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CSTD 2017-18 priority theme on 'Building digital competencies to benefit from existing and emerging technologies with special focus on gender and youth dimensions'

Statement submitted by

United Kingdom

UK's Intervention for CSTD - Building digital competencies to benefit from existing and emerging technologies, with special focus on gender and youth dimensions

Intro

Thank you chair and we'd like to thank all those who have contributed to the discussion so far for some very insightful interventions and some very thought-provoking presentations.

This is not my personal area of work and I'm afraid I do not have a presentation, but I would like to share a few points from the UK experience.

The UK is strongly committed to ensuring that every part of society is able to access the opportunities that digital technooogy provides, irrespective of age, gender, physical ability, ethnicity, health conditions, or socio-economic status.

Our approach to delivering this objectives focuses on three strands:

1. Ensuring that we continue to tackle the root causes of digital exclusion and that everyone can increase their digital capability to make the most of the digital world
2. Developing the full range of digital skills that individuals and companies across the country need in an increasingly digital economy, and supporting people to up-skill and re-skill throughout their working lives.
3. Strong collaboration between stakeholders from the public sector, the private sectors and civil society to tackle the digital skills gap in a co-ordinated and coherent way.

Change to the national curriculum

- First I'll say a few words about our national curriculum.

- In September 2014, England replaced its Information and Communications Technology (ICT) curriculum with a new computing curriculum which aims to ensure that young people aged 5 to 16 can understand and apply the fundamental principles and concepts of computer science, can write computer programs, and are confident, competent and creative users of information technology. We believe that England was the first country in the world to make it mandatory to teach coding to children at primary and secondary schools.

- We have also reformed our computer science qualifications so that they require students to understand mathematical principles and concepts, the components of computer systems, and how to write and refine programs. The computer science A level has a focus on programming, algorithms and problem solving.

- The main challenge is ensuring that all teachers of computing have the knowledge, skills and confidence needed to teach the new curriculum effectively. To address this, we have funded a number of initiatives, including a network of 'Master Teachers' who can provide bespoke support to other teachers across the country, free online resources and workshops for primary teachers, and match-funded projects which have included the production and dissemination of 'Quickstart' guides for computer teachers in secondary schools. These were produced by the British Computer Society with support from Microsoft.

Digital skills embedded in education

- Outside the formal curriculum there are a number of new innovative initiatives providing young people with opportunities to develop their digital skills. For example:

    - there are now over 5,000 Code Clubs, using volunteers and online material to give young people the opportunity to learn how to code

    - The National Citizen Service (NCS) **(mentioned pp. 28-29 of the issues paper)** in the UK aims to help young people to develop digital skills such as coding.

And the UK Government announced last year plans to make training in basic digital skills free for adults lacking relevant qualifications.

Enabling a more diverse digital workforce

- We recognise that women are underrepresented in both the uptake of digital qualifications and in digital roles. Just 17% of people who work in the tech sector and only 9.5% of students taking computer science A level courses are female.

- There are already a number of programmes doing valuable and innovative work to help more women into tech. Many of these initiatives are led by or in partnership with other stakeholders, including the private sector and civil society. These include:

    - the TechFuture Girls programme **(Box 6, p 32 of the issues paper),** an after-school club that has been specifically designed to encourage girls to stay engaged in IT. To date 19,000 girls have attended TechFuture Girls clubs in 1500 schools across the UK. 84% of girls involved say they are more likely to consider further education or a career in technology as a result.

    - Code First: Girls, which runs professional courses and networking events to help increase the number of women in tech.

    - Techmums, a five week course to help mothers learn basic digital skills

    - Mums in technology - A baby friendly coding school that offers a flexible way of learning

    - Microsoft's DigiGirlz events, which aims to encourage young women to get involved in science, technology, engineering and maths

    - the SheMeansBusiness Partnership (led by Facebook) that aims to deliver digital skills training to over 10,000 female entrepreneurs across the UK

    - FDM Getting Back to Business programme, which supports women looking to return to work after an extended career break

- We will build on these by supporting further development of the Tech Talent Charter, which sets out measures that encourage organisations to think differently in support of a more diverse tech workforce, providing organisations with tangible actions and principles they can adopt and embed into their organisations - such as adopting best practice guidelines for job descriptions.

- We have also set an ambition of 50% women students at the National College for Digital Skills **(page 33 of the issues paper)** by 2020.

- Alongside this work, we will ensure there is also relevant targeted support for other underrepresented groups, such as people with disabilities and those from minority backgrounds or lower socio-economic areas.

International collaboration

- Finally, we also believe that international cooperation is very important.

- As mentioned in pp. 39-40 of the issues paper the Raspberry Pi Foundation, a charity based in the UK, supports an initiative called 'Code Club' which is an international online forum.

- Working with institutions in over 100 countries, Code Club provides training materials for educators and volunteers around the world to teach children to code. Simply by translating training programs into local languages, courses on Code Club could be used in ICT classrooms in multiple countries, benefiting children around the world.

Closing remarks

- Thank you for the opportunity for the UK to speak on this important subject and we look forward to learning more from other colleagues' experience.