

**Teachers’ Union of Ireland**

**Response to Guidance Document for the Provision of Wireless Network Installations in Post-Primary Schools**

**(November 2014)**

Given the extent and pace of developments in technology constant revision and renewal of the government’s strategy, priorities and investment is critical to enabling teaching and learning for 21st century skills and competences. Therefore the TUI, which represents over 14,000 teachers and lecturers, welcomes the opportunity to contribute to the dialogue on advancing technology in schools. The level of detail in the document is welcome but appears to assume that a huge amount of work will be done by schools in establishing a maintaining wireless systems. The document also assumes a very high degree of knowledge in all schools in the areas of engineering, electrics, procurement, installation, energy saving and hardware/software.

***Importance of ICT and hence connectivity through wireless or other means***

TUI envisions a greater integration of ICT into teaching and learning across the curriculum. This comprehends ICT as a basic teaching and learning tool interchangeable with a host of other tools, as a research and experiential tool for teachers and students and as a sophisticated teaching tool to support, with ease, engagement, creativity and imagination in classrooms.

School spaces and organisation should be more cognizant of how ICT can support teaching and learning and promote different teaching approaches e.g. team teaching, integrated projects, independent learning.

Teacher competence to use ICT equipment, mediums and resources as a normal, everyday part of teaching and learning should, in general, have reached an advanced level. On-going development and renewal opportunities should be available - cost neutral to teachers – to ensure they can embrace, with ease, new ICT developments and resources. If neglected or underdeveloped teacher competence will inhibit potential development.

In tandem, student competence to use ICT mediums and devices should be well developed. In this regard every student should have access to direct tuition. It is not enough to assume that students are digital natives and therefore do not need a basic foundation in ICT related skills – evidence is emerging that students are often limited in how, and for what purpose, they engage with ICT.

ICT provides the opportunity:

* to make knowledge and ideas more accessible
* to introduce an interactive, visual, stimulating mediums
* for teachers and students to access a wider range of knowledge and ideas and to
* for teachers and students to network to share ideas and information and learn from each other
* to promote project and integrated learning
* to develop student research skills
* to promote independent and group learning
* to promote and develop effective 21st century skills among students.

**P*riorities for schools in relation to ICT and especially wireless***

Priorities must include:

* Building and strengthening teacher expertise and competence.
* Ensuring adequate teacher and student access to essential infrastructure.
* Accessing, developing and managing software which will involve a mix of external agencies, teachers and student (relative to context).
* Ensuring safe access and ethical, appropriate use of ICT by teachers and students.
* Planning for and providing adequate technical support at local/school/classroom/ individual teacher level in a manner that guarantees appropriate and timely support and ensures teachers are not distracted from their core function as facilitator of learning.
* Organisation and/or re-organisation of learning spaces and time in a manner that embraces, more fully, the potential of ICT to support and enhance the teaching and learning process.

The above will only be obtainable if there is adequate investment by government at school and system level.

***Challenges for ICT implementation in schools, especially in the context of wireless***

The essential challenges are:

* Ensuring a minimum level of access to and use of ICT in all schools and classrooms. This includes accessing the right expertise, building capacity and maintaining and developing that capacity on an on-going basis. Capacity here includes infrastructural capacity, human capacity (student, teacher) and resource capacity (teaching resources, technical support etc.)
* Keeping abreast with how and what is evolving in ICT and remain responsive to changes. The speed at which new devices, mediums, packages are developed requires on-going renewal and development. This infers on-going high level investment in ICT – very challenging in an environment of in a time of budgetary constraints.
* Accessing adequate time, expertise and resources to respond to ICT developments and incorporate them in a timely manner into teaching and learning and school life.
* Supporting students to ‘stay on task’ and continue to maintain positive relationships with other students in a context of some organisations pushing schools to develop ‘bring your own device’ mechanisms. Such BYOD policies may reduce some pressure on schools in terms of financing but create an inequitable structure in terms of families who can, and families who can’t afford devices. It also creates a security and insurance headache for schools. For example, cyberbullying could become a problem as schools don’t own the device so can’t install internet security software on the device.
* The document seems to suggest that funding will not be available to schools for much of the essential hardware.
* The document also seems to suggest that much of the ordering, tendering, repair etc will be the responsibility of schools. This places an extraordinary burden on schools. The question must be asked why much of this additional workload could not be done by experts in the Department of Education and Skills.

Fairness means meaningful access to ICT for all schools and students and a level of investment that:

* ensures all schools have a minimum level of ICT infrastructure, hardware, equipment and devices, relevant software and materials at whole-school, classroom, teacher and student level
* provides, as necessary, for additional grants to schools to reach and/or maintain a minimum level in respect of the point above; such grants must be renewable given the pace at which ICT is evolving
* supports appropriate, on-going access for teachers to up-skilling and development on evolving ICT mediums and materials
* makes provision for financial incentives and supports to ensure teachers and students and their families can purchase and maintain the necessary equipment, devices and materials
* makes adequate and meaningful provision for access to technical expertise and support for schools and teachers
* enables schools put in place a co-ordinator (more than one in a large school) to drive and sustain development.
* access to high speed broadband must be consistent across the school
* the router base must be capable of dealing with the maximum level of activity at any given time.
* Wireless systems will be critical to supporting general engagement with ICT throughout schools, building general capacity and promoting the use of flexible learning hubs or spaces, group based activity and independent study.
* Connectivity to a wireless network throughout a school (each classroom, the library and general areas etc.) will be essential to enabling effective integration and use of ICT in teaching in learning across the curriculum.

**Equipment and Devices**

Given the pace of technological advances there is now enormous variety in the type, nature and range of ICT equipment and digital devices that schools can select. Accessing to devices and equipment that support teaching and learning operates at a number of levels:

* the school level i.e. what should be available is some and all classrooms and other learning areas
* the teacher level i.e. what is appropriate for individual subject teachers and for all teachers
* the student level i.e. what devices and resources are appropriate and necessary depending on age, level, subject area etc.

The management, review and upgrading of systems, devices and equipment can add further layers of complexity to day-to-day operation in schools. Particular areas of concern include:

* *Storage of data and security* - ‘Cloud’ is now commonly advanced as a solution to the effective management of these issues but much has to be explored and tested in this regard.
* *Expert advice* - School management and staffs need access to expert advice on a wide number of issues including balancing financial management with good decisions about educational needs and day-to-day operation.
* *Technical support* – School staffs will also need access to appropriate technical support and internal co-ordination (see point below) to ensure effective development and smooth operation on a daily basis.

**Technical and Development Support**

***Technical Support:* Schools and teachers need support to manage technology effectively and efficiently for educational and administrative functions. In this regard TUI notes that:**

* Access to technical support, experts and specialists will be crucial
* The level of support required will depend on the nature and extent of the issue to be addressed and resolved
* Support must be appropriate, responsive and timely
* A blend of on-line and face-to-face support and access to on-site and off-site specialists will be necessary
* As with broadband, connectivity and equipment issues specific, additional budgets must be made available to schools to meet technical support costs.

TUI advocates that local businesses with adequate expertise and capacity be eligible to complete installation work and provide technical support to schools as this builds local relationships which are often invaluable. However, external support and guidance should be available to schools in managing procurements, tenders, selection, installation, upgrading etc.

***ICT advisors/co-ordinators:*** **TUI considers that ICT advisors at school level must be re-instated.** Like many curriculum and pedagogical initiatives, the development and promotion of technology in teaching and learning will be best served by an ambassador (more than one in larger schools a person). Such a person would dedicate specific expertise and time to developing and building other teachers’ capacity in their independent and shared endeavours. The decision in 2008 to discontinue ICT advisors was short sighted. It should be reversed, especially in the context of the significant reduction in senior management posts in schools since 2008. Day- to-day on site guidance and development support is important to grow capacity within schools among staffs. Someone (or more depending on school size) needs to have dedicated time on a day-to day basis to focus on sustaining development, bringing new ideas to attention of staff and supporting the general integration of ICT in schools on an on-going basis.

**Teacher Professional Learning and Development**

Classrooms, and the student learning and development therein, are about building and enhancing relationships, attitudes, understandings and perspectives; computers, digital and online devices, tools and programmes are not equipped to do this profoundly human work. Instead , responsibility for the essence of what going on in schools and classroom rests in the hands, hearts and mind of the school staff , especially the classroom teacher; a role the can never be replaced by even the best technology.

Technology is but another tool to aid teaching and learning. Albeit, important it should not completely displace other teaching aids and tools - quite the contrary, technology should complement and enhance other teaching supports and the teachers’ expertise to varying degrees depending on the context, emphasis and content etc. The important thing is that teachers are supported in understanding, accessing and using ICT as one of many tools in the teaching and learning process and managing it well. TUI considers that:

* Teachers need on-going access to timely and responsive professional learning and development opportunities as ICT and digital mediums evolve.
* A mix of basic and advanced courses and associated resources will always be necessary; ICT is ever evolving (with speed!) and teachers will come to the learning at various stages of development and with various levels of prior knowledge and understanding.
* While there will be a strong focus on the ICT mediums or digital devices and their capabilities there must also be a strong and appropriate focus on curriculum, pedagogical and assessment practices.
* A minimum level of courses, seminars, materials and equipment must be available, cost neutral, to individual teachers and schools. Some teachers may commit to further engagement depending on interest and relevance.
* Courses must be accessible in terms of timing, time involved and location.
* A blend of on-line and face-to-face approaches will be important – appropriateness will be dictated by a number of factors e.g. themes, prior knowledge, time available.
* Off-site opportunities will be important to encourage wider face-to face networking and exchange of practice and ideas. On-site opportunities will enable whole-school collaboration and development and lead to internal efficiencies at school level.
* Principal teacher should have flexibility in enabling teachers to pursue off-site learning programmes and seminars and supporting whole-school or subject department activities.

TUI is open to participating in face to face dialogue in order to develop the above points in more detail if you should feel it beneficial.

Ends

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