

Digital Technology in Healthcare: Enhancing Education and Patient Care

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The implementation of digital tools, systems, and technologies in healthcare improves education, lowers the risk of errors, and enables the provision of comprehensive, high-quality care to patients. Our study analyzed healthcare students' comprehension and viewpoints on the use of digital technologies in their education and practice. We aim to investigate how healthcare students are educated about digital technology's potential applications during their studies and in clinical practice. Healthcare students provided several practical illustrations of digital technology employment, including e-health records, documentation access, diagnoses, electronic medical records, and mobile health. These examples effectively demonstrate improved communication between healthcare professionals, streamlined data analysis and management, and better patient monitoring. Although digital technology brings significant benefits to healthcare education, students remain mindful of the challenges it poses. We assert that digital technology is essential for improving the quality of healthcare education and providing comprehensive, evidence-based patient care.

Keywords: digital technologies, education, healthcare, teaching effectively

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Introduction

In the age of the digital revolution, educational processes are changing rapidly. According to a UNESCO survey in year 2023, 80% of schools worldwide use digital technologies in their daily teaching (UNESCO, 2023). New technologies available to all people that we have unconsciously aligned schooling and learning, as children and adults spend more and more time learning on their own and using the new technologies (Lattouf, 2022). Digital education

is an umbrella term for a variety of learning approaches involving many concepts, methods and technologies (Alenezi et al., 2023; Ruzimatov, 2024; Williamson, 2016; Zawacki-Richter & Bozkurt, 2023). It is also often called blended learning and combines online digital education with classroom learning, or fully uses distance learning (asynchronous or combination of asynchronous and synchronous learning) (Ødegaard et al., 2024). Digital education also include, for instance, learning management systems that have become widespread and essential for many institutions (Dobre, 2015), lecture capture and live streaming applications (Biščan et al., 2021), learning analytics solutions (Viberg et al., 2018), mobile or web-based applications for self-paced or supplementary learning (Gladman et al., 2021, 2023), and virtual reality and artificial intelligence applications (Dhar et al., 2023; Gasteiger et al., 2024). Digital education is also constantly being introduced into healthcare education, albeit in different forms, with the aim of improving or even revolutionising the way education is delivered. These tools, which are widely used in contemporary teaching and learning, are based on common advances in information and communication technologies (Grainger et al., 2024).

Integration of Digital Technology in the Educational Process of Healthcare

The importance of digital skills for students in higher education is enormous. In today's world, digital technologies are ubiquitous, transforming the way we live, work and learn (Gonzalez-Moreno et al., 2023; Ruzimatov, 2024). To be successful in studying digital technologies, students need to develop the skills and knowledge to use these tools effectively (Falloon, 2020; Kallas & Pedaste, 2022). Digital literacy is particularly important in higher education, where students are expected to be independent researchers, critical thinkers and collaborative learners (Al-Saeed, 2024). The strategic integration of digital technology in healthcare education is crucial to balance its benefits and drawbacks, ensuring personalised, immersive learning while maintaining humanistic values (Khafizova et al., 2023). Healthcare education is an interdisciplinary science that draws on different fields and often uses a biopsychosocial approach to promote health and prevent disease. It is continuous, dynamic and complex teaching and learning process that takes place throughout life and in a variety of settings (Alenezi et al., 2023; Ruzimatov, 2024; Williamson, 2016; Zawacki-Richter & Bozkurt, 2023). It includes education about hygiene, reproductive health, nutrition and other aspects, and helps to address global health challenges by providing community members with the tools they need to implement preventive measures. Most health education programmes are delivered in schools or organisations and follow standardised curricula (Rizvi,

2022). Recently, however, health education has been moving towards a more creative and digital approach and has also included mental health, preventive care and other aspects (Lattouf, 2022; Maria et al., 2023). Although the focus and emphasis on 21st century digital literacies and skills was strong before the pandemic, it has certainly accelerated their recognition and importance (Howard et al., 2021; Scherer et al., 2021; Siddiq et al., 2024). This has been driven in particular by the Covid-19 epidemic has been one of the biggest drivers of change in recent years. The epidemic has in some ways forced health and education systems to introduce new technologies into the learning and working process. As a result, the digital transformation of health and education systems has begun to spread (Glaser & Shaw, 2024; Lattouf, 2022).

However, it has also been noted that there is a lack of empirically tested university curricula that combine humanisation and digital technology education for future health professionals (Gonzalez-Moreno et al., 2023). Accessible technology and universal design have opened up opportunities for students with disabilities. Some 87% of adults with visual impairments reported that accessible technology replaces traditional assistive devices (UNESCO, 2023).

Integration of Digital Technologies in the Education of Nursing Students and Their Use in Clinical Practice

The nursing education process uses a variety of digital tools, including simulation-based learning (Bray et al., 2023; Coyne et al., 2021; Saleem & Khan, 2023), virtual and augmented reality (Kacmaz & Kaçmaz, 2024; Lin et al., 2023; Mehta et al., 2023; Wang et al., 2024), and e-learning platforms (Aouifi et al., 2024; Masalimova et al., 2024). Simulation-based learning, using realistic manikins and interactive software, provides students with the opportunity to acquire practical skills in a safe environment, which contributes to improved clinical skills and decision-making. Virtual and augmented reality enhances these experiences by engaging students in realistic scenarios that allow them to safely practice and improve their skills without putting real patients at risk (Bray et al., 2023; Lee et al., 2024; Zhang et al., 2024). As well as learning through new digital tools, it is important that students are familiar with the technologies used in healthcare. Digital health technologies, such as mobile apps and sensors can continuously collect objective data outside of office visits to improve performance and safety information. These technologies are increasingly being used in healthcare (Beck et al., 2017; Hervás et al., 2013; Kańtoch, 2018; Svenšek et al., 2023). Also Electronic Health Records (EHRs) and telemedicine is playing a crucial role in enhancing the quality of patient care. EHRs simplify the documentation process, improve communication between

health care providers, and ensure the continuity of care (Elkefi et al., 2023; Kariotis et al., 2022).

Methodology

The aim of the study was to gain insight into the perceptions and understanding of first year students on a first cycle higher education nursing programme regarding the use of ICT in nursing. We focused on identifying the strengths and weaknesses that students perceived in the use of ICT in nursing and on identifying concrete examples of technologies used in nursing practice. This was done to assess the level of students' awareness and knowledge in this area.

We used a questionnaire with two open-ended questions 'What are the advantages and disadvantages of using ICT in nursing?' and 'Examples of ICT in nursing?' using the digital tool Mentimeter.

As part of a lesson or lecture, students were introduced to Mentimeter, where they entered their answers to the question using their smart devices (phones, tablets, or computers). The answers students entered were anonymous, which helped to keep their answers relaxed and honest. We received 71 responses to the question in which students identified advantages of using information and communication technologies, while 56 students identified disadvantages. The data was then stored and analysed. For the first question, 'What are the advantages and disadvantages of using ICT in nursing?', a qualitative data analysis method was used.

The students' responses were coded and grouped into categories according to similarities in content. In this way, key categories were identified that reflected their views on the advantages and disadvantages of using ICT in nursing.

For the second question, 'Examples of ICT in nursing', we used a data visualisation approach using a cloud presentation. We received 126 student responses. This showed the frequency and variety of examples used, which allowed us to identify the most frequently mentioned technologies and tools that students identified as being used in healthcare.

Results

We have identified the following sub-categories as benefits of using ICT: (1) Easier organisation of work; (2) Control over data; (3) Quality treatment for patients; (4) Access to data; and (5) Learning and gathering evidence-based information. The most commonly cited benefit was easier organisation of work, as data is better organised and more accessible to all health professionals. The use of digital technology also reduces paperwork. All of this contributes

to time savings, allowing healthcare professionals more time to provide quality care to patients. Students also pointed out that rapid detection of changes and deviations in patients' health status contributes to quality patient care. It also makes it easier for all healthcare professionals to access patient information. It also gives us more control over the data, allowing us to store, protect and secure it. Some of the students also highlighted the possibility for health professionals to learn and become familiar with new concepts, as well as access to reliable information and communication with other professionals as an advantage of digital technology.

In the Table 1 we have identified the following sub-categories as disadvantages of using information and communication technology: (1) System intrusion and data misuse/loss; (2) Lack of knowledge of how to use information and communication technologies; (3) Information and communication technology failures; (4) Staff workload; (5) Inadequate service delivery; and (6) Misinterpretation of data or inadequate data. The most common disadvantage or danger of using digital technology was described by students as the risk of various types of intrusion into the healthcare system and misuse of data. In addition to intrusions, there may also be failures of computer equipment or networks. Ignorance of the use of digital technology was also identified as an important limitation, particularly among older staff. This can also lead to a burden on staff in terms of time spent, the need for additional training and psychological strain. They also point out that the use of digital technology can lead to misinterpretation of data or miscommunication. It can also lead to a lack of face-to-face contact with patients.

The most common tool or method of using digital technology was the use of data entry using various digital technologies (e.g. tablet, computer, etc.) Students also highlighted the use of e-procurement and the use of electronic filing cabinets as common examples.

technologies recognized and used by nursing students. The size of each word in the cloud reflects its frequency of mention, providing a visual representation of the most common technologies, such as electronic health records, telemedicine, and mobile health monitoring apps (Mediately, zVem). This visualization offers insight into the understanding and adoption of digital technologies among nursing students.

Discussion

The results of our study clearly show that ICT not only facilitate the organisation and control of work, but also provide better access to data, support learning and evidence-based information gathering, and improve the quality

Table 1 Benefits and Disadvantages of Using Communication Technology in Nursing

Benefits of using information and communication technology in nursing	Easier organisation of work	Easier organisation; more organised data; better data organisation; accessibility; less paperwork; more transparency; saves time
	Control over data	All data is stored; no data loss; no data mix-up; backup option
	Quality treatment for patients	Quick access to data; rapid reaction in case of changes; reduced number of errors; improved practice
	Access to data	Fast data accessibility; all data in one place; access to patient data; collection of more data in less time
	Learning and gathering evidence-based information	Learning new concepts; answering health questions; gathering reliable information; corresponding with different experts
Disadvantages of using information and communication technology in nursing	System intrusion and data misuse/loss	Hacking; system intrusion; access to medical records; theft of patient data; deletion of data; pirate attacks
	Lack of knowledge of how to use information and communication technologies	Lack of knowledge of computer use; incorrect data collection; additional training needed; older employees not familiar with use
	Information and communication technology failures	Computer crashes; internet problems; loss of data; no use when power is lost
	Staff workload	Time of use; mental strain on employees
	Inadequate service delivery	We are not focused; incomplete remote treatment of patients during COVID; not accessible to all patients; addition to technology; more radiation; loss of contact with people; loss of physical contact; less attention to persons; communication gap
	Misinterpretation of data or inadequate data	Misunderstanding of data; misinterpretation of data; plagiarism; not all data relevant/correct; unpredictable sources; use of inappropriate sources (Google)

tors, and assessment must be more nuanced than annual standardised tests allow (Collins et al., 2018; Wang et al., 2024). Digital technology reduces the time that teachers and students spend on irrelevant tasks, time that can be spent on other, more educationally relevant activities and also reduce the cost of test administration, improve the quality of measurement and allow rapid scoring. It also help teachers personalise feedback and teaching by providing immediate feedback (UNESCO, 2023; McClelland & Cuevas, 2020).

Students in our research cited positive examples, noting that rapid detection of health changes through technology improves patient care, increases access to patient information and enables better health monitoring, the latter of which was also cited in the research by Forde-Johnston et al. (2023). Students in our research also highlighted the benefits for healthcare professionals, including learning new concepts, accessing reliable information, and communicating with peers. In addition, the use of digital tools has some negative aspects, such as hacking and misuse/loss of data, lack of knowledge on the use of ICT, ICT failures, etc. and because of this negative aspect is recommended to requires strong cybersecurity measures to protect sensitive patient information. Educators and institutions should prioritise training in digital literacy and data security to ensure that nursing students are competent and confident in the responsible use of these technologies (Nifakos et al., 2021; Singh et al., 2023).

Mobile apps as a digital technology empower healthcare professionals with tools for patient education, medication management, and remote monitoring, thus improving patient outcomes. Students in our research highlighted two mobile apps that they are familiar with (Medately and zVem). These two mobile apps are also well used in clinical practice in Slovenia. Akhu-Zahya et al. (2023) concluded significantly improve patients' knowledge of heart failure, making it a cost-effective approach to chronic disease management. Either for calculating units, predicting illnesses, checking medication, etc., mobile apps are most commonly used (Haque & Rubya, 2023; Milne-Ives et al., 2020; Wang et al., 2023). In Slovenia is one of the most used mobile app not only for health professionals but also patients and other people, named *zVem*. The mobile app enables e-ordering, e-prescriptions, triage sheets, and includes medical records (<https://zvem.ezdrav.si>). The *Medately* mobile app is also used in healthcare and well known from students of healthcare. It provides information on medicines, includes various predictive models such as body mass index (BMI) calculations, fracture risk scales, medication dosages, cardiovascular risk calculators and other calculators. It also includes ICD diagnosis codes and various training courses (<https://medately.co/si>).

Our research has some limitations that need to be taken into account when interpreting the results. Firstly, it was carried out on a limited sample, which may affect the generality of the findings. We recommend that further research is carried out on larger and more diverse samples to ensure more representative results. Second, technology is changing rapidly, which means that our findings may quickly become outdated. Thirdly, some of the data collected in our study is based on participants' self-assessment, which may lead to subjective bias. These limitations should be taken into account in further research and application of our findings. Our findings clearly show that ICT has an important role to play in improving the efficiency and quality of work and patient care. However, more research is needed to understand the long-term effects and to adapt to rapid technological change.

Conclusion

Our research clearly shows that ICT not only facilitates the organisation and control of work, but also improves access to data, supports learning and evidence-based information gathering, and improves the quality of patient care. These findings highlight the key role of ICT in improving efficiency and accuracy in the modern working environment. Further developments in ICT will continue to shape the way we work and acquire knowledge, and it is important that we focus on research that supports these changes and ensures the safe and effective use of technology.

References

- Akhu-Zaheya, L., Hweidi, Issa M., & Al-Hamad, H. (2023). The effect of mobile health applications on the knowledge of patients of heart failure. *Jordan Journal of Nursing Research*, 16(1), 1–11.
- Alenezi, M., Wardat, S., & Akour, M. (2023). The need of integrating digital education in higher education: Challenges and opportunities. *Sustainability*, 15(6), 4782.
- Al-Saeed, B. A. B. A. (2024). The effectiveness of personal learning environments in enhancing some concepts of digital citizenship among male and female students of the College of Education at Jazan University. *Arid International Journal of Educational and Psychological Sciences*, 81–112. <https://doi.org/10.36772/arid.ajjeps.2024.594>
- Aouifi, H. E., Hajji, M. E., Es-Saady, Y., & Douzi, H. (2024). Video-based learning recommender systems: A systematic literature review. *IEEE Transactions on Learning Technologies*, 17, 485–497.
- Beck, R. W., Riddlesworth, T., Ruedy, K., Ahmann, A., Bergenstal, R., Haller, S., Kollman, C., Kruger, D., McGill, J. B., Polonsky, W., Toschi, E., Wolpert, H., & Price,

- D. (2017). Effect of continuous glucose monitoring on glycemic control in adults with type 1 diabetes using insulin injections the diamond randomized clinical trial. *JAMA*, 317(4), 371–378.
- Biščan, M.-P., Milanović, M., Petrović, J., & Pale, P. (2021). A review of lecture capture technology and its usage in higher education. In *2021 44th International Convention on Information, Communication and Electronic Technology (MIPRO)* (pp. 1553–1558). IEEE.
- Bray, L., Krogh, T. B., & Østergaard, D. (2023). Simulation-based training for continuing professional development within a primary care context: A systematic review. *Education for Primary Care*, 34(2), 64–73.
- Broich, A. (2015). Not like other media: Digital technology and the transformation of educational publishing. *Publishing Research Quarterly*, 31(4), 237–243.
- Collins, A., Halverson, R., & Gee, J. P. (2018). *Rethinking education in the age of technology: The digital revolution and schooling in America*. Teachers College Press.
- Coyne, E., Calleja, P., Forster, E., & Lin, F. (2021). A review of virtual-simulation for assessing healthcare students' clinical competency. *Nurse Education Today*, 96, 104623.
- Dhar, E., Upadhyay, U., Huang, Y., Uddin, M., Manias, G., Kyriazis, D., Wajid, U., Al-Shawaf, H., & Syed Abdul, S. (2023). A scoping review to assess the effects of virtual reality in medical education and clinical care. *Digital Health*, 9, 205520762311580.
- Dobre, I. (2015). Learning management systems for higher education: An overview of available options for higher education organizations. *Procedia - Social and Behavioral Sciences*, 180, 313–320.
- Elkefi, S., Asan, O., & Crotty, B. H. (2023). Exchange of health information among doctors using electronic health records: Facilitators and barriers from a sociotechnical perspective. *IJSE Transactions on Healthcare Systems Engineering*, 13(4), 333–343.
- Falloon, G. (2020). From digital literacy to digital competence: The teacher digital competency (TDC) framework. *Educational Technology Research and Development*, 68(5), 2449–2472.
- Forde-Johnston, C., Butcher, D., & Aveyard, H. (2023). An integrative review exploring the impact of Electronic Health Records (EHR) on the quality of nurse-patient interactions and communication. *Journal of Advanced Nursing*, 79(1), 48–67.
- Gasteiger, N., van der Veer, S. N., Wilson, P., & Dowding, D. (2024). Virtual reality and augmented reality smartphone applications for upskilling care home workers in hand hygiene: A realist multi-site feasibility, usability, accepta-

- bility, and efficacy study. *Journal of the American Medical Informatics Association*, 31(1), 45–60.
- Gladman, T., Gallagher, S., & Grainger, R. (2023). Apps to support learning and professional development in the health professions. In *Smartphone apps for health and wellness* (pp. 177–199). Elsevier.
- Gladman, T., Tylee, G., Gallagher, S., Mair, J., & Grainger, R. (2021). measuring the quality of clinical skills mobile apps for student learning: Systematic search, analysis, and comparison of two measurement scales. *JMIR mHealth and uHealth*, 9(4), e25377.
- Glaser, J. & Shaw, S. (2024). Digital transformation success: What can health care providers learn from other industries? *Catalyst Non-Issue Content*, 3(2). <https://doi.org/10.1056/CAT.21.0434>
- Gonzalez-Moreno, M., Monfort-Vinuesa, C., Piñas-Mesa, A., & Rincon, E. (2023). Digital technologies to provide humanization in the education of the healthcare workforce: A systematic review. *Technologies*, 11(4), 88.
- Grainger, R., Liu, Q., & Gladman, T. (2024). Learning technology in health professions education: Realising an (un)imagined future. *Medical Education*, 58(1), 36–46.
- Haque, M. D. R., & Rubya, S. (2023). An overview of chatbot-based mobile mental health apps: Insights from app description and user reviews. *JMIR mHealth and uHealth*, 11, e44838.
- Hervás, R., Fontecha, J., Ausín, D., Castanedo, F., López-de-Ipiña, D., & Bravo, J. (2013). Mobile monitoring and reasoning methods to prevent cardiovascular diseases. *Sensors (Switzerland)*, 13(5), 6524–6541.
- Howard, S. K., Tondeur, J., Siddiq, F., & Scherer, R. (2021). Ready, set, go! Profiling teachers' readiness for online teaching in secondary education. *Technology, Pedagogy and Education*, 30(1), 141–158. 43
- Kacmaz, K. S., & Kaçmaz, C. (2024). Bibliometric analysis of research in pediatrics related to virtual and augmented reality: A systematic review. *Current Pediatric Reviews*, 20(2), 178–187.
- Kallas, K., & Pedaste, M. (2022). How to improve the digital competence for e-learning? *Applied Sciences*, 12(13), 6582.
- Kańtoch, E. (2018). Recognition of sedentary behavior by machine learning analysis of wearable sensors during activities of daily living for telemedical assessment of cardiovascular risk. *Sensors (Switzerland)*, 18(10), 1–17.
- Kariotis, T. C., Prictor, M., Chang, S., & Gray, K. (2022). Impact of electronic health records on information practices in mental health contexts: Scoping review. *Journal of Medical Internet Research*, 24(5), e30405.
- Khafizova, A. A., Galimov, A. M., Kharisova, S. R., Grebenshchikova, L. Y., Yagudina, R. I., & Smirnova, L. M. (2023). The impact of healthcare digitalization

- on the medical education curricula and programs: Points of convergence and divergence. *Contemporary Educational Technology*, 15(4), ep479.
- Lattouf, O. M. (2022). Impact of digital transformation on the future of medical education and practice. *Journal of Cardiac Surgery*, 37(9), 2799–2808.
- Lee, E., Ito, S., Miranda, W. R., Lopez-Jimenez, F., Kane, G. C., Asirvatham, S. J., Noseworthy, P. A., Friedman, P. A., Carter, R. E., Borlaug, B. A., Attia, Z. I., & Oh, J. K. (2024). Artificial intelligence-enabled ECG for left ventricular diastolic function and filling pressure. *NPJ Digital Medicine*, 7(1), 4–4.
- Lin, Y.-C., Lin, P.-C., Lin, P.-C., Lin, C.-Y., Kabasawa, Y., Choi, Y.-K., & Huang, H.-L. (2023). Combining augmented and virtual reality simulation training to improve geriatric oral care performance in healthcare assistants: A randomized controlled trial. *Digital Health*, 9, 20552076231203891.
- Maria, A. R. J., Serra, H., Castro, M. G., & Heleno, B. (2023). Telemedicine as a tool for continuing medical education. *Family Practice*, 40(4), 569–574.
- Masalimova, A. R., Zheltukhina, M. R., Sergeeva, O. V., Sizova, Z. M., Novikov, P. N., & Sadykova, A. R. (2024). Exploring higher education students' attitudes toward e-learning after COVID-19. *Contemporary Educational Technology*, 16(1), ep488.
- McClelland, T., & Cuevas, J. (2020). A comparison of computer based testing and paper and pencil testing in mathematics assessment. *The Online Journal of New Horizons in Education*, 10(2), 78–89.
- Mehta, K., Aayushi, Singh, C., Chugh, H., & Kumar, M. (2023). Revolutionizing healthcare by accessing the opportunities for virtual and augmented reality. In *2023 7th International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 836–841). IEEE.
- Milne-Ives, M., Lam, C., De Cock, C., Van Velthoven, M. H., & Meinert, E. (2020). mobile apps for health behavior change in physical activity, diet, drug and alcohol use, and mental health: Systematic review. *JMIR mHealth and uHealth*, 8(3), e17046.
- Nifakos, S., Chandramouli, K., Nikolaou, C. K., Papachristou, P., Koch, S., Panaousis, E., & Bonacina, S. (2021). Influence of human factors on cyber security within healthcare organisations: A systematic review. *Sensors*, 21(15), 5119.
- Ødegaard, N. B., Røe, Y., & Dahl-Michelsen, T. (2024). "Learning is about being active, but the digital is not really active": Physiotherapy teachers' attitudes toward and experiences with digital education. *Physiotherapy Theory and Practice*, 40(3), 494–504.
- Rizvi, D. (2022). Health education and global health: Practices, applications, and future research. *Journal of Education and Health Promotion*, 11(1), 262.
- Ruzimatov, J. (2024). The role of using digital educational technologies in methodical training of future primary school teachers. *Evrziskij Zhurnal Akademicheskikh Issledovanij*, 4(3 Part 2), 109–113.

- Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior*, 118, 106675.
- Siddiq, F., Olofsson, A. D., Lindberg, J. O., & Tomczyk, L. (2024). What will be the new normal? Digital competence and 21st-century skills: Critical and emergent issues in education. *Education and Information Technologies*, 29(6), 7697–7705.
- Singh, A., Kumar, A., Akhtar, Z., & Khan, M. K. (2023). Guest editorial: Cybersecurity intelligence in the healthcare system. *IEEE Transactions on Industrial Informatics*, 19(1), 809–812.
- Svenšek, A., Gosak, L., Kopitar, L., & Štiglic, G. (2023, 9–10 November). *Uporaba merilnika za neprekinjeno merjenje glukoze v krvi kot oskrba pacientov na daljavo* [Conference presentation]. Trajnostna digitalna prihodnost zdravstva: strokovno srečanje MI'23, Terme Zreče, Slovenia.
- UNESCO. (2023). *Global education monitoring report 2023: Technology in education; A tool on whose terms?*
- Viberg, O., Hatakka, M., Bälter, O., & Mavroudi, A. (2018). The current landscape of learning analytics in higher education. *Computers in Human Behavior*, 89, 98–110.
- Wang, C., Chen, X., Yu, T., Liu, Y., & Jing, Y. (2024). Education reform and change driven by digital technology: A bibliometric study from a global perspective. *Humanities and Social Sciences Communications*, 11(1), 256.
- Wang, T., Du, Y., Gong, Y., Choo, K.-K. R., & Guo, Y. (2023). applications of federated learning in mobile health: Scoping review. *Journal of Medical Internet Research*, 25, e43006.
- Williamson, B. (2016). Digital education governance: An introduction. *European Educational Research Journal*, 15(1), 3–13.
- Zawacki-Richter, O., & Bozkurt, A. (2023). *Digital education*. Springer.
- Zhang, N., Wang, H., Huang, T., Zhang, X., & Liao, H. (2024). A VR environment for human anatomical variation education: Modeling, visualization and interaction. *IEEE Transactions on Learning Technologies*, 17, 391–403.

Digitalna tehnologija v zdravstvu: izboljšanje izobraževanja in oskrbe pacientov

Uporaba digitalnih orodij, sistemov in tehnologij v zdravstvu izboljšuje izobraževanje, zmanjšuje tveganje napak in omogoča zagotavljanje celovite ter kakovostne oskrbe pacientov. V naši raziskavi smo analizirali razumevanje in stališča študentov zdravstvenih ved o uporabi digitalnih tehnologij v njihovem izobraževanju ter praksi. Naš cilj je bil raziskati, kako se študenti zdravstvenih ved izobražujejo o možnostih uporabe digitalnih tehnologij med študijem in v klinični praksi. Študenti zdravstvenega varstva so navedli več praktičnih primerov uporabe digitalne tehnologije, vključno z e-zdravstvenimi kartotekami, dostopom do dokumentacije, diagnozami, elektronskimi zdravstvenimi

kartotekami in mobilnim zdravjem. Ti primeri učinkovito prikazujejo izboljšano komunikacijo med zdravstvenimi delavci, poenostavljeno analizo in upravljanje podatkov ter boljše spremljanje pacientov. Čeprav digitalna tehnologija prinaša pomembne koristi za zdravstveno izobraževanje, se študenti še vedno zavedajo izzivov, ki jih prinaša. Trdimo, da je digitalna tehnologija bistvena za izboljšanje kakovosti zdravstvenega izobraževanja in zagotavljanje celovite, z dokazi podprte oskrbe pacientov.

Ključne besede: digitalne tehnologije, izobraževanje, zdravstvo, učinkovito poučevanje