Intel Skills for Innovation Toolkit

Contents

1. Introduction

Digital Educator Award Scotland (DEAS) is a collaboration between Intel Skills for Innovation (SFI), HP, Digital Schools Awards and Education Scotland which seeks to accelerate high quality digital learning, teaching and leadership in all schools, colleges[1], higher education institutions and support organisations.

The programme offers *free* ready-to-go resources within an established DEAS award structure linked to the Essential digital skills framework[2], the Teacher Digital Skills Framework[3] for schools, the General Teaching Council for Scotland (GTCS) standards for teaching in Further Education[4] and ISTE standards for higher education[5].

Such is the ubiquitous use of digital technologies in all areas of learning, living, and working that educators need increasingly flexible and varied digital pedagogies that are core to their teaching and learning approaches. The DEAS-Intel SFI programme promotes such integration into learning in ways that help learners to be safe, confident, flexible and effective in how they use digital technologies to support their learning.

The DEAS structure reflects and builds on the structure of the Teacher Digital Skills framework. Such a close link has many advantages:

a. The **Scottish Teacher Digital Skills framework** itself has been developed by a range of Education Experts and leaders and therefore reflects current research and policy in digital learning and teaching. The document also helps education systems integrate with the wider societal, industrial and social practices that are rapidly changing as a result of the availability of digital technology;

b. The award programme complements the broader policy landscape that influences school or organisation and professional development including the **GTCS standards** for registered teachers, lecturers in Further Education and HE. The framework also supports **HGIOS4**, the **National Framework for Digital Literacies in Initial Teacher Education and Enhancing Learning and Teaching Through the use of Digital Technology**. Educators will therefore find a ready-made means of integrating with and promoting key policy agendas;

c. The **Intel Skills for Innovation** content has been designed to initiate curriculum based digital learning and teaching activities using a bank of content around which educators can plan their activities;

d. The award gives consistency and unity across all of Scotland's education phases and levels;

e. Organisations can immediately see the benefits of the award as it supports a wide range of teaching and learning skills and activities.

2. Who is the award for?

The award is completely free and open to educational practitioners in all areas of compulsory, vocational and post-compulsory education and training, including early years, primary, post-primary, further and higher education, initial teacher education, community and work-based learning organisations.

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[1] Including Sixth Form, Further Education and Specialist Colleges

[2] https://www.gov.uk/government/publications/essential-digital-skills-framework/essential-digital-skills-framework

[3] https://education.gov.scot/resources/teacher-digital-literacy-framework/

[4] https://www.gtcs.org.uk/professional-standards/professional-standards-for-lecturers-in-scotlands-colleges/

[5] ISTE.org/standards

What are the advantages in applying for this award?
There are many *advantages* to applying for and receiving this award. It will provide:

a. Industry and government endorsed recognition for the use of digital technology to support teaching and learning, collaboration and leadership;
b. A comprehensive framework for building inclusion, equality, diversity, safety and resilience into digital learning and teaching.
c. Systematic and comprehensive tools to reflect critically upon practice and its impact and to help individuals contribute to the requirements of HGIOS4;
d. A forum for offering and receiving feedback, collaboration and support;
e. A roadmap for personal professional learning in digital deployment and pedagogy.
f. A free, ready-to-go set of resources, contacts, links and support mechanisms to help you to continue to grow.
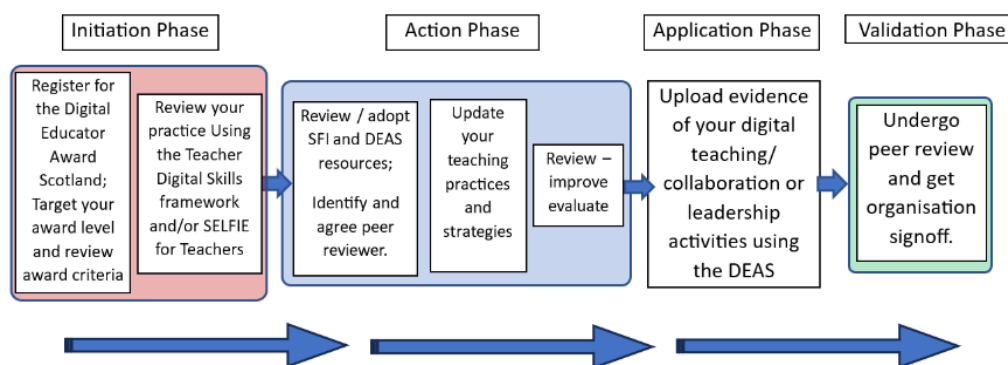
3. The award process at a glance

Figure 1: Digital Educator Award Scotland at a Glance

3.1.1 What support you can expect:

- The Digital Educator Awards Programme
  - This programme has a wealth of free, ready-to use resources to support educators and leaders. Once enrolled, educators have access to these resources.
  - The programme will be supported through a series of webinars, collaborative activities, guidance and discussions.
  - Where appropriate, schools and organisations will be able to collaborate and share ideas and skills.
- Intel Skills for Innovation
  - Once registered, candidates have access to a wealth of structured lesson plans, seminars, demonstrations and the support of tutors.
  - Resources aimed at different roles in digital innovation are structured to suit the needs of educators within those roles.

Validation

To provide a robust level of quality assurance and objectivity to the award, a validator will need to be assigned to review the applicant's submission. This is to ensure verification of the authenticity and rigour of the process. Validators should be a senior figure in the organisation or someone external but who can confirm that the

process has taken place and that the peer review process maintained the quality of the award programme. Applicants will be able to add a Validator on their application form.

4.   Award Pathways:

4.1   Digital Educator Award Scotland (for continued, varied and effective digital learning and teaching).

The award invites educators to provide examples of their digital learning and teaching practices based on the Teacher Digital Skills document[6], the GTCS standards for Further Education Lecturers or the Quality Assurance Agency (QAA), International Society for Technology in Education (*ISTE*) *guidance for teaching in Higher Education. Evidence presented for the submission should show how the teaching and learning actions have had impact on student learning, motivation, attainment or engagement. All submissions should show evidence of teaching and learning that reflect the following headings;*

    a. *Essential Skills: Using devices and platforms with colleagues and learners.*
    b. *Core Skills:*
        a. *Cyber Resilience and Internet Safety;*
        b. *Communication and collaboration;*
        c. *Instructional skills (including classroom, early Years environments, work-based learning and online teaching and learning contexts);*
        d. *Awareness of current and future developments.*
    c. *Enhancing teaching and learning.*

Candidates for this award should show evidence of using learning from identified courses within the Intel® Skill for Innovation Professional Development Suite
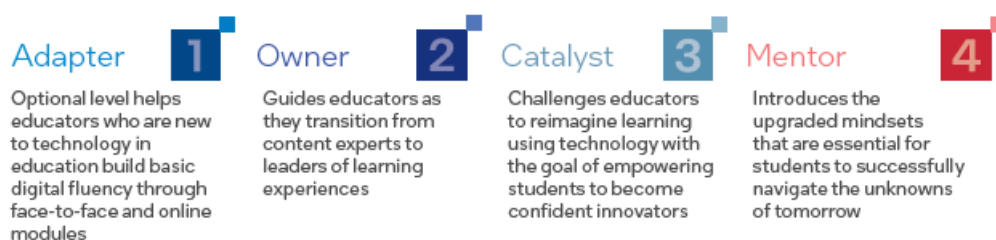

Figure 2: The Four levels in the Intel® Skill for Innovation

Professional Development Suite

4.2   Digital Influencer Award (for supporting innovation with others)

This award recognises Educators and other practitioners whose collaboration has had demonstrable influence on teaching, learning, assessment and/or professional development in an education context **AND** where that influence can be seen in the work of other colleagues within and/or beyond the organisation. Examples **could** include the development of computational thinking across the curriculum, introducing and developing the use

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[6] https://education.gov.scot/improvement/self-evaluation/teacher-digital-literacy-framework/

of an online platform or app, leading the development of digital learning and teaching among cluster groups, leading subject groups in several organisations. Submissions should reflect the areas outlined in the framework below and should show evidence of using learning from identified courses within the Intel® Skill for Innovation Professional Development Suite.

4.3 Digital Leadership Award

This award recognises the impact that *strategic* digital leadership has had in a school, college, organisation or region. The candidate should show evidence of how his/her decisions have impacted digital policy and the strategic direction of the organisation. Typically, the applicant will have responsibility for decision making at organisational level. He/she might be a digital coordinator, e-learning coordinator, a member of a senior management team with responsibility for digital deployment, a digital support officer with an LEA or other equivalent. He/she might also be involved in identifying, facilitating and evaluating CLPL needs and activities within or across organisations and may be involved in clusters with other organisations or national/transnational partnerships. Submissions should reflect the areas outlined in the framework below and should show evidence of using learning from identified courses within the Intel® Skill for Innovation Professional Development Suite. See full framework below for more information.

5. Intel® Skills for Innovation

The Intel® Skills for Innovation (Intel® SFI) Framework envisions a world in which students possess the skills necessary to meet the shifting landscape of the Fourth Industrial Revolution. Students are empowered to be innovators as they prepare for, imagine and create the jobs of the future.

The framework provides a direction for decision makers and educators to integrate technology activities into the existing curriculum to build essential mindsets and skillsets.

Targeted Mindsets & Skillsets

Exclusive registration code to participants of the Digital Educator Award Scotland!

To register for an account, please visit:
https://skillsforinnovation.intel.com/members/registration?g=All%20District&code=DigitalAwardsSFI

Intel® SFI Professional Development

Intel® SFI Professional Development empowers educators as they assume their roles from adapters of technology to mentors of upgraded mindsets. The Intel SFI Professional Development suite equips educators with the necessary skills to adapt technology in an anywhere learning environment and create technology-infused learning experiences that build future-ready skills in learners. Through the content available on the Intel Skills for Innovation Platform, educators are kept up to date with trends that impact the future of today's learners, supported by technology tools that maximize the way teaching and learning takes place.

Intel Professional Development uses a model consisting of four levels that transition educators from adapters of technology to mentors of innovation.

Level 1: Adapter of Technology[2]	Level 2: Leader of Learning Experiences	Level 3: Catalyst of Creative Confidence	Level 4: Mentor of Upgraded Mindsets
Module 1[3]: Introduction to Technology in Education Module 2[3]: Learning Computer Basics Module 3: Learning Internet Basics Module 4: Basics of Multimedia and Slides Module 5: Basics of Word Processing Module 6: Basics of Spreadsheets Module 7: Collaborative Workspaces Module 8: Learning Video Basics	Course: Introduction to Learning Remotely Course: Establishing Effective Educator-Machine Partnerships Course: Fostering Student Engagement in the Age of Digital Distraction Course: Strengthening Real-world Relevance in Classroom	Course: Analytical Thinking through Data Course: Critical Reasoning to Make Better Decisions Course: Bridging the Creativity Gap	Course: From Waterfall to Agile Mindset Course: From Operational to Strategic Thinking Course: From Follower to Entrepreneurial Mindset

Each course in Levels 2 and 3 contains three courselets

[1] Intel® SFI Professional Development suite is also SCORM-compliant and can be hosted on your learning management system. Contact your Intel service provider for more details.
[2] Hybrid learning approach
[3] Conducted in-person format

Educator Certification

Certification of Completion

Course certificate of completion – awarded on completion of all courselets and tasks related to a specific course

Level certificate of completion – awarded on completion of all courses within a level

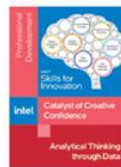Certificates are available on the Intel SFI platform and can be downloaded as .pdf files.

Digital Badges

Digital Badges are also awarded to educators who complete courses and levels. These badges can be shared on social media and digital portfolios.

6.   THE FRAMEWORK FOR THE DIGITAL EDUCATOR AWARD SCOTLAND

Essential and Core Skills		
Statements	**Evidence could include examples of:**	**Appropriate Intel SFI Courses**
Applicants should be able to demonstrate how they: Use and manage devices, connections, accounts and online platforms for collaboration, administration and teaching.	• Using the features of commonly used devices; • Using communication and collaboration systems; • Considering copyright issues when accessing content; • Creating a class and showing learners how to join; • Creating and/or sharing files from drive storage to the class. • Troubleshooting common faults or issues; • Organising and managing device storage; • Accounts such as Glow, SEEMiS, GTCS, local authority HR accounts or other institutional Virtual Learning Environment etc.; • Manage a range of passwords; • Ensuring secure information is cleared from browser cache; • Ensuring extended use of devices is managed properly. • An understanding of the constraints and benefits of different technologies; • Technical knowledge and ability in the use of digital technology for learning and teaching; • Supporting the deployment of digital technology for learning with children and young people / learners / students. • Promoting equality in the use of learning technology	Intel SFI Level 1 Module 1: Introduction to Technology in Education Intel SFI Level 1 Module 2: Learning Computer Basics Intel SFI Level 1 Module 3: Learning Internet Basics Intel SFI Level 1 Module 7: Collaborative Workspaces Intel SFI Level 1 Module 8: Learning Video Basics
Cyber Resilience and Internet Safety		
Statements	**Evidence could include examples of:**	**Appropriate Intel SFI Courses and References**

Applicants should demonstrate how they manage their own cyber resilience and internet safety and how they support their learners to do the same, including. Developing and adopting appropriate cyber hygiene principles; Developing information literacy skills;	• Certificate of completion of an Intel SFI course with Cyber Resilience and Internet Safety (CRIS) and data literacy in their content. (Suggested course title have been listed, for more information see Intel SFI website) • Completion Reviews of personal device, file and password management; • Departmental or organisation policy contributions or implementation of CRIS; • Evidence of support for CRIS in teaching and learning activities; • Involvement in ensuring personal and organisational cyber resilience practices among learners; • Awareness of cybercrime threats, malware and phishing scams and how to protect themselves and others from such risks.; • Incorporating safe and resilient practices in relation to devices, personal and professional data and identity; • Recognising, reacting to and recovering from incidents involving online activity, digital devices, data, wellbeing, and identity; • Awareness of the risk of deliberate and malicious misinformation and understand how to mitigate them through fact-checking and reporting harmful content; • Evidence of ethical and professional social media practices.	Intel SFI Level 2 Course 1: Introduction to Learning Remotely Intel SFI Level 2 Course 2: Establishing Effective Educator-Machine Partnerships Intel SFI Level 2 Course 4: Strengthening Real-World Relevance in the Classroom Intel SFI Level 3 Course 1: Analytical Thinking Through Data
Communicate and Collaborate with Colleagues		
Statements	**Evidence could include examples of:**	**Appropriate Intel SFI Courses**

| Applicants should demonstrate how they use *email*, online platforms, video calls and cloud storage to manage a range of professional activities including Groups, schedules, content and community information. | • Certificate of completion of an Intel SFI course with Communication and collaboration in its content.
• Personal, staff group, pupil, or other collaborative activities;
• Professional development or curricular activities with other schools or organisations;
• Joint development of lesson plans within or beyond the school or organisation;
• Transnational activities such as the development of research and practice communities / special interest groups; | Intel SFI Level 1 Module 3: Learning Internet Basics

Intel SFI Level 1 Module 7: Collaborative Workspaces

Intel SFI Level 1 Module 8: Learning Video Basics

Intel SFI Level 2 Course 1: Introduction to Learning Remotely

Intel SFI Level 2 Course 3: Fostering Student Engagement in the Age of Digital Distraction

Intel SFI Level 3 Course 3: Bridging the Creativity Gap

Intel SFI Level 4 Course 1: From Waterfall to Agile Mindset |

Instructional (Including Classroom) Skills

Statements	Evidence could include examples of:	Appropriate Intel SFI Courses and References
Applicants should demonstrate how they: Support accessibility, taking account of specialist software, learner needs and support agencies; Manage learning and communication in Virtual Learning Environments	• The use of productivity apps, such as Microsoft 365 and Google Workspace; • The use of specialist software for learners with additional educational needs; • Using school-based and other platforms to manage learning and teaching; • Using a range of tools to create multimedia resources; • Creating and moderating discussions, interactions and other collaboration online;	Intel SFI Level 1 Module 4: Basics on Multimedia / Slides Intel SFI Level 1 Module 7: Collaborative Workspaces Intel SFI Level 1 Module 8: Learning Video Basics Intel SFI Level 2 Course 1: Introduction to Learning Remotely Intel SFI Level 2 Course 2: Establishing Effective Educator-Machine Partnerships Intel SFI Level 3 Course 1: Analytical Thinking Through Data Intel SFI Level 3 Course 2: Critical Reasoning to Make Better Decisions

	• Making reasonable adjustments to your teaching materials and methods to support those with disabilities.	
Awareness of current and future developments		
Statements	**Evidence could include examples of:**	**Appropriate Intel SFI Courses and References**
Applicants should demonstrate how they: Use local and national CLPL to maintain awareness of current and emerging technologies for learning and teaching; Where appropriate, engage with and/or learn from research-informed and enquiry-led practice.	• Research informed professional learning and practice. Certificate of completion of Intel SFI course or courses with Career Long Professional Learning and Leadership in its content. • Personal or corporate audits of digital skills; • Review of SELFIE framework for Educators; • Collaborations with other schools or organisations to deliver professional development training; • Policy or research-informed reviews and implementation; • Lesson plans that outline the wider impact of learning about and through digital technologies.	Intel SFI Level 3 Course 1: Analytical Thinking Through Data Intel SFI Level 4 Course 1: From Waterfall to Agile Mindset Intel SFI Level 4 Course 2: From Operational to Strategic Thinking Intel SFI Level 4 Course 3: From Follower to Entrepreneurial Mindset
Enhancing Learning and Teaching		
Statements	**Evidence could include examples of:**	**Appropriate Intel SFI Courses and References**
Applicants should demonstrate how they use digital technologies in: Planning learning delivering and analysing the outcomes of learning Creating activities that provide learner opportunities for collaboration, creativity,	• Certificate of completion of an Intel SFI course with Pedagogy in a Digitally Enabled Learning Environment in its content, (suggested Course title have been listed, for more details see Intel SFI website); • Use of learning analytics; • Processing digital forms; • Utilising self-marking tools;	Intel SFI Level 3 Course 3: Bridging the Creativity Gap Intel SFI Level 4 Course 1: From Waterfall to Agile Mindset Intel SFI Level 4 Course 2: From Operational to Strategic Thinking Intel SFI Level 4 Course 3: From Follower to Entrepreneurial Mindset

| synchronous and asynchronous and hybrid learning

Creating assessment rubrics and programmes that and matched to learning activities.

Providing learners with a range of assessment formats including tracking and e-portfolios | • Booking systems;
• Social media alerting/posting;
• Project management and Evaluation;
• Accessibility and inclusion including learner support;
• Developing open educational resources;
• Carrying out research or using other's published research to support practice.
• Using Multimodal resources;
• Scaffolding strategies to support differentiation and or personalisation of learning;
• Simulation software that brings difficult, remote or dangerous concepts and issues to life; | |

7. THE FRAMEWORK FOR THE DIGITAL INFLUENCER AWARD SCOTLAND

This award is available to Educators who can demonstrate sustained collaborative working in their practice and who are involved in supporting and developing the practice of others in order to effect change in learning, teaching, assessment, administration or other associated practices.

Digital Influencer Award (for supporting innovation with others)		
Statement	**Evidence could include examples of:**	**References and Intel SFI Courses**
Applicants should demonstrate how they: Use and manage devices, connections, accounts and online platforms for collaboration, administration and teaching and the professional support of others. Individually and/or collaboratively initiated innovation in his/her/their own practice and how that practice has had impact on teaching and learning. Support **sustained** teaching, learning, assessment and professional development or administration innovations among colleagues within and/or beyond the organisation. Co-create methods of recognising and evaluating the impact of their digital learning and teaching and how it supports CRIS principles among teachers and their learners. Note: The submission should include a reflection on how the collaboration was initiated, its challenges and	• Using a range of platforms and accounts to support his/her/their own teaching, assessment and professional learning; • the development of computational thinking across the curriculum; • introducing and developing the use of an online platform or app with a range of colleagues; • involvement with cluster groups; • planning and leading professional development activities to support sustained development within or across faculties/departments/schools and colleges.	Intel SFI Level 2 Course 1: Introduction to Learning Remotely Intel SFI Level 2 Course 2: Establishing Effective Educator-Machine Partnerships Intel SFI Level 2 Course 4: Strengthening Real-World Relevance in the Classroom Intel SFI Level 3 Course 1: Analytical Thinking Through Data

outcomes and how it has been maintained to support sustainable change.		

8.   FRAMEWORK FOR THE DIGITAL LEADERSHIP AWARD SCOTLAND

This award is available to all Educators or Educator leaders who can demonstrate responsibility for managing digital learning, teaching, CLPL or administration in school or organisation. Typically, the applicant would be a digital coordinator, e-learning coordinator, a member of a senior management team with responsibility for whole-school/organisation digital deployment, a support officer with a local authority or equivalent.

Digital Leadership Award		
Statement	**Evidence could include examples of:**	**References SFI Course s**
Applicants should demonstrate: Sustained, strategic digital leadership in a school or organisation or across organisations including: Initiating and supporting digital policy development that aligns with key Sectoral digital policy. For example, in schools this could include: - Curriculum for Excellence; - The Teacher Digital Literacy Framework; - Key CRIS principles including student wellbeing; - Planning, monitoring and evaluating the impact of CLPL; Advising or engaging in policies and other actions relating to procurement; - Implementation and evaluation of impact of digital innovation on learners; - Implementing key sectoral policy/quality standards in relation to digital learning, teaching and assessment.	Examples of how the leadership role has directly influenced the promotion of digital deployment and teaching in the organisation; Case study of the implementation Blog showing the learning gains of the personnel involved in the programme. Involvement in identifying, planning, implementing and evaluating CLPL needs and activities; Policy development and implementation; Managing and support cluster work among several schools or organisations. *Note: evidence should include a reflection on how the collaboration was initiated, its challenges and outcomes and how it has been maintained to support sustainable change.*	Intel SFI Level 4 Course 1: From Waterfall to Agile Mindset Intel SFI Level 4 Course 2: From Operational to Strategic Thinking Intel SFI Level 4 Course 3: From Follower to Entrepreneurial Mindset

9.	Scotland Digital Educator Award Framework and Intel Skills for Innovation Professional Development Alignment

1. **Core Skills: Cyber Resilience and Internet Safety:**
	a.	**Level 2 – Course 1: Introduction to Learning Remotely**

As schools and organisations transition from traditional physical classrooms to an anywhere learning environment, there is a need to explore the challenges and provide insights into how these practices affect various education stakeholders, including educators, learners, and their parents or guardians.

This comprehensive course aims to support and improve teaching and learning processes and focus on beneficial parent, educator, and student learning partnerships. It also explores the importance of maintaining good mental and physical well-being for educators and learners in an anywhere learning environment.

In terms of core skills in the areas of cyber resilience and internet safety this course focuses on how to best manage stress when students and educators are working in remote environments. It also addresses and provides support for educators and delivers authentic technology-based lessons in a secure environment for educator learner communication.

	b.	**Level 2 – Course 2: Establishing Effective Educator-Machine Partnerships**

Technology has become increasingly integrated with the provision of adequate education for learners worldwide. There is a need to study the advantages and shortcomings of this integration to provide educators with optimal teaching and learning practices.

This course supports the educator's adaptation of education technology, understand skills development for innovation in their learning experiences, and the opportunities and threats of using technology in classrooms. It also helps educators understand the education industry changes, identify their professional development goals, and acknowledge technological advancements in education.

In terms of core skills in the areas of cyber resilience and internet safety this course specifically addresses the opportunities and threats of using technology in the classrooms and provides educators with the tools and resources to provide a safe learning environment for students.

	c.	**Level 2 – Course 4: Strengthening Real-World Relevance in the Classroom**

The outside world has continuously evolved to require educators to incorporate real-world issues with a standard learning curriculum. Creating a more wholesome curriculum allows the youths to become agents of change in their communities worldwide.

Educators will analyze the shift in academic outcomes affected by the fast evolution of industries and how they can incorporate self-learning elements into lesson plans to help learners harness technology for the community's good. It also helps educators develop ways to assess learning as they adopt authentic learning strategies by crafting assessment plans to help learners be more successful in authentic learning contexts.

In terms of core skills in the areas of cyber resilience and internet safety this course will delve into the use of technology in service learning and how it can be an asset to the community as well as benefit the greater good in society. Educators will be

able to analyze the strengths and pitfalls of technology in community applications and make decisions on technology usage that provide the most benefit to learners while keeping them safe online.

d.   Level 3 – Course 1: Analytical Thinking Through Data

Data collection and visualization has an impact on the way educators provide information and how learners use it. Because of the delicacy of ethical data collection practices, it is important to study how data collection, visualization, and relationships with data affect learners in today's environment.

This course focuses on data collection and analysis - how data collection with the aid of technology can redefine teaching practices and provide a new learning experience. It also helps educators understand data visualization to provide ways to understand trends, outliers, and patterns in data and how emerging technology can extend classroom discussions.

In terms of core skills in the areas of cyber resilience and internet safety this course will provide educators with the tools to delve into data collection and gain an understanding of what ethical data collection is and how to determine safe and reliable resources in which to both extract and use pertinent data for learning in the classroom.

2.   Core Skills: Information and Data Literacy:
a.   Level 2 Course 1: Introduction to Learning Remotely

As schools transition from traditional physical classrooms to an anywhere learning environment, there is a need to explore the challenges and provide insights into how these practices affect various education stakeholders, including educators, learners, and their parents or guardians.

This comprehensive course aims to support and improve teaching and learning processes and focus on beneficial parent, educator, and student learning partnerships. It also explores the importance of maintaining good mental and physical well-being for educators and learners in an anywhere learning environment.

In terms of core skills in the areas of information and data literacy this course helps educators to critically evaluate resources that are found online to determine their worthiness for online learning. Educators further learn how to navigate online learning experiences to ensure that tools and resources best meet the needs of their students and provide learners with access to appropriate and relevant information.

b.   Level 2 – Course 2: Establishing Effective Educator-Machine Partnerships

Technology has become increasingly integrated with the provision of adequate education for learners worldwide. There is a need to study the advantages and shortcomings of this integration to provide educators with optimal teaching and learning practices.

This course supports the educator's adaptation of education technology, understand skills development for innovation in their learning experiences, and the opportunities and threats of using technology in classrooms. It also helps educators understand the education industry changes, identify their professional development goals, and acknowledge technological advancements in education.

In terms of core skills in the areas of information and data literacy this course will present educators with a host of case studies supporting educators' understanding of the potential benefits and threats of technology in the classroom. While the course focuses on the benefits of technology, it also provides educators with the tools necessary to help their students to make informed decisions and use best practices while using technology.

c.   Level 3 – Course 1: Analytical Thinking Through Data

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This course focuses on data collection and analysis - how data collection with the aid of technology can redefine teaching practices and provide a new learning experience. It also helps educators understand data visualization to provide ways to understand trends, outliers, and patterns in data and how emerging technology can extend classroom discussions.

In terms of core skills in the areas of information and data literacy this course focuses on the value of data in education and introduces educators to both data collection and data visualization. Educators gain a deeper understanding of why data literacy is integral in education and how they can best harvest data in an effective and ethical way.

d.   Level 3 – Course 2: Critical Reasoning to Make Better Decisions

The ability to apply critical reasoning in any given situation provides a strong foundation for better decision-making. By introducing killer experiments, simulation models, evaluative thinking techniques and application of data, educators help learners build resilience when working on solution finding.

This course introduces educators to new ways of approaching problems. Using killer experiments, educators set learners up for success by going through failure as a necessity for improvement. Educators learn how to engage learners in visible thinking by simulating technology-supported role-play and powering through debates backed by innovation skills in data science.

In terms of core skills in the areas of information and data literacy this course examines how educators can take a data-powered approach to class debates using Big Data and data visualization tools. Educators will explore how data can be controversial or misleading and presents a new perspective on how debates can happen during lessons while supporting learners' evaluative thinking as they appraise data and use it to build, substantiate, and assess arguments.

3.   Skills for the Workplace: Communication and Collaboration:

a.   Level 2 – Course 1: Introduction to Learning Remotely

As schools or organisations transition from traditional physical classrooms to an anywhere learning environment, there is a need to explore the challenges and provide insights into how these practices affect various education stakeholders, including educators, learners, and their parents or guardians.

This comprehensive course aims to support and improve teaching and learning processes and focus on beneficial parent, educator, and student learning partnerships. It also explores the importance of maintaining good mental and physical well-being for educators and learners in an anywhere learning environment.

In terms of the skills for the workplace that include communication and collaboration, this course focuses on communication between educators and students in an online, collaborative environment. The course also maintains a focus on how these same collaborations and learning experiences that occur virtually can be engaging for students and provides educators with the tools and resources to create these engagement opportunities. Additionally, the course provides educators with valuable skills and tools to aid in communications and support with parents and ensure that they are part of the integral learning team with their learner.

b.   Level 2 – Course 3: Fostering Student Engagement in the Age of Digital Distraction

Motivation theories are important when we strive to understand why some learners perform better and thrive in schools or organisations, and others fail to succeed or drop out completely. There is a need to study the advantages of promoting teamwork and collaborative discussions in classrooms.

Educators taking this course will explore the effect of peer and colleague collaboration in the Fourth Industrial revolution and understand learners' motivation and how innovative pedagogical approaches increase learner engagement. It also helps educators understand how technology presents an opportunity to increase learner motivation through interactive participation options presented to them.

In terms of the skills for the workplace that include communication and collaboration, this course examines how educators can create spaces and processes, both offline and online, to promote collaboration and classroom discussions. It also describes classroom practices that encourage collaborative skills, especially in designing and creating innovative solutions for learners.

c.   Level 3 – Course 3: Bridging the Creativity Gap

With the growth of emerging technologies comes a new source of possibilities for educators in creating a dynamic and creative classroom environment. To bridge the creativity gap, learners explore novel learning methods supported by artificial intelligence and other digital tools that enable idea generation and deep learning through modeling.

This course equips educators with idea generation techniques using innovation skills and various digital technologies. It also explores how learners' creativity in problem-solving can be nurtured through self-directed learning and crafting unique narratives charting their growth and achievement using prototyping and digital portfolios.

In terms of skills for the workplace that include communication and collaboration, this course offers educators a way to capture learners' growth in a meaningful way while encouraging them to take ownership of their learning. This course achieves this by providing educators with ideas on supporting learners in their learning by crafting unique narratives of their growth and achievement through digital portfolios that communicate their learning experiences in education.

d.   Level 4 – Course 1: From Waterfall to Agile Mindset

Being flexible and responsive to change is the only way to survive and evolve in today's world. It also means being resilient while emphasizing team effort in developing projects. In response to the changing environment outside classrooms, we look at how the Agile Mindset and its methodologies can prepare learners for succeeding in the outside world.

This comprehensive course aims to explore the agile mindset and how it applies to teaching and learning and prepare educators with the competencies and mindset to implement the Agile methodologies in the classroom successfully. It also helps educators understand how to apply the Agile Mindset and its methodologies to project-based learning approaches.

In terms of skills for the workplace that include communication and collaboration this course explores the Agile mindset and how it applies to teaching and learning (T&L). Educators learn how they can support learners' collaborative work and be more self-directed in their learning through adopting an agile mindset. Additionally, educators will be able to explore popular methodologies and tools adapted for education to support the Agile approach to teamwork in the classroom.

4.   Skills for Teaching and Learning: Pedagogy in a Digitally Enabled Learning Environment:

a. **Level 3 – Course 3: Bridging the Creativity Gap**

With the growth of emerging technologies comes a new source of possibilities for educators in creating a dynamic and creative classroom environment. To bridge the creativity gap, learners explore novel learning methods supported by artificial intelligence and other digital tools that enable idea generation and deep learning through modelling.

This course equips educators with idea generation techniques using innovation skills and various digital technologies. It also explores how learners' creativity in problem-solving can be nurtured through self-directed learning and crafting unique narratives charting their growth and achievement using prototyping and digital portfolios.

In terms of skills for teaching and learning in the area of pedagogy in a digitally enabled learning environment this course introduces educators to brand new innovations to transform their teaching in a digital environment. Educators learn how to use artificial intelligence as a teaching tool in the classroom and learn how it can be used to enhance current classroom lessons. Additionally, educators learn how prototyping can be used as a tool to provide learners with a unique tool to investigate and create solutions to problems in new and innovative ways in the classroom.

b. **Level 4 – Course 1: From Waterfall to Agile Mindset**

Being flexible and responsive to change is the only way to survive and evolve in today's world. It also means being resilient while emphasizing team effort in developing projects. In response to the changing environment outside classrooms, we look at how the Agile Mindset and its methodologies can prepare learners for succeeding in the outside world.

This comprehensive course aims to explore the agile mindset and how it applies to teaching and learning and prepare educators with the competencies and mindset to implement the Agile methodologies in the classroom successfully. It also helps educators understand how to apply the Agile Mindset and its methodologies to project-based learning approaches.

In terms of skills for teaching and learning in the area of pedagogy in a digitally enabled learning environment this course helps educators to adapt an agile mindset where they think differently about how students learn in the classroom. This course provides educators with the tools necessary to embed this same approach to learning with their students and introduces their students to the value and opportunities that exist in project -based learning experiences.

c. **Level 4 – Course 2: From Operational to Strategic Thinking**

Teaching through forethought has become increasingly important in today's learning environment. With a rapidly changing world, forward and future thinking is needed to provide foresight for the next decade and beyond. It is important to help learners develop future thinking skills to help them cope with the possibility of a transient and volatile world.

This comprehensive course explores how current events divulge clues about what is to come and how to find opportunities to practice futures thinking in the classroom. It explores how to create multiple scenarios resulting from drivers of change and build immersive stories for analysis and understanding. It also assists educators in developing plans for effecting the future.

In terms of skills for teaching and learning in the area of pedagogy in a digitally enabled learning environment, this course provides educators with the opportunity to draw on various strategies to develop plans for effecting the future. Starting with a discussion on preferred futures, educators apply innovation skills by creating artifacts to stimulate conversation and motivate action towards the envisioned future with learners.

d. **Level 4 – Course 3: From Follower to Entrepreneurial Mindset**

Curiosity can be seen as a thing of value in learners. It allows them to explore their surroundings and make sense of their everyday experience. When harnessed properly, it can become a tool that helps educators expand and delve deeply into their

learners' views. It is important to understand how to harness learners' curiosity and encourage storytelling to build innovators and forward thinkers.

This comprehensive course aims to learn the science behind curiosity and how it enables learning and drives innovation and explore the entrepreneurial mindset through tools to guide learners to create value. It also helps educators explore storytelling and discover ways to shape mindsets using storytelling.

In terms of skills for teaching and learning in the area of pedagogy in a digitally enabled learning environment this course supports educators so they can instil a mindset in learners that will allow them to respond to constant change, find opportunities that create value, and develop perseverance. One solution is to develop the entrepreneurial mindset, as it has many of the components to face the challenges that the Fourth Industrial Revolution brings.

5. **Career Long Professional Learning and Leadership.**
    a. **Level 2 – Course 2: Establishing Effective Educator-Machine Partnerships**

Technology has become increasingly integrated with the provision of adequate education for learners worldwide. There is a need to study the advantages and shortcomings of this integration to provide educators with optimal teaching and learning practices.

This course supports the educator's adaptation of education technology, understand skills development for innovation in their learning experiences, and the opportunities and threats of using technology in classrooms. It also helps educators understand the education industry changes, identify their professional development goals, and acknowledge technological advancements in education.

In terms of developing career long professional learning and leadership this course allows educators to gain an understanding of what changes "Industry 4.0" has on education and its possible impact on learning. Educators will reflect on their current teaching journey by creating a digital teaching portfolio and sharing potential advantages and concerns over technology in classrooms. Moreover, they will also identify their professional development goals and map their action plans in applying technology to teaching and learning (T&L). In doing so, educators gain a profound and context-driven insight into innovation skills that learners need to master in their education.

    b. **Level 2 – Course 4: Strengthening Real-World Relevance in the Classroom**

The outside world has continuously evolved to require educators to incorporate real-world issues with a standard learning curriculum. Creating a more wholesome curriculum allows the youths to become agents of change in their communities worldwide.

Educators will analyse the shift in academic outcomes affected by the fast evolution of industries and how they can incorporate self-learning elements into lesson plans to help learners harness technology for the community's good. It also helps educators develop ways to assess learning as they adopt authentic learning strategies by crafting assessment plans to help learners be more successful in authentic learning contexts.

In terms of developing career long professional learning and leadership this course supports educators in identifying and bringing into their classrooms a service-learning mentality so that they can adapt their teaching over time to be able to offer learning experiences for learners that allow them to have an impact on the good of the community.

c.   **Level 3 – Course 3: Bridging the Creativity Gap**

With the growth of emerging technologies comes a new source of possibilities for educators in creating a dynamic and creative classroom environment. To bridge the creativity gap, learners explore novel learning methods supported by artificial intelligence and other digital tools that enable idea generation and deep learning through modelling.

This course equips educators with idea generation techniques using innovation skills and various digital technologies. It also explores how learners' creativity in problem-solving can be nurtured through self-directed learning and crafting unique narratives charting their growth and achievement using prototyping and digital portfolios.

In terms of developing career long professional learning and leadership this course educators will gain an understanding of the changing face of education through artificial intelligence and how they can continually grow learning in their classrooms from year to year using AI to both supplement and enhance their lessons in the classroom.

d.   **Level 4 – Course 2: From Operational to Strategic Thinking**

Teaching through forethought has become increasingly important in today's learning environment. With a rapidly changing world, forward and future thinking is needed to provide foresight for the next decade and beyond. It is important to help learners develop future thinking skills to help them cope with the possibility of a transient and volatile world.

This comprehensive course explores how current events divulge clues about what is to come and how to find opportunities to practice futures thinking in the classroom. It explores how to create multiple scenarios resulting from drivers of change and build immersive stories for analysis and understanding. It also assists educators in developing plans for effecting the future.

In terms of developing career long professional learning and leadership this course provides educators with the tools for Futures Thinking and how they can pass this skill on to their learners. Additionally, educators gain an appreciation of how current events and changing innovations impact education and society as a whole and develop strategies to adapt their teaching for inevitable changes in teaching and learning in the future.