Strategic Plan
2024-2025

Commonwealth Centre for Connected Learning Foundation
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<tr>
<td>3CL</td>
<td>The Commonwealth Centre for Connected Learning Foundation</td>
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<tr>
<td>AI</td>
<td>Artificial Intelligence</td>
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<tr>
<td>CC-B</td>
<td>Creative Commons Attribution International Licence</td>
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<tr>
<td>C-DELTA</td>
<td>Commonwealth Digital Education Leadership Training in Action</td>
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<td>COL</td>
<td>Commonwealth of Learning</td>
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<tr>
<td>DC4EU</td>
<td>Digital Credentials for Europe</td>
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<td>DIDs</td>
<td>Decentralised Identifiers</td>
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<td>EAA</td>
<td>Electronic Attestations of Attributes</td>
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<td>EBSI</td>
<td>European Blockchain Services Infrastructure</td>
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<td>EBSI-CAN</td>
<td>EBSI and Verifiable Credentialing in Canada</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EU</td>
<td>European Union</td>
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<td>EUDI</td>
<td>European Digital Identity Wallet</td>
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<td>GDPR</td>
<td>General Data Protection Regulations</td>
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<td>Gen AI</td>
<td>Generative Artificial Intelligence</td>
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<td>GIZ</td>
<td>German Agency for International Cooperation</td>
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<td>ICT</td>
<td>Information and Communications Technologies</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>IoT</td>
<td>Internet of Things</td>
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<tr>
<td>LGBTIQA+</td>
<td>Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, and Asexual or Ally</td>
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<td>LLL</td>
<td>Lifelong Learning</td>
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<td>LMS</td>
<td>Learning Management System</td>
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<td>LSP</td>
<td>Large Scale Pilot</td>
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<td>MCAST</td>
<td>Malta College of Arts, Science and Technology</td>
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<td>MDIA</td>
<td>Malta Digital Innovation Authority</td>
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<td>MEYR</td>
<td>Ministry for Education, Sport, Youth, Research and Innovation</td>
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<td>ML</td>
<td>Machine Learning</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OER</td>
<td>Open Educational Resources</td>
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<td>OLP</td>
<td>Online Learning Platforms</td>
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<td>ODDE</td>
<td>Open, Distance, and Digital Education</td>
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The glossary on page 92 is a fundamental component of this document.
The strategic plan outlines the strategic direction for the Commonwealth Centre for Connected Learning Foundation (‘3CL’ or ‘3CL Foundation’) for the two-year period 2024-2025.

The Foundation was established in February 2017 by the Ministry for Education and Employment in Malta and registered as an autonomous, nonprofit-making, social purpose foundation with the Malta Business Registry (Public Education Foundation No. LPF-246).

Based in Malta, the EU’s smallest member state and a member of the Commonwealth, the 3CL Foundation was originally established to work with individual and institutional stakeholders in countries in the Commonwealth and the EU on projects and opportunities of mutual interest.

With the increased turn to virtual networks, we have focused on projects where we may add value to our target stakeholders, irrespective of geographic location. We remain committed to social entrepreneurship, social justice, and equity in education.

Dr Alex Grech
Executive Director, 3CL
VISION

To transform EdTech innovation ecosystems into collaborative and lifelong knowledge hubs through the strategic affordances of critical communications and connected learning.

GOALS

GOAL 1
Understand the impact of Disruptive Technologies on Education & Society

GOAL 2
Improve Quality & Relevance of Digital Learning

GOAL 3
Address Technology-enabled Inequalities in Society
The following is a snapshot of the organisation at the time this document was written.

Value Proposition

Since its inception, the foundation has focused on the education and technology sectors.

The 3CL’s international reputation and brand equity have been built through our involvement in early applied research on emerging topics, such as the use of blockchain in education, digitalisation of the TVET sector, and information disconnects brought about by the mass uptake of social media platforms.

We organise workshops and conferences on subjects such as digital education, the post-truth society and humans and AI machines.

We are also engaged in high-profile projects, including the first country-wide deployment of verifiable credentials notarised on the blockchain and the current large-scale pilot Digital Credentials for Europe (DC4EU).
3CL’s tangible and intangible value propositions have also been built on our involvement in international communities of practice.

Wherever possible, our research and project outputs are shared online for download on proprietary and third-party platforms, under a Creative Commons licence.

We remain committed to the core principles of open science and connected learning as a means of making education more relevant and inclusive for people of all ages. We contribute to the development of essential, inclusive 21st century skills by focusing on digital literacies.

We believe that our expertise in critical communications, connected learning, and hands-on involvement in policy-making and the management of large-scale pilot projects differentiates us and positions us as thought leaders in the EdTech sector.
Situation Analysis

Our Stakeholders

Our research and publications target policymakers, educators, young people, regulators, technology firms, think-tanks, technology companies and institutions, to create the changes necessary in relation to online consumption, creation and content-sharing.

Stakeholder relationships have been developed and sustained based on collaborative projects, some related to funding regimes within a fixed timeframe, and others built on longer-lasting relationships.

The key beneficiaries of our programmes have been various organisations and higher education institutions within the Commonwealth network; the European Commission; EU policy-makers; educators; participants in our conferences and workshops; and the wider EdTech community, particularly institutional leaders, researchers, legacy education companies, and individuals interested in the reflexive relationship between disruptive media and society.
Stakeholder Relationships

3CL is the focal point for the Commonwealth of Learning (COL) in our region and members of the Groningen Declaration Network. We have formal working arrangements with a number of organisations including:

- the Ministry for Education, Sport, Youth, Research and Innovation (MEYR);
- a number of faculties, centres and institutes within the University of Malta (UM);
- the Malta Digital Innovation Authority (MDIA);
- Fondazzjoni Kreativita’;
- the Research Institutes of Sweden (RISE);
- the International Labour Organisation (ILO);
- the German Agency for International Cooperation (GIZ);
- DQ Institute in Singapore; and
- On Our Radar in the UK.
Our activities are a mix of applied research, praxis and advocacy.

**Research**

Our research activities in the EdTech sector are multidisciplinary and applied. We have adopted a strategic approach to research, focusing on outputs that are likely to resonate with decision-makers and policy-makers, as opposed to the wider academic community.

Our expertise in digital literacies, disruptive technologies and public policy continues to influence the work of policy-makers in Europe and the Commonwealth.

**Advocacy**

Advocacy work is informed by our commitment to lifelong learning and the urgent need to improve digital literacies in the academy, the boardroom and the home.

We facilitate and organise online and ‘in-person’ talks, webinars, workshops and conferences. When seeking solutions to long-standing problems associated with education and technology, we bring together thought leaders with different backgrounds and world views.

**Praxis**

Praxis work is linked to our experience which suggests that pilot projects and sandboxes are an optimum, cost-effective approach to overcome resistance to change. We participated in large-scale pilot projects funded by the EU and the Government of Malta.

We have been active partners in Horizon 2020 and Erasmus+ projects.

We are responsible for the development of expert communities of practice in the EU-funded projects currently underway.

The Blockcerts pilot we managed in Malta was the first country-wide application of the blockchain for verification of credentials: its experience was cited by Gartner as a model of best practice for verifiable credentials, and continues to facilitate credentialing in Malta several years after its inception.
Channels

3CL makes extensive use of technology for outreach and engagement with stakeholders and target audiences.

Our communication channels include: websites, newsletters, webinars, podcasts, social media platforms, conferences and workshops.

We regularly contribute to international EdTech events as keynote contributors and panellists.

We are proactive in online peer networks to secure access to research and intelligence, and regularly participate in podcasts and third-party events.

Technology is critical in streamlining and automating administrative processes, facilitating internal and external communication, and collaborating with virtual teams in different geographic regions. We embrace online collaboration tools for remote work and digital content-planning strategies for cost-effective outreach.

The 3CL also leverages the expertise and professional networks of its small executive team and individual members of the Board of Administrators with multiplier effects on its brand. We will continue making full use of our channels to disseminate EdTech content to reach out and interact with individuals, institutions, foundations, and organisations who share the same passion for educational technology and are willing to collaborate and contribute.
3CL’s primary resources are people. It has a Board of Administrators appointed by the Ministry for Education, Sport, Youth, Research and Innovation (MEYR) on two-year, renewable terms. Operations are led by the founding Executive Director, a non-voting member of the Board and also serving as Board Secretary.

3CL operates with a small, multidisciplinary core team on term contracts with ad hoc support from content providers and experts engaged in delivering the components of specific projects.

Resource utilisation and optimisation involve flexible working arrangements and optimisation of technology use for knowledge sharing and training. Our current resource model is conducive to rapid decision-making and adaptability, with access to specialist skills from the international academic marketplace.

Plans are underway to attract recent graduates with advanced communication, digital literacy, graphic design and videography skills who are interested in gaining experience in an international EdTech environment through content development and hands-on participation in online and in-person events.

### Revenue Streams

The 3CL Foundation is currently supported by an annual grant from the Government of Malta (“the Government”) and project grants, primarily from the European Commission. In recent years, we secured ad hoc grants for initiatives related to media freedoms and revenue streams from conference fees.

Project work grants provide opportunities to diversify and secure alternative funding. As is the norm with non-profits, 3CL remains vigilant for opportunities to partner with the business and education sectors and mitigate the risks of over-reliance on single sources of funding.
The development of strategic alliances is critical for the sustainability of the organisation. International partnerships with organisations are mutual goals underpinned by formal collaboration agreements. These have been important in opening up collaboration opportunities, enhancing project impact, and expanding the Foundation’s reach to the EdTech community.

**Key Partnerships**

**Cost Structure**

3CL’s primary costs are related to staff remuneration, project-related professional fees, and ICT costs. The 3CL has access to office premises in Valletta, Malta’s capital city and UNESCO World Heritage site, made available by MEYR as part of the grant agreement.
01 Political

- Government policies on education and technology and political stability have an impact on the very existence of the 3CL.

- The Board of Administrators is appointed by the Government. To date, the 3CL has operated at arms-length from Government and other organisations providing grants.

- We monitor and where possible influence regulatory changes in the EU which have an impact on education. The Digital Services Act proposes a tightly regulated environment which will challenge the operations of major tech companies, the backbone of our digital information ecosystem. Stricter rules could have an impact on their business models, potentially reducing profitability, stifling innovation, or even prompting exits from certain markets. The delicate balance between combating dis- and misinformation and ensuring digital freedoms remains elusive. Instead of viewing state intervention as the panacea, we must recognise it as one tool among many.

- We ensure that our operations are in line with the UN Sustainable Development Goals (SDGs). The most relevant SDGs for us are SDG4 - Education; SDG5 - Gender Inequality; SDG9 - Industry, Innovation and Infrastructure; and SDG10 - Reduced Inequalities.
PESTLE Analysis

As a non-profit EdTech foundation operating at arms-length from the government, external factors inevitably influence 3CL’s initiatives and collaborations. The strategic plan is informed by a high-level PESTLE analysis, conducted in December 2023, which also serves as a set of critical success factors for this strategic plan.

02 Economic

- Economic downturns or upturns can affect the financial support available for EdTech projects such as the Foundation.

- We remain dependent on the annual Government grant for several reasons, including the 3CL’s deed and statute, and geographic location. There are economic limitations in operating from an island jurisdiction with little tradition of corporate support for the work of nonprofits.

- The economic support of the government of the day is therefore critical to the implementation of this strategic plan. The 3CL needs to develop a sustainable funding model, combining public and private resources. Grants, partnerships and collaborations are critical to enhance financial stability and minimise dependency on specific funding sources.
03 Social

- Malta’s reputation as an island lab is built on its support of the innovative application of technologies such as blockchain and AI. EdTech pilots in a small country like Malta entail all the complexity of applications in other, larger countries, with the exception that the timeframe from concept to implementation is much faster and where bottlenecks in implementation are more easily identified and addressed.

- Size offers an opportunity for research and analysis on social trends and attitudes towards education and technology. For instance: the cultural acceptance and preferences regarding digital tools in education; the demand for personalised learning; and changes in demographics and family structures.

- The Euro-Med zone is an intriguing location from which to leverage technology for virtual collaborations in the education sector and seek international partnerships. Malta is also an attractive, safe and English-speaking location for the international EdTech community to gather in-person for conferences and summits.

04 Technological

- Technological advances, such as Gen AI, are anticipated to disrupt education practices and society. We believe that there will be increased demand for specialist organisations such as the 3CL to conduct research, now that EdTech is increasingly an issue for policy-makers and an opportunity for the business sector. We are committed to keeping abreast of emerging technologies that could enhance or disrupt lifelong learning.
05 Legal

- As a public foundation, we ensure compliance with data protection, intellectual property, and other relevant legal obligations. We continue to monitor EU directives relating to education and technology.

- The 3CL has been operational since 2017, and there is a need to revisit and update its founding deed and statute. The ‘arm’s-length’ principle may need to be further defined to ensure that the 3CL can build on its experience securing EU grants to explore further external funding opportunities within and beyond the EU and the Commonwealth.

06 Environmental

- The presumed end of the Covid-19 pandemic means that there is a greater demand for participation in ‘in-person’ events as opposed to the online events that became the norm during the coronavirus hiatus (2020–22). We will continue to explore opportunities for impactful in-person EdTech conferences, summits and workshops in Malta.

- The environmental impact of technology use in education continues to be a concern. Rapid digitalisation has a significant environmental impact. Several factors contribute to the Edtech industry’s carbon footprint, including electronic waste and the energy consumption of blockchain and algorithms.
VISION & MISSION

The 3CL Foundation transforms EdTech innovation ecosystems into collaborative and lifelong knowledge hubs through the strategic affordances of critical communications and connected learning.

We operate in environments in which technology, education and collaboration converge and where innovative teaching and learning methodologies and digital literacies may be facilitated.
GOALS

Vision and Mission are underpinned by three distinct and interlinked goals that guide what we intend to achieve over a 24-month period.

For our strategic plan to be sustainable over the medium-term, we will establish a robust monitoring and evaluation system to track progress towards achieving our goals, and establish mechanisms for continuous improvement and adaptation to changing needs and priorities which may impact strategies and programmes.

Open communication and stakeholder engagement are essential for ensuring that the strategic plan remains relevant and effective.
Goal 01  Understand the Impact of Disruptive Technologies on Education & Society

Disruptive technologies are innovations that have the potential to significantly transform traditional teaching and learning methods.

We are primarily interested in social media, Open Educational Resources (OER), Augmented Reality (AR), Virtual Reality (VR), Blockchain and AI.

We remain advocates for OER, which we consider to have become an increasingly mainstream resource.

1. Research the complex positive and negative dimensions of these technologies and their impact on education and society.

Claims for technological disruption focus on how these technologies can disrupt markets, businesses, social relations, institutions, epistemic paradigms, foundational concepts, values, and the nature of human cognition and experience. There are many concerns, ranging from issues related to copyright and the threat to jobs, to the overall ethical use of AI.

We are committed to exploring the affordances of disruptive technologies in the process of debunking myths and resisting technological determinism and agentic hubris.

3. Foster information exchanges with stakeholders about the opportunities and potential applications of Gen AI technologies in learning, training and education spaces.

4. Facilitate a better understanding of the skills required by educators and students alike to navigate the digital information landscape. These skills are essential because digital platforms continue to prioritise commercial imperatives over authentic information dissemination, with an inevitable adverse impact on the quality of discourse.

5. Monitor issues relating to trust in the media and the information society. We are particularly interested in misinformation and disinformation, citizen journalism, the attention economy and platform surveillance. The need to secure a trustworthy digital information ecosystem is an education project when social media has become the primary source of news for citizens. The pressure in the EU for technology platforms to be regulated as media companies is as palpable as concerns about state bodies’ commitment to authenticity and transparency and their arbitration of “truth” - a contested and inherently subjective term, varying across political, cultural and geographical boundaries.

6. Monitor online behaviour that generates disconnects in society. We are particularly interested in issues related to self-sovereign identity, online hate speech, woke culture, cancel culture, and online influence.

7. Understand the impact of Generative AI on specific occupations in the labour market, including education and learning professionals, artists and creative professionals, journalists, and other media professionals.

8. Participate in innovation labs and creative clusters that contribute to active community engagement and well-being.
The anticipated gradual digitisation of education transitioned from a planned initiative to a necessary, unplanned process during the COVID-19 pandemic, compelling educational systems to pivot towards emergency remote learning.

Education information systems, online learning platforms, assessment tools and digital learning devices in classrooms and lecture halls are increasingly becoming the norm.

However, the return of in-person instruction stunted the perceived momentum of digital transformation.

Teaching methodologies, learning processes, and the educational ecosystem continue to resist change.

The incorporation of technology into education tends to replicate traditional methods rather than reinvent them.

The transformation benefits in the form of personalisation of learning and student support continue to be promises, rather than tangible programmes.

A substantial gap exists between potential and praxis, particularly in higher education.
1. **Raise awareness of the relevance of digital learning**, which encompasses quality assurance (focusing on the qualitative shift in forms of teaching and learning); the complementarity between open educational resources, self-produced and “traditional” educational materials; and the need for transparent, equitable, modular assessment regimes that validate and certify the skills and knowledge acquired, irrespective of the medium used for such acquisition.

2. **Increase the impact of higher education, TVET, and professional educators** by exploring new pedagogies and research tools that may unlock the potential for more personal and effective interaction with each student, enable comprehension and deep learning in individuals, and provide educators with effective and more engaging teaching methods.

The social and human impact of digital education needs particular attention, especially the impact on teachers exposed to radical changes in their roles. We will develop materials that can be included as a part of continuous or specific teacher training.

3. **Identify opportunities for new forms of learning**, allowing individuals to engage in learning at any moment and from any location, provided they possess the necessary tools and connectivity and know how to use them.

Asynchronous training enables individuals to not only access educational resources from anywhere but also to do so on their own schedule, accommodating learning within their existing commitments.

When utilised effectively, technology has the capacity to facilitate personalised learning for students, assist educators, offer extensive engagement avenues for parents, and offer valuable insights for educational policies crafted by school leaders and policymakers.
4. Focus on learner-centric (as opposed to institutionally-sound) approaches to learning. This depends on bringing together educators in the field with social scientists, researchers, and policymakers with a combined sense of urgency and a common commitment to social enterprise in education.

5. Raise awareness of the need for critical evaluation of existing discourses regarding the impact of emerging technologies on education and learning - from digital divides to the hegemony of commercial interests and the datafication of society.

6. Champion the creation and use of open educational resources and new forms of teaching and learning practices and explore new methods that may regenerate educational content, curricula, and assessments.
7. **Support the work of creative clusters and innovation labs** that contribute to improved well-being and the strengthening of local communities. We are interested in learning that is collaborative and interactive, connects the learner to peer learning networks irrespective of geographic location, and blends formal education with informal and non-formal learning.

8. **Advocate for teaching to be more responsive to learners’ individual needs** and goals through innovative pedagogies and use of the learners’ progress analyses (for instance, through data analytics). The tertiary sector, in particular, needs to explore the promise of Generative AI, instead of resisting it.

9. **Advocate for education systems to incorporate formal learning programmes** that lead to much-neglected 21st century skills, including digital literacies. Changes in curricula and pedagogies are necessary to broaden and enhance society’s digital skills. Investment in education needs to extend beyond ICT and STEM subjects if we are to have technologies for the public good, as opposed to the profits of the few.

10. **Transform research needs into pragmatic information and advisory services for target stakeholders** on various aspects of technology-enabled and connected learning. There is a need for more grounded research on the impact of Industry 4.0 on society.
Technologically-enabled inequalities refer to disparities or gaps in access to, use of, and benefits derived from technology.

These inequalities can manifest in various ways across different social, economic, and cultural contexts.

While technology can reduce certain barriers to lifelong learning, it also introduces challenges, such as access to suitable infrastructure, equipment, and connectivity.

Securing new skills through technology depends on existing digital infrastructure, such as digital proficiency.

In contrast to traditional learning environments, individuals need both digital skills and the ability to independently drive their own learning without significant external motivation or prior commitments to specific times and locations for learning engagement.

Addressing technologically enabled inequalities requires a multifaceted approach that considers the complex interplay between technology, society, and power structures. Our Goal is to:

1. **Reflect on the dimensions of technologically-enabled inequalities** where we have expertise: digital literacy divides, data privacy and surveillance, disinformation impacts, identity and representation and blockchain in education.

By examining these dimensions, our goal is to better understand how technology interacts with various social factors to exacerbate or mitigate existing inequalities.
2. **Focus on groups of people long identified as disadvantaged or marginalised**, such as women, middle- and low-skilled workers, economic migrants, and workers who need vocational training.

These face an increased risk of being rendered more vulnerable due to labour market changes and disruptions brought about by digital technology. The corollary is that access to key technologies holds promise for marginalised groups to address learning gaps and secure better access to labour markets.

3. **Focus on digitalisation of TVET as a means of assistance to institutions in developing countries.** Industry 4.0 has implications for the future workforce and the skills it requires.

The integration of digital technologies in manufacturing also intersects with topics like digital literacy, the impact of automation on employment, and the need for new skill sets in the era of rapid technological advancements.

4. **Shift the prevailing discourse on technology in education** from the need for further investment in ICT infrastructure to an understanding of the need for better policy-making, sensible regulation of technologies and value for money praxis.

5. **Reorient the prevailing discourse on the value of STEM studies to multidisciplinary approaches to education** which include the humanities and social sciences as essential components of the new thinking needed to use the affordances of technology to address inequalities in society.
6. **Raise awareness about the availability of OER for teachers and learners.** We will continue to develop content which is in line with the principles of social justice and provide access to OER, including OER collaboratively maintained by partners, enhancing the quality and relevance of teaching materials while reducing their costs.

7. **Contribute to improving equitable access to quality digital education that factors in intersectionality.** It is important to analyse the impact of technology on social inclusion and identify existing inequalities. Physical location and socio-economic backgrounds need to be factored into more inclusive approaches to education. At different stages of life, educational provision can be enhanced by reducing intergenerational inequalities.

8. **Offer training and resources to underserved communities to enhance their digital literacy and access opportunities.** We will facilitate synergies with governments and NGOs to bridge the digital divide in Europe and the Commonwealth whenever possible.

9. **Contribute to improved EU regulations which impact EdTech issues.** We need technologies that benefit everyone, not just the privileged. Regulation in the digital space is essential for several reasons: privacy protection, cybersecurity, combating mis- and disinformation, ensuring the ethical use of technology, promoting digital literacies, addressing monopolies and market dominance, protecting against surveillance capitalism, and providing legal accountability.

It is in the interest of regulators to secure a digital space where genuine discourse is not stifled under the guise of regulatory oversight. Issues related to power, identity, and social networking platforms are particularly relevant in the context of technology-enabled inequalities in society.
STRATEGIES

Our three goals are underpinned by three strategies:

Strategy 01  Conduct Action Research

Supports: Goals 1, 2 and 3

The EdTech sector is constantly evolving. As an EdTech foundation for the public good, we are engaged in understanding the ongoing reflexive relationship among technology, education, and society.

By conducting and commissioning grounded research initiatives, we identify innovative solutions to diverse challenges in the field of EdTech.

Action research not only influences our initiatives, but also ensures that our contributions are rooted in evidence-based practices, fostering a vibrant and progressive learning environment for both learners and educators.
Strategy 01  Conduct Action Research

Our strategy is to:

**Develop relationships with key statekholders**

Develop relationships with academic and professional researchers on a global scale, facilitating their involvement in research domains that align with the strategic plan. We are in contact with universities, higher education institutions, consulting firms, and the labour market, primarily in Commonwealth and EU member states.

**Monitor research funding opportunities**

Monitor research funding opportunities from EU programmes and other sources. Capacity issues dictate that additional funding must be secured beyond the annual government grant to conduct meaningful research at scale. EU programmes such as Horizon Europe, Erasmus+, NGI and Digital Europe are of primary interest. We will also seek collaborations with public and private organisations for one-off projects and events, such as conferences, workshops, and talks.

**Collaborate with third parties**

Collaborate with third party institution bids for research funding which may lead to the development of patents in areas of interest or expertise.

**Promote and support action research**

Promote and support action research in strategic, high-profile areas of interest that resonate with stakeholders. Research findings will be published through peer-reviewed third-party publications as well as 3CL-branded research reports to be published online under the most current version of the Creative Commons Attribution International (CC BY) licence.

**Focus on technologies**

Focus on technologies such as blockchain and Generative AI which resonate with stakeholders. The blockchain’s potential to support lifelong learning is latent, and we will build on our expertise and credentials in this area.
Investigate long-standing disconnects between the skill sets of graduates—the outcomes of learning processes within education institutions—and the expectations of specific sectors in the labour market. The integration of innovative and disruptive technologies commonly results in the reconfiguration of production factors, including labour and infrastructure. As disruptive technologies shape the future of work, organisations are focused on understanding the tasks that Generative AI will excel at, and the pace at which change will occur. New career paths are opening up in areas that were inconceivable a few years ago. A major concern at this stage is the impact of Generative AI on occupations; the need to upskill and reskill those already in the labour market to meet the demands of the changing technological landscape is crucial.

Research mis- and disinformation

Engage in research related to misinformation and disinformation which resonates with regulatory bodies, the media industry, education institutions, and the labour market. Citizens continue to trust news stories secured, mediated, and repurposed through social media platforms and third-party sources. We will develop research materials that prioritise data and information literacy in the belief that our outputs resonate with policy-makers, journalists and educators.

Understand impact of AI take-up

Understand the transformative processes underway within target sectors of interest to stakeholders as a result of the mass uptake of Generative AI. We are particularly interested in its impact on the education and creative industry sectors. At face value, innovative solutions exist for the process of developing novel and original content based on multiple inputs: storytelling, character development, and experience creation. There are additional benefits, such as streamlining the creative development process and analysing vast amounts of data to reveal audience preferences. Conversely, while these tools offer efficiency, they also raise concerns regarding originality, bias, and creativity. There is a risk that AI algorithms may perpetuate biases in content creation, affecting diversity, inclusivity in creative outputs. An excessive reliance on data-driven insights is likely to hinder artistic intuition and spontaneity.

Investigate disconnects
Strategy 02  Establish and Maintain International Communities of Practice

Supports: Goals 1, 2 and 3

We operate as part of the international knowledge-sharing economy and collaborate with organisations and individuals aligned with our vision and goals.

We will build on the knowledge base secured since the Foundation’s inception and the experiences of working with international partners on projects and interacting with institutions, including the European Commission.

Our strategy is to:

Identify organisations with shared knowledge

Identify organisations with shared knowledge and practice domains. Social media and personal networks are used extensively to identify organisations and multipliers with expertise in shared domains, such as teaching methods, research projects, or the implementation of educational technologies. Communities are associated with a sense of belonging, mutual engagement among members, collaboration, and exchange of ideas.

We work best with partners who consider learning as a social process within target communities, where members learn from each other through shared expertise, experience, discussions and exchange of resources. A community of practice needs to be tantamount to a joint enterprise in pursuit of common goals, solving shared problems or advancing knowledge in a particular area.
Collaborate on digital literacies & 21st century skills

Collaborate with mobilised organisations seeking to advance 21st century skills and digital literacies, irrespective of location. Mobilisation will depend on our ability to connect and empower partners through lightweight support systems of institutions and experts aligned in placing the learner at the centre of more inclusive education propositions. Our target organisations are:

**Educational Institutions and Research Centres:** universities and TVET organisations for joint workshops and research projects, enhancing academic collaboration.

**Government and Regulatory Bodies:** national policy-makers wishing to explore digital literacy integration in education through teacher-training workshops, seminars and toolkits.

**Tech companies and Industry Leaders:** Collaborate with industry for resources, expertise, and potential funding to stay on top of tech trends.

**Media Organisations:** Form powerful alliances for impactful awareness campaigns, utilising media partnerships for broader outreach.

**Nonprofit Organisations and Think-tanks:** Collaborate with like-minded nonprofits to pool resources and enhance programme impact.

**Tech Platforms:** Partner with online platforms for content delivery, creating engaging online courses and webinars.
Establish and Maintain International Communities of Practice

Develop “real-world” pilots

Identify, facilitate, develop and participate in pilots that may be proposed to existing or prospective communities of practice. We will continue to focus on high-profile pilots that can be replicated as use-case studies. Our experiences with blockchain and education have led to collaboration with visionaries, and we wish to expand to other key areas, such as digital literacies. Role models are experts, groups, and institutions willing to pilot new, thoughtfully designed approaches. Pragmatic, quick wins will secure support if they are replicable; cultural differences easily identifiable; and ‘red-tape’ eliminated at the outset.

Provide learning support

Provide learning support by showcasing relevant case studies to encourage educational institutions to re-evaluate and implement much-needed changes in curricula and modes of assessment. Energised forms of digital scaffolding can shift the emphasis from policy discourse to praxis, helping learning institutions, teachers, and learners acquire digital skills and learning methods. This process involves the activation and management of three interconnected pathways: peer-learning networks; connected learning principles and open education resources.

Collaborate with the labour market

Collaborate with the labour market and industry associations interested in developing communities of practice focused on bridging the gaps between formal education and praxis. Such collaboration at the tertiary level could lead to study units and curricula being aligned with market needs.
Explore Euro-Med communities of practice

Explore opportunities for establishing a Euro-Med community of practice, made up of educators, researchers and professionals from the region to explore and advance digital literacies and blockchain in education (among other focus areas). Engaging with such communities can contribute to a richer understanding of global perspectives and practices in specialist domains.
We believe that lifelong learning and digital literacies are interconnected areas that need greater support from the education and technology communities, and the labour market in particular.

They improve the skill sets and quality of life of citizens and contribute to a more inclusive and connected society.

Technological advancements and societal changes are occurring at an unprecedented pace, leading to the continuous emergence of new information and skills.

Lifelong learning allows individuals to adapt to these changes and to acquire the knowledge and competencies needed to thrive in diverse professional and personal environments.

The integration of digital literacies within the lifelong learning framework enables individuals to thrive in the digital age, fostering adaptability, critical thinking, and continued personal and professional development.

We advocate for policy changes and work with governments and international organisations to promote equitable access to quality education and technology.
Media literacy education & critical thinking should start at my school level.
Strategy 03 Cont...
Advocate for Lifelong Learning and Digital Literacies

Our strategy is to:

Ensure benefits for the many

Ensure that technological, institutional and pedagogical advances benefit the many. We are engaged in brokering non-formal, informal, professional, applied, and modular learning as a means of supporting much-needed changes in formal academic pathways.

Raise awareness of need for lifelong learning

Raise awareness of the need for a lifelong learning mindset among young people. Encouraging young citizens to embrace lifelong learning prepares them for future challenges, but also instils in them a sense of curiosity and commitment to continuous improvement.

Work on digital literacy projects

Work on projects that address a major lacuna of the digital age: the dynamics of the post-truth society. Social networking platforms in particular shape narratives and echo chambers. We need to empower citizens of any age with the skills to identify and refute falsehoods and to regain trust in online information.

Making sense of the abundant resources available in today’s connected world is challenging. When individuals are inundated by conflicting narratives, cognitive dissonance becomes a daily struggle. The constant barrage of information, with no reliable means to discern authenticity, often leads to news fatigue, apathy, and, in some cases, complete disengagement from current affairs and the political economy.

There is an ongoing struggle based on the fundamental human desire – the quest for truth. Digital literacies empower individuals and communities to find ways towards a future where such trust is restored.
Understand information literacy

Understand the societal and psychological factors that draw people to mis- and disinformation and conspiracy theories and lock them into echo chambers. Generative AI is likely to increase the potential for bias, deep fakes, privacy, and data-security issues. By imparting skills and fostering a culture of enquiry, we can help inoculate future generations against the allure of falsehoods.

Engage with media literacy projects

Engage with community projects interested in media literacies: where narratives are connected by shared values of authenticity and inquiry – not just consumed, but questioned, analysed and co-created.

Media competencies contribute to citizenship; literacy development; and personal, social, and professional development. For digital platforms to become arenas for genuine discourse and learning, policymakers, educators, tech leaders, and communities must adopt a grassroots, collaborative approach.

Investment in education, collaboration between media and academic institutions, and renewed commitment to journalistic integrity are vital components of a concerted push towards an informed and engaged society.
Work with policymakers

Work with policymakers to create regulations that protect vulnerable users, promote responsible technology development, and bridge the digital divide.

Integrate critical thinking into the curriculum

Work with policy-makers to raise awareness of the need to integrate open-source investigation and critical thinking into the curriculum. Young people need to secure critical thinking skills to navigate the labyrinthine digital realm; to question, analyse, and verify before accepting or sharing information; and to create their own media.

Understand the impact of Generative AI

Work with partners in the labour market to understand the impact of Generative AI on the workforce. With multiple disruptive technologies converging concurrently, society stands at the brink of substantial transformation, demanding significant learning and relearning.

The dynamic nature of disruptive technologies necessitates a workforce that is adaptable and that engages in continuous learning. As society and work environments evolve, certain skills will become less marketable, whereas others will remain critical for the future workforce.

The development of agency - what people are free to do in pursuit of the goals and values they regard as important - should be viewed as the ultimate goal of education.
Leverage the power of community

Leverage the power of community by connecting educational expertise with local media networks, empowering the younger generation, giving them a platform and a voice, while simultaneously rejuvenating local journalism. This synergy can foster a new era of investigative reporting rooted in community concerns and grounded in evidence.

Set up hubs of open-source investigation

Partner up with centres within higher education institutions to set up hubs of open-source investigation, with national and international networks of students sharing methodologies, tools, and insights. As these students move into their professional lives, they carry forward not just skills but a mindset that values evidence over hearsay and critical thinking over blind acceptance.

Advocate for transparency and disclosure

Advocate for transparency and responsible disclosure around AI systems. Algorithms in education tend to be designed by people with strong data and technical skills but a narrow perspective of equity and social inclusion. The bias that exists within such systems needs to become explicit, particularly if we want to address inequities, integrate social learning, and eliminate bias towards learners who are disenfranchised, such as refugees or people in poverty.

Champion lifelong learning hubs

Champion the establishment of Lifelong Learning hubs that promote more inclusive and multidisciplinary approaches to education. Rapid changes in technology, demographics, and global dynamics have also altered the landscape of the sought-after skills in the workforce. Skills acquired through formal education or employment tend to quickly become outdated, and workers must continuously update, enhance, and broaden their skill sets to adjust to technological advancement.
PROGRAMMES

Strategies are underpinned by three inter-connected Programme Clusters.

Each cluster incorporates a number of projects that we plan to implement over a 24-month period on the basis of the strategic planning process we have just concluded and the information available at the time of publishing.

3CL will use proprietary communication channels and appropriate media for meaningful engagement with the target stakeholders.

We will invest in cost-effective content production and technical infrastructure, and share content over appropriate media platforms.

The majority of our outputs are in formats that may be streamed and/or shared online, such as blog posts, podcasts, videos, conferences, and workshops. We will use peer networks and third-party communication channels whenever possible.

We will continue with our policy of sharing content online as a public good under an appropriate Creative Commons licence.
Programme Cluster 1: Digital Literacies

**Supports: Strategies 1, 2 and 3**

**Project 01 Young People & Information**

This cluster and supporting projects focus on the digital literacy skills necessary to navigate the complex digital landscape, critically engage with information, and constructively contribute to the digital society.

We strive to combat misinformation and disinformation by fostering a deeper understanding of the conflicting contributions of the media, technology, education, and governance. We aim to provide a more nuanced understanding of digital literacies by leveraging our academic expertise and experience.

01

We will use our Manifesto on Young People and Information as a template for research and activist work. We consider the manifesto to be a work-in-progress template that will be revised and re-purposed in collaboration with other stakeholders.
02

The manifesto will be published in different languages when there is a request from the stakeholders. It will be translated into other languages on a needs basis.

03

We will work with partners on the initiatives proposed in the manifesto, using different media which may resonate with the target audience. The initiatives being considered include poster campaigns, podcasts, the repurposing of the GenZ.mt website, an exhibition on the subject of disinformation and the production of a short film. We plan to work with partners such as the University of Malta, MCAST, Aġenzija Żgħażagħ, Fondazzjonijiet Kreattivita’ and RISE. By involving these organisations, we plan to encourage youth-led projects and initiatives.

04

We will lobby institutional leaders, legislators and policy-makers, international youth organisations, EdTech nonprofits and NGOs, legacy education organisations, and researchers to raise awareness of information literacy. We will also participate in third-party digital literacy projects aimed at younger people.

05

We will maximise opportunities to develop educational modules that raise awareness about disinformation and the need for critical thinking skills to foster a culture of media literacy and responsible digital citizenship.
Programme Cluster 1: Digital Literacies

Project 02 Generations, Technology & Life Beyond Education Institutions

Our work has much to do with the ongoing reflexive relationship between technology and the social world. As an EdTech foundation, we explore social structures, cultural practices, online interpersonal relationships, social networks, digital and virtual spaces, social dynamics and power relations. We also recognise the need for a comprehensive, grounded, and situated understanding of the socio-cultural factors that influence the adoption of new technologies by different generations, and by the labour market in particular.

Our research has revealed a prevailing trend in the current landscape – a growing sense of disconnection between young people and older generations.

This phenomenon is often attributed to the unique affordances of digital media and the perceived widening gap between ‘digital natives’ and ‘digital immigrants.’

With Generation Z entering the labour market, these disconnects are becoming increasingly apparent.

We play a crucial role in addressing this issue. We are not only committed to contributing to the academic understanding of these generational dynamics but also to dismantling myths, fostering intergenerational understanding, and promoting responsible and healthy relationships with technology across all age groups.

By integrating our foundational research on the reflexive relationship between technology and society with a targeted approach to bridge generational divides, we aim to create a comprehensive framework that addresses the critical intersections of technology, generational dynamics, and education.
We will leverage our ongoing academic and research projects to focus on perceived and actual intergenerational differences caused by different relationships with technology and how these differences impact the future of education and the labour market.

We will commission or support action research to understand how the mass adoption of social media platforms and the likelihood of AI integration are changing existing generational roles within target sectors within the context of life beyond formal education systems. We intend to focus on a small set of career pathways that correlate with education, disruptive technologies, and new media. We adopt an evidence-based approach to understand the gaps between the skill sets facilitated by formal systems of education and the expectations of the labour market.

We will use Malta as a representative location for our study but will explore options for a comparative study with another small state or city-state to secure more granular data. We believe that there are opportunities to partner with one of the big four consulting firms in Malta, youth organisations and an international research partner.

We will facilitate intergenerational and intercultural forums, workshops, and online communities in which people from different generations can discuss concerns, share experiences, and learn from each other. Our sessions will cover a spectrum of digital literacy topics, from social media navigation to understanding emerging technologies.
We will take initiatives to explore the implications of multiculturality and a heavy presence of migrants in host societies – including Malta – on the manner in which technology, education and collaboration intersect. These include: the linguistic challenges of adult migrants, the cultural expression of the digital divide, the better integration of foreign workers into the digital economy and society, and the use of EdTech to dispel harmful stereotyping of migrant groups.
Project 02 Cont...

Generations, Technology & Life Beyond Education Institutions

06
We intend to enhance the digital literacy skills of participants, strengthen intergenerational relationships, and establish a foundation for continued collaboration and knowledge exchange. We expect to address issues such as communication styles, work values and expectations, technology adoption at work, leadership and management styles, learning and skill development preferences, team dynamics and collaboration, career expectations and motivation, and organisational culture. We believe that this project provides opportunities to partner with one of the big four consulting firms in Malta and/or an international research partner.

07
We wish to help young people identify and design initiatives that empower others to resist surveillance capitalism and to take control of their digital presence. We will provide human and financial support for relevant student-led projects and initiatives.

08
We will leverage our existing relationships with the University of Malta to ensure that academic perspectives are integrated into the project, providing participants with a solid foundation in digital literacy. We will work with partners with expertise in TVET and linkages with the labour market, such as RISE, to ensure that lifelong learning principles are incorporated in the conversations from a wider European perspective. We will also collaborate with youth organisations and NGOs and explore collaboration with the Internet Society.

09
We intend to facilitate forums and dialogues in a number of countries, either as part of research projects or as stand-alone events. We believe that the project can enable participants to share expertise and experiences across borders, launch online communities and forums, and foster peer-to-peer learning and support.
Programme Cluster 1: Digital Literacies

Project 03  AI and Personal Learning Pathways

With AI now easily accessible to both educators and students, much has been made of its potential to facilitate personalised learning pathways for students of all ages.

The sophisticated content generation capabilities of AI in various forms such as text, images, code, speech, music, and video are evident, and the implications of AI in education are extensive and far-reaching.

However, the education sector has been relatively slow to embrace technology, compared to other industries.

01

We will commission a first wave of qualitative research to understand the promise of Gen AI, combined with other technological advancements, to the potential to transform classrooms into dynamic, flexible, collaborative, and personalised learning environments.

Our objective is to identify an initial panel of experts and thought leaders from different countries and continents for in-depth interviews to secure insights on how AI can provide personalised and engaging learning experiences, allowing educators to focus on more meaningful tasks. We are particularly interested in how disruptive technology may also democratise access to high-quality learning opportunities, especially for marginalised students who do not benefit from the traditional “one-size-fits-all” approach to education. All interviews will be transcribed and supplemented with desk research.
02

We will publish the research findings as an online report and explore opportunities to supplement the study with webinars and workshops.

03

Once we have assimilated the research report, we will develop a toolkit which can be used by educators and students alike to identify personal learning aspects that may improve the overall teaching and learning experience.

04

As a subset of this project, we are interested in issues of mainstream media interest as AI enters the education domain.

We will do our utmost to debunk myths at a historic juncture when citizens are uncertain about where to find reliable, unbiased information about Generative AI (Gen AI) and its potential effect on their lives. We will monitor developments on issues such as intellectual property violations due to “plagiarism” in the training data used to create foundation models, questions about the accuracy and explicability of the answers provided by large language models (LLMs) when queried, and the fairness and bias of the content generated by LLMs (such as the perpetuation of harmful stereotypes). The economic and societal challenges posed by this changing landscape inevitably impact the EdTech sector.

We will monitor Gen AI, including its misuse and potential impact on vulnerable groups, as a means of understanding the challenges for policymakers and opportunities for citizens-at-large to both play a role in shaping the decisions that govern the integration and adoption of Gen AI into their daily lives.
Programme Cluster 1: Digital Literacies

Project 04 Digital Literacies’ Toolkit for Teachers & Trainers

Digital literacies are crucial for active participation in society. The consensus from our research to date is that young people believe that the one-size-fits-all education system has failed both them and educators to introduce digital literacies in the compulsory curriculum.

When screens have become the primary mode of interaction between humans in many countries, becoming digitally literate is a process that needs to start early in the lifelong learning cycle if citizens are to understand how to navigate, evaluate, create, and share information using a range of digital technologies effectively and critically.

01

We will leverage our expertise in media and information literacies to develop a digital literacies toolkit specifically for use by teachers and trainers. Teachers need to absorb a set of digital literacies themselves first, irrespective of their core disciplines, if they are to empower future generations. In many countries in the EU, students may only access study units on digital literacies and other 21st century skills at tertiary or TVET education stage. By that time, at the admission of Generation Z, ‘it is too late.’
We believe that connecting classrooms and deploying digital devices is of secondary importance to revitalising curriculum content and understanding the pedagogical implication of using digital technologies within education institutions. There are opportunities to use connected learning principles to redesign learning pathways. Teachers provide context and mentoring and foster reflection and discussion; their role is pivotal if in-person education is to be enhanced by blending online experiences. New technologies should be used to support teachers and allow them to free time from conveying content to focus on high-value in-person interactions with students. Equally important is the role of the learning engineer, typically a creative who builds bridges between various fields of education and develops additional infrastructure to help teachers teach and students learn.

We will ensure that the digital literacies’ toolkit addresses information and media literacies as a means of resisting disinformation and surveillance capitalism. We will review models of best practice from our peers to produce a collection of resources, tools, and strategies designed to help teachers and trainers teach digital literacies to young people in a meaningful and responsible way. The toolkit will include media literacy tools and guides to help teachers critically analyse and interpret various forms of media, online security guides, information verification tools, social media platform modules, digital identity management tools, AI literacy tools, and a glossary on collaborative platforms to facilitate connected learning and knowledge sharing among users. In this process, we wish to contribute to teacher development by empowering educators to effectively integrate Edtech into their teaching practices.
We believe that positioning EdTech within a lifelong learning framework is bound to create a compelling value proposition for our target stakeholders. This cluster and supporting projects are planned on the basis of the four UNESCO primary aims for LLL:

(1) fostering economic growth and job opportunities;

(2) encouraging social inclusivity, unity, and active democracy;

(3) nurturing personal development and fulfilment; and

(4) cultivating cultural progress and enhancement.

LLL is readily associated with a learning society, where distance education encompasses learning formats outside of formal education systems, more inclusive of different learning formats and different interests of learners.

LLL is also synonymous with training and transformation in the nature of work, with the rise of automation, artificial intelligence, and other technological innovations associated with Industry 4.0.

Jobs are evolving and new roles are emerging, making it essential for individuals to engage in continuous learning to remain relevant and competitive in the job market.

LLL can provide a response to growing job volatility. It fosters personal development and intellectual growth. It promotes critical thinking, problem-solving abilities, and creativity, which are essential skills for navigating complex and dynamic situations.
Programme Cluster 2: Lifelong Learning & EdTech

Project 05 Women in EdTech & Small States

Various small states – especially in the Caribbean – are matrilocal; and yet women are underrepresented in the development and leadership of educational technology.

Historically, there has been a gender gap in the technology sector, with fewer women pursuing STEM careers.

We wish to secure insights into gender inclusivity, education, empowerment, and workforce diversity by focusing on the work of women in the EdTech sector.

By focusing on small state contexts, we will be better able to secure more granular insights into how women contribute to a learning society, with positive spin-offs in the labour market, gender inclusivity, and empowerment.

This project is also part of our advocacy and social justice programmes to promote gender inclusivity in the design and implementation of EdTech solutions.
We will conduct research to understand the opportunities and challenges faced by women leading EdTech initiatives in small states, informed by an intersectional perspective.

We will use a mix of interviews, case studies, surveys, and desk research to secure data for internal analysis and reporting.
Through our interviews with experts and thought leaders from different countries and continents, we hope to secure first-hand accounts and insights on the personal strategies employed to overcome gender disparities in technology and STEM, and a grounded, comprehensive understanding of the environment in which women operate.

This includes examining STEM programmes, initiatives, and support systems that have contributed to the advancement of women in their fields.

We also focus on opportunities for technology to close gender gaps in education.
03

We will focus on STEM within the context of the affordances of technology: how EdTech tools may be designed to address diverse learning styles, ensuring that girls and women have equal opportunities to excel in STEM subjects.

We also examine how specific institutions support women’s efforts to excel in EdTech. Supporting initiatives and organisations advocating for women in technology are crucial.

04

We will publish the research findings as an online report and explore opportunities to supplement the study with webinars and workshops.

These could also look into issues such as role models and mentorship as a means of connecting female students with women working in the tech industry and encouraging more women to pursue careers in technology and EdTech.

These efforts may include scholarships, networking events, and awareness campaigns to promote gender diversity in the technological and EdTech sectors.

We are also interested in understanding whether improvements may be made to education tools and platforms such that they are accessible and welcoming to individuals of all genders.

It is important that education technology be free from algorithmic bias to resist content that perpetuates gender stereotypes.

05

We will look for opportunities to collaborate with partners, such as COL and the Female EdTech Fellowship run by the European EdTech Alliance.

These efforts may include scholarships, networking events, and awareness campaigns to promote gender diversity in the technological and EdTech sectors.
Programme Cluster 2: Lifelong Learning & EdTech

Project 06 Connected Learning in Commonwealth Small States

We have a long-standing relationship with the Commonwealth of Learning (COL) and currently have regional centre responsibility for sub-Saharan Africa.

Operating out of Malta, we understand how small states may use technology to secure a competitive advantage over larger jurisdictions.

The Commonwealth defines small states as sovereign countries with a population of 1.5 million people or fewer; 31 of the 53 Commonwealth member countries are small states.

01

We will open up discussions with both COL and the Commonwealth Secretariat in London to explore opportunities for leveraging our strategic Euro-Med location to contribute to a better understanding of the opportunities and challenges for connected learning in a regional context. There is a set of regional nation-states with a relationship with COL that are not necessarily looking for funding, but for tangible action that can add value to regional stakeholders.
The OECD outlines three key categories of foundational competencies: cognitive basics such as literacy and numeracy, forming the basis for digital and data literacy; health fundamentals encompassing physical and mental well-being; and social and emotional fundamentals, encompassing morals and ethics.

Studies indicate that these foundational competencies serve as the basis for continual learning and attainment of future-oriented abilities.

The principles of connected learning are particularly useful when citizens need social and emotional learning skills. Deep human skills and higher-level cognitive skills, such as creativity, complex information processing and critical thinking, are not easily replicated by machines.

They empower learners to maximise their potential, transforming them into involved members of society and contributing to their communities.

We propose to carry out in-depth research on how small states such as Malta engage with connected learning, focusing on digital literacies and the need to upskill and reskill citizens, irrespective of their age, to reconnect with the affordances of technology and lifelong learning and maximise opportunities in the social world and labour market.

The ability to change, unlearn, and relearn as new technologies disrupt trusted norms is already needed for mid-life career shifts. Basic digital competencies have transitioned into indispensable requirements across occupations and sectors.
The programme provides a framework for fostering digital learning and developing skilled citizens for lifelong learning. It targets leaders with ICT literacies prepared to work with peers to improve the use of digital technology for learning, employment and sustainable development.

We can work with COL to develop a C-DELTA programme to help individuals improve their employability in the job market by better understanding their own level of digital education leadership skills, and by providing online credentials in resumes.

Individual learners will also develop their skills using online resources and become certified online.

We will explore how we may collaborate with COL within the context of the Commonwealth Digital Education Leadership Training in Action (C-DELTA). C-DELTA is COL’s long-term programme to promote digital education environments in Commonwealth nations.

C-DELTA works with governments, educational institutions, teachers, and civil society organisations to assess digital education competencies, develop learning materials around digital education skills, provide training opportunities for teachers, and monitor student achievement and its relationship to livelihood.

We will use knowledge acquired from case studies, proprietary networks and emerging models of best practice in small states in the Commonwealth and the EU.

We will also seek alliances with academic and professional organisations interested in exploring the affordances of emerging technologies and connecting learning and their practical applications within a small state context.

Such organisations include the Islands and Small States Institute at the University of Malta, and the Connected Learning Alliance.

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Programme Cluster 2: Lifelong Learning & EdTech

Project 07 3CL Academic Online Journal

In an era where technology, education, and communication intersect, it is crucial for EdTech entities to lead in knowledge creation and dissemination.

3CL plans to launch its own online English-language, Diamond open access (and therefore high impact), rigorously peer reviewed academic journal: the Journal of Disruptive Technology, Education, and Communication (JDTEC).

3CL will ensure the journal’s success by carefully defining its scope, selecting the right operational platform, and appointing an executive editor and international editorial board.

01

We are dedicated to fostering scholarly excellence, disseminating influential research and facilitating intellectual dialogue. Published biannually, the journal will not only reflect the latest advancements in technology and education but will also play a significant role in shaping the discourse at the intersection of these critical fields.

02

We seek to boost 3CL’s visibility and solidify its position as a leader in the field. Through these efforts, 3CL aims to be a driving force in knowledge building and the distribution of insights that will shape the future of education and technology.
Programme Cluster 3: Verifiable Credentials & Self-Sovereignty for Learners

Supports: Strategies 1 and 2

This cluster and supporting projects build on the expertise we have secured in recent years in the areas of blockchain, education, self-sovereignty, interoperability, and verifiable credentials.

We have participated in relevant EU projects, published in influential journals, influenced policy-making in the above areas in many countries, advised governments, and developed keynotes for higher education institutions in Europe and the Commonwealth.

The two projects below are funded by EU grants and are operational for the duration of this strategic plan. They form the basis for our ongoing research in these key areas.
Programme Cluster 3: Verifiable Credentials & Self-Sovereignty for Learners

Project 08 Digital Credentials for Europe (DC4EU)

The Digital Credentials for Europe Project (DC4EU) is funded by the Digital Europe programme.

It is a consortium formed by 80 organisations from 22 countries (20 EU member states, plus Norway and Ukraine).

01

The primary goal of DC4EU is to assess interoperability and scalability within national and cross-border contexts, offering valuable insights to the European Commission (EC) and Member States for iterative enhancements. As a large-scale pilot (LSP) that utilises data-driven decision making, DC4EU can significantly inform education policies and practices in the future, particularly within the context of verifiable credentials and self-sovereignty.
The research involves comprehensive testing of wallets using Qualified Electronic Attestations of Attributes (QEAA), Electronic Attestations of Attributes (EAA), and credentials in pre-production environments for both national and cross-border functionalities across various use cases (UCs).

The European Digital Identity Wallet (EUDIW) is a critical component of hybridisation in cross-sectoral and cross-border scenarios, encompassing identity, signature, educational credentials, and social security.

DC4EU has the potential to revolutionise the education and social security sectors, aligning closely with European Council mandates on identity and data, and upholding the European Declaration on Digital Rights and Principles.

We have three pivotal roles within this large-scale pilot, which will have ramifications for the future of identity systems in Europe and for flagship EU projects such as EBSI. We form part of the Strategic Committee that meets on a weekly basis to ensure that the project meets its many deliverables.

We are members of Work Package 5, which will pilot the EUDIW within business domain use cases in the education sector, addressing the Architecture Reference Framework (ARF).

Within this work package, we are responsible for onboarding processes, identifying business requirements, implementing interfaces for credential issuers, conducting extensive business process tests within education systems, and evaluating related processes.

We co-lead the Communication and Dissemination Work Package 9, ensuring project visibility, fostering a community of practice, disseminating project findings and leveraging the consortium team’s extensive networks.
As part of DC4EU, we will contribute to the coordination of conferences and workshops, and in the development of technical papers and reports on issues relating to the EUDIW and the use of EBSI for verifiable credentials in the education sector.

We expect the project to make a significant contribution to identity and privacy protection, particularly if EU member states adopt the EUDIW. User identity and privacy in digital educational platforms will undergo significant changes. There is a need to raise awareness of the importance of data protection among the wider educational community.
We have been involved in the EBSI project since its inception, working with the EC and member states engaged in piloting the technology.

We were approached by the EU and invited to submit a project for competitive funding under the Next Generation Internet (NGI) Sargasso funding regime.

The regime focuses on catalysing European collaboration with the US and Canada on topics such as trust and data sovereignty, digital identity, internet architecture renovation, decentralised technologies, and standards.

Our project was selected for funding in October 2023 and will run for a minimum of 9 months.
The ‘EBSI and Verifiable Credentialing in Canada (EBSI-CAN) project will investigate the feasibility of using EBSI in the Canadian education credentialing context. We are leading the project with support from My Creds in Canada.

The project explores whether EBSI can improve cross-border educational credential verification for European and Canadian citizens when travelling for temporary or permanent relocations. It extends the EU’s principles of mobility between European countries and citizens moving between the EU and Canada.

The key issues under investigation include data control, security, credential ownership, and self-sovereign identities. EBSI-CAN aims to empower EU and Canadian citizens by simplifying their control over and consent to sharing educational information, facilitating smoother cross-border transitions and eliminating current
In this context, credentials are tantamount to credentials secured during a lifelong learning cycle and encompass tertiary, TVET, and professional credentials.

From an EU perspective, the project is important in that it sets out to test EBSI’s promise of interoperability from a technical, semantic, legal, and governance perspective, which is a crucial advancement toward enabling seamless educational credential verification and enhancing the educational and professional experiences of European citizens.

EBSI–CAN will provide an opportunity to explore the application of blockchain in education for secure credentialing, transparent transactions, and data integrity in a non-EU context.

As part of the project, we will organise workshops with experts in Europe and Canada to determine whether EBSI as a technology for the public good can facilitate verifiable credentials and citizen mobility.

We will deliver a technical report at the end of the project lifecycle, with recommendations for both the EU and Canadian federal authorities.
There is an ongoing need to address the issue of universal accreditation of learning irrespective of the medium used for teaching and learning. Technology such as blockchain can be used for individual learning identity and profiling, paving the way for changes in curricula and credentialing. Within the context of lifelong learning, microcredentials are claimed to address the evolving needs of learners and the job market by offering targeted and accessible recognition of learning and skills. They are claimed to be particularly valuable for professionals seeking to upskill or reskill themselves in a rapidly changing digital landscape.

We will work alongside RISE on a research project to investigate the effectiveness of stackable microcredentials when addressing the evolving needs of the labour market, with a specific focus on enhancing workforce skills and adaptability. Our primary objective is to provide insights that may inform strategic decisions and collaborative efforts to enhance the impact of microcredentials on workforce development in Sweden and Malta.
Our areas of research interest include how microcredentials contribute to the professional development of individuals within the workforce, the perceptions of employers regarding the value of microcredentials in hiring and promoting employees, the opportunities and challenges for implementation, the integration of microcredentials into existing educational frameworks, and the alignment of microcredentials with ongoing projects at the 3CL and RISE, including the possibility of launching future pilot projects with local or regional partners.

In this process, we will also study the applicability of blockchain and competitive technologies to facilitate verifiable microcredentials. We focus on issues such as readiness and security of technologies, self-sovereignty, flexibility, mutual recognition, and industry relevance.
To provide a sound knowledge framework for our study, we will conduct a literature review, surveys, case studies, and interviews with employers and professionals who have completed microcredentials, to gather insights into their experiences, opinions, and expectations, and understand the impact on individuals’ careers and organisational outcomes.

We will publish our findings online and in suitable academic and policy outlets. We will identify key success factors and challenges in the use of microcredentials for workforce development, propose recommendations for optimising the integration of microcredentials into the target zones’ educational and professional landscapes, and suggest representative pilots.
BIBLIOGRAPHY & REFERENCES

The following documents were reviewed during the development of the Strategic Plan; others are cited in this document.


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GLOSSARY

**3D Printing** means a process of creating three-dimensional objects by layering material based on a digital model. This allows the production of complex and customised shapes that may be challenging or impossible to achieve using traditional manufacturing methods. The process typically involves slicing a digital 3D model into thin layers and then constructing the object layer-by-layer. In fields such as science and engineering, 3D printing can facilitate hands-on learning by enabling students to create physical models and prototypes.

**Access Disparities** means situations where not everyone has equal access to technology. This could involve disparities in access to the internet, computing devices, or other technological resources. Unequal access can contribute to a digital divide in which certain groups or regions have limited or no access to essential technologies.

**Action Research** means a cyclical, collaborative process of planning, action, observation, and reflection that is used to improve practice.

**Attention Economy** means an approach to the management of information that treats human attention as a scarce commodity and applies economic theory to solve various information management problems.

**Blockchain** means decentralised technology that provides a system for the verification of credentials while safeguarding the self-sovereign identities of recipients. This ensures the security and integrity of formal, informal, non-formal, and professional records of learning accumulated over a citizen’s lifetime, making the verification process more transparent and efficient.

**Blockchain and Power Dynamics** mean the way blockchain technology has the potential to enhance transparency and reduce intermediaries; while its adoption can also create new power dynamics. Understanding and navigating these dynamics is crucial to avoid the concentration of power in specific entities or groups.
**Cancel Culture** means a cultural phenomenon in which those deemed to have acted or spoken in an unacceptable manner are ostracised, boycotted, or shunned.

**Citizen journalism** means the act of an individual or group on any media platform (print, radio, television, online, mobile phones, etc.) and using any technology (text, blogs, SMS messaging, photography, audio, podcasting, video, etc.) to report, analyse, or disseminate news and information.

**Cloud Computing** means cloud-based platforms that enable collaborative and flexible learning. Services such as Google Workspace for Education and Microsoft 365 facilitate seamless collaboration and access to resources anywhere.

**Commonwealth** means a political association of 56 member states, most of which were former territories of the British Empire. It encompasses diverse legal systems, including common law, civil law, and a combination of the two.

**Community Engagement** means collaboration and communication within the EdTech community, facilitated through conferences, forums, and online platforms, to help share knowledge, best practices, and emerging trends.

**Community of practice (CoP)** means a group of individuals from diverse geographical locations who share a common interest, expertise, or profession and engage in collaborative learning and knowledge sharing. In the context of education, an international community of practice typically involves educators, researchers, and professionals from different parts of the world exchanging ideas, best practices, and insights related to a specific field or discipline. These communities can exist in various domains including education, business, healthcare, and technology.

**Connected Learning** means an approach to education that is “socially embedded, interest-driven, and oriented toward educational, economic, or political opportunity” (Ito et al., 2013). Building on the three core values of social equity, full participation, and social connection, connected learning advocates broadened access to learning that is socially embedded, interest-driven, and oriented toward educational, economic, or political opportunities. Connected learning experiences are increasingly associated with 21st Century skills and the ‘deeper learning’ demanded by the labour market.
**Critical Communications** means the exchange of information that is crucial for the functioning and safety of individuals, organisations, or societies, particularly in challenging situations or in times of change. These communications often involve conveying essential data, instructions, or updates that can affect decision-making and response efforts.

**Critical Discourse Analysis (CDA)** means a method of analysing the way language is used to create meaning and to achieve certain social effects. It is often used to examine how power relations are embedded in language and how language can be used to oppress or marginalise certain groups of people.

**Critical Pedagogy** means an educational approach that encourages critical thinking and reflection on social issues, fostering a deeper understanding of power dynamics and promoting social change.

**Critical Thinking** means the ability to think clearly and rationally about a problem or issue. It involves the ability to identify and evaluate arguments, to assess the credibility of sources of information, to discern between fact and opinion, to question assumptions and to draw conclusions based on evidence. It is an essential skill for anyone who wants to be an informed and engaged citizen and a valuable skill in the workplace.

**Data privacy** means the protection of personal information, ensuring that individuals have control over how their data is collected, processed, stored, and shared. This involves the management of sensitive information to prevent unauthorised access, use, or disclosure. In the context of digital technologies, data privacy has become a critical concern owing to the vast amount of personal data generated and processed.

**Digital Citizenship** means the ability to use technology responsibly and ethically. This includes understanding copyright laws, respecting others’ privacy, and being aware of the social and ethical implications of technological use.

**Digital Europe Programme (DIGITAL)** means an EU funding programme focused on bringing digital technology to businesses, citizens and public administrations. DIGITAL supports projects in five key capacity areas: in supercomputing, artificial intelligence, cybersecurity, advanced digital skills, and ensures a wide use of digital technologies across the economy and society, including through Digital Innovation Hubs.
**Digital Immigrants** means people who were born before widespread use of digital technology and who adopted it to some extent later in life.

**Digital Learning** means the use of digital technologies to facilitate and enhance the learning experience. It encompasses a broad range of educational strategies, tools, and resources that leverage digital technologies to deliver, support, and enhance learning. Digital learning can take various forms including online courses, multimedia content, interactive simulations, and virtual classrooms.

**Digital Literacies** means the skills, knowledge, and competencies required to effectively navigate, evaluate, create, and communicate in a digital world. The components of digital literacies include information literacy, media literacy, communication, critical thinking, critical discourse analysis, digital citizenship, technical literacy, cultural competence, adaptability and lifelong learning, the ethical use of technology, identity, and representation. These components encompass a range of abilities related to using digital devices, accessing information online, critically evaluating digital content, and engaging in online communication.

**Digital Literacy Divide** means how differences in digital literacy skills can contribute to inequalities. Some individuals or groups may lack the necessary skills to effectively navigate and utilise digital technologies, leading to the exclusion of various opportunities and resources that are available online.

**Digital Media** means content that is stored in digital format and can be transmitted over the internet or other computer networks. It is tantamount to information that may be shared through a digital device or screen, and encompasses a wide range of media types, including text, audio, images, and video, which are encoded digitally. Digital media have become increasingly prevalent in our interconnected world, transforming the way information is created, distributed, and consumed. Essentially, any form of media relies on an electronic device for its creation, distribution, viewing, and storage.

**Digital Natives** means generations of young people who grow up surrounded by digital technologies. The term suggests that young people intuitively know how to use technology and, hence, have no need for digital education or training.
**Digital Services Act** means EU law that regulates online intermediaries and platforms such as marketplaces, social networks, content-sharing platforms, app stores, and online travel and accommodation platforms. Its main goal is to prevent illegal and harmful online activities and spread of disinformation. It ensures user safety, protects fundamental rights, and creates a fair and open online platform environment.

**Disruptive Technologies** mean innovative advancements that fundamentally alter how people live, work, and interact with the world. They often challenge established industries and business models, creating new opportunities and disrupting existing market dynamics. Within the context of lifelong learning, these include Social Media; Online Learning Platforms (OLP), Virtual Reality (VR), Augmented Reality (AR), Blockchain; Adaptive Learning Systems; Artificial Intelligence (AI), Open Educational Resources (OER), Gamification; Cloud Computing, 3D Printing; Robotic Process Automation (RPA) and Personal Learning Environments (PLEs).

**Distance Education** means a form of education which brings together physically distant learner(s) and facilitator(s) of the learning activity around planned and structured learning experiences via various two- or multi-way mediated media channels that allow interactions between learners, facilitators, as well as between learners and educational resources.

**Economic Disparities** means the way the costs of technology and related services can create economic inequalities. Affordability issues may hinder some individuals or communities from acquiring the latest devices or accessing high-speed internet, limiting their participation in the digital economy.

**Echo Chambers** mean environments in which individuals are exposed to information and ideas that reinforce and amplify their existing beliefs, perspectives, and opinions. Within these chambers, people are often insulated from diverse or opposing viewpoints, creating a self-reinforcing cycle of information that aligns with pre-existing views. This phenomenon is particularly prevalent in online spaces where algorithms may curate content based on users’ past preferences and interactions.
EdTech Innovation Ecosystems mean interconnected networks, collaborations, and environments that foster the development, implementation, and advancement of EdTech solutions. These ecosystems encompass stakeholders, including educational institutions, technology developers, policymakers, investors, and end users, working together to drive innovation in the field of education.

EdTech, or Educational Technology means the use of technology to facilitate and enhance learning and teaching processes. It involves the integration of various technological tools, resources, and strategies into educational practices to improve engagement, collaboration, and outcomes. EdTech includes hardware devices, software applications, digital content, and online platforms designed specifically for educational purposes.

ERASMUS+ means an EU programme that supports education, training, youth and sport in Europe. ERASMUS+ emphasises student and staff mobility and European cooperation involving higher education institutions and other key players in the knowledge-based economy.

Euro-Med Region means a union of the EU Member States and 16 Southern Mediterranean countries built on cooperation agreements that aims to promote economic integration and democratic reform across the EU’s neighbours to the south in North Africa and the Middle East.

European Union (EU) means a political and economic union of 27 member states located primarily in Europe. Each member state maintains its legal system, but the EU has a legal framework that applies to specific areas such as competition law, trade, and human rights.

Gamification means the application of game elements and principles to non-game contexts to enhance engagement and motivation. Gamified learning platforms make educational experiences interactive and enjoyable.

Generative AI (Gen AI) means a predictive language model that produces new unstructured content, such as text, images, and audio. Traditional, or analytical, AI, in contrast, is used to solve analytical tasks such as classification, prediction, clustering, analysis, and presenting structured data.

Horizon 2020 means the EU’s Framework Programme for Research and Innovation, which ran from 2014 to 2020.
**Horizon Europe** means the EU’s Framework Programme for Research and Innovation, running until 2027.

**Identity and Representation** mean the way issues related to identity, such as gender, race, and socio-economic status, can intersect with technology, shaping how individuals are represented and treated online. Bias in algorithms and online platforms can perpetuate existing inequalities.

**Industry 4.0** means the integration of digital technologies into various aspects of manufacturing and industry. This concept builds upon previous industrial revolutions and encompasses the use of advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), big data analytics, robotics, and automation in the industrial sector.

**Information Literacy** means the ability to locate, evaluate, and use information from digital sources critically. This involves assessing the credibility, relevance and reliability of information.

**Interoperability** means the ability of different systems, applications, or components to seamlessly exchange and interpret data or perform coordinated actions. In the context of technology and software, interoperability is crucial for ensuring that diverse systems can work together effectively.

**Intersectionality** means the ways that multiple forms of inequality or disadvantage sometimes compound themselves and create obstacles that often are not understood among conventional ways of thinking.

**Knowledge Hubs** mean physical and virtual spaces for experts and learners to co-create knowledge and solutions across disciplines and find new ways of working together. Knowledge hubs can encompass databases, online platforms, or collaborative spaces that compile resources related to innovative teaching methods, emerging technologies, and best practices. These hubs often aim to connect educators, researchers, and practitioners, fostering a community of knowledge-sharing and collaboration.

**Labour Market** means the marketplace where individuals offer their labour services to employers in exchange for wages or salaries. It encompasses interactions between employers seeking to hire workers and individuals seeking employment opportunities. In a broader sense, the labour market includes the supply and demand for labour, the dynamics of employment, and the various factors influencing the employment relationship.
**Learner-centric approaches** means an educational philosophy that prioritises the unique needs, interests, and aptitudes of every learner. It advocates for dynamic learning and cultivates a cooperative and nurturing atmosphere by placing the learner at the core of the educational experience. In this approach, the educator’s function is to facilitate, direct, and mentor, rather than merely imparting knowledge. This approach encourages learners to take charge of their learning, establish their own objectives, and engage in introspective and metacognitive thinking.

**Lifelong Learning** means all forms of skill development and knowledge acquisition that occur over the life cycle. Lifelong learning covers not only learning that takes place in formal settings such as schools, higher education institutions, or vocational education and training centres, but also informal and non-formal learning imparted in workplaces and unintentional learning stemming from spontaneous social interactions in people’s homes and communities. Thus, learning can be characterised as “formal”, “non-formal” and “informal”, depending on the form it takes.

**Media Literacy** means understanding how media messages are created, disseminated, and interpreted. This includes analysing media content for biases and understanding the impact of media on perceptions.

**Microcredentials** mean specialised, short-term courses or certifications that focus on specific skills or knowledge areas. They are designed to provide targeted learning experiences, often in a flexible online format. Microcredentials differ from traditional degrees in their shorter duration and a more focused curriculum. Microcredentials are sometimes designed to be stackable, meaning that they can be combined to build a larger qualification such as a certificate or degree. This modular approach enables learners to customise their educational pathways.

**Mobile Learning (m-Learning)** means the use of smartphones, mobile apps and responsive websites to access educational content anytime, anywhere and education more flexible.

**Open, Distance, and Digital Education (ODDE)** means all kinds of teaching and learning processes in which educational technologies, digital media, and tools are used to present and deliver content, as well as facilitate and support communication, interaction, collaboration, assessment and evaluation.
Open Educational Resources (OER) mean teaching, learning, and research education materials in any medium (digital or otherwise) that reside in the public domain or have been released under an open licence that permits no-cost access, use, adaptation, and redistribution by others with no or limited restrictions. These resources include a wide range of materials such as textbooks, lecture notes, lesson plans, quizzes, and multimedia content, which are available in the public domain or under licences that allow for their free use, adaptation, and distribution. While OER itself may not be a technology, its adoption and dissemination often involve technological platforms, digital repositories, and online collaboration tools. Additionally, advancements in technology have facilitated the creation and distribution of OER, making it more accessible to a global audience.

Online Learning Platforms (OLPs) mean platforms such as Coursera, edX, and the Khan Academy, which offer a wide range of courses from top institutions globally. These platforms provide accessible, affordable, and flexible learning opportunities and disrupt the traditional brick-and-mortar education.

Personalised Learning means an instructional approach in which pedagogy, curriculum, and learning environments are placed in the hands of individual learners to enable them to meet their own diverse needs and interests.

Personal Learning Environments (PLEs) mean systems that allow learners to create and manage their learning environments. Unlike traditional learning management systems (LMS), which are often institutionally controlled, PLEs empower individuals to tailor their learning experiences according to their needs and preferences. In the context of education and digital literacies, PLEs leverage technology to enable learners to aggregate, remix and share digital content from various sources. This includes social media, online courses, blogs, wikis, and other digital tools. PLEs are personalised, learner-centric, and emphasise the role of the individual in constructing their knowledge and learning pathways.

PESTLE Analysis means Political, Economic, Social, Technological, Legal, and Environmental analysis. It is an approach to analyse and evaluate external macro-environmental factors that may impact an organisation or a project and its decision-making processes.
**Platform Surveillance** means the monitoring, tracking, and analysis of user activities on digital platforms such as social media, websites, and online services. This surveillance is often conducted by the platform itself or by third-party entities, and it involves the collection of user data to gain insights into behaviour, preferences, and interactions. The goal is typically to tailor content, advertisements, or features to individual users to enhance user engagement and advertising effectiveness.

**Policymakers** mean government bodies and educational authorities that influence EdTech innovation by creating policies, regulations, and frameworks that either support or hinder the adoption of technology in education. Policies can address issues such as data privacy, digital literacy, and equitable access to technology.

**Post-truth Society** means a social and political environment in which emotions and personal beliefs have more influence on public opinion than objective facts. In such a society, the concept of truth becomes subjective, and misinformation or disinformation can gain traction. This phenomenon is often associated with the spread of false information through social media platforms, which can contribute to shaping public perception and attitude.

**Power Relations** mean the ways in which power is distributed, exercised, and maintained within a social structure. Within the EdTech context, understanding power relations requires a critical multidimensional approach that considers technological, social, and institutional factors.

**Robotic Process Automation (RPA)** means the application of automated processes using software bots to perform repetitive rule-based tasks. Automation in administrative tasks can free up time for educators to focus on teaching. It also introduces students to skills relevant to the future workforce.

**Sandbox** means a controlled and isolated environment where software developers and testers can run applications or execute code without affecting the broader system or network. It provides a secure space for experimentation, testing, and development, allowing users to assess the behaviour of software or applications in a contained setting. Sandbox tools simulate real-world scenarios without the risk of causing harm to actual systems. Sandbox environments foster digital literacies, providing a hands-on experience in a risk-free environment, and promoting exploration and understanding of various technologies.
**Self-Sovereignty** means the concept that individuals have control and ownership over their own learning journey, data, and educational experiences. It emphasises empowering learners to take charge of their educational paths, make informed decisions regarding their learning goals, and manage their personal data and educational records.

**Small State** means a political entity with a relatively small geographical area and population. The specific criteria for defining a state as “small” can vary, but often include factors such as land area, population size, and economic capacity. Small states may face distinct challenges and opportunities compared to larger ones, such as limited resources, vulnerability to external pressures, and potential agility in decision-making.

**Social Justice** means the pursuit of fairness, equity, and equal opportunities for all individuals regardless of their background, socioeconomic status, race, ethnicity, gender, or other characteristics. This concept emphasises the creation of an inclusive educational environment that addresses and rectifies systemic inequalities. The key principles of social justice in education include equal access, inclusive practices, equitable resources, culturally responsive teaching, addressing disparities, empowering marginalised groups, and critical pedagogy.

**Social Media** means a dynamic and interconnected digital landscape in which individuals, communities, and organisations engage in the creation, sharing, and exchange of information, ideas, and multimedia content. It serves as a virtual agora that fosters communication and collaboration across geographical boundaries. For lifelong learners, social media offers a continuous and interactive platform to acquire knowledge, connect diverse perspectives, and participate in ongoing conversations. It becomes a lifelong learning ecosystem where individuals can explore, contribute, and stay updated on a wide range of topics, promoting a culture of perpetual curiosity and intellectual growth.

**Social World** means the totality of relationships, interactions, institutions, and cultural practices that shape society. It is a complex web of connections and structures through which individuals and groups can navigate their lives. The social world extends into the virtual realm, including social media platforms and online communities.
STEM Studies mean educational and professional disciplines grouped under the umbrella of Science, Technology, Engineering, and Mathematics. The fields are often associated with the similarities that they share both in theory and practice, and in the belief that they equip students with a well-rounded skill set, emphasising hands-on learning and practical application of knowledge.

Surveillance means the monitoring, tracking, or observation of individuals, often for gathering information or maintaining control. In the digital age, surveillance has expanded beyond traditional forms to include electronic surveillance facilitated by technologies, such as cameras, sensors, and digital communication platforms.

Technological Determinism means a concept in the philosophy of technology that suggests that technology by itself plays a crucial role in shaping society and human behaviour. This perspective argues that technological advancements drive social, cultural, and economic changes, often influencing the direction and development of society. Proponents of technological determinism contend that technological innovations have the inherent power to shape and direct human progress. According to this view, the introduction of new technologies can have far-reaching consequences on various aspects of life, influencing social structures, communication patterns, and even individual behaviour.

Technologically-enabled inequalities mean disparities or gaps in access to, use of, and benefits derived from technology. They manifest in various ways across different social, economic, and cultural contexts. Within the EdTech sector, there are a wide set of dimensions of such inequalities which include access disparities, digital literacy divides, economic disparities, data privacy and surveillance, educational disparities, disinformation impact, identity and representation, and blockchain and power dynamics.

Twenty-first century skills mean a set of abilities considered essential for success in the modern world. These skills go beyond traditional academic knowledge and focus on preparing individuals for the challenges and opportunities of the 21st century.
**Verifiable Credentials** mean digital credentials that can be verified securely and cryptographically. They are used to represent information about a person, organisation, or device, and are typically associated with a particular context, such as education, employment, or personal identity. Verifiable credentials are associated with digitalisation, decentralisation, and technologies, such as blockchain, cryptographic security, self-sovereignty, interoperability, and standardisation (for example, W3C).

**Virtual Reality (VR) and Augmented Reality (AR)** mean technologies used to create immersive learning experiences. They allow students to explore virtual environments and enhance their engagement and understanding in subjects such as history, science, and medicine.

**Woke Culture** means a term that originated in African American Vernacular English (AAVE) and has evolved over time to describe a heightened awareness of social and political issues, particularly related to social justice and equality. In its original context, “woke” referred to being awake or aware, especially in the context of racial and social issues. In contemporary discourse, “woke culture” has taken on a broader meaning, often used to describe a cultural shift where individuals and institutions become more conscious of and responsive to issues such as racism, sexism, LGBTQIA+ rights, and other forms of systemic inequality. It emphasises a commitment to social justice, inclusivity, and awareness of the impact of various societal structures on marginalised groups.

**World Wide Web Consortium (W3C)** means an international organisation that develops open standards to ensure the long-term growth of the Web. This includes standards for verifiable credentials to ensure consistency and compatibility across various implementations. The W3C Verifiable Credentials Data Model (VC Data Model) and W3C Decentralized Identifiers (DIDs) are examples of these standards.