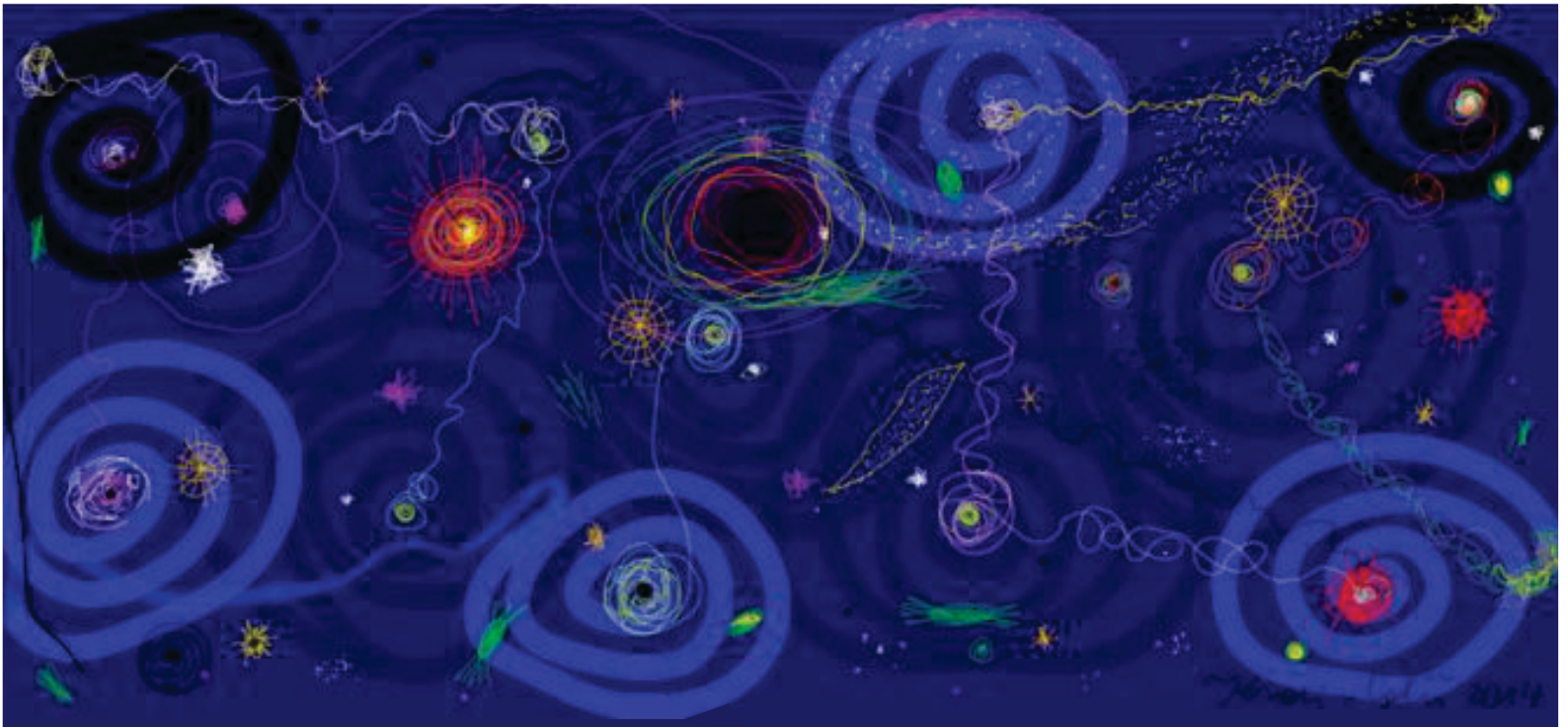

SOCRATIC LECTURES

11TH INTERNATIONAL SYMPOSIUM, LJUBLJANA, 8. JUNE 2024 PEER REVIEWED PROCEEDINGS

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Editorial

11th Socratic Lectures took place online. It featured a plenary lecture by Jelena Danilović Luković, two scientific sessions (12 lectures), a honorary lecture by Balas Valentina, Rad Dana and a poster session. The plenary lecture entitled "Application of electron microscopy in research of bioremediation of heavy metals by microalgae" focused on microalgae, the underappreciated majority. It was an important contribution to the awareness of the necessity of their wellbeing and understanding of the One health principle. Section 1 entitled "Biophysics and Biomechanics" and Section 2 entitled "Navigating Uncertainty in Education: Equipping for Life-Long Learning and Arts Skills" were focused on students who were actively included in the lectures. Honorary lecture entitled "Analyzing AI Integration in Education" tackled artificial intelligence that is of wide interest. Socratic lectures are embedded into the Z-STEAM activities (Science, Technology, Engineering, Art, Mathematics) and Arts and Health principles. 11th Socratic Lectures were another event promoting excellence in science and dedication of students. It will be remembered with gratitude to all who generously donated their contributions.

Veronika Kralj-Iglič

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TEXTS

Research

MOOCs and their contribution to non-formal learning in the realities of Ukrainian business education

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Abstract:
In today's rapidly changing educational landscape, the role of MOOCs (Massive Open Online Courses) has become increasingly significant, especially in the context of non-formal learning. This paper delves into the evolving landscape of Massive Open Online Courses (MOOCs), examining global and Ukrainian platforms. Two primary models of MOOCs are highlighted: cMOOCs, which emphasize connectivist principles like creation and autonomy, and xMOOCs, which follow traditional higher education methods with pre-recorded lectures and standardized assessments. The diverse MOOC landscape is highlighted, including major global platforms and Ukrainian initiatives, with a discussion on the comprehensive challenges and potential solutions to enhance the effectiveness of MOOCs.
Despite their promise of making education more accessible, flexible, and cost-effective, MOOCs grapple with significant obstacles. These include low completion rates, particularly in emerging economies, access disparity due to the digital divide, and a mismatch between course offerings and the intended audience. Engagement issues also persist, with limited involvement from educational professionals and high dropout rates among employed learners. Additionally, the perceived value of MOOC credentials remains questionable, and geographical and socioeconomic barriers further hinder their effectiveness. Addressing these challenges through continuous innovation and improved course design and delivery is essential for enhancing the impact and accessibility of MOOCs globally.

Keywords: Non-formal education, MOOCs, Business Education, Learning platform, Lifelong learning

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1. *Understanding MOOCs*

1.1. Characteristics and diverse models of MOOCs

According to the UNESCO Institute for Information Technologies in Education (Witthaus et.al., 2016), MOOCs are online courses designed for large-scale participation and open access via the internet. They typically include video lectures, readings, quizzes, and discussion forums, creating a comprehensive and interactive learning environment.

MOOCs have developed into two primary forms: cMOOCs and xMOOCs (Oxford reviews, 2024; Smith et al., 2013). cMOOCs, or "connectivist" MOOCs, encourage learners to actively contribute through blog posts, tweets, and other social media interactions. Connectivist MOOCs (cMOOCs) are based on the theory of connectivism (Siemens, 2004), emphasizing "creation," "creativity," "autonomy," and "social networked learning". These cMOOCs follow explicit principles of connectivism, autonomy, diversity, and openness. These contributions are collected and shared by course organizers via email or newsletters, fostering a sense of community and connection among participants. Learners in cMOOCs are encouraged to pursue their own learning goals and engage in networking within the wider online community.

On the other hand, xMOOCs mimic traditional classroom-based courses and use conventional higher education teaching methods. They offer pre-recorded video lectures and scalable assessments. Interaction in xMOOCs usually takes place within structured forums on a single platform, rather than through distributed content creation across the web. This approach emphasizes a more standardized and centralized learning experience, similar to that of a traditional educational environment.

Non-formal learning, as facilitated by MOOCs, takes place outside traditional educational settings, focusing on personal or professional development goals. The popularity of MOOCs stems from their accessibility, flexibility, and affordability, making education more inclusive and empowering learners globally. These courses enable individuals to gain new skills, advance their careers, and engage in lifelong learning.

1.2. The impact of MOOCs on education

Over the past decade, MOOCs have revolutionized the educational sector. They offer global access to high-quality content from top institutions, driven by advancements in online learning platforms, the rising demand for lifelong learning, and the need for continuous skill development in a rapidly changing job market. Up to the research (Dhawal, 2021) In 2021, MOOCs attracted 220 million learners worldwide, not counting China. Providers introduced more than 3100 courses and 500 microcredentials. Additionally, 40 million new learners enrolled in at least one MOOC during the year.

The flexibility and accessibility of MOOCs dismantle traditional barriers such as geography, cost, and time, leading to millions of enrolments each year. As online learning continues to evolve, MOOCs are set to remain a transformative force in education, reshaping how we acquire new skills.

MOOCs are a game-changer, providing open access to education for anyone with an internet connection, regardless of location or background. They democratize education by offering high-quality learning resources on a global scale. MOOCs are scalable, accommodating thousands of learners simultaneously through sophisticated online platforms. They cover a diverse range of subjects, allowing learners to pursue topics of interest or professional relevance. Interactive elements like quizzes, assignments, and discussion forums enhance learner engagement and promote active learning. This makes MOOCs particularly suitable for busy professionals and working adults who need to balance their studies with other commitments. Overall, MOOCs are an effective and accessible means of enhancing skills and knowledge for learners worldwide.

2. The diverse MOOC landscape

2.1. World MOOCs platforms

The MOOC ecosystem is diverse and dynamic, providing numerous opportunities for online learning. Major platforms like Coursera, edX, and Udemy offer a wide variety of courses from leading institutions, catering to learners from various backgrounds and interests. These platforms have significantly expanded global access to education, offering flexible and affordable learning options.

Coursera has 148 million learners and more than 7,000 campuses, businesses, and governments that have come to Coursera to access world-class learning (Coursera, 2024). Collaborating with over 300 prominent universities and companies, it delivers flexible, affordable, job-relevant online learning to individuals and organizations globally. Our offerings encompass a diverse array of learning opportunities, spanning hands-on projects, courses, job-ready certificates, and degree programs.

The MOOC landscape is diverse and expansive (Pickard et al.,2024; Pratt, 2023) with platforms like FUN offering free academic and professional courses in multiple languages, including French and English. FutureLearn collaborates with over 260 institutions worldwide, providing pathways for learners to pursue micro-credentials, degrees, and professional development. Iversity, created by Springer Nature, offers MOOCs across academic and professional disciplines in multiple languages. OpenClassrooms focuses on professional training with over 500 free-access courses, Kadenze specializes in art and creative technology education, while MITx Online delivers courses developed by MIT faculty with interactive elements.

In the last decade, an increasing number of learning platforms have emerged, aiming to provide online courses to a global audience either for free or at affordable rates. Several of these platforms are operated by businesses. For instance, LinkedIn Learning features over 20,000 online courses taught by industry professionals.

2.2 Overview of Ukrainian MOOC platforms

In Ukraine, several MOOC platforms are making significant strides in transforming education and expanding access to learning opportunities. These platforms not only cater to traditional academic subjects but also play a crucial role in enhancing business education and vocational skills.

Prometheus Platform stands out as a pioneer in democratizing education by offering free online courses in collaboration with prestigious educational institutions and international organizations (Sharov et al, 2021). Starting 2014 it hosts over 400 courses across various disciplines, engaged 2 860 000 learners by 2024 (Prometheus, 2024). Its partnerships with international bodies like IREX Ukraine, British Council, and USAID underscore its commitment to global educational standards. Additionally, Prometheus and the U.S. Embassy have teamed up to forge a pioneering educational initiative, offering Ukrainians valuable access to the world's premier courses at no cost and in their native language. Over the next three years, Prometheus will provide 50 online courses from prestigious global universities in Ukrainian, delivering substantial educational value to learners. The program features courses from esteemed institutions including Harvard University, Massachusetts Institute of Technology, University of Michigan, Johns Hopkins University, Duke University, University of Illinois, and University of California.

The platform emphasizes blended learning models, integrating online resources with traditional classroom methods. This approach not only enhances educational outcomes but also supports lifelong learning initiatives essential for modern business environments.

EdEra focuses on innovation within Ukrainian education, developing online courses and interactive textbooks tailored to diverse educational needs. Beyond traditional subjects, EdEra addresses vocational training and corporate education, aligning closely with the evolving demands of the business sector. By collaborating with the Ministry of Education and Science of Ukraine and other local organizations, EdEra ensures the relevance and quality of its educational offerings.

It has enrolled over 2 million learners since its inception, with a course completion rate exceeding 70% (EdEra, 2022). Its interactive approach fosters active engagement among learners, enhancing their readiness for professional challenges in business and industry.

OUM has engaged participants in its civic education programs, fostering a robust understanding of democratic principles and civic responsibilities among Ukrainians (Sharov et.al., 2021). It focuses on civic education through non-formal online channels, promoting active citizenship and civic competencies. While its primary focus is not business education per se, the development of civic competencies is increasingly recognized as essential for effective business leadership and corporate governance.

Addressing the educational challenges in Ukraine requires innovative solutions. One clear answer lies in the development of national learning platforms that not only provide educational resources but also offer active consulting on business support issues. By leveraging these platforms, Ukraine can enhance its educational framework, making learning more accessible and practical for all.

The evolution of MOOC platforms in Ukraine intersects significantly with the realm of business education. These platforms not only facilitate access to foundational business knowledge but also support ongoing professional development and specialization. By forming partnerships with international organizations and incorporating cutting-edge educational technologies, Ukrainian MOOCs boost the global competitiveness of local businesses. Moreover, the emphasis on vocational and corporate education reflects a strategic alignment with industry needs. Businesses benefit from a skilled workforce equipped with up-to-date knowledge and practical skills, thereby driving innovation and economic growth.

3. Comprehensive challenges and issues in MOOCs

MOOCs represent the future of non-formal learning. They make education more accessible, flexible, and cost-effective, allowing learners to study at their own pace and balance their education with other commitments. MOOCs cater to diverse learning needs and styles, offering various course formats and subjects. They are often less expensive than traditional education, with many courses available for free. Additionally, MOOCs provide learners with opportunities to connect globally with peers and instructors, fostering valuable networking opportunities. By removing barriers to education, MOOCs enable learners to acquire new skills, explore interests, and stay current in their fields.

Massive Open Online Courses (MOOCs) have revolutionized access to education, making it possible for millions of learners around the globe to participate in a variety of courses. However, this innovation comes with its own set of challenges and limitations. Below, we provide a comprehensive overview of these challenges, rephrased and expanded upon to highlight the complexities facing MOOCs.

3.1. Low completion rates

The average completion rate for MOOCs is notably low (MOOC statistics, 2022), with only about 5.5% of learners finishing their courses. In emerging economies, the situation is even more dire, with completion rates falling below 1%. This suggests significant barriers to sustained engagement and successful course completion. But it is worth mentioning that some researchers (Hew et.al.,2020; Badali et al., 2022) argued that completion rates should not be singularly used to measure MOOC success, as many users participate without intending to finish the entire course, often concentrating instead on specific segments or topics.

3.2.Access disparity

In 2019, MOOCs enrolled 110 million students globally (Shah D, 2019). However, only 12% of these learners were from low-income countries, underscoring a significant digital divide. This disparity highlights unequal access to online education, often due to lack of internet connectivity and technological resources in these regions.

3.3. Mismatch with Target Audience

There is a notable disconnect between MOOCs and their intended audience. For instance, half of Coursera's users are corporate employees, indicating that these courses might not be reaching the broader public or fulfilling their potential to democratize education (Coursera, 2023). This misalignment suggests that MOOCs may not be effectively targeting their educational goals.

3.4. Engagement issues

Based on research of 276 MOOCs (Jordan, 2015) it was found that the typical MOOC attracts around 43,000 students, but only about 6.5% of these participants are educators. This lack of engagement from educational professionals could be a significant barrier to enhancing the quality and effectiveness of courses, as their involvement is crucial for curriculum improvement and student support.

3.5.Impact of Employment Status

A significant portion of MOOC learners, about 51%, are employed full-time (Moocs statistics, 2019) . This high employment rate among participants may hinder their ability to dedicate sufficient time to complete courses, affecting overall completion rates and the effectiveness of MOOCs as a tool for career advancement.

3.6. Limited Reach Beyond Students

In 2020, 75% of MOOC users were classified as non-traditional students. This demographic composition underscores the significant appeal of MOOCs beyond traditional educational settings, attracting individuals seeking flexible learning opportunities outside of conventional academic pathways. This trend reflects MOOCs' role in democratizing education by catering to diverse learner needs and preferences, thereby expanding access to knowledge and skills worldwide.

3.7. Questionable Credential Value

MOOCs offer certificates of completion, but their value is often questioned. About 80% of MOOC participants already hold a bachelor's degree or higher, which diminishes the perceived benefit of these certificates. This raises concerns about the actual utility and recognition of MOOC credentials in professional and academic settings.

3.8. Motivation and Completion Challenges

While Coursera reports that over 60% of its users enroll in MOOCs to enhance their career prospects, overall completion rates remain low (Baladi, 2022). This indicates a need for better motivational and support mechanisms to help learners stay engaged and complete their courses successfully.

3.9. Need for Quality Assurance

EdX has reported a 59% completion rate for students who sign up for a verified certificate. This figure highlights the necessity of improving course quality and implementing effective engagement strategies to ensure higher completion rates and learner satisfaction.

3.10. Educational Background of Learners

Among the 34% of MOOC learners who are over 30 years old, most already possess a bachelor's degree or higher (Mooc statistic, 2023). This demographic trend suggests that MOOCs may not be effectively reaching less-educated individuals who could benefit the most from accessible online education.

3.11. Geographical and Socioeconomic Barriers

Although 35% of Coursera's users come from developing countries, completion rates in these regions remain low (Witthaus, 2016). This highlights the challenges MOOCs face in engaging learners from diverse backgrounds and overcoming socioeconomic barriers that hinder access and completion.

3.12. User Satisfaction

MOOCs on EdX receive an average user rating of 75 out of 100 (Pickard et al., 2023). While this indicates general satisfaction, there is considerable room for improving course quality and the overall user experience to meet the diverse needs of learners.

3.13. Market Saturation and Competition

By the end of 2021, there were 19,400 MOOCs available worldwide (Shah, 2021) . This high level of market saturation creates a highly competitive environment, potentially diluting the impact of individual courses and platforms. This saturation can also make it challenging for new courses to attract attention and for existing ones to maintain their relevance.

However, these obstacles can be addressed through continuous innovation and improvements in course design, delivery, and engagement strategies. MOOCs play a valuable role in expanding global access to education, and with ongoing enhancements, their impact can be significantly increased.

3. Conclusions

MOOCs have demonstrated their ability to democratize education by breaking down traditional barriers and providing open access to high-quality content from leading institutions. Their scalability and diverse subject offerings make them particularly suitable for a wide range of learners, including busy professionals and working adults.

Despite their numerous benefits, MOOCs face several challenges, including low completion rates, access disparities, engagement issues, and limited impact on certain populations. Addressing these challenges requires continuous innovation and improvements in

course design, delivery, and engagement strategies. Enhancing digital literacy and ensuring access to necessary technologies are critical steps in bridging the digital divide and maximizing the impact of MOOCs.

The exploration of MOOCs (Massive Open Online Courses) within the context of Ukrainian business education reveals their substantial potential to revolutionize non-formal learning. These platforms offer significant advantages such as flexibility, accessibility, and cost-effectiveness, making them a powerful tool for personal and professional development. The integration of MOOCs into the educational framework can significantly enhance Ukraine's educational landscape, particularly through the development of national learning platforms that provide both educational resources and business consulting services.

Conflicts of Interest: The authors declare no conflict of interest.

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