This document reviews the policy opportunities and challenges raised by virtual education for the 14-21 age range and presents policy recommendations to policymakers and leaders in Finland. This should be considered in the context of the overall Europe Policy Recommendations Report D3.9. Separate supplementary reports will provide policy recommendations for England, Estonia, Finland and Portugal.

Keyword list
- Work Package; Europe; Finland; virtual schools; virtual colleges; field research; analysis; policy; policy recommendations; ICT skills; information society; teachers; teaching training; lifelong learning

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1. The brief

This is deliverable 3.9.C of work package 3. The deliverable title is: Policy Recommendations - Final.

The work package title is: analysis and recommendations.

Deliverable 3.9 is summarised in the work plan as follows:

This report is the final deliverable from subtask 3.4. It again has p2 Sero as lead author, with help from p10 TIEKE and p7 EITF. The lead author person will again be Barry Phillips, formerly at the ministry (DfES) in the UK. It is based on updating the earlier deliverable (D.3.5) in the light of new input and discussion with stakeholders.

Partners discussed the format of this final report and it was decided that it would be clearest if the over-arching report on Europe to the commission was presented as a single document, with separate reports for England, Estonia and Finland, the three countries specified for individual recommendations in the work plan. Following the first year of research, it was also decided to produce an additional report for Portugal, which has had input from MENON, the overall work package leader.

The four supplementary reports, of which this is one, are numbered D.3.9.A (England), D.3.9.B (Estonia), D.3.9.C (Finland) and D.3.9.D (Portugal).
2. Background for policy recommendations in Finland

This document contains national-level policy recommendations of Finland from the educational point of view. The development and digitalization of information society play key roles in sustaining Finnish well-being and in increasing productivity. The efficient use of information and communication technologies in different sectors of society leads to increased productivity.

It is essential to note that efficient use of ICT demands good quality, reasonably priced and available communication services. Equality and good quality of life are basic assumptions for all citizens. ICT is one tool amongst others in maintaining and improving well-being.

Lifelong learning, high-level education and competence are success factors in developing the information society. Thus ICT and its exploitation have to be a natural part of education starting from basic education. Also, schools and educational organizations need to have adequate technical resources and teachers require both technical and pedagogical skill to use ICT in education.

There have been many changes in Finland’s policymaking structures during 2012 and these are likely to have an impact on policies, and the way polices are implemented. A new working group called “ICT 2015 cluster” has been established in order to develop recommendations on how to promote ICT and expertise around it. New ICT skills levels for teachers are also being established. This document is, then, contingent upon the consequences of these changes which will not be seen until 2013 at the earliest.

3. The Ubiquitous Information Society

The national information society policy belongs to all administrative sectors in Finland. Since 1995 there have been information society programmes and over the years these programmes have become part of each administrative sector’s everyday operation. The following ministerial departmental responsibilities apply to the information society and its development:

- coordinating national information society policies - Ministry of Transport and Communications
• infrastructure and developing of communication industry - Ministry of Transport and Communications

• public sector’s eServices and information management - Ministry of Finance

• exploitation of ICT in education, research and culture - Ministry of Education and Culture and Ministry of Justice

• research, innovations and competitiveness as part of information society - Ministry of Employment and the Economy

4. Policy recommendation for education

Rapid development of ICT significantly affects the delivery and exploitation of education, research and culture. As electronic services and ICT in working life become more and more available, the population should have adequate skills in information technology and media literacy.

From the information society’s perspective it is vital to ensure children’s and the young people’s ability to function in the information society and digital world. This can happen only if parents teachers and other educators skills are improved in areas of ICT, digital services, media literacy and social capital.

Young people nowadays have different learning methods from older generations. Visualisation, multimedia, collaboration and sharing are natural ways of learning and working. Good education supports this.

At the moment pedagogical models and methods appropriate for this rapidly developing technological society are still lacking from education. It is a great challenge to renew teacher education so that ICT skills in both technical and pedagogical level will support education and learning in the future. A target however is that each graduating teacher receives equal skills to use ICT both technically and pedagogically in education. Each teacher should also maintain and develop these skills during their teaching career.

Through improving teachers’ ICT skills it will also be possible to increase e-material, ebooks, mobile tools, games and versatile exploitation of learning environments. It is essential to increase the amount of electrical learning material nationally. In addition, distance education has to be consistently developed, especially in upper secondary schools.
Differences between schools and their technical resources need to be taken care of. A national documentation of technical architecture containing information on infrastructure, compatibility and customer oriented approach has to be created. It has to describe how different elements (organizations, individuals, processes, data, information systems, technological solutions) are connected to each other and how they are combined to work together.

5. **Strategy to act on recommendations**

Public sector information systems need to be compatible and coordination of information society matters has to be the responsibility of one body, the Government of Finland. Nowadays ministries do not have executive powers even if they are charged with coordinating strategic development of the information society.

A new institutional framework needs to be developed. This could be an information society secretariat or a digital ministerial committee, as long as it would have adequate resources and jurisdiction to operate over the administrative sectors.

6. **Links and references**

- Productive and innovative Finland - Digital agenda for the years 2011-2020: Tuottava ja uudistuva Suomi – Digitaalinen agenda vuosille 2011–2020
- The Nordlet Open Education Summit Open Wiki (http://wiki.teria.no/display/nordlet/Nordlet+Open+Education+Summit+Wiki)
- http://www.vnk.fi/toiminta/hallitusohjelman-seuranta/tulevaisuuskatsaukset/fi.jsp
- National Plan for Educational Use of Information and Communications Technology, 2010
- Government Programme 2011-2015, GC

• Kansallinen tietoyhteiskuntastrategia 2007-2015: uudistuva, ihmisläheinen ja kilpailukykyinen Suomi, 2006: [link]

• Ministry of Education and Culture publications 2011:24: Annual report 2010, [link]