eSKILLS
FOR JOBS 2015

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eSkills Malta Foundation

Reframing the debate
on ICT Education

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Grand Coalition
for Digital Jobs

European
Commission

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2015 - Reframing the debate on ICT Education

For centuries technology has driven a cycle where old skills become obsolete and new skills become the socio-economic enabler of progress. ICTs are at the forefront of this transition today. Ninety percent of new jobs now require ICT knowledge. Traditional literacies are expected to be reflected as digital literacies, and the ability to create value is linked to how this value is manifest in the digital world.

Our school curricula today embody the adult perspective of ICT skills, generally geared to focus on how to use technology and software. This reflects a mind-set in which ICTs are seen as a consumer commodity as opposed to the perspective of ICTs as a medium for creating value in the new world of digital value chains.

We have a phenomenal generation gap in which the National Curriculum reflects adult perceptions and challenges in grasping technology that most students are fully familiar with. The reality is that the consumer driven ubiquity of digital technology is fully embraced by students well in advance of the curricular content they are exposed to at school. The inevitable reaction is that many students tend to switch off, lose interest in ICT studies, and opt for other choices in secondary education.

Across the world, the focus of ICT teaching is changing. There is a clear understanding that students need to acquire computational thinking skills together with 'ICT user' skills. These skills form the basis of the ability to create value in the digitally enabled workplace. They need to be incorporated in the mandatory curriculum for primary and secondary schooling.

Acknowledging the need for this change and implementing it present some difficult challenges for our educators. Preparing teachers to embrace and indeed lead this change is recognised as one of the key priorities we need to address. We have the opportunity to learn from the success stories in other countries, understand what worked and how we can do better.

In the words of Neelie Kroes , Vice Present of the European Commission between 2008 and 2014, "It's not a matter of 'are you in favour, yes or no? it is a fact of life. And that is good reason why it needs to be made part of children's education."

Riga Declaration kicks off the 2015 eSkills for Jobs campaign

In 2015 the eSkills Malta Foundation will be joining forces with the European Commission and representatives from governments, industry, academia, NGOs, and other key stakeholders across Europe in a campaign to push for further action to stimulate the creation of the jobs needed to build a digital single market in Europe.

Harnessing the benefits of the digital revolution has been identified by European Commission President Jean-Claude Juncker as a top priority and an essential means to ending Europe's prolonged economic downturn.

Launched in Riga on the 13th March 2015 by the European Commission and the Latvian Presidency of the EU, the "eSkills for Jobs" campaign is designed to address the digital skills gap and will continue to build awareness of the problem in EU member states. In effect it's a call to arms reflected in an "e-Skills Manifesto" that has been written by leading figures in government, education, policy, research and industry.

The campaign is based on 10 principles that should guide efforts to unlock the potential of eSkills to fuel growth and job creation across Europe.

1. **Commitment to more and better investment in digital technologies and skills**
   Digital technology opens the world to European business and Europe to global markets, enabling Europe to compete more effectively on the world stage.

2. **Address youth unemployment in Europe through digital skills**
   Youth unemployment will fall if young people are equipped with the digital skills needed for jobs.

3. **Prioritise "e-Skills for the 21st Century" policy and scale-up implementation**
   The Commission and Member States should prioritise "e-Skills for the 21st Century" in the framework of Europe 2020 and the Digital Single Market (DSM) package.

4. **Endorsement of the continued work of the Grand Coalition for Digital Jobs and the implementation of National Coalitions**
   Coalitions for Digital Jobs should Focus on developing partnerships from the private and public sectors and ensuring that funds from the European Social Fund are allocated to digital skills and training actions.

5.   **Promotion of European e-leadership**
     Innovation in the management and use of digital technologies will optimise business value in Europe. Thus, sector specific education and training programmes for e-leadership skills development for SMEs need to be supported by Member States.

6.   **Fostering digital transformation and entrepreneurship**
     Harnessing of advanced digital technologies will have massive transformative power, adding genuine social value and providing the tools for the next generation of entrepreneurs across Europe.

7.   **Commitment to life-long education and training**
     From basic digital competence to e-Skills; education and training systems must be designed in a holistic manner, combining formal, non-formal and informal learning and linking academic theory to practical skills required for employment and life in the digital world.

8.   **European leadership of global standards**
     Effective cross-platform integration relies on the development of common standards for interoperability, as well as European standards to define and develop skill sets among citizens, the workforce and ICT professionals, such as the European e-Competence Framework released by the European Standardisation Committee (CEN).

9.   **Fostering ICT professionalism and maturing the ICT profession in Europe**
     Driving the development of ICT professionalism in Europe can position Europe as centre-stage for increase competitiveness and delivering business value.

10. **Commitment to cooperate, pool expertise and efforts**
     The internet has evolved into an interactive Web 2.0. Mass-collaboration has been made instantly possible, emphasising the importance of e-Skills for jobs and digital technologies awareness.

For more information visit the central campaign website at http://eskills4jobs.ec.europa.eu/.

The Riga Declaration being presented to Michel Catinat, Head of Unit ICT for Key Enabling Technologies and Digital Economy, DG Growth, European Commission.

Coding in Schools – European Snapshot

Coding is becoming a key competence which will have to be acquired by all young students and increasingly by workers in a wide range of industries and professions. Coding is essential to the ability to create digital value, it underpins the part of logical reasoning and represents one of the key skills which are part of what is now called "21st century skills".

In 2014 European Schoolnet (www.eun.org) launched a survey to get a consistent picture of the integration of Coding in school curricula. With findings from 20 Ministries of Education across Europe, the survey indicates that a growing number of countries now integrate coding as a formal part of the curriculum.

Computer/ Programming/ coding is integrated by most countries (10) at upper **secondary school level** in general education. In 7 countries (BG, CY, CZ, EL, PL, PT, UK (England)) it is **compulsory** for specific levels of education and mainly part of a computer course.

Understanding the terminology

Coding is the process of developing and implementing various sets of instructions to enable a computer to perform a certain task, solve problems and provide human interactivity. These instructions may include visual building blocks, amply used in http://code.org for example, as well as text commands used in various programming languages.

Coding and Computer Programming are sometimes used interchangeably.

The full report can be accessed online at http://www.eun.org/publications/detail?publicationID=481

Rationale	Countries that have already integrated coding in the curriculum (Black) and those who still plan to do so (Yellow)	Total
Fostering logical thinking skills	BG, CY, CZ, DK, EE, EL, IE, IT, LT, PL, PT, UK (England) ES, FI, LU	15
Fostering coding and programming skills	BG, CY, CZ, DK, EE, EL, IE, IT, PL, UK (England), BE (FL), ES, FI, FR, LU	15
Fostering problem-solving skills	BG, CY, DK, EE, EL, IE, IT, LT, PL, PT, UK (England) BE (FL), ES, LU	14
Fostering employability in the ICT sector	CZ, IT, EL, LT, PL, UK (England) ES, FI, FR, LU	10
Attracting more students to studying computer sciences as part of higher education programmes	BG, CZ, EE, EL, IE, LT, PL, UK (England) BE (FL), LU	10
Fostering other key competences	CY, CZ, EE, IT, UK (England), ES, FR, L	8

Publication Review
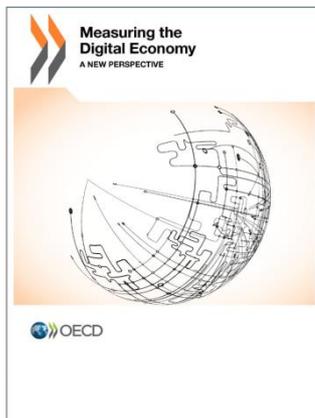
Measuring the Digital Economy: A New Perspective,
OECD Publishing, Paris, December 2014, 160 pages.

This is the latest in a series of OECD publications that analyse particular perspectives of the economics of ICT. Previous publications and working documents have focused on the measurement of the Information Society, (2011), The Internet Economy Outlook, (2012) as well as particular topics spanning areas such as infrastructure, skills and taxation.

The publication reflects the OECD's expertise in the development of ICT indicators. Experts from different sectors of the OECD have contributed to a number of self standing chapters. Each chapter touches on various metrics, identifying measurement gaps and proposing actions to address these.

New perspectives for National measurement are explored and indicators correlated. For example, labour productivity levels for information industries vs. total economy, security metrics adopted by enterprises, ICT in education, ICT skills in the workplace, and top websites by type of service, are just some of the indicators that are explored in some detail.

The authors' seek to address the challenge of developing National statistical systems that respond to the rapid development of ICTs and the influence of digital transformation on the economy as a whole.

The publication provides contextual material for policymakers looking for broad digital economy metrics and the way forward in developing metrics for monitoring cyber security, privacy and consumer protection, and social goals in areas such as health and aging.

MINISTRY FOR EDUCATION AND EMPLOYMENT

MALTAENTERPRISE

mga MALTA GAMING AUTHORITY

THE MALTA CHAMBER
OF COMMERCE,
ENTERPRISE AND INDUSTRY

mca
MALTA COMMUNICATIONS AUTHORITY

mita
MALTA INFORMATION TECHNOLOGY AGENCY

The eSkills Malta Foundation is a multi-stakeholder partnership set up in 2014.

We are committed to focus on the ICT skills that are fundamental for Malta to develop a resilient ecosystem of institutional and human capital to sustain a Digital Economy.

The Foundation works with partners to implement the underpinning policies, taxonomies, resource demand and supply monitors, supporting standards and incentives that Government requires to nurture the ICT Skills for a leading Information Society and Digital Economy.

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