



Blended Learning in Innovative Education to Improve Media Literacy

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Abstract. This concept article discusses the challenges and opportunities in this rapidly changing learning landscape. Future scenarios are complex and multi-layered, and they require critical thinking about challenges and opportunities. Which scenarios develop has implications and consequences for the environment, the economy and society, but also for individuals and the planet. The paper highlights the need to learn for socio-economic change and develop new educational models for diversity, equity, and inclusion, and points out that the voice of the individual matters. By staying informed and engaged, we can ensure that our education systems and media practices are well equipped to meet the needs of learners and society. In every case, change is driven by people for people.

Keywords: *blended learning, diversity, equity, futures of education, inclusion, innovation, media literacy, SDG, social contract.*

Introduction

The world has changed dramatically in recent years. Existing megatrends have become increasingly apparent, and opportunities and threats have multiplied. The global climate, the financial crisis and the COVID-19 pandemic have accelerated these trends and highlighted the interdependence and complexity of today's world. The consequences are undeniable. If we do not act now, environmental degradation will have a devastating impact on our economies and societies. Science, innovation, digitalization and technological progress continue to change the world and offer us solutions and opportunities. In addition, the COVID-19 pandemic has triggered a deep social, economic, educational and health crisis. As a result, inequalities in income, wealth and opportunity within and between countries have widened. Social mobility

has also decreased. Demographic change, environmental degradation and the rise in global private and public debt may lead to increasing inequality between generations. Multilateralism is also coming under increasing pressure. Not to mention the spread and deepening of challenges to democratic governance and skepticism about its ability to cope with change as effectively as more authoritarian approaches. These global challenges require effective global responses, including national action and international cooperation, to create a global public good that ensures a resilient future (OECD, 2021).

Rapid global change has implications for the way we live, work, relate and communicate, including the way we learn, educate ourselves and consume media (OECD, 2023; Schwab, 2016; UNESCO, 2021, 2022). As we move into the future, it will become increasingly important for individuals to be media literate. This means that we must be able to critically evaluate the huge range of information and media content available to us. This requires not only the ability to access, understand and interact with information, but also the ability to analyze and evaluate it intellectually and critically (White, 2020; White, 2021). Furthermore, the future of education is constantly evolving and new technologies and teaching methods are changing the way we learn and teach. From online learning platforms to virtual reality simulations, educators are exploring new ways to engage learners and prepare them for future challenges. In this context, the future of education and the future of media literacy are closely linked. As the way we consume media evolves, so must our education systems adapt to ensure learners have the skills they need to navigate this rapidly changing landscape. This includes not only digital skills, but also critical thinking, problem-solving skills and creativity. In addition, the future of education and media literacy is being shaped by larger societal trends such as globalization, climate change and the growing importance of digital connectivity. These trends are forcing us to think critically about the role of education and media in shaping the futures of our society and how we can use these tools to create a more equitable and sustainable world. Overall, the futures of education and media literacy is complex and multi-layered, and it requires us to think critically about the challenges and opportunities presented in this rapidly changing landscape. By staying informed and engaged, we can ensure that our education systems and media practices are well equipped to meet the needs of learners and society (OpenAI, 2023a).

While preparing the presentation for the conference “Media Literacy and Information Technology: Challenges and Solutions for the 21st Century in Vilnius, Lithuania, on March 2, 2023, which formed the basis for this article, I briefly consulted ChatGPT and queried my keywords. The text generated by ChatGPT indicated that several important concepts relevant to blended learning in innovative education to improve the quality of media literacy are also related to the futures of education, the United Nations Sustainable Development Goals (SDGs), equity, lifelong learning, inclusion, diversity, active citizenship and sustainable cities. Each concept is explored in detail (OpenAI, 2023a), as follows:

- **Innovative education:** Innovative education focuses on developing students' critical thinking, creativity, problem solving, and collaborative skills, which are critical to their success in the 21st century. By teaching students to think “outside the box” and approach problems in new and innovative ways, innovative education can help them become adaptable and resilient.
- **Blended learning:** Blended learning combines traditional face-to-face instruction with online learning experiences, thus allowing students to learn at their own pace and time. Blended learning can be a powerful tool for improving media literacy because it allows students to engage with media content in a variety of formats and contexts.
- **Media literacy:** Media literacy refers to the ability to critically analyze and evaluate media messages, including those disseminated through traditional and new media. Media literacy has become increasingly important in today's digital age, as students are bombarded with information from a variety of sources.
- **The Futures of Education:** The Futures of Education is an initiative led by UNESCO. It aims to reimagine and rethink education for the 21st century. This initiative emphasizes the need for education to be relevant, inclusive, and sustainable to prepare students for a rapidly changing world.
- **Sustainable Development Goals (SDG):** These are a set of 17 goals established by the UN to promote sustainable development and address global challenges, such as poverty, inequality, and climate change. Education is a key component of the SDGs, which emphasize the importance of quality education for all.
- **Equity:** In this context, equity means that every student, regardless of their background or circumstances, should have access to the resources and support they need to succeed. Achieving educational equity is essential for promoting social justice and reducing barriers to opportunities.
- **Lifelong learning:** This concept is based on the idea that learning should be a lifelong pursuit and not something that ends with formal schooling. Lifelong learning has become increasingly important in today's rapidly changing world because workers must constantly adapt and learn new skills to remain competitive.
- **Inclusion:** This concept refers to the idea that every student should feel valued, respected, and supported in their learning environments, regardless of their background or circumstances. An inclusive classroom is essential for promoting diversity and removing barriers to opportunity.
- **Diversity:** In this context, diversity means that each student brings unique experiences, perspectives, and strengths to the learning environment. Promoting diversity in education can foster creativity, innovation, and collaboration.
- **Active citizenship:** Active citizenship emphasizes the idea that each student has the responsibility to contribute to their community and society. Active citizenship

can be promoted through education by providing opportunities for students to engage in service learning, community projects, and civic education.

- Sustainable cities: This term refers to the creation of an urban environment that is environmentally, socially, and economically sustainable. Education can play a key role in promoting sustainable cities by teaching students about environmental issues, urban planning, and sustainable development.

By combining these concepts in the context of blended learning in innovative education, a more inclusive, diverse and sustainable education system can be created that prepares students for both the challenges and opportunities of the 21st century.

The next section describes the objectives and methods, followed by a discussion of the results. The final section concludes the article and provides recommendations for further research.

Aims and objectives

The purpose of this short conceptual article is to describe global and current trends in education that have emerged because of major global challenges. In particular, it aims to highlight the complexity of blended learning in innovative education to improve media literacy. This article is based on a presentation given at the international scientific conference *Media Literacy and Information Technology: Challenges and Solutions for the 21st Century* on 2 March 2023 in Vilnius, Lithuania. Particularly, the article highlights the initiatives of leading global organizations, such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Organization for Economic Cooperation and Development (OECD). The arguments made in this article and the recommendations for further studies are supported by current research in the field.

Methods

This brief conceptual contribution is based on a systematic literature review (Creswell & Creswell, 2018; McCombes, 2023). The review is primarily theoretical and thematic (McCombes, 2023). According to McCombes (2023), a literature review usually consists of five steps: (i) searching for relevant literature, (ii) assessing sources, (iii) identifying themes, debates and gaps, and (iv) outlining and writing the report. This report was conducted systematically and keywords were defined to examine the process of information collection, assessment and data analysis (Creswell & Creswell, 2018; McCombes, 2023).

The literature reviewed in this article includes official initiatives from major world-leading organizations, most notably UNESCO and the OECD, in areas that are the focus of this article, namely innovative education provision for blended learning

to improve media literacy. Prior to the conference presentation, the author had a brief conversation with ChatGPT (OpenAI2023a) about the main themes of the presentation. This article is also based on the author's approach, research and experience over the past 20 years. The literature review has been updated to include the latest research in the field. Accordingly, the arguments and further recommendations are based on the latest international research in the field as well as the author's current research and experience. The author selected discursive examples from current debates on the opportunities and challenges of lifelong learning and the futures of education in official international sources. In addition, the author had a conversation with ChatGPT about the main headings for the finalization of this article (OpenAI, 2023b).

Results

This section discusses the findings of the review of the relevant literature on key global initiatives for the futures of education. It begins with a short introductory text produced by ChatGPT to identify challenges to the futures of education. It then introduces the work of UNESCO, particularly its SDG initiative, the New Social Contract, Reimagine Education Together, and the Education Summit UNESCO. This is followed by the OECD's initiatives. The key themes in this article are then discussed.

The text generated by ChatGPT suggests that the futures of education are likely to be shaped by several trends and developments, including technological advances, demographic shifts, and changing social and economic factors (the plural form of future was added by the author, in accordance with UNESCO's use of futures, as no future fits all). Some directions that education could take in the coming years are as follows:

- Personalized learning: Using adaptive learning technologies, instruction can be tailored to the needs of individual students, enabling more effective learning and greater engagement.
- Lifelong learning: As the job market continues to evolve, individuals may need to continue learning throughout their lives to remain competitive. Therefore, education can evolve from a one-time degree or certification to a continuous process of learning and professional development.
- Online and distance learning: The COVID-19 pandemic has accelerated the adoption of online and distance learning, and this trend is likely to continue. This shift to digital learning can also facilitate access to education for those who have faced barriers, such as people living in remote areas and people with disabilities.
- Globalization: As the world becomes increasingly interconnected, education may emphasize international experience, cultural awareness, and language learning.
- Capability-based education: The focus of education may shift from a traditional academic curriculum to one that emphasizes the development of practical skills, such as critical thinking, problem solving, and creativity.

Overall, the futures of education are likely to be characterized by greater flexibility, personalization, and innovation, as well as an increased emphasis on lifelong learning and skills development (OpenAI, 2023a).

The following overview and analysis begins with a brief introduction to UNESCO's work, its SDG initiative, the New Social Contract, Reimagine Education Together, and the Education Summit UNESCO, followed by the OECD initiatives. Then the key points of this article are then examined in more detail.

The United Nations Educational, Scientific, and Cultural Organization

UNESCO is a specialized agency of the UN. Its aim is to promote international peace and security through international cooperation in the fields of education, art, science and culture. UNESCO contributes to peace and security by promoting international cooperation in the fields of education, science, culture, communication and information. It promotes the exchange of knowledge and the free flow of ideas in order to accelerate mutual understanding and a better knowledge of the lives of others (UNESCO, n.d.). According to UNESCO (2015, 2023), education transforms lives and is a central part of UNESCO's mission, which is to build peace, eradicate poverty and promote sustainable development. According to the United Nations of 1948, education is a human right for all people throughout their lives (United Nations, n. d.; UNESCO, 2016, 2021, 2023). It is the only UN organization with a mandate that covers all aspects of education. It has been entrusted with leading the 2030 global education agenda as part of SDG 4. UNESCO provides global and regional leadership in education, strengthens education systems worldwide and responds to current global challenges through education, with gender equality as a fundamental principle. Its work includes the development of quality education from pre-school to higher education and beyond.

The SDGs were adopted by the United Nations in 2015 to guide global efforts to end poverty, protect the planet, and promote peace and prosperity for all (UNESCO, 2015). The SDGs are based on the principles of people, planet, prosperity, peace, and partnership. They aim to promote a just, sustainable, and peaceful world for all (OpenAI, 2023a). The five cornerstones of the SDGs are as follows:

- **People:** The SDGs aim to improve the well-being of all people, including those living in poverty, marginalized communities, and conflict-affected areas. The SDGs aim to ensure that all people have access to basic needs, such as food, water, healthcare, education, and decent work.
- **Planet:** The SDGs aim to protect the planet by promoting sustainable practices, reducing carbon emissions, conserving biodiversity and reducing waste and pollution. The SDGs recognize the importance of addressing climate change and protecting the environment for future generations.

- Prosperity: The SDGs aim to promote shared prosperity by reducing inequalities, promoting economic growth, and creating opportunities for all. The SDGs aim to ensure that economic growth benefits all, not just a few.
- Peace: The SDGs aim to promote peaceful and inclusive societies that are free from violence and conflict. The SDGs recognize the importance of promoting human rights, justice, good governance, and the need to address the root causes of conflict and violence.
- Partnership: The SDGs are based on the recognition that achieving them will require collective action and partnerships among governments, civil society, the private sector, and other stakeholders. The SDGs aim to promote collaboration and cooperation at all levels, from the local to the global.

According to the Sustainable Development Goals report (United Nation, 2020), the COVID-19 pandemic has deepened existing inequalities, particularly in the poorest and most vulnerable communities. It has also further entrenched existing patterns of discrimination against and the stigmatization of diverse groups in many countries. The Secretary General of the United Nations has called for solidarity with the world's most vulnerable, who urgently need support to overcome the worst economic and social crises in generations (UN, 2020). The pandemic has shown us how fragile our world is. It has exposed risks that we have ignored for decades: inadequate health systems, gaps in social protection, structural inequalities, environmental degradation, and the climate crisis (UNESCO, 2016). The pandemic is an unprecedented "wake-up call", exposing deep inequalities and highlighting the same failures addressed in the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change. In this moment of crisis, bold steps can be taken to ensure that the SDGs are achieved. Now is the time for a profound and systemic transformation to a sustainable economy that benefits both people and the planet. The SDGs provide an important framework for the COVID-19 recovery, leading to greener, more inclusive economies and stronger, more resilient societies. The Secretary-General of the UN, António Guterres, made the following statement:

The response to the pandemic and to the widespread discontent that preceded it must be based on a new social contract and a New Global Deal that create equal opportunities for all and respect the rights and freedoms of all. (United Nations, 2020, n.p)

The Social Contract for Education (UNESCO, 2021) aims to provide a framework for transforming education systems around the world to better meet the needs of all learners and address the global challenges we face today. The report, based on a two-year global consultation, outlines a set of key principles and recommendations for reshaping the futures of education, which should be interpreted pluralistically as no single future applies to all. The concept of education for all, including diversity, and inclusion, implies a plethora of educational futures. It has been argued that a new social contract for education is needed to address inequities while transforming the future.

Some examples of the significance of a new social contract for the futures of education and learning include the following:

- Equality: The new social contract emphasizes equality and calls for educational systems that are inclusive and provide equal opportunities to all learners regardless of their backgrounds and circumstances.
- Lifelong learning: The new social contract recognizes that learning is a lifelong process and calls for educational systems that support learners throughout their lives, from early childhood to adulthood.
- Skills for the futures: The new social contract emphasizes the need to equip learners with the skills they need to succeed in the rapidly changing world of work, including digital literacy, critical thinking, and problem solving.
- Holistic approach: The new social contract calls for a holistic approach to education that considers the social, emotional, and spiritual wellbeing of learners in addition to academic requirements.
- Teacher empowerment: The new social contract recognizes the critical role of teachers in education and calls for systems that provide teachers with the skills, support, and resources they need to deliver quality education.
- Education for sustainable development: The new social contract emphasizes the need to integrate education for sustainable development into all aspects of education to address the environmental and social challenges we face.

The new social contract for education requires a different approach to education and learning, as illustrated in Figure 1. The agenda requires a new direction and new values based on ethics, empathy, well-being, and caring. It requires a new research agenda to safeguard and transform schools, the teaching profession, pedagogies of solitude and collaboration, and curricula. This includes shared knowledge that is accessible to all across different times and spaces, as well as renewed international solidarity and collaboration.

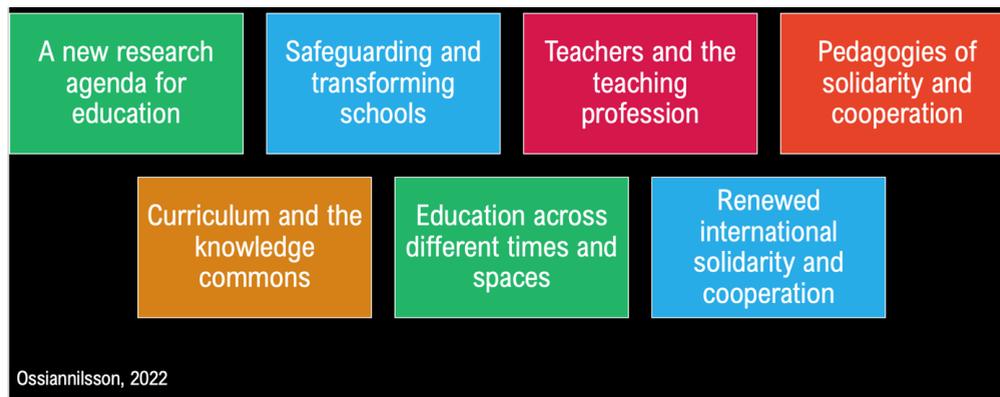


Figure 1. A new social contract and new grounded values based on ethics, empathy, wellbeing, and caring. Source: Ossiannilsson (2022)

In summary, the New Social Contract for Education (UNESCO) represents equitable, inclusive, and sustainable futures for education and learning. It prioritizes the needs and aspirations of learners and recognizes the critical role of education in promoting social and economic development.

Reshaping our future together: A New Social Contract for Education (UNESCO, 2022) is a key reference document of UNESCO's global Transforming Education Summit project. It addresses the disruptions in education, strengthens national and global efforts to achieve SDG 4 and redesigns education systems for the world of today and tomorrow (UNESCO, 2022). The main points of the summit are (i) education is a human right, (ii) schools must be inclusive, safe and healthy, (iii) basic learning is critical, (iv) learning is lifelong, (v) education must promote sustainable development, (vi) teaching must be transformed, (vii) the digital revolution is key to transforming education and (viii) education requires public investment.

The Organization for Economic Cooperation and Development

The OECD is an international organization that works to achieve better policies and better lives. Its goal is to shape policies that promote prosperity, equality, opportunity, and well-being for all (OECD, n. d. a, b, c, d; OECD, 2021). With 60 years of experience and insights to better prepare tomorrow's world, the OECD works with governments, policymakers, and citizens to set evidence-based international standards and find solutions to a range of social, economic, and environmental challenges. From improving economic performance and creating jobs to promoting sound education and combating international tax evasion, the OECD provides a unique forum and knowledge hub for collecting and analyzing data, sharing experiences and best practices, and advising on public policies and international standard setting.

Education can equip learners with agency and purpose, giving them the skills they need to shape their lives and contribute to the lives of others. In an increasingly volatile, uncertain, complex and ambiguous world, education can make the difference between embracing challenges and succumbing to them. At a time characterized by a new explosion of scientific knowledge and a growing number of complex societal problems, it is appropriate that curricula continue to evolve, even in radical ways. The OECD Learning Compass 2030 is an evolving learning framework based on an ambitious vision of the future of education (OECD, n.d. a, b). It provides points of reference for the future we envision for the well-being of both individuals and society. The metaphor of the learning compass was chosen to illustrate that students need to learn to navigate unfamiliar contexts (OECD). The Learning Compass 2030 defines the knowledge, skills, attitudes and values that learners need to fulfill their potential and contribute to the well-being of their communities and the planet. It provides a vision and principles for the future

of education systems. The focus is on guidance, not prescription. As part of the OECD Education 2030 project (OECD, 2021), the Learning Framework was co-designed by government representatives and many partners, including thought leaders, experts, school networks, school leaders, teachers, students, youth groups, parents, universities, local organizations and social partners.

In the following sections, further key themes of the conference presentation are explained in detail.

Innovative education

The text produced by ChatGPT emphasizes that innovation is increasingly important for the future of education, as new technologies and changing societal needs require new approaches to teaching and learning. Here are some examples of innovation in the future of education (OpenAI, 2023b):

- **Personalized learning:** Technology enables learning experiences to be tailored to the needs and interests of individual students, allowing them to learn at their own pace and in their own style.
- **Virtual and augmented reality:** Virtual and augmented reality technologies can create immersive learning environments that allow students to explore new concepts and ideas in interactive and engaging ways.
- **Gamification:** Game-based learning can increase engagement and motivation by integrating game design and mechanics into the educational context.
- **Artificial Intelligence (AI):** AI-powered tools can help teachers and students by providing personalized feedback, identifying areas for improvement, and creating adaptive learning experiences.
- **Digital credentials:** As traditional degrees have become less important in some industries, digital credentials, such as badges and micro credentials, have become more popular. These credentials can be earned through online learning platforms to demonstrate specific skills or knowledge.
- **Collaborative learning:** Collaborative learning environments can foster teamwork and communication skills supported by online platforms and tools.

Overall, innovation in the futures of education is likely to be characterized by the use of new technologies and teaching and learning approaches that emphasize personalized and engaging experiences, as well as the development of new skills and learning pathways that are aligned with changing societal needs and workforce demands (OpenAI, 2023b).

In general, according to ChatGPT, innovation involves inspiration, ideas, processes, creativity, vision, growth, management (e.g., improvement, development, and solutions), success, organization, goals, research, leadership, teamwork, and communication (OpenAI, 2023b).

Media literacy

In 2006, the European Parliament and the Council of the European Union adopted a recommendation on key competences for lifelong learning. The framework for key competences was updated in 2018 and now includes eight key competences, Digital literacy encompasses the confident, critical, and responsible use of and engagement with digital technologies for learning, work, and participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), security (including digital wellbeing and cybersecurity skills), intellectual property issues, problem solving, and critical thinking (Vuorikari, Kluzer, & Punie, 2022).

Media literacy enables people to have the skills, knowledge, and understanding to take full advantage of the opportunities offered by traditional and new communication services. Online media literacy is fundamental in people's actions as consumers, users, and digital citizens. The central role that online media literacy plays also affects other aspects of people's lives. This includes enabling users to participate in public life, maintain healthy relationships with others, access, and obtain information, and form and express critical opinions. Ofcom (2023, n. p.) defined media literacy as the ability to use, understand, and shape media and communication in a variety of contexts. Ofcom noted that media literacy is important for many reasons. Firstly, it enables online participation. It is both crucial and necessary that those on the margins of our society benefit from connectivity so that no one is left behind. It is important that we not only know how to stay safe online, but also have the skills and confidence to succeed online so that we can do the things we enjoy, access the services we need, and connect with the people we love.

According to the text produced by ChatGPT, media literacy is the ability to access, analyze, evaluate and shape media in various forms. As digital media becomes increasingly important in our lives, media literacy is crucial. Below are some trends in media literacy, both today and in the future (OpenAI, 2023b):

- **Critical thinking:** With the proliferation of fake news and disinformation, critical thinking skills are more important than ever. The ability to assess the credibility and accuracy of information is a critical component of media literacy.
- **Social media literacy:** Social media platforms are now the primary source of news and information for many people. The ability to navigate these platforms and understand how they work is an important component of media literacy.
- **Data literacy:** With the increasing use of data in media and advertising, the ability to analyze and interpret data is an important component of media literacy.
- **Multimodal literacy:** Media are becoming increasingly multimodal and include text, images, video, and audio. The ability to understand and create multimodal media is an important component of media literacy.

- Ethical literacy: As media become more powerful and influential, ethical considerations become more important. The ability to understand and analyze the ethical implications of media and to make responsible decisions is an important component of media literacy.

Media literacy can also be broadly described as an ecosystem that includes engagement, initiation, establishment, evaluation, and research (Ofcom, 2023), as illustrated in Figure 2.

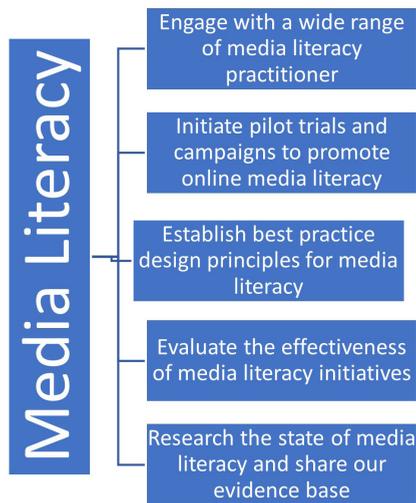


Figure 2. Media literacy. Adapted from Ofcom (2023)

Hobbs (2020) proposed a framework for media literacy that includes six dimensions: access, analysis, creation, reflection, and action. For each dimension, she suggested a variety of selected tools and media.

Chat GPT (OpenAI, 2023b) suggested that the futures of media literacy is likely to be characterized by an increased emphasis on critical thinking, social media literacy, data literacy, multimodal literacy, and ethical literacy. It is likely that media literacy will become an essential skill for individuals to navigate the complex and rapidly evolving media landscape. Innovation will become increasingly important to the future of education, as new technologies and changing societal needs require new approaches to teaching and learning. Below are examples of innovation in the future of education:

- Personalized learning: Technology enables learning experiences to be tailored to the needs and interests of individual students, allowing them to learn at their own pace and in their own style.
- Virtual and augmented reality: Virtual and augmented reality technologies can create immersive learning environments that allow students to explore new concepts and ideas in more interactive and engaging ways.

- **Gamification:** Game-based learning can increase engagement and motivation by integrating game design and mechanics into the educational context.
- **Artificial Intelligence:** AI-powered tools can help teachers and students by providing personalized feedback, identifying areas for improvement, and creating adaptive learning experiences.
- **Digital credentials:** As traditional degrees become less important in some industries, digital credentials, such as badges and micro certificates, are becoming more popular. These credentials can be earned through online learning platforms and demonstrate specific skills or knowledge.
- **Collaborative learning:** Collaborative learning environments can foster teamwork and communication skills and can be supported by online platforms and tools of resources and experiences, both within and outside of formal educational institutions.

Blended learning

Blended learning, a combination of online and face-to-face teaching, has become increasingly popular in recent years and is likely to continue to develop in the future. Blended learning is usually defined as an approach to learning that combines face-to-face and online learning experiences. Ideally, the two (both online and offline) complement each other by leveraging their respective strengths (Bates, 2020; Clayton Christensen Institute, n.d.; Ossiannilsson, 2017). The Clayton Christensen Institute (n.d.) argues that blended learning is not the same as technology-enhanced instruction because it goes beyond individual computers and high-tech devices. Blended learning uses the Internet to provide a personalized learning experience for each student, including greater control over the time, place, path, and/or pace of learning. The definition of blended learning includes a formal educational program in which a student learns at least partially online, with the student having some degree of control over the time, place, path, and/or pace at a supervised location away from home. The modalities in each student's learning pathway in a course or subject are linked together to provide an integrated learning experience. Ossiannilsson (2017) conducted extensive research on the state of the art in blended learning and identified several models, including those proposed by the Clayton Christensen Institute (n.d.) proposed models stating that blended learning is a formal educational program where a student learns at least in part through online learning, where students have some control over time, place, path, and/or pace, at least in part in a supervised location away from their home, and where modalities along each student's learning path within a course or subject are linked together to provide an integrated learning experience. Blended learning is likely to become the standard model for most higher education courses post-19. Bates (2021)

pointed out that even defining the term is difficult as blended learning is rapidly evolving and there are many different design options, such as the following:

- Hyflex (face-to-face and online courses or a mix, all offered simultaneously), supplemental online work to support a face-to-face course.
- Hybrid learning, in which the course is redesigned to take advantage of both online and face-to-face instruction and learning. Hybrid: reduced face-to-face time in addition to online learning, preferably with the intention of making the most of both through a specific course design.
- A mix of semesters that are held fully on campus and fully online: “flipped classrooms.”

Among the many different models are the following (Bates, 2020):

- Technology-enhanced classroom learning (face-to-face instruction supported by PowerPoint, clickers, active classrooms, augmented, or virtual reality).
- Face-to-face teaching (lectures), in addition to the use of a Learning Management System to support face-to-face teaching.
- Live lectures with simultaneous streaming to students off campus or outside the classroom.
- Live face-to-face teaching with on-demand recordings.
- Reversed streamed video in addition to a subsequent in-person session (or vice versa: an in-person session followed by online work/discussion).
- One semester on campus; two semesters online (the Royal Roads University model).

Bates (2021) suggested that any theory of blended learning must also consider the wide range of different teaching contexts, such as the following:

- Student demographics (age, etc.), lifestyles (e.g., full-time and working students), and prior study experience in online or face-to-face instruction, as well as the demands of the subject matter (e.g., the need for practical experience).
- The epistemological positions of instructors (e.g., objectivist or constructivist).
- The options for delivery mode (e.g., synchronous, or asynchronous), existing learning theories and how well they fit the context (e.g., synchronous, or asynchronous).
- General existing learning theories and how well they fit the context.

He also asked whether a theory is necessary for blended learning or whether this is the wrong question. He therefor posed the following questions: 1) Is blended learning unique or just “old wine in new bottles”? 2) Are existing pedagogies, andragogies, and best practices sufficient to guide the design of blended learning? 3) How can we evaluate the success or failure of blended learning?

There are certainly other variations of these models. According to ChatGPT, blended learning that combines online and face-to-face instruction has gained popularity in

recent years and is likely to continue to develop and expand in the future. The following are trends for the future of blended learning (Open AI, 2023b):

- Hybrid learning models: As technology advances and education becomes more integrated, hybrid learning models that combine synchronous and asynchronous learning are likely to become more prevalent.
- AI-powered adaptive learning: AI can be used to personalize the learning experience by analyzing student data and tailoring instruction to individual needs. This technology is likely to become more prevalent in blended learning environments.
- Mobile learning: As mobile devices become ubiquitous and Internet access becomes more widespread, mobile learning will likely become an integral part of blended learning, allowing students to learn on the go.
- Gamification: The use of game design and mechanics in educational contexts can increase engagement and motivation. Gamification is likely to become more prevalent in blended learning environments.
- Collaborative learning: Blended learning can give students the opportunity to collaborate with each other and with instructors, which can enhance the learning experience. Collaborative learning is likely to become more prevalent in blended learning environments.

Overall, the future of blended learning is likely to be characterized by greater personalization, interactivity, and flexibility, as well as the increased use of technology to enhance the learning experience (OpenAI, 2023b).

Open innovative pedagogy

Open innovative pedagogy is a rapidly evolving field that seeks to transform traditional teaching and learning methods through the use of technology and collaboration to create more inclusive and effective educational experiences. According to Chat GPT (OpenAI, 2023b) the future of open innovative pedagogy is likely to be shaped by several key trends, including the following:

- Continued emphasis on learner-centered approaches: Open innovative pedagogy places a strong emphasis on the needs and interests of individual learners, and this trend is likely to continue. In the future, we can expect to see even greater efforts to personalize learning experiences and increase learners' ownership of the learning process.
- Increasing use of technology: Technology will continue to play a critical role in open innovative pedagogy, enabling new forms of collaboration, communication, and knowledge building. As the capabilities of technology evolve, new tools and platforms will emerge that will further enhance the possibilities of open innovative pedagogy.

- Greater focus on accessibility and inclusion: Open innovative pedagogy has the potential to make education more accessible and inclusive for learners with different backgrounds and abilities. In the future, even greater efforts will be made to ensure that open innovative pedagogy meets the needs of diverse learners, including people with disabilities, non-native speakers, and other marginalized groups.
- Integrating interdisciplinary and practical learning experiences: Open innovative pedagogy promotes the integration of diverse disciplines and the application of learning to real-world problems. In the future, interdisciplinary and problem-based learning experiences will prepare learners to address complex challenges and contribute to social and economic development.

Kukulska-Hulme (2022) suggested that innovative pedagogy includes the following:

- Hybrid models
- Dual-learning scenarios
- Pedagogy of micro credentials
- Pedagogy of autonomy
- Observation parties
- Influencer-led education
- Pedagogy of the house
- Pedagogy of discomfort
- Education for wellbeing
- Walking and talking

Overall, innovation in the future of education is likely to be characterized by the use of new technologies and approaches to teaching and learning that emphasize personalized and engaging experiences, as well as the development of new skills and learning pathways that are attuned to the changing societal needs and demands of the workforce. In summary, the future of open innovative pedagogy is likely to be characterized by continued experimentation, innovation, and collaboration as educators and learners work together to find new and more effective ways of teaching and learning.

Futures scenarios and learning ecosystems

In the global reports reviewed for this study, there was a shift in perspectives, and the most visible and important related not only to the people and knowledge of learners and citizens but also to the dimensions of health, well-being, care, and ethical values. Figure 3 (Ossiannilsson, 2022) illustrates these dimensions through the following scenarios: (i) Know Your Learners, (ii) Learner Empowerment, (iii) Wellbeing, Care, and Empathy, (iii) Diversity and Inclusion, (iv) Active Citizens, (v) Green Deal, (vi) Digital Transformation, (vii) People, Processes, Products, and Resources, and (viii) People First and Leave No One Behind.



Figure 3. Future scenarios

Quality and quality frameworks are concepts that are constantly discussed in education. Ossiannilsson (2012, 2018, 2020, 2022) has studied quality, benchmarking, and quality frameworks in open online learning over the last 20 years. According to Ossiannilsson et al. (2015), any quality framework regardless of which one chosen, must have the following characteristics:

- Multifaceted: Systems use a variety of quality measures and often consider strategy, policy, infrastructure, processes, and outcomes to arrive at a comprehensive view of holistic quality.
- Dynamic: Systems are flexible enough to adapt to rapid changes in technologies and social norms. For this reason, they rarely refer to specific technological measures, but focus on the services provided to users through that technology.
- Mainstreaming: While all quality tools aim to improve quality at a high level, they are intended to permeate the entire institution and be used by individuals in their daily work to support reflective practice.
- Representative: Quality systems seek to balance the perspectives and needs of various stakeholders, including students, staff, businesses, governments, and society.
- Multifunctional: Most systems serve a triple function. They provide a culture of quality within an institution, provide a roadmap for future improvement, and serve as a seal of quality for outsiders.

Linked to quality are the scenarios of learning ecosystems, a concept that describes a network of interconnected learning experiences, resources and tools available to learners. It recognizes that learning takes place in a variety of contexts and that learners can

benefit from a wide range of learning opportunities. The aim of a learning ecosystem is to create a seamless and flexible learning experience that meets the needs of learners throughout their lives. By providing learners with a range of resources and experiences, a learning ecosystem can help personalize learning, increase engagement and improve outcomes. A learning ecosystem can also benefit from the use of technology to connect learners to resources and provide tools to track progress and assess learning outcomes. Overall, the concept of a learning ecosystem is based on the recognition that learning is a complex and multi-layered process that requires a range of resources and supports, and that by working together we can create more effective and inclusive learning environments for all learners.

The goal of a learning ecosystem is to create a seamless and flexible learning experience that meets the needs of learners throughout their lives. By providing learners with a range of resources and experiences, a learning ecosystem can help personalize learning, increase engagement, and improve outcomes. A learning ecosystem can also benefit from the use of technology to connect learners to resources and provide tools to track progress and assess learning outcomes. Overall, the concept of a learning ecosystem is based on the recognition that learning is a complex and multifaceted process that requires a range of resources and supports, by working together more effective and inclusive learning environments can be created for all learners.

A learning ecosystem can include a variety of elements, such as the following:

- Formal educational institutions, such as schools, colleges, and universities.
- Informal learning opportunities, such as community organizations, museums, and libraries.
- Digital resources, such as online courses, educational apps, and social media platforms.
- Workplace learning opportunities, such as on-the-job training and professional development programs.
- In-person learning networks, such as peer groups and mentoring programs.

Figure 4 shows a learning ecosystem based on the five concepts of (i) people, (ii) content, (iii) strategy, (iv) technology, and (v) learning content.

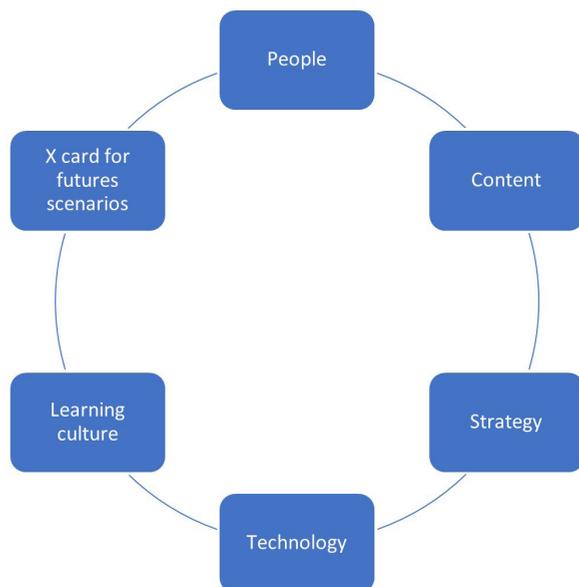


Figure 4. A learning ecosystem

To summarize, a learning ecosystem is a network of interconnected learning experiences, resources, and tools available to learners. It recognizes that learning take place in a variety of contexts and that learners can benefit from a wide range of resources and experiences, both inside and outside formal educational institutions.

Overall, the future of open innovative pedagogy is likely to be characterized by continued experimentation, innovation, and collaboration as educators and learners work together to find new and more effective ways of teaching and learning.

Conclusion

This article is about the future of education, a new social contract for education and various future scenarios. First, the global challenges and the 2030 Agenda are considered. The new social contract for education envisages a wide range of scenarios and a new ecosystem.

The global initiatives examined in this article raise several scenarios for the future of learning and education. The global initiatives are meta- and macro-level frameworks and strategies. For sustainable change characterized by agility and resilience, such initiatives need to be communicated at all levels of the globe, countries, regions, institutions and individuals involved and responsible. Commitment, ownership, trustworthiness and the question “what’s in it for me?” are crucial for sustainable change for the planet and its people. It also requires a shift in ethical and social values, politics and economics. Successful implementation will require more research, partnerships, resources and

advice, as well as large-scale interdisciplinary collaboration. In addition, innovative, resilient leaders at all levels – meta, macro, meso, micro and nano – are critical to empowering people, changing systems, creating a new social contract and reshaping education together. The paper emphasizes the need for learning for socio-economic change and new educational models for diversity, equity and inclusion and points out that the voice of the individual matters.

However, how the learning landscapes of the future develop will have implications and consequences for the environment, the economy, society, individuals, and the planet. The questions are sometimes more important than their answers. One of the most important questions we need to ask is, “Who will shape the education agenda in the future?” Possible actors may include universities, governments and/or communities, the labor market, businesses, or individuals. It is clear that one single actor will not be enough. Change will be driven by people and for people.

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Mišrusis mokymasis inovatyviame ugdyme, gerinant medijų raštingumą

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Anotacija

Šis trumpas konceptualus indėlis pagrįstas sistetine literatūros apžvalga. Straipsnyje aptariami iššūkiai ir galimybės, egzistuojančios šioje sparčiai kintančioje mokymosi aplinkoje. Apžvalga yra teorinė ir teminė. Kadangi ateities scenarijai yra sudėtingi ir daugialypiai, jie reikalauja kritinio mąstymo ir apie iššūkius, ir apie galimybes. Jie turi pasekmių ir aplinkai, ekonomikai ir visuomenei, taip pat asmenims ir planetai. Šiame straipsnyje aptariama švietimo ateitis ir nauja socialinė švietimo sutartis bei keli ateities scenarijai. Pirmiausia aptariami pasauliniai iššūkiai ir darbotvarkė iki 2030 m., o po to – nauja švietimo socialinė sutartis, kurioje numatomi įvairūs scenarijai ir nauja ekosistema. Šiam tyrimui skirtose pasaulinėse ataskaitose matyti požūrių pasikeitimas, iš kurių matomiausi ir svarbiausi yra susiję ne tik su žmonėmis, žiniomis, besimokančiais ir piliečiais, bet ir su sveikata, vaizdingumu, humanizmu, gerove, rūpestingumu ir socialinėmis-etinėmis vertybėmis. Straipsnyje pabrėžiamas poreikis mokytis siekiant socialinių ir ekonominių pokyčių ir naujų švietimo modelių, skirtų įvairovei, teisingumui ir įtraukčiai, ir pabrėžiama, kad svarbus yra individo balsas. Būdami informuoti ir įsitraukę, galime užtikrinti, kad mūsų švietimo sistemos ir žiniasklaidos praktika būtų tinkamai parengtos, kad atitiktų besimokančiųjų ir visuomenės poreikius. Kiekvienu atveju pokyčius skatina žmonės ir dėl žmonių.

Esminiai žodžiai: *įvairovė, teisingumas, švietimo ateitis, įtrauktis, naujovės, žiniasklaidos raštingumas, tvarios plėtros strategija, socialinė sutartis.*

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