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Nataša Hoić-Božić and Martina Holenko Dlab, *Uvod u e-učenje: obrazovni izazovi digitalnog doba*, Sveučilište u Rijeci, Odjel za informatiku, 2021; 215 pp.: ISBN 978-953-7720-53-7

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“If you’re successful in delivering e-Learning, the learner won’t even be (nor should they feel the need to be) focused on the ‘e’ part, they’ll just be focused on how awesome the ‘Learning’ part is.”

Keith Phillips

The book *Uvod u e-učenje: obrazovni izazovi digitalnog doba* (Introduction to e-Learning: The Pedagogical Challenges of the Digital Age) offers a comprehensive and systematic examination of the topic of e-learning. With a scientific and interdisciplinary approach, the authors provide a comprehensive overview of the various facets of e-learning. The book covers a wide range of topics related to e-learning, including asynchronous and synchronous forms of e-learning, the advantages and obstacles associated with this educational approach, aspects of motivation and engagement, the design and promotion of e-learning activities, the application of instructional design principles to the development of e-courses, collaborative projects, and assessment and evaluation in the context of e-learning. In addition, the authors address new trends and innovative practices in e-learning, such as MOOCs, gamification and virtual reality. The authors use a systematic and practical methodology and support their arguments with numerous case studies, examples and best practices derived from their own experience and that of other experts in the field. A notable strength of the book is its recognition of learner-centred design as a central factor in increasing engagement and motivation in e-learning environments. The authors highlight the importance of collaboration, interaction



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and feedback, while emphasising the need for flexibility and adaptability to meet different learning needs and preferences. The book's interdisciplinary approach is a notable feature, drawing on research and insights from a range of disciplines including education, psychology, technology, computer science and instructional design. The authors skilfully link theoretical foundations with practical applications so that the reader can develop a comprehensive understanding of e-learning and its potential impact on teaching and learning processes. In addition, the book includes an extensive reference list that is a valuable resource for researchers and practitioners in the field of e-learning.

The emergence of e-learning has profoundly transformed the educational landscape in recent times and has generated a great deal of interest in exploring the benefits and challenges of this pedagogical approach. A comprehensive review of the relevant literature highlights the many benefits of e-learning, including its inherent flexibility, facilitation of enhanced communication and collaboration, and use of interactive and multimedia materials. However, it is essential to also address the challenges associated with it. These challenges include maintaining student motivation and engagement, providing effective guidance and support to teachers, and ensuring the quality of e-learning resources. While e-learning as a whole offers a multitude of opportunities for education, it is important to recognise the limitations that exist and the potential drawbacks that need to be addressed. As educators integrate e-learning into their teaching practice, they should seek ongoing professional development and support to ensure its effectiveness. In addition, further research is essential to assess the long-term outcomes of e-learning and its impact on student learning. While e-learning is a promising educational tool, it should be used judiciously and should not be seen as a complete replacement for traditional teaching methods.

The second chapter of the book is a pedagogical resource dealing with the multiple educational and psychological dimensions of e-learning. Based on extensive research and enriched by the perspectives of experienced practitioners, the various teaching paradigms and learning outcomes in the e-learning milieu are explored in depth. Although e-learning has many positive attributes, it is not without challenges that require special attention. These challenges include aspects such as content presentation, time management and learner engagement. The authors of the book provide valuable insights into how to overcome these challenges and offer pragmatic guidance to teachers who want to create a more effective e-learning environment. In terms of critical evaluation, the second chapter provides a comprehensive overview of the key issues and debates surrounding e-learning, while presenting a range of practical strategies

that teachers can incorporate into their teaching practice. The chapter proves to be an invaluable resource for educators who wish to explore the pedagogical and psychological dimensions of e-learning. It provides an insightful and practical compendium that highlights the challenges and opportunities of this rapidly evolving field.

Blended learning, a hybrid learning approach that combines both traditional face-to-face (f2f) and online learning activities and online learning, is comprehensively described. The authors explain the different types and modes of blended learning, including the sequential model, the simultaneous model and the flipped classroom model. Chapter four introduces e-learning and the different forms of e-learning: distance learning courses, courses via radio or TV, videoconferencing and courses that use ICT and the Internet. The authors also provide an overview of the benefits and challenges of implementing blended learning and online learning in the traditional education system. The content of these two chapters is informative and relevant for educators who want to incorporate technology into their teaching methods. However, the authors' discussion of assessment in blended learning is limited and this chapter would benefit from a more in-depth exploration of the different assessment methods available to teachers. In addition, the authors do not provide detailed examples of how blended learning has been successfully implemented in practice. The inclusion of more case studies and practical examples would make this chapter of the book more interesting and understandable for educators. Despite these shortcomings, the content of the chapters should be of interest to educators who want to improve their teaching strategies using technology.

The use of Massive Open Online Courses (MOOCs) as a means of disseminating education to a large participant base is steadily increasing. The authors of the book describe the challenges associated with creating MOOC content, which include selecting respected lecturers as mentors; preparing, recording and broadcasting lectures; developing assessments and assignments; and providing supplementary materials. Furthermore, this chapter acknowledges that not all materials in MOOC courses can be classified as open educational resources due to possible copyright restrictions or time limitations. One of the biggest hurdles for MOOCs is undoubtedly their assessment. Multiple-choice questions provide automatic assessment and feedback, but their effectiveness in assessing higher-order cognitive skills such as problem solving and creative thinking remains limited. In the MOOC milieu, it is emphasised that the successful completion of a course does not guarantee the acquisition of ECTS (European Credit Transfer and Accumulation System) credits, as only a limited number of institutions accept MOOC certificates as a substitute for

credits earned in their own courses. This discrepancy poses a major challenge for evaluating the effectiveness of MOOCs as a learning or accreditation medium. While the chapter provides an overview of the existing literature, the presentation of future research perspectives is somewhat limited. Nevertheless, it encourages reflection on the role and accountability of MOOCs and the methods used in their evaluation. To further enhance the chapter, the authors could suggest possible avenues for future research, such as conducting a comparative study that includes both MOOCs and traditional courses, or exploring alternative assessment strategies that have emerged as MOOC offerings have evolved. Given the pervasive interest in MOOCs, readers of educational literature would likely welcome additional suggestions and directions for future research efforts.

The next section comprehensively explores the application of digital technology in education and identifies the benefits it offers. The authors emphasise the importance of interactive multimedia textbooks and web-based training in modern education. The chapter describes the different types of interactive content and multimedia elements that digital textbooks should provide to increase engagement and retention. The review is critical of typical digital textbooks, which the authors believe behave more like traditional textbooks and offer little beyond that. They also question the effectiveness of passive computer-assisted instruction (CAI) and suggest that approaches that allow the system to adapt to student characteristics are more effective. The authors briefly introduce Intelligent Tutoring Systems (ITS), which use artificial intelligence to model learning content and individualise instruction, but their practical application in education has been limited due to the complex and costly development process. Intelligent tutoring systems, which are currently developing very quickly, have the advantage of adapting individually to the pace and learning abilities of each student. Hypertext and hypermedia systems allow teachers to create interactive learning materials that students can explore according to their abilities and interests. At the same time, students can create their own materials and link them to teacher-created content, which is the highest level of interactivity. Educational hypermedia systems take a constructivist approach to learning, where learners actively construct knowledge based on their prior understanding and dynamic interaction with knowledge sources. This leads to higher intellectual engagement, better understanding and improved cognitive skills such as the organisation of information and logical thinking. The authors conclude that web-based training (WBT) is currently the most popular method of distance learning and has many advantages over traditional methods, such as higher student engagement, the ability to incorporate multimedia elements and the ability to customise the learning pace.

The authors go on to give a comprehensive overview of e-learning systems, activities and management. They present different types of e-learning tools, ranging from online courses and open educational resources to multimedia and interactive learning applications. There is a presentation of the Moodle platform, which is a widely used example of an e-learning system for organising and managing online courses. In addition, the authors discuss various activities available on e-learning platforms, such as forums, quizzes, workshops and wikis. The authors also provide insight into the importance of organising the content of e-learning courses and incorporating multimedia elements into the material. The chapters provide an informative guide to e-learning, consisting of a technical introduction to various systems currently used in education. However, the suggestions for the implementation of the tools in education are rather simplified and do not elaborate on the advantages and disadvantages of using e-learning systems. It would therefore be helpful if the authors highlighted the impact of e-learning on learners and teachers.

Chapters nine to eleven serve the purpose of educating educators about the importance of evaluation in the context of e-learning, considering both formative and summative approaches. They also provide educators with comprehensive guidelines and methods for conducting evaluations effectively. The chapters include illustrative examples of online tests, peer review tasks, and criteria to promote student motivation and engagement. Taken as a whole, the chapters are an invaluable source of information, providing accurate insights into the various facets of e-learning evaluation. They cover a wide range of topics, from assessment goals, methods and tools to strategies for constructive feedback that supports students' continued learning and growth. In addition, they consider the central role of factors such as students' cultural and linguistic backgrounds and the impact of e-learning technologies on testing and feedback mechanisms. It would, however, have been beneficial if the challenges and ethical considerations surrounding the assessment of e-learning, particularly in the digital age, had been explored in more depth.

The last two chapters of the book provide a comprehensive guide to designing and creating effective and engaging e-learning materials. The chapters cover the various stages of e-course development, including audience analysis, defining learning objectives, selecting teaching strategies and assessment methods, creating multimedia content, and testing the final product. The authors describe a systematic approach to the creation of online or blended e-courses or teaching materials known as instructional design, with the ADDIE model (Analyse, Design, Develop, Implement, Evaluate), which is one of the simpler and most popular models. They emphasise the importance of Game-Based

Learning (GBL) as an interdisciplinary field that utilises educational games to enhance learning outcomes, especially digital games on computers and mobile devices. Distinct from gamification, GBL aims to increase student motivation, efficiency and engagement, while emerging technologies such as augmented reality (AR) and virtual reality (VR) show potential for the education sector. The chapters therefore provide practical tips and strategies for creating high-quality e-courses that promote learner engagement and motivation and increase learning success. The use of multimedia content, interactivity and formative assessments is particularly emphasised to keep learners engaged and motivated throughout the e-course.

In summary, *Uvod u e-učenje: obrazovni izazovi digitalnog doba* is an invaluable resource for anyone interested in e-learning, as it provides a comprehensive and practical overview of the field. By focusing on real-world examples and practical applications, the book is aimed at a wide audience, from students to experienced practitioners, while also serving as a valuable reference tool for researchers.

“You can’t teach people everything they need to know. The best you can do is position them where they can find what they need to know when they need to know it.”

Seymour Papert