“Combine technology-enhanced options with the best of established practice and the practitioner has greater capacity to create meaningful and transformative learning experiences.” (JISC, 2009)
Introduction and Context
The National Strategy for Higher Education to 2030 envisages that "higher education students of the future should have an excellent teaching and learning experience, informed by up-to-date research and facilitated by a high-quality learning environment, with state-of-the-art learning resources, such as libraries, laboratories, and e-learning facilities" (Hunt, 2011).

It is within this context that the following policy proposes to embed technology-enhanced learning in Dundalk Institute of Technology in a manner that complements the Institute’s Teaching and Learning Policy and is aligned with the Institute’s strategic goals in relation to Learning and Teaching.

Technology-Enhanced Learning (TEL)
Technology-Enhanced Learning (TEL) may be defined as any form of instruction where technologies are used and applied to facilitate and enhance learning. TEL can be represented as a continuum (Figure 1), moving from the traditional classroom-based/face-to-face (F2F) learning, supported by technology, to a more flexible, blended approach which makes significant use of technology and reduces F2F contact, on to a fully online approach which is entirely dependent on technology.

Figure 1: Technology-Enhanced Learning

- **Web-supported**
  - Technology used to provide information for students e.g. notes, presentations, video, audio, assessment guidelines and basic administrative functions such as scheduling and announcements.
  - Face-to-face predominant. Use of technology is generally non-interactive and non-collaborative.

- **Web-dependent (blended)**
  - Technology used to enhance the quality of learning through interactive learning activities. e.g. tools such as discussion forums, wikis, blogs, virtual classrooms, online quizzes used to support communications and collaboration, assessment and course management.
  - Face-to-face considerably reduced.
  - Learning is more blended/flexible in terms of access and engagement.

- **Fully online**
  - Courses are delivered online exclusively; face-to-face does not occur.
  - Technology is used to support learning that is largely self-directed and independent.
  - Involves optimum use of interactive and collaborative activities.
Blended learning may be defined as “enriched, student-centred learning experiences made possible by the harmonious integration of various strategies, achieved by combining F2F (face-to-face) interaction with ICT” (Torrisi-Steele, 2011).

This policy proposes that the first level of this continuum will be mandatory for all modules being delivered in Dundalk Institute of Technology. The achievement of the second level, blended learning for all programmes, is the main goal of this policy, with the eventual progression to a number of fully online programmes.

Policy Aim
The aim of this policy is:

*To enhance student-centred learning through the integration of technology with teaching.*

Policy Principles
1. Technology-enhanced learning approaches will combine technology-related and face-to-face activities. These will be aligned with best practice to enhance the student learning experience.

2. A Virtual Learning Environment will be used for all modules to promote student engagement, self-responsibility and independent learning.

3. Students and staff will require training and support in the use and application of e-learning tools.

4. Programme design teams will introduce blended learning approaches into all programmes. Consideration will also be given to eventually achieving fully online delivery mode for some modules and programmes.

5. There will be recognition for staff in terms of time, consistent with the level of technology-enhanced activities being implemented. Such recognition will offer opportunities to develop partnerships, research practice, share resources and contribute to the scholarship of e-learning and e-pedagogy.

6. The Institute will ensure a consistent, reliable and scalable IT infrastructure and will provide a range of learning resources and software.

7. Protocols for online engagement will complement existing policy on social networking.

8. Students and staff will have opportunities to evaluate the quality of support provided.
Implementation Framework
The implementation of this policy will be considered in terms of four key areas: Strategy, Structures, Supports and Synergies.

![Figure 2: The 4S Implementation Framework](image)

**Strategy**
The Flexible Delivery goal of the Institute’s Strategic Plan aims to “systematically embed blended learning and technology-enhanced learning within the Institute”. To this end, it articulates the following objectives:
1. Review and amend the Institute’s Quality Assurance framework to support blended and technology-enhanced learning.
2. Implement learner-centred approaches to blended and technology-enhanced learning.
3. Nurture and extend staff capabilities in the application of blended learning and technology-enhanced learning.
4. Develop an IT environment capable of supporting blended learning and technology-enhanced learning.

**Structures**
In order to support the provision of blended and technology-enhanced learning, a range of organisational resources is required. These include the expansion of the e-Learning Development unit to include Learning Designers and Learning Developers and the identification of TEL Leaders in each School (as illustrated in Figure 3).

![Figure 3: e-Learning Development Unit Resources](image)
The e-Learning Development Unit, under an e-Learning Development Co-ordinator, will continue its work but will require additional resources as follows:

**Learning Designers** will be required to fulfil the role of learning technologist as envisaged by Oliver (2002). Based in the Unit, their role will involve a range of activities including:

- Staff development in both the pedagogic and technical aspects of the VLE and other technology-related learning tools and technologies
- Pedagogic support and advice to academic staff
- Technical support
- Supporting and fostering the building of communities of practice (CoPs) within Schools and Departments.
- Developing and collecting best practice exemplars across the disciplines that can be disseminated within the Institute.

**Learning Developers** will be required to support the technical infrastructure required to support technology-enhanced learning. Their role will involve a range of activities including:

- Liaising with Computer Services as appropriate to ensure the timely and efficient installation, configuration and testing of teaching-related software.
- Liaising with technology vendors and evaluating technologies.
- Technical support.
- Targeted helpdesk support as appropriate.
- Development related to the technology platform adopted (e.g. automated scripting, plug-in installation and testing).
- Maintaining and supporting the CELT website.
- Working with relevant user-interest groups to ensure quality services are delivered to users.

**TEL Leaders** will also need to be identified/appointed within each School, with time allocated accordingly, to work in conjunction the e-Learning Development Unit and staff.

**Supports**

It is envisaged that the Unit will provide two types of TEL support: *generic* and *targeted*, which can be provided at various levels of granularity: programme, module or topic.

**Generic** TEL support will include workshops, information sessions, seminars and symposia that are scheduled over an academic year as part of the overall offerings of CELT.

**Targeted** TEL supports will include workshops, information sessions and seminars that will be delivered according to the specific needs identified by a specific School, Department, Programme Board or individual. Targeted TEL requests will be facilitated through a flexible collaborative consultation process as set out in Appendix 1.
In terms of infrastructural support, the Institute will need to provide robust, scalable and reliable technology services to both staff and students. The following technologies are required to support learning and teaching in the short-term:

- Virtual Learning Environment (VLE) – Moodle (in place).
- Personal Learning Environment (PLE i.e. e-Portfolio) – Mahara (in place).
- Synchronous/Webcasting platform for real-time delivery (e.g. Elluminate, Adobe Connect, Big Blue Button, Google Hangouts).
- Multimedia platform(s) for streaming audio, video, etc.

**Synergies**

A key element of embedding blended learning within the Institute will be the ongoing development of internal communities of practice (CoPs) to encourage, support and disseminate learning and teaching experiences and resources.

**Indicators of Success**

Dundalk Institute of Technology will know that it has succeeded in fulfilling its strategic goals for e-learning, when:

- Technology-enhanced learning, and specifically blended learning, becomes an integral part of all programmes by 2016.
- Staff are confident in embedding a range of TEL activities within programmes.
- TEL Communities of Practice are evident within the Institute, with champions in each Department/School.
- Students and staff have had a positive experience of technology-enhanced learning activities.
- Students graduate with added capabilities in ICT.
- There is evidence of collaboration in blended learning with colleagues in other institutions.

**Implementation Schedule**

A suggested implementation process is as follows:

- Restructure the e-Learning Development Unit in line with Figure 3 above.

- In 2013/14, each School, working in partnership with staff of the e-Learning Development Unit, TEL leaders and programme boards, will:
  - Gather information relating to current TEL provisioning along the TEL continuum within each department and provide this to the Centre for Excellence in Learning and Teaching.
  - Review its position with regard to TEL by identifying specific projects, training needs, and targets.
  - Identify specific TEL support requirements.
  - Plan and evaluate TEL interventions.
  - Review implementation progress.
References

Bath, D., Bourke, J. (2010): Getting Started with Blended Learning, Griffith University


Appendix 1: Targeted TEL support process

Targeted TEL supports will be delivered according to the specific needs identified by a specific School, Department, Programme Board or individual. Targeted TEL requests will be facilitated through the following consultation process.

The process begins with an initial discussion between the staff member(s) and the e-Learning Development Unit regarding a learning and teaching issue or an innovative TEL idea. The Learning Designers will provide further consultation, guidance and advice. If, after initial consultations, it is determined that a substantial intervention or pilot is required, the staff member(s), in conjunction with the School’s TEL leader, should consider the development of a School Learning Service Agreement (SLSA).

![Figure 4: School Learning Service Agreement (SLSA) Process](image)

The SLSA provides a formal mechanism for Schools and Departments to identify, implement, evaluate and monitor projects targeted to their needs while at the same time meeting Institute objectives.

The project idea is then discussed with the HOS and/or the HOD and it is then either approved or rejected. If the project is approved the HOD, or delegated staff member, completes an expression of interest school learning service agreement (EOI SLSA). Projects will then be prioritised in the e-Learning Development Unit based on resources available. The project then commences with the unit assisting with implementation and evaluation as appropriate.