

# Cultural Innovations in Lifelong Education: Sustainable Potentials and Challenges of Connecting Education and Culture in Local Development

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## ABSTRACT

This paper analyzes the interrelationship between culture, lifelong education, and sustainable local development through the lens of cultural innovation. It proceeds from the premise that sustainability transcends exclusively environmental dimensions to include social and economic aspects, wherein education and culture play a key transformative role. Cultural innovations are viewed as dynamic processes that, through new approaches to cultural production, distribution, and participation, contribute to the creation of more inclusive, resilient, and creative communities. The paper encompasses a theoretical framework of sustainable development (with a focus on the Sustainable Development Goals SDG 4 and SDG 11), an overview of contemporary approaches to cultural innovation, and examples of good practice illustrating the possibilities of their application in educational contexts. In conclusion, the need for integrated policies that connect education and culture and recognize cultural innovation as an important instrument for achieving long-term sustainability at the local level is emphasized.

**Keywords:** Cultural Innovations, Lifelong Learning, Sustainable Development, Culture, Agenda 2030

## INTRODUCTION

Contemporary society no longer conceptualizes sustainability as encompassing solely environmental dimensions; rather, the term now also includes social and economic aspects of development. The concept of sustainable development is increasingly present across various sectors of public policy, gaining particular importance in the realms of education and culture. Sustainability in education and culture is a crucial aspect of shaping competent, responsible, and inclusive communities capable of managing change in the long term. Cultural innovations, which often arise from the interaction between education and cultural activity, represent a significant potential for strengthening sustainability in local development. Integrating cultural innovations into lifelong education enables the development of inclusive, participatory, and ecologically conscious learning models that contribute to the overall development of society (UNESCO, 2017; Grierson, 2011). In the process of promoting sustainable development, education facilitates the acquisition of knowledge, skills, and attitudes essential for understanding and addressing complex social, economic, and environmental issues. It is precisely through education that fundamental values and concepts of sustainability are transmitted to new generations. In this way, the continuity of social development and stability is ensured, while critical thinking, innovation, and responsible behavior are encouraged. Furthermore, lifelong learning facilitates adaptation to change and the maintenance of competitiveness in the labor market (Bajkuša, 2012).

Education also strengthens social cohesion, reduces inequalities, and stimulates economic growth, with investment in education being recognized as a key factor for long-term social stability. According to the Strategy of Education, Science, and Technology of the Republic of Croatia, education and science are the foundation of societal development and a prerequisite for a sustainable future, encompassing both economic progress and the preservation of cultural identity (Strategy of Education, Science and Technology of the Republic of Croatia, Official Gazette 124/2014-2364). The concept of lifelong education is no longer viewed merely as a professional tool for individuals, but also as a strategic resource for local community development, engagement in cultural life, and social cohesion. Cultural innovations, which involve new approaches to the preservation, distribution,

and use of cultural content, are increasingly of an educational character. Moreover, they contribute to the creation of sustainable cultural-educational models.

The importance of this topic lies in the fact that cultural innovations in lifelong education, as a concept, lie at the intersection of two key areas of public policy: culture and education. Their integration, despite often operating in parallel, would have multiple effects on sustainable development.

The research question is posed: in what ways can cultural innovations contribute to the sustainability of local communities through lifelong education? The aim of this paper is to examine the possibilities and challenges of connecting education and culture for the purpose of developing sustainable models of lifelong learning, with a special emphasis on the local context. The paper seeks to identify concrete examples of good practice to illustrate the functional integration of cultural and educational policies and their effects on economic, social, and environmental sustainability.

## **The Concept Of Sustainable Development**

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development encompasses three interconnected pillars:

- economic,
- social, and
- environmental (UN, 2015).

Sustainable development is a process of transformation in which the use of natural resources, investment strategies, technological progress, and institutional frameworks are aligned with the needs of present and future generations (Van Kleef & Roome, 2007). It is not a static or unambiguously defined concept, but rather an open and dynamic process shaped through continuous learning, adaptation, and change. Sustainability should be viewed as a framework that is constantly being refined in accordance with contextual challenges and new knowledge. Although the context of sustainable development often emphasizes technological innovations, human behavior and organizational culture play an equally important role in achieving sustainability. Precisely, human patterns of action often represent the greatest obstacle to sustainable development (Žnidaršič & Jereb, 2011).

Innovation is most commonly defined as a process of discovery and development that leads to the emergence of new products, production processes, organizational models, technologies, institutional solutions, and systemic arrangements (Van Kleef & Roome, 2007). However, beyond the functional-technical dimension, innovation also involves a range of subjective and cultural aspects. Kuczmarski (2003, cited in Žnidaršič & Jereb, 2011) describes it as a way of thinking, an attitude, an emotional state, and a value system; accordingly, innovation is not viewed solely through the prism of technological progress, but also as a cultural and social phenomenon. The perception of innovation is sometimes subjective, and due to the existence of various types of innovation (technological, process, product, organizational, operational, social, etc.), one can speak of the complexity and multidimensionality of the innovation process. Cultural innovations are new practices, models, and tools that redefine the relationship between culture and society. In this context, culture is an active agent of social change, rather than merely a passive reflection of identity. In the context of lifelong education, cultural innovations can include new ways of citizen participation in cultural processes, such as participatory arts, digital cultural platforms, inclusive museum practices, and the design of cultural content as a resource for learning and personal development. Innovations often arise from the interaction of different actors, technologies, people, and organizations, and the learning derived from such interactions further stimulates innovative activities.

Cultural innovations do not merely represent additions to community development; they can also be drivers of sustainable changes, such as promoting inclusion and cultural diversity, to shaping new forms of education and work that contribute to social cohesion and local development.

Innovativeness is based on the transformation of knowledge into economic and social value and implies the application of ideas, knowledge, and technology in a way that leads to significant improvements in the performance and efficiency of systems. A key characteristic of innovation is its ability to create added value through new approaches, and its realization requires different competencies, from changing attitudes and developed critical awareness to a willingness to learn (Sahlberg, 2009, cited in Žnidaršič & Jereb, 2011). Investment in innovation influences outcomes, but only, as Liao and Price (2010) note, if simultaneously supported by a culture that fosters change and innovative practices. Innovations alone are insufficient without systematic institutional support and a conducive context for their implementation (Žnidaršič & Jereb, 2011).

Contemporary conditions of work and life, as well as the transformation towards a knowledge society, impose lifelong learning as a fundamental prerequisite for personal and professional development (Demirel, 2009). Lifelong learning and professional development can take various forms, including formal education such as professional courses (internal and external), graduate and postgraduate studies, professional lectures and workshops, conference participation, etc. (Wall & Ahmed, 2008, cited in Žnidaršič & Jereb, 2011). Continuous learning strengthens capacities for adaptation and innovation, and investment in knowledge becomes a primary factor in value creation and long-term success (Wu et al., 2007). Creativity and a readiness for innovative work can be systematically developed through lifelong learning, particularly when individuals are motivated for changes in their daily routine, exposed to diverse educational environments, and encouraged to discover and develop their natural talents. Therefore, lifelong education does not solely serve to adapt to change but is itself a generator of change (Žnidaršič & Jereb, 2011).

The United Nations Programme for Sustainable Development until 2030, known as Agenda 2030, was adopted at the UN Summit on Sustainable Development held in New York in September 2015. The final document of that summit, UN General Assembly Resolution 70/1 titled "Transforming our world: the 2030 Agenda for Sustainable Development," was formally adopted on October 21, 2015 (Ministry of Foreign and European Affairs of the Republic of Croatia, n.d.). Furthermore, Agenda 2030 also includes other important international agreements, such as the UN Sendai Framework for Disaster Risk Reduction (2015-2030), the Addis Ababa Action Agenda from the Third UN Conference on Financing Development in July 2015, and the Paris Climate Agreement of April 2016.

By adopting Agenda 2030, all 193 UN member states committed to promoting sustainable and inclusive economic growth, strengthening social inclusion, and protecting the environment. Agenda 2030 is universal and transformative, based on human rights, and represents an ambitious plan of action not only for states but also for other stakeholders. The 2030 Sustainable Development Programme rests on several basic principles (UN, 2017), and at its core are five key dimensions: People, Prosperity, Planet, Partnership, and Peace.

The UN Agenda 2030 and its Sustainable Development Goals (SDGs) concretize this concept through 17 goals, but for the topic of this paper, the most relevant are:

- Goal 4: Quality Education - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Goal 11: Sustainable Cities and Communities - Make cities and human settlements inclusive, safe, resilient, and sustainable, wherein culture plays an important role in the identity and development of the community (UNDP, 2023).

### **The Role of Culture and Education**

Lifelong learning encompasses various forms of educational experiences throughout the entire lifespan, from early childhood to old age (Elfert, 2019), including formal and non-formal adult education. Promoting lifelong learning for all requires that education be extended beyond the traditional frameworks of primary, secondary, and higher education (Webb et al., 2019). Vieira (2019, cited in Iskakova, 2024) emphasizes that the concept of lifelong learning holds significant potential for transforming educational and developmental paradigms. Analyzing the fundamental ideas of lifelong learning and their connection to the sustainable development goals reveals the profound impact education and learning have on development, with lifelong learning playing a key

role in fostering progress. Agenda 2030 has further directed attention to lifelong learning, calling upon states, policymakers, and scholars to reconsider ways of its effective implementation and integration into educational systems (Vieira, 2019, cited in Iskakova, 2024).

Education plays a particularly important role in empowering individuals and creating a society based on knowledge, equality, and responsibility. Adult education significantly contributes to the personal development of individuals. When implemented in the public and private sectors, it creates new employment opportunities, improves job quality, increases competitiveness, and stimulates social inclusion. Culture, on the other hand, shapes the values, attitudes, and identity of a community and fosters creativity and social connectedness. Their connection within the framework of lifelong education opens space for cultural innovations that can serve as an instrument for sustainable local development. Through education, critical awareness and the competencies necessary for functioning in a sustainable society are developed, while cultural content enables the transmission of values, knowledge, and skills important for interculturalism and democratic participation. Culture is not a given category, but rather the result of human creation, shaped in specific geographical, temporal, and socio-political contexts, which makes it subject to questions of power and control. Culture is characterized by a set of features, such as dynamism, multidimensionality, embeddedness in context, and its formation by social, economic, and political influences. Furthermore, culture is socially constructed, acquired through learning, and develops through a dialectical process (Nieto, 2008).

Culture refers to the constantly changing values, traditions, social and political relationships, and worldviews that a particular group of people creates, shares, and transforms. This group is connected by a combination of factors such as shared history, geographical location, language, social class, and religion. Every person possesses a culture because all people participate in social and political relationships shaped by history, as well as by race, ethnicity, language, social class, gender, sexual orientation, and other factors related to identity and personal experience. Culture is dynamic, active, constantly changing, and evolving (Nieto, 2008).

Cultural innovations contribute to the creation of a more inclusive and just society. Digital tools and innovative educational models enable broader access to cultural and educational content, regardless of geographical, economic, or social barriers. E-learning and digital platforms facilitate personalized education tailored to the needs of different groups, thereby reducing social inequalities and promoting equality in education. Cultural innovations also strengthen social cohesion and identity, fostering mutual understanding and respect for diversity (European Commission, 2025).

One shortcoming of the lifelong learning concept within sustainable development is the insufficient representation of public and non-formal education, even though they are crucial for building a comprehensive lifelong learning system. Education for sustainable development can be implemented through various alternative and educational approaches for adults, such as indigenous learning, ecopedagogy, ecocentric education, and education for a sustainable and circular economy (Iskakova, 2024). The importance of lifelong learning is further increasing with the digitalization of various economic sectors, enabling continuous and remote learning in the workplace.

In the context of education for sustainable development, it is necessary to ensure fair and quality access to primary and secondary education for all children, as well as equal, non-discriminatory access to quality technical, vocational, and higher education, including university education, for women and men. Furthermore, there is a need to increase the number of people who possess the skills necessary for employment and decent work. Education for sustainable development can also be viewed as a means of disseminating global knowledge. In this process, the individual is equipped to acquire the competencies, skills, values, and creativity needed for a sustainable future, and to integrate innovative ideas related to sustainability, such as poverty reduction, climate change, disaster management, sustainable consumption, disease control and prevention, and biodiversity conservation, into curricula and programs (Iskakova, 2024).

## **Sustainable Cities and Communities**

Sustainable Cities and Communities constitute the 11th goal of the 2030 Agenda for Sustainable Development, with the mission to make cities and human settlements inclusive, safe, resilient, and sustainable. More than half



of the world's population currently lives in urban areas, and this share is expected to grow to nearly 70% by 2050. Cities are centers of innovation, culture, science, and economic development, yet they face challenges such as poverty, inadequate housing, traffic congestion, pollution, climate change, and social inequalities (UN General Assembly, 2017).

Through SDG 11, Agenda 2030 sets concrete targets for 2030:

- Access for all to adequate, safe, and affordable housing and basic services.
- Development of accessible, safe, sustainable, and affordable transport systems, particularly by strengthening public transport with an emphasis on the needs of vulnerable groups (women, children, persons with disabilities, and older persons).
- Enhance inclusive and sustainable urbanization and strengthen participatory, integrated, and sustainable human settlement planning and management.
- Protect the world's cultural and natural heritage.
- Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- Provide universal access to safe, inclusive, and accessible, green and public spaces, particularly for women and children, older persons, and persons with disabilities.
- Strengthen links between urban, peri-urban, and rural areas by balancing development and resource exchange.
- Increase resilience to disasters and mitigate the impacts of climate change through sustainable infrastructure and planning (Pavić-Rogošić, 2015).

Sustainable cities require an integrated and multidimensional approach encompassing a range of interconnected measures aimed at improving quality of life, protecting the environment, and strengthening social cohesion. Key elements of such an approach include investment in sustainable mobility, especially through the development of public transport and the construction of bicycle and pedestrian paths, thereby reducing traffic congestion and air pollution levels. Furthermore, increasing green spaces and ensuring the accessibility of parks contribute to environmental preservation and the enhancement of citizen health. Energy efficiency and the application of renewable energy sources in urban environments further support climate neutrality goals and reduce resource consumption. Establishing participatory governance, which involves the active participation of citizens and experts in decision-making processes with an emphasis on the needs of vulnerable social groups, ensures greater fairness and transparency in the development of urban policies. Additionally, sustainable waste management and the promotion of a circular economy represent fundamental steps in creating more efficient and environmentally acceptable cities. Furthermore, the protection and promotion of cultural and natural heritage strengthen community identity and contribute to the long-term sustainability of urban environments (Gaia Education, 2025).

Examples of sustainable cities demonstrate how specific policies and strategies can contribute to the long-term sustainability of urban environments. For instance, London has one of the highest levels of urban greenery in the world. As much as 40% of its area consists of parks, gardens, and other green spaces, significantly contributing to air quality, biodiversity, and the well-being of its inhabitants. San Francisco is a global leader in sustainable waste management and renewable energy. The city was among the first to introduce systematic recycling, actively uses solar energy, and possesses a developed infrastructure for public transport and cyclists, thereby reducing greenhouse gas emissions. Copenhagen stands out as an ambitious example of climate-neutral city planning, aiming to become the first carbon-neutral capital. The city strongly encourages the use of bicycles as a primary means of transport, invests in electric public transport, and systematically reduces emissions through innovative urban policies. Oslo, the European Green Capital in 2019, represents a so-called "world center for electric vehicles," where 30% of newly registered cars are electric. Another example of a sustainable city is Reykjavik. With a strong focus on bicycle and electric mobility and green spaces, Reykjavik sets the standard

for Nordic cities in achieving sustainability, and the city's energy needs are covered almost entirely by geothermal and hydroelectric power. Sustainable cities combine advanced mobility models (bicycles, electric public transport), renewable energy, waste management, and green infrastructure interventions. In doing so, they not only reduce their ecological footprint but also improve the quality of life, promote social inclusion, and encourage innovative approaches in urban planning (Tea Tree Valley, 2025).

### **Analysis Of Cultural Innovations**

Innovations should be viewed primarily as a cultural process, state Gehman and Höllerer (2018).

In newer approaches to sustainable development, culture is increasingly emphasized as the fourth pillar of sustainability, alongside the economy, society, and the environment. Culture connects the community, shapes values, behaviors, and identity, and provides people with tools for active participation in society (Ivanišević Lieb, 2024). UNESCO emphasizes that culture can be a powerful driver of development, with an impact on social cohesion, the economy, and environmental protection. Cultural policies and practices contribute to the preservation of diversity, the promotion of innovation, and the strengthening of mutual trust, solidarity, and democracy. Cultural innovations are changes that occur in cultural practices, institutions, or value systems and bring a new quality to the way individuals and communities experience, create, and share culture. Cultural invention today refers to any new innovation considered useful for a group of people and expressed in their behavior, which does not exist as a physical object.

Educational equity implies the removal of all forms of discrimination and ensuring fair conditions for participation and success in education, including special support measures for vulnerable and underrepresented groups, such as children with developmental difficulties, members of national minorities, persons from rural areas or of lower socioeconomic status. Equal access to education is necessary for reducing social, economic, and cultural inequalities and for building a more just and inclusive society. In practice, educational equity involves ensuring free and compulsory primary education, accessible secondary and higher education based on merit, financial support for vulnerable groups, adaptation of curricula and infrastructure, counseling and mentoring, and the active suppression of all forms of discrimination and segregation in the educational system. Educational equity is important not only from the aspect of social justice but also as a driver of economic development and social cohesion, as it enables every individual to develop their potential and actively contribute to the community (Farnell, 2022). A sustainable society is another aspect of sustainability to which cultural innovations can make a positive contribution. A sustainable society seeks to ensure a long-term balance between economic development, social justice, and environmental preservation, meeting the needs of present generations without compromising the ability of future generations to meet their own needs. The foundation of a sustainable society is sustainable development, which implies a balanced harmonization of ecological, economic, and social demands. Such a society promotes the health and vitality of people and nature, encourages social inclusion and equality, uses resources efficiently, and actively works to preserve and restore natural capital. Education, collective consciousness, and the inclusion of all societal stakeholders (from citizens and businesses to institutions and non-governmental organizations) in the creation and implementation of sustainable practices play a particularly important role (College of Security Studies, 2025).

It is also necessary to mention digital tools here, whose application can optimize resource use, reduce energy and material consumption, and improve overall resource management, directly contributing to ecological sustainability. For example, data analytics and artificial intelligence will enable the identification of inefficiencies and enhance data-driven decision-making. Digital tools also contribute to sustainability through better integration of renewable energy sources, monitoring and control of consumption, and the development of smart grids that enable more efficient distribution of electricity from renewable sources. In business, digitalization enables a reduction in paper use (e.g., digital invoices and documents), reduces the need for physical travel (remote collaboration), and facilitates more transparent and responsible supply chain management, further reducing the negative impact on the environment. Digital tools also encourage global collaboration and knowledge exchange, facilitate market access, and promote sustainable practices among businesses and citizens. Mobile applications and online platforms are used to raise awareness and promote behavioral changes towards more sustainable lifestyles and work, while digital innovations enable the monitoring and reporting of environmental impact, which is crucial for achieving sustainable development goals

(Lider, 2023). However, the digital transformation must itself be sustainable, which necessitates the responsible management of electronic waste and consideration of the overall environmental impact of digital technologies.

### **Cultural Innovations and a Sustainable Economy**

Cultural innovations, such as the introduction of digital tools into cultural content, open new employment opportunities in the creative industries and stimulate local entrepreneurship. The development of cultural and creative industries promotes economic diversification, particularly in smaller communities facing economic challenges. Innovative cultural-educational projects create space for new occupations and the strengthening of creative industries. The use of digital tools in education and culture enables cost reduction and makes content accessible to a wider population (Comunian & Gilmore, 2015). Entrepreneurship research that considers the cultural context (cultural entrepreneurship) shows how contemporary approaches to culture can shift the focus from a traditional economic perspective based on rationality and self-interest towards interpreting entrepreneurship as a process of creating meaning and interpretation (Gehman & Soublière, 2017). Modern cultural approaches explore how entrepreneurs and organizations actively use cultural resources to shape strategies and actions, opening space for a deeper understanding of innovation and entrepreneurship because culture is not viewed solely as an obstacle, but also as a source of impetus for new technological combinations and the development of entrepreneurial initiatives.

Innovation as a cultural process transcends the boundaries of the firm and encompasses broader societal transformations. According to them, a cultural approach to innovation and entrepreneurship should include action and changes at different levels, from individual actors and sectoral fields to entire societies and global systems (Gehman & Höllerer, 2018).

Cultural background and the values that shape it are in complex interaction with the economic system. The economic system can be viewed as a network of institutions and human motives that influence fundamental variables such as the rate of economic growth and the distribution of income and wealth. Consequently, economic outcomes are also determined. Therefore, culture can be understood as a strategic tool that shapes economic outcomes, directly or indirectly. The cultural characteristics of societies play an important role in the successful implementation of economic policies because a certain policy may prove effective only if it is accepted by society (Kafka 2020, cited in Kostis, 2021). Furthermore, culture can contribute to the development of entrepreneurial values, innovations, as well as sustainable development and business success. Culture is recognized as an important factor in the process of technological development and one of the reasons for technological differences among countries. The set of values that characterize a particular society can act as a driver or an obstacle to innovation. These value patterns most often relate to the level of individualism or collectivism, the degree of risk tolerance, future orientation and planning, and the acceptance of hierarchical relationships and inequality in society. The most important mechanism through which culture influences innovation outcomes is reflected in its ability to create a social environment that encourages or hinders the free exchange of ideas among individuals, which is a fundamental prerequisite for the development of innovation. Innovation processes involve learning and the creation of new ideas, and innovations are stimulated in cultural environments that support social progress, reward productivity, are long-term oriented, and open to change. Conversely, innovations are constrained in cultures that avoid risk and are reluctant to invest in new technologies, which consequently leads to reduced innovation capacity. Cultural differences also shape attitudes, and freedom of expression and privacy positively correlate with innovations because they allow individuals to express ideas freely. Societies that nurture individualism and have low power distance are more inclined to create innovations. Cultural diversity can also act as a stimulus for innovation because, while equality and egalitarianism foster the development of personal abilities and interests, values such as hierarchy and strong group integration can diminish individual creativity and motivation. Culture has strategic significance for innovation and competitiveness, as it significantly influences economic growth and development. Therefore, even when unfavorable macroeconomic conditions exist, societies with cultural values that encourage innovation have greater prospects for success (Kostis, 2021).

### **Cultural Innovations and Environmental Sustainability**

The application of digital technologies in culture significantly contributes to environmental protection. Virtual exhibitions, the digitization of collections, and e-learning reduce the need for travel, printed materials, and

physical infrastructure, thereby reducing the carbon footprint and resource consumption. Digital solutions enable wider accessibility of cultural content with minimal environmental impact, while simultaneously encouraging sustainable behavior and awareness of the importance of environmental protection.

In this context, sustainability is also manifested through the promotion of ecological values via cultural-educational content that raises awareness of the importance of nature protection and responsible behavior. The digitization of cultural content (e-exhibitions, e-learning, virtual libraries) reduces the need for physical resources and mobility, thereby diminishing the carbon footprint of cultural and educational activities (Brophy & Marks, 2011). E-learning further enables flexible and accessible education, reducing the costs and resources associated with traditional forms of teaching.

Cultural innovations contribute to the creation of smart, sustainable, and inclusive cities and regions, which become centers of creativity, knowledge, economic activity, and social integration (European Commission, 2014). Examples and measures of cultural innovations for environmental sustainability encompass a range of approaches that contribute to reducing negative environmental impact and strengthening community resilience. The regeneration and repurposing of cultural heritage through innovative restoration and reuse methods reduce the need for new construction and resource consumption, directly reducing the ecological footprint. Digitization and the application of new technologies enable the preservation and wider accessibility of cultural content with minimal environmental impact, as they reduce the need for travel and the use of material resources. Sustainable cultural tourism, which aligns the protection of cultural and natural heritage with sustainability principles, encourages local economic development while simultaneously contributing to environmental preservation and biodiversity. The cultural sector is also increasingly applying measures of green infrastructure and energy efficiency, including the use of renewable energy sources, circular economy, and waste reduction, thereby further contributing to environmental sustainability. Finally, collaborative and participatory approaches in the management of cultural heritage involve the local community and various stakeholders, enabling the development of innovative solutions for climate challenges (European Commission, 2021).

### **Cultural Innovations and a Sustainable Society**

Culture can act as a tool for inclusion and participation, enabling vulnerable groups (children, the elderly, minorities) equal access to educational and cultural content. Linguistic and cultural diversity becomes a resource for intercultural dialogue and the building of social capital. Cultural workshops, local heritage, and folk customs integrated into the curriculum promote educational equity and a sense of belonging to the community. Cultural initiatives that promote diversity, inclusion, and access to education for marginalized groups contribute to the reduction of social inequalities (Sen, 1999). Examples such as digital museums, participatory workshops, and local cultural-educational programs contribute to the development of active citizenship. The application of cultural innovations in practice involves connecting traditional knowledge and crafts with cutting-edge and digital technology, enabling the preservation and restoration of cultural heritage while simultaneously reducing the ecological footprint. Innovations in the cultural sector are also aimed at developing sustainable resource management models, promoting the circular economy, encouraging sustainable production and consumption, and strengthening local communities through citizen participation and cross-sectoral cooperation. Culture and art, as bearers of identity and expression, foster creativity, innovation, and critical thinking, which is recognized in international frameworks and declarations on sustainable development. The development of innovative practices in culture and the creative industries contributes not only to the preservation and restoration of cultural assets but also to economic growth, the opening of new jobs, and the strengthening of social cohesion and community resilience (Ministry of Science, Education and Youth, 2025).

Cultural innovations foster creativity, critical thinking, and social cohesion, which is also recognized in international declarations where the importance of integrating culture and arts into education for the development of inclusive and just societies and for shaping skills for a sustainable future is emphasized. Furthermore, cultural policies and education can be a powerful tool for promoting sustainability at the local level, through encouraging the development of local communities, strengthening identity, and creating new knowledge and skills necessary for a sustainable economy and society. In addition, cultural innovations play an important role in sustainable tourism and the preservation of cultural heritage. Sustainable cultural tourism emphasizes the inclusion of local communities and the protection of tangible and intangible heritage, thereby stimulating the local economy while



ensuring the long-term protection of the environment and cultural values. Cultural innovations contribute to sustainable development also through education about sustainable lifestyles, human rights, gender equality, and respect for cultural diversity, which are also goals of Agenda 2030. Promoting a culture of peace, non-violence, and global responsibility through cultural projects and education encourages the development of sustainable values and behaviors in society (European Commission, 2021).

Higher education is a very important resource for achieving the goals of sustainable development. The Europe 2020 Strategy highlights three main development priorities: smart growth, based on knowledge and innovation; sustainable growth, focused on more efficient resource use and ecological competitiveness; and inclusive growth, promoting economic, social, and territorial cohesion through high employment. To build an economic system based on knowledge, it is necessary to reform the higher education system in which students, teachers, and administration play an active role. Students must be educated and trained to become responsible and competent citizens who can contribute to a sustainable society. For higher education to fulfill this role, it must adapt to current societal needs and promote diversity, interdisciplinarity, and transdisciplinarity in educational approaches. Connecting different scientific fields can serve as a foundation for developing a workforce capable of responding to complex sustainability challenges. In implementing sustainability in higher education institutions, obstacles such as a lack of information, motivation, practical experience, interest, and financial resources arise. In the context of lifelong education and e-learning, three fundamental changes are needed: the separation of the teaching process from the learning process to enable more efficient education; a focus on cognitive psychology as a stable basis for educational practices; and the development of a meta-model of e-teaching that will pre-establish the foundations for future e-learning (Oprean et al., 2011). The creative economy promotes diversity, innovation, and inclusiveness, which is also reflected in educational policies oriented towards sustainability. Through projects that connect culture, art, and technology, educational institutions become centers of experimentation and development of new solutions, and learners are encouraged towards critical thinking, collaboration, and responsible action towards the community and the environment. The integration of sustainable practices into educational programs, such as the preservation of cultural heritage, responsible resource use, and the development of ecological awareness, contributes to creating generations that are prepared for the challenges of sustainable development.

Traditional permanent education requires transformation towards a model based on the fact that information technologies are becoming a necessity due to the impossibility of permanent direct contact and on taking control over one's own education.

## CONCLUSION

Sustainable development today no longer encompasses only environmental dimensions but also includes economic and social aspects, highlighting the need for an integrated approach in shaping the future of local communities. In this context, the role of lifelong education and culture as key drivers of sustainable change is indispensable. Through the analysis of available literature, strategically important documents, and relevant examples of good practice, it is clear that sustainability cannot be achieved without investment in education that empowers citizens and without cultural innovations that respond to the complex challenges of today.

Cultural innovations prove to be dynamic tools that transcend the role of traditional cultural production and act in the direction of shaping new models of inclusivity, social cohesion, and economic resilience. Their connection with lifelong learning enables not only the acquisition of knowledge and skills but also the shaping of identity, the development of creativity, and the understanding and acceptance of cultural diversity. The digitization of cultural content, the development of participatory artistic practices, the introduction of inclusive educational methods, and the promotion of cultural diversity are just some of the forms of cultural innovations that contribute to sustainable development. Culture is increasingly recognized as the fourth pillar of sustainability, equal to the economy, environment, and society, precisely because of its ability to shape values, foster dialogue, and connect people within communities.

In an economic sense, cultural and creative industries are becoming increasingly significant actors in local development, particularly through the creation of new jobs, innovative business models, and the promotion of cultural entrepreneurship. On the other hand, cultural innovations can have a strong environmental impact

through reducing the need for physical resources and developing digital formats that replace travel, printed materials, and energy consumption. This creates synergy between cultural creativity and green policies. In the area of social sustainability, educational equity and access to culture have the potential to mitigate social inequalities and stimulate the inclusion of vulnerable groups. Culture, education, and sustainability are intertwined in this framework through a cross-sectoral approach that requires the collaboration of all stakeholders. Through lifelong education and cultural innovations, communities gain tools for developing inclusive, creative, and resilient models that respond to the challenges of modern society. Cultural innovations, arising at the intersection of education and cultural activity, not only encourage the preservation and transmission of cultural values but also create space for new forms of participation, learning, and social cohesion. The introduction of cultural content and innovative approaches into educational programs contributes to the development of critical thinking, creativity, and intercultural competencies, which is the foundation for active citizenship and sustainable development. The integration of culture and education contributes to the reduction of social inequalities, the strengthening of identity and a sense of belonging, and stimulates economic growth through the development of creative and cultural industries. Digitization and the use of new technologies in culture and education further expand the accessibility of knowledge and cultural content, thereby increasing the inclusiveness and adaptability of communities to change. Cultural innovations, as dynamic processes, enable communities to develop resilience, nurture diversity, and create sustainable models of life, work, and learning. Therefore, the strategic connection of culture and education is a prerequisite for building sustainable, just, and prosperous communities in accordance with the goals of Agenda 2030.

Cultural innovations are a necessity and act as a means for achieving more resilient, just, and creative communities. Therefore, it is necessary to recognize and strategically integrate cultural innovations as an integral part of educational and development policy at all levels. Precisely such an integrated approach can serve as a response to the challenges of modern society and offer a framework for long-term sustainability that will be not only sustainable but also inclusive, participatory, and culturally relevant.

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