by Moodle e-course "Modular course for teaching online" speakers, in particular, recommendations for embedding dialogue with ChatGPT;

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[12] Arslan N., Haj Youssef M., Ghandour R. AI and learning experiences of international students studying in the UK: an exploratory case study. Artificial Intelligence in Education. 2025. Vol. 1, Iss. 1. P. 1-23. DOI: https://doi.org/10.1108/AIIE-10-2024-0019.

[13] Квітка С., Новіченко Н., Бардах О. Штучний інтелект у муніципальному управлінні: вектори розвитку. *Аспекти публічного управління*/ 2021. Т. 9. № 4. С. 85–94. DOI: https://doi.org/10.15421/152140.

[14] Шестаковська Т. Л. Аналіз тенденцій та викликів впливу цифрових технологій на публічне управління. *Economic Synergy*. 2023. № 2. С. 8–22. DOI: https://doi.org/10.53920/ES-2023-2-1.

[15] Ніколюк О. В., Савченко Т. В., Родіна О. В. Проблеми та переваги штучного інтелекту як ефективного інституту для розбудови управлінських рішень в публічному управлінні. *Вчені записки ТНУ імені В.І. Вернадського. Серія: Публічне управління та адміністрування.* 2023. Т. 34(73). № 3. С. 124–130. DOI: https://doi.org/10.32782/TNU-2663-6468/2023.3/19.

[16] Стратегія розвитку штучного інтелекту в Україні : монографія / кол. авт. ; за заг. ред. А. І. Шевченка. Київ: ІПШІ, 2023. 305 с. URL: https://jai.in.ua/archive/2023/ai_mono.pdf.

[17] Теличко В. С. Використання штучного інтелекту та інтернету речей у повоєнному розвитку України. *Проблеми сучасних трансформацій. Серія: право, публічне управління та адміністрування*. 2023. № 9. С. 2–12. https://doi.org/10.54929/2786-5746-2023-9-02-12.

[18] Artificial intelligence in public service: Benefits, risks and what to expect in the future. ChatGPT's take on using artificial intelligence in government. *Apolitical Group Ltd.: web-site.* 2023, July 4. URL: https://apolitical.co/solution-articles/en/artificial-intelligence-in-public-service-benefits-risks-and-what-to-expect-in-the-future.

– resources uploaded by participants to the modules' "treasury" (a learning activity based on the Glossary-Moodle tool: participants of the e-course are invited to add useful resources to the structured 'library' for sharing);

– discussions during online sessions with the mentor Prof. H. Hansson and the sources provided by him, in particular, advice on focusing students' attention on modern European and global transformational trends ("Digital Reset. Redirecting Technologies for the Deep Sustainability Transformation"[19]; "Digital Transformation: Understanding Business Goals, Risks, Processes, and Decisions"[20]), advice on updating questionnaire forms by W. M. Vagias[21]); communication and transfer of practices with other course participants within video consultations; discussing the progress of the project, generating ideas and approaches to solving difficulties within team meetings; discussions with students who participated in the piloting of project improvements (in fact, the future product of the project was verified); discussing with colleagues the results of the team's participation in the programme and the implementation of the OCIA as of December 2023 within a meeting of the Department of Public Administration and Local Self-Government.

3. The main online-course changes and the resalts of digital tools' pilot implementation

The approach to solving the problem and meeting the needs:

1. Set up a collaborative space for the cross-cutting team exercise using Microsoft Teams and Microsoft OneNote – Notebook, where a team of students and teachers will work as a strategy working group.

2. Suggest students to read publications that focus on progress towards the 2030 Sustainable Development Goals and the European Digital Green Deal when developing a community development strategy.

3. As part of the cross-cutting team exercise "Development of the concept of a development strategy on the example of a separate territorial community" at stage 7 "Competitive advantages of the territory", use the dialogue with ChatGPT 3.5 (https://chat.openai.com/) to characterise the competitive

[19] Digitalization for Sustainability (D4S) (Ed.). *Digital Reset. Redirecting* Technologies *for the Deep Sustainability Transformation*. München: Oekom. 2023. 124 p. URL: https://doi.org/10.14512/9783987262463.

[20] Cöster M., Danielson M., Ekenberg L., Gullberg C., Titlestad G., Westelius A., Wettergren G. *Digital Transformation: Understanding Business Goals, Risks, Processes, and Decisions*. Cambridge, UK: Open Book Publishers. 2023. 324 p. URL: https://doi.org/10.11647/OBP.0350.

[21] Vagias W. M. *Likert-type scale response anchors*. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University. 2006. URL: https://www.marquette.edu/student-affairs/assessment-likert-scales.php.

advantages of each part of the community territory, as well as to identify opportunities to use competitive advantages for the development of the part of the territory and the territorial community as a whole.

4. Improve the tools for obtaining feedback from students on their satisfaction with the course in general and the innovations piloted under the project.

5. To improve the existing Moodle e-course, which was previously used as a resource platform, by adding components that will enable asynchronous learning and contribute to greater motivation of students to study in wartime (in particular, for part-time students of the 2024 intake).

Three main changes were implemented while piloting the improved e-course in October-November 2023:

1. The initial statements of the cross-cutting team exercise "Development of the concept of a development strategy on the example of a separate territorial community" were supplemented by the following components: identifying the Sustainable Development Goals and the consideration of the EU Digital Green Deal, which should be achieved by the strategic goals of community development and relevant projects (Fig. 3).

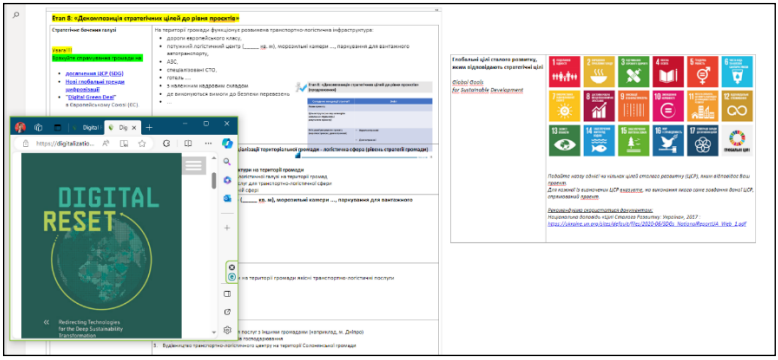

Fig. 3. Focusing students' attention on the EU SDGs and the Digital Green Deal (Microsoft OneNote – Notebook)

2. It was proposed to use the dialogue with ChatGPT 3.5 (https://chat.openai.com/) as part of the cross-cutting team exercise "Development of the concept of a development strategy on the example of a separate territorial community" at stage 7 "Competitive advantages of the territory" to characterise the competitive advantages of each part of the local community territory, as well as to identify opportunities to use competitive

advantages for the development of the part of the territory and the territorial community as a whole (Fig. 4).

3. The MS-Form for surveying applicants on the results of the e-course was updating. Based on the recommendations of by W. M. Vagias[22]), the questionnaire scales were updated (Fig. 5). Questions on course innovations and open-ended questions were added to the questionnaire to find out the opinion of master-students on certain issues.

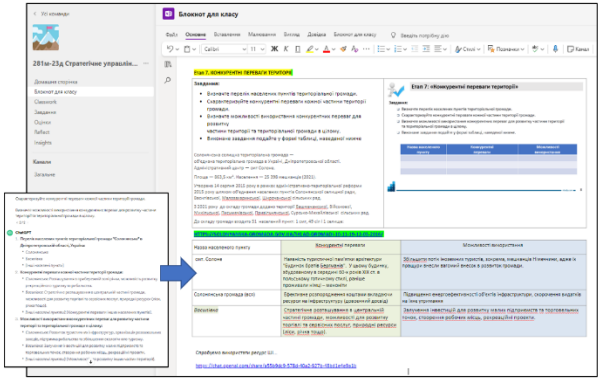

Fig. 4. Visualisation of the results of the cross-cutting exercise using the dialogue with ChatGPT 3.5 and MS OneNote

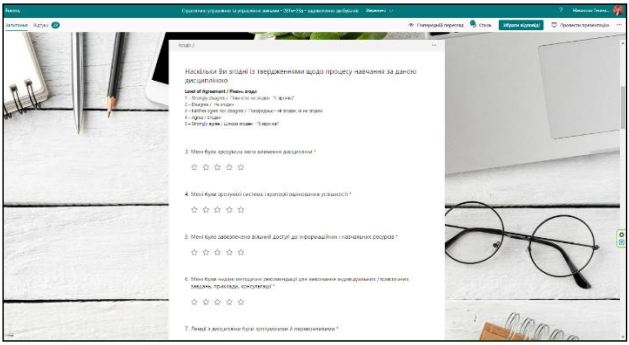

Fig. 5. Updating the survey scale in MS-Form

[22] Vagias W. M. *Likert-type scale response anchors*. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University. 2006. URL: https://www.marquette.edu/student-affairs/assessment-likert-scales.php.

In December 2023, upon completion of the course first implementation, master-students were asked to fill out an updated MS-Form of an anonymous survey on satisfaction with the course. The survey was completed by 22 out of 27 students, with an overall satisfaction level of 4.82 out of 5. The majority of master-students noted that the dialogue with ChatGPT was useful and contributed to the development of critical thinking. In the open-ended question field, they added comments about the usefulness of this in practical activities, the desire to continue such exercises in other disciplines, but some students have concerns about the safety and integrity of using AI.

Most students noted that consideration of strategic priorities for community development in the context of achieving the UN Sustainable Development Goals 2030 and the Digital Green Deal in the European Union would be useful for practical implementation. They also found it useful to study modern literature and materials on the Internet resources of international organisations in this area, and to use this knowledge to strategise the development of territorial communities.

The second implementation of the course in October-November 2024 resulted in an overall satisfaction level of 5 out of 5 possible points for full-time master's students, and 4.82 out of 5 points for part-time students.

Thus, the results of the project are as follows: the students are satisfied with the experience; they have acquired both professional competencies in the field of strategic planning for local development and digital competencies in the use of artificial intelligence systems. Representatives of the project team note the following results of improvements for teachers: greater student engagement; positive experience and greater confidence in the possibility of implementing AI in teaching processes; an improved survey form as an opportunity to better analyse the results of the teaching cycle for future improvements.

CONCLUSIONS

1. The OCIA-project implementation of the project made it possible to achieve the stated objectives: three changes were made to the course (adding a focus on the SDGs and; adding a dialogue with ChatGPT to the team cross-cutting exercise; updating the student satisfaction survey forms); the proposed changes were received with interest by the master-students, some of them with great enthusiasm, as evidenced by the survey results; the proposed changes allowed to strengthen the development of strategic and project competencies of future public managers, their confidence in the possibility of implementing the acquired knowledge and skills in practice (according to the survey results); the team members developed their own competencies (in online and asynchronous teaching, in implementation the AI technologies in teaching, in effective students' evaluation and peer assessment.

2. The pilot implementation of the “Strategic Management and Change Management in the Public Sphere” course improvements necessitated a set of further research and assignments: making changes to the syllabus for the next academic year; continuation of the content development for the course version on the corporate platform Moodle for preparing an e-course for part-time students, in particular, adding a seminar on mutual evaluation and assessment of the satisfaction and emotional states of course participants during its implementation; implementation of the activities proven, in particular, the dialogue with ChatGPT, in the elective course on European smart specialisation; updating the questionnaire forms for other disciplines based on the approach that was successfully tested during OCIA.

SUMMARY

The strategic and project competencies of public servants and civil society representatives are becoming critical in Ukraine in the context of a full-scale war and subsequent post-war recovery. That is why it was decided to implement a project within the Teaching Online in Wartime and After Program to improve the discipline “Strategic Management and Change Management in the Public Sphere” for applicants for the second (master’s) level of higher education in the educational and professional programme “Public Management and Administration”.

The problem to be solved by the project is the insufficient capacity of university staff in the existing teaching format to provide a quality educational service to develop the strategic and project competencies of future public servants and leaders of territorial communities, given the constant air attacks and the risks of blackouts, combined with the need to further motivate students to be actively involved in the learning process. To address the problem, three changes were implemented during the current phase of the project: (adding a focus on progress towards the 2030 Sustainable Development Goals and the European Digital Green Deal; adding a dialogue with an artificial intelligence system to the team exercise, followed by verification of the results and their mapping in a common workspace using Microsoft Teams and Microsoft OneNote – Notebook services; updating the forms for student satisfaction surveys).

OCIA-project results: public administration master-students were satisfied with the new experience; they have acquired both professional competencies in strategic local development planning and digital competencies in using of artificial intelligence systems.

References

1. Маматова Т., *Чикаренко* І. Використання штучного інтелекту у процесах розвитку стратегічних і проєктних компетентностей публічних управлінців. *Публічне управління та місцеве самоврядування.* 2023. Вип. 4, С. 45–53. DOI: https://doi.org/10.32782/2414-4436/2023-4-7.

2. Викладачі Львівського університету – учасники програми Teaching Online in Wartime and After (U-train). *Львівський національний університет імені Івана Франка : веб-сайт*. 26.09.2023. URL: https://lnu.edu.ua/vykladachi-lvivskoho-universytetu-uchasnyky-prohramy-teaching-online-in-wartime-and-after-u-train/.

3. Стратегічне управління та управління змінами в публічній сфері : навч. наоч. посіб. / І. А. Чикаренко, Т. В. Маматова, Т. В. Кравцова ; М-во освіти і науки України, Нац. техн. ун-т «Дніпровська політехніка». Дніпро : НТУ «ДП», 2023. URL : https://palsg.nmu.org.ua/ua/literature/stratupr2023.pdf

4. Дарковіч А., Савіськo М. Фактори стійкості громад під час війни. Дослідження впливу економіки, управління та залученості. *VoxUkraine*. 12.09.2023. URL: https://voxukraine.org/faktory-stijkosti-gromad-pid-chas-vijny-doslidzhennya-vplyvu-ekonomiky-upravlinnya-ta-zaluchenosti.

5. Савіськo М., Гацко В. Проєктний менеджмент на рівні територіальних громад: проблеми та можливі рішення : аналітична записка. Київ: KSI, 2023. https://kse.ua/wp-content/uploads/2023/09/Zapiska.-Proektnii---menedzhment-v-gromadah.pdf.

6. Антонова О. В. Стратегічна компетентність державних службовців : монографія. Дніпро : ДРІДУ НАДУ, 2017. 332 с.

7. Jałochaa B., Kraneb H. P., Ekambaramc A., Prawelska-Skrzypekd G. Key competences of public sector project managers. 27th IPMA World Congress Procedia – Social and Behavioral Science. Elsevier Ltd., 2019. Vol. 119. P. 247–256. URL: http://www.sciencedirect.com/science/article/pii/S187704281402120X.

8. Децентралізація влади в Україні: оцінювання результатів формування та розвитку самодостатніх громад : монографія / за заг. та наук. ред. С. М. Серьогіна, І. А. Чикаренко. Дніпро : ДРІДУ НАДУ, 2019. 292 с.

9. Ушакова А. С. Формування проєктних компетентностей посадових осіб місцевого самоврядування в умовах децентралізації влади : дисертація на здобуття наукового ступеня доктора філософії за спеціальністю 281 «Публічне управління та адміністрування». Дніпро: ДРІДУ НАДУ. 2021. 289 с.

10. Візнюк І. М., Буглай Н. М., Куцак Л. В., Поліщук А. С., Киливник В. В. Використання штучного інтелекту в освіті. *Сучасні*

інформаційні технології та інноваційні методики навчання в підготовці фахівців: методологія, теорія, досвід, проблеми. 2021. Вип. 59. С. 14–22. DOI: https://doi.org/10.31652/2412-1142-2021-59-14-22.

11. Biagini G. Towards an AI-Literate Future: A Systematic Literature Review Exploring Education, Ethics, and Applications. *International Journal of Artificial Intelligence in Education (IJAIED)*. 2025. DOI: https://doi.org/10.1007/s40593-025-00466-w.

12. Arslan N., Haj Youssef M., Ghandour R. AI and learning experiences of international students studying in the UK: an exploratory case study. Artificial Intelligence in Education. 2025. Vol. 1, Iss. 1. P. 1–23. DOI: https://doi.org/10.1108/AIIE-10-2024-0019.

13. Квітка С., Новіченко Н., Бардах О. Штучний інтелект у муніципальному управлінні: вектори розвитку. *Аспекти публічного управління*/ 2021. Т. 9. № 4. С. 85–94. DOI: https://doi.org/10.15421/152140.

14. Шестаковська Т. Л. Аналіз тенденцій та викликів впливу цифрових технологій на публічне управління. *Economic Synergy*. 2023. № 2. С. 8–22. DOI: https://doi.org/10.53920/ES-2023-2-1.

15. Ніколюк О. В., Савченко Т. В., Родіна О. В. Проблеми та переваги штучного інтелекту як ефективного інституту для розбудови управлінських рішень в публічному управлінні. *Вчені записки ТНУ імені В.І. Вернадського. Серія: Публічне управління та адміністрування.* 2023. Т. 34(73). № 3. С. 124–130. DOI: https://doi.org/10.32782/TNU-2663-6468/2023.3/19.

16. Стратегія розвитку штучного інтелекту в Україні : монографія / кол. авт. ; за заг. ред. А. І. Шевченка. Київ: ІПШІ, 2023. 305 с. URL: https://jai.in.ua/archive/2023/ai_mono.pdf.

17. Теличко В. С. Використання штучного інтелекту та інтернету речей у повоєнному розвитку України. *Проблеми сучасних трансформацій. Серія: право, публічне управління та адміністрування*. 2023. № 9. С. 2–12. https://doi.org/10.54929/2786-5746-2023-9-02-12.

18. Artificial intelligence in public service: Benefits, risks and what to expect in the future. ChatGPT's take on using artificial intelligence in government. *Apolitical Group Ltd.: web-site.* 2023, July 4. URL: https://apolitical.co/solution-articles/en/artificial-intelligence-in-public-service-benefits-risks-and-what-to-expect-in-the-future.

19. Cöster M., Danielson M., Ekenberg L., Gullberg C., Titlestad G., Westelius A., Wettergren G. *Digital Transformation: Understanding Business Goals, Risks, Processes, and Decisions*. Cambridge, UK: Open Book Publishers. 2023. 324 p. DOI: https://doi.org/10.11647/OBP.0350.

20. Digitalization for Sustainability (D4S) (Ed.). *Digital Reset. Redirecting* Technologies *for the Deep Sustainability Transformation*. München: Oekom. 2023. 124 p. URL: https://doi.org/10.14512/9783987262463.

21. Vagias W. M. *Likert-type scale response anchors*. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University. 2006. URL: https://www.marquette.edu/student-affairs/assessment-likert-scales.php.

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