



Sustainable development as a paradigm of global progress in the context of profession-oriented training of future specialists in library, information, and archival sciences

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Education plays a crucial role in ensuring sustainable development, as it provides society with the necessary knowledge, values and practical skills that contribute to socio-economic progress and environmental balance. It not only transmits information but also determines the ability of humanity to adapt to the dynamic conditions of the modern world. Education is becoming a factor of social transformation, as its content, methods and approaches determine the level of citizens' readiness to address global challenges. The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, are a global strategy for overcoming the social, economic and environmental challenges of our time. In Ukraine, an important aspect is the integration of the SDGs into the system of training future specialists in library, information and archival science, which will contribute to the effective management of information resources and the creation of sustainable information systems.

The importance of education in the context of the Sustainable Development Goals (SDGs) is key, as it forms the competencies necessary to build an inclusive society and ensure economic growth that does not contradict environmental and social principles. It is important to recognise that not all education is progressive: an approach focused

solely on economic benefits can contribute to deepening inequalities and perpetuate unsustainable consumption patterns.

The modern paradigm of education involves its transformation in line with new global challenges. According to UNESCO Director-General Irina Bokova, education should not only promote the acquisition of knowledge, but also the formation of behavioural habits and values that will enable people to become direct participants in the process of sustainable development. This means that the modern educational process should emphasise interdisciplinarity, critical thinking, ethics and responsible attitude to the planet's resources [12].

V. Ilchenko [5] considers education as a key tool for achieving the Sustainable Development Goals (SDGs), emphasising the need to transform educational approaches to develop relevant competencies. The author emphasises the importance of integrating the principles of sustainable development into the educational process, which involves not only the transfer of knowledge but also the formation of values and practical skills that will contribute to the sustainable development of society. She emphasises that education should foster a responsible attitude towards the environment and society in young people, preparing them to actively participate in solving global problems. In addition, the scientist



draws attention to the need to use interactive and active learning methods that promote critical thinking, creativity and the ability to cooperate. She emphasises that such approaches are effective in developing the competencies necessary for sustainable development and provide students with a deeper understanding of complex social and environmental issues.

According to D. Tilbury & D. Wortman [11], education for sustainable development is not just a transfer of knowledge, but a complex process of forming the competences necessary to build a sustainable society. It is based on the development of imagination as the ability to design the future, build strategic scenarios for its achievement, critically reflect on reality and reflect on one's own experience. An important aspect is systemic thinking, which allows us to understand the interconnections between economic, environmental and social processes, to consider them not as separate phenomena, but as components of a single dynamic system.

An integral factor of education for sustainable development is the formation of partnerships, as effective interaction between different social groups, the ability to make collective decisions and participate in social processes determine the level of citizens' involvement in solving global problems. Responsibility for one's environment, active citizenship and awareness of cultural and natural diversity are key parameters of such education, which contributes to the formation of environmental and social awareness.

According to R. Anderson [8], education for sustainable development is characterised by its integrative nature: it covers economic, social and environmental aspects, synthesising knowledge and practices to understand global processes in their interconnectedness. The ability to analyse regional and global contexts, to take into account local peculiarities when developing educational strategies, and to apply interdisciplinary approaches make education for

sustainable development a powerful tool for transforming modern society.

Education is a key factor in achieving sustainable development, which is emphasised in UNESCO's work on setting learning goals in the context of the SDGs. It is not just a tool for transferring knowledge, but also a mechanism for transforming society, contributing to the formation of new approaches to solving global problems. Attention is paid to the need to change perceptions of the role of education, its adaptation to modern challenges, and the expansion of educational programmes that include issues of sustainable development, human rights, gender equality, and civic awareness. The UNESCO document outlines the main ways to improve the educational process, emphasising its interdisciplinarity and transdisciplinarity, which helps to avoid fragmentation of knowledge and ensure a comprehensive approach to learning. It is important not only to transfer knowledge but also to develop critical thinking, reflection, civic engagement and participation in decision-making. Education for sustainable development involves problem-based learning, integration of economic, environmental and social aspects, which allows students to develop responsible behavioural patterns [9].

The support of the UN international organisation contributes to the expansion of educational initiatives in Ukraine. An important role in this is played by e-courses aimed at different target audiences, as well as educational projects implemented in cooperation with NGOs. Such initiatives cover a variety of areas, from financial literacy to environmental awareness, forming a comprehensive vision of sustainable development and preparing future generations to actively participate in its implementation.

The Ukrainian scientific discourse on education for sustainable development has expanded significantly in recent years, which indicates a growing interest in this issue and the actualisation of its research in the educational environment. The work

by O. Vysotska [2] highlights the key characteristics of ESD, among which a special place is occupied by futurism as a strategic orientation towards the formation of a society of sustainable development. S. Sysoieva [6] considers the educational process, which becomes interactive, which implies trust in students, recognition of their active role in the learning environment, engagement in constructive dialogue and cooperation, which contributes to the formation of communication skills and social responsibility.

The modern concept of ESD is characterised by interdisciplinarity, which ensures interconnection between different fields of knowledge and promotes a comprehensive perception of global challenges. The practical orientation of education plays an important role in preparing citizens for conscious participation in solving social, environmental and economic problems. In this context, I. Soloshych [7] identifies a number of principles, such as social and natural justice, technological efficiency, modularity, and historicity, which reflect the multifaceted nature of the educational process.

This research is evidence of the need to integrate the principles of sustainable development into educational programmes and to further improve them in line with current global challenges.

The concept of “education for sustainable development” combines two fundamental aspects: education as a socio-cultural phenomenon and sustainable development as the ultimate goal of the educational process. Education, as a key element of this concept, is defined not only as a system of transferring knowledge, skills and abilities, but also as a complex process of forming worldview orientations, social responsibility and civic engagement. Education is the tool that prepares individuals for conscious participation in social processes, promoting the integration of sustainable development values into real life practice.

At the same time, sustainable development as a component of the concept of ESD

determines the strategic orientation of education, its adaptation to the needs of modern society, which faces global environmental, social and economic challenges. Sustainable development sets not only the content but also the value paradigm for the educational process, which orientates a person towards environmentally responsible, socially oriented and ethically sound activities.

The concept of “sustainable development” is multifaceted and has been studied in detail in scientific research, which allows it to be considered from different perspectives. The terms “harmonious development”, “balanced development”, “sustainable development” and “resilient development” are sometimes used synonymously, but they have different emphases in the context of environmental and social theory. However, despite the existence of several variants of terminology, the concept of ‘sustainable development’ is recognised as the most established and officially enshrined in national legal and scientific documents, including in Ukraine.

According to researcher V. Bogolyubov [1], the term ‘sustainable development’ should be viewed through the prism of a strategic approach aimed at the transition of society to a new stage of development based on the harmonisation of human interaction with the environment.

The definition of sustainable development, therefore, encompasses not only the conservation of resources, but also the provision of long-term synergies between social, economic and environmental aspects, creating conditions for their sustainable functioning.

In this context, it is important that sustainable development involves a transition from traditional models of natural resource use to more rational and balanced practices that can ensure stability not only in the short term, but also in the long term. This requires a comprehensive approach that covers all spheres of society, from the economy to the environment, including the need to develop institutions that will promote sustainable development.

The concept of “education for sustainable development” arises from the combination of the term “education” with the target “for sustainable development”. The analysis of international and national sources shows that there is no single definition of this term, which indicates its versatility and complexity. Education for sustainable development integrates the issues of sustainable development into culture and society, which requires clarification of the content and scope of this concept.

This concept is a special type of education aimed at developing the necessary competences to solve global problems. Defining the content and properties of this term is important for understanding its specificity and effectiveness in the context of sustainable development.

Research in the field of sustainable development, in particular through reports and documents adopted at the international level, plays an important role in the development of the modern educational system. In particular, the UN Sustainable Development Goals 2030, which define 17 global goals, including Goal 4, aimed at ensuring quality education, are becoming the basis for transforming educational approaches. <https://sdgs.un.org/goals> Other important documents are UNESCO’s recommendations, in particular, on educational goals and multimedia programmes that promote the integration of sustainable development into educational processes. They define not only the main strategies for preparing future generations for social, economic and environmental challenges, but also emphasise the need to develop pedagogical systems that educate citizens with a creative approach to solving sustainable development problems and their impact on global processes [10].

Professional education of future specialists in library, information and archival science should be focused on the implementation of the Sustainable Development Goals (SDGs), as these goals define the main directions of transformation of society and

education in the context of modern global challenges. Given the specifics of this profession, special attention should be paid to such aspects of sustainable development as quality education (Goal 4), innovation and infrastructure (Goal 9), responsible consumption and production (Goal 12), and peace and justice (Goal 16).

Goal 4: Quality Education, is key in the context of professional training of library, information and archival professionals, as it provides access to modern knowledge and technologies necessary for the effective performance of their professional duties. Since libraries, archives and information institutions are becoming important centres for preserving knowledge, promoting critical thinking and democratic processes in society, professionals in these fields must have a high level of qualification and the ability to adapt to rapid changes in technology and social requirements. Information professionals contribute to the development of educational resources, knowledge management and digital literacy. Librarians and archivists are key agents in the dissemination of Open Educational Resources (OER) and the preservation of scientific content.

Goal 5: Gender Equality, is an important aspect not only of social and political processes, but also of the professional activities of future library, information and archival professionals. Ensuring equal opportunities for representatives of all genders is the basis of justice in society and in professions that provide access to information and knowledge. In vocational education, it is important to take into account gender aspects at all stages of training, which contributes not only to their development, but also to the development of society as a whole.

Gender equality in professional activities involves ensuring equal opportunities for all individuals, regardless of gender. This includes access to education, career development and participation in the management of library, archival and information institutions. Professional education of future professionals should take into account gender stereotypes and prevent

their negative impact on career development. Stereotypes that some professions are better suited for women and others for men may limit access to professional opportunities.

For librarians, archivists and information workers, this means the need to create favourable conditions for women's participation in the professional environment, including in managerial and leadership positions. An important component of gender equality is the creation of supportive policies that would ensure equal opportunities for career development without gender discrimination.

In the context of working with information, library and archive institutions can play an important role in promoting gender equality through access to information related to women's rights, gender equality and combating violence. Professionals in these fields should develop programmes and services that will help inform the public about gender issues, and use information resources to promote equal rights and opportunities.

Goal 9: Industry, Innovation and Infrastructure, is also directly related to the development of the profession. Future specialists should be familiar with the latest information technologies and data management tools that allow not only storing information but also using it effectively for the development of scientific, cultural and educational processes. This requires the development of a modern infrastructure of educational institutions, including libraries and archives, to implement these technologies.

Goal 11: Sustainable cities and communities. Libraries, as centres of public life, perform the functions of information support for the population, creating opportunities for self-education, digital inclusion and preservation of cultural heritage.

Goal 12: Responsible Consumption and Production, calls for the rational use of resources, which is important for library, information and archival professionals who work with large amounts of information, documents and materials, ensuring their

protection, preservation and accessibility. Given the need for sustainable development in this area, future professionals should gain knowledge of the environmental and economic aspects of information processing and preservation.

Goal: 16, Peace, Justice and Strong Institutions, addresses the development of democratic processes and access to information, which is important for professionals in this field. Library, information and archival institutions should be not only carriers of knowledge, but also active participants in providing access to information for all segments of the population, ensuring transparency and promoting civic responsibility.

It should be noted that the professional education of future library, information and archival professionals should be integrated into the context of the Sustainable Development Goals. This requires the creation of curricula that focus on the development of critical thinking, digital literacy, social responsibility and innovative approaches to working with information, as well as the preservation of cultural heritage and the promotion of democratic processes in society.

For the effective implementation of the Sustainable Development Goals (SDGs) in the training of library, information and archival professionals in Ukraine, it is necessary to take into account a comprehensive approach that includes the adaptation of educational standards, the use of innovative teaching methods, cooperation with international organisations, promotion of the principles of open access to information, strengthening academic integrity, development of information and media literacy, creation of digital archives and platforms, as well as raising environmental awareness in the field of information and archives. Each of these aspects is essential for training modern professionals who are able to work effectively in the face of rapid changes and challenges related to sustainable development.

One of the main areas of SDG implementation is the adaptation of educational

standards to the requirements of sustainable development. The education system should provide training for professionals who not only possess up-to-date knowledge in their field, but also have the skills that allow them to actively participate in solving global sustainable development problems. Educational programmes should include disciplines that promote the development of knowledge management, digital literacy and information security skills. Given the growing role of information technology in the library and archival sector, it is important to teach future professionals to work with large amounts of data, apply modern methods of information processing and analysis, and ensure the security of information resources, which is the basis for the development of a sustainable information environment.

Innovative teaching methods play an important role in the training of library, information and archival specialists. The use of a problem-based approach, digital technologies, interactive platforms and blended learning methods contributes to the development of 21st century competencies. These methods help to create an educational environment that actively integrates theoretical knowledge and practical skills, enabling students to solve real-world problems and adapt to a rapidly changing information environment. Blended learning, in particular, makes it possible to combine traditional forms of education with online resources, which creates opportunities for a more flexible and inclusive learning process.

Cooperation with international organisations is an important aspect for the development of professional education in the field of library, information and archival science. Participation in international projects, such as Erasmus+, enables students and teachers to exchange experiences, improve educational standards, and implement the best international practices in the Ukrainian educational system. In particular, international projects contribute to the development of competencies in informa-

tion management, which allows us to train specialists capable of working in the context of globalisation and technological change, as well as to develop sustainable development strategies in the information sector.

Promoting the principles of open access to information is also an important element in the implementation of the SDGs. One of the key Sustainable Development Goals is to ensure access to quality information for all. Implementation of the Open Access policy in libraries, archives and other information institutions promotes the dissemination of scientific content without restrictions, which ensures equal access to knowledge and supports scientific research. Open access to information allows creating conditions for the development of science and education, provides citizens and scientists with the necessary resources for the development of intellectual activity. This process also involves active participation in scientific communications and cooperation with other countries.

Strengthening academic integrity is an important aspect that contributes not only to improving the quality of education, but also to ensuring ethical research. It is important to create teaching and learning environments that support high standards of integrity, in particular through the introduction of mechanisms for checking scientific texts for plagiarism. Teaching students to use information resources correctly, respect copyright, and develop ethical standards in research should be an important part of the professional training of future professionals. This will help to prevent unfair practices and maintain honesty and openness in scientific communications.

The development of information and media literacy is a key element of modern education, especially for professionals working in the information sector. Modern students should be able to work effectively with information flows, critically evaluate information resources, understand their origin, and counteract disinformation.

This implies teaching students the basics of media literacy, which allows them to form their own point of view based on objective information, as well as develop skills in perceiving and analysing data in an information overload. The development of these skills is important not only for future librarians and archivists, but also for all citizens, as the ability to critically comprehend information is the basis for democratic participation in public life.

The creation of digital archives and information platforms that meet the requirements of sustainable development is another important area for ensuring access to cultural and scientific heritage. This not only preserves information for future generations, but also makes it accessible to a wide audience. Digital archives should be created in accordance with the principles of sustainable development, which include not only preservation but also effective access to cultural heritage. The creation of such archives is aimed not only at preserving information, but also at integrating it into the modern information space, providing open access to resources, and supporting long-term data preservation.

Raising the level of environmental awareness in the field of information management is also necessary to ensure sustainable development. This includes optimising paper consumption, digitising archives, introducing electronic document management and other measures that reduce the environmental impact of information activities. Given the growing amount of information generated by organisations, it is important to develop strategies for preserving information resources in digital form, which is a more environmentally friendly method of data storage compared to traditional paper archives.

Thus, the integration of the UN Sustainable Development Goals into the training of library, information and archival professionals is an important factor in the formation of competitive specialists capable of working effectively in a digital

society. The use of innovative approaches to teaching, the introduction of digital technologies and active international cooperation will help to harmonise the educational process with global standards of sustainable development. Further improvement of educational programmes, development of scientific research in the field of information management and strengthening of cooperation between educational institutions, government agencies and international partners will contribute to the implementation of the SDGs in Ukraine and increase the efficiency of information resources management in the 21st century.

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