

Information and Communication Technology (ICT) and Collaboration in Education

Las Tecnologías de Información y Comunicaciones (TICs) y la colaboración en la Educación

Teemu Leinonen





Overview of talk

Personal introduction

Characteristics of modern ICT

Examples of collaborative ICT tools and projects

Project ideas



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Finland - basics

People:

5.2 million inhabitants (17 per square kilometer).

Geography:

- 338,000 square kilometers, of which 10% is water and 69% forest.
- 187,888 lakes, 5,100 rapids and 179,584 islands.
- Capital: Helsinki.

Languages:

Finnish (Finno-Ugric language) and Swedish.

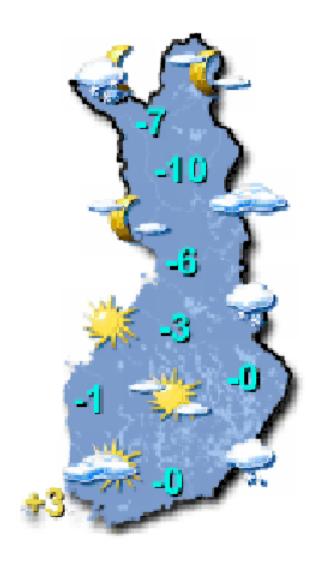








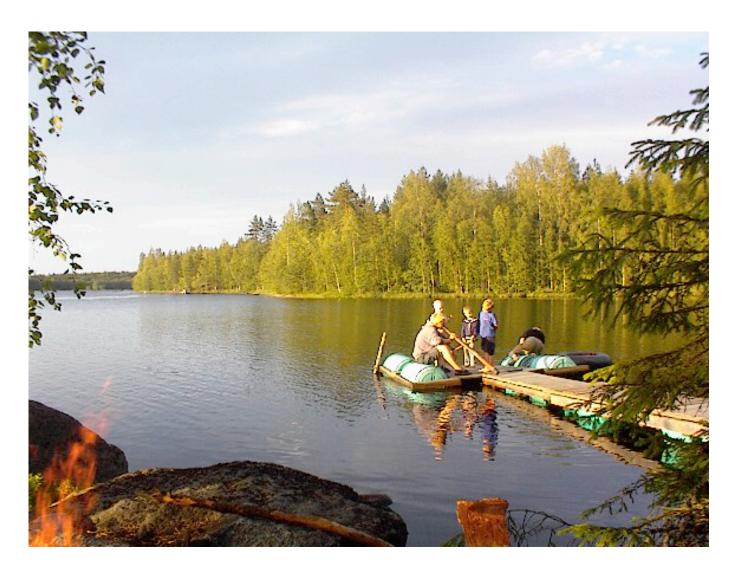














Finland - history

700 years (1100 - 1809): Part of Realm of Sweden

100 years (1809 - 1917): Autonomous Grand Duchy under the Russian Emperor

87 years (1917 -): Independent Republic

- 1918 Civil War
- 1939-40 Winter War (Soviet Union)
- 1941-44 Continuation War (Soviet Union)
- 1944-45 Lapland War (Nazi Germany)
- 1955 United Nations
- 1995 European Union



Finland - today

Politics:

- Parliament (8 parties).
- Prime Minister leads the Government (3 parties).
- President Mrs. Tarja Halonen.
- European Parliament and European Commission.

Economy:

- 27,5% Electronics and electro-technical goods.
- 27,1% Metal and engineering products.
- 26,5 % Forest industry products.
- 2004 World Economic Forum identified Finland as the world's most competitive economy, citing its "culture of innovation".



Finland - education

- Comprehensive school: age 7 to 16
- Upper secondary school or vocational school: 16 to 19
- School meals are free to all pupils
- Higher education places for 65% young people
- No university fees
- Second-highest public spending on higher education in the 30 OECD (Organisation for Economic Co-operation and Development) countries
- Finland came out top in the OECD's 2003 and 2004 study of learning skills among 15-year-olds, with high performances in mathematics and science.







Co-learnit Ltd

«Co-learnit is dedicated to enabling companies and institutions grow into learning organizations succeeding in the knowledge economy.»

- University spin-off found in 2000
- High level education/pedagogy/HRD and IT/software expertise

Business:

80 % - Consulting

10 % - Software Products

10 % - Services related to the Software Products

Customers:

- Finnish ICT industry
- Management Consultants
- Higher education and government



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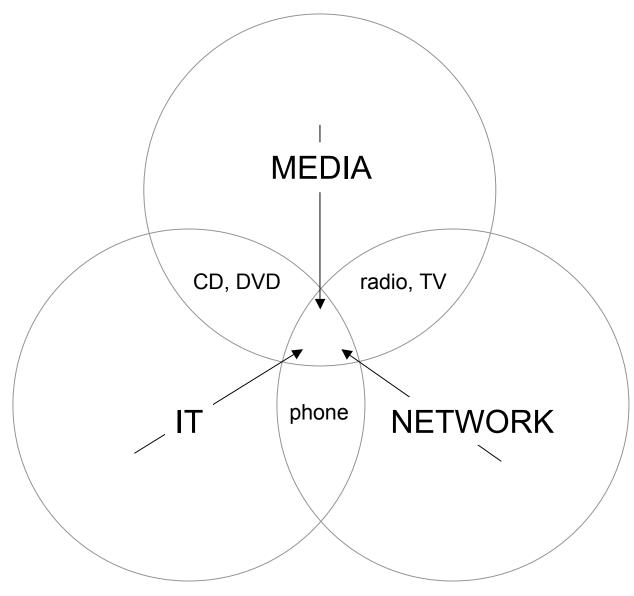
Project ideas



Information and communication tech.

- From IT to ICT.
- From Personal Computer (PC) to "Internet terminals"
 ("Internet PC's", mobile phones, Digital-TV, PDA's, Music sets, Mp3 payers, etc.).
- "Network is the Computer" "Connecting People"
- Online business, play, learning, life it's not "virtual" it's just more connected and (sometimes) distributed.



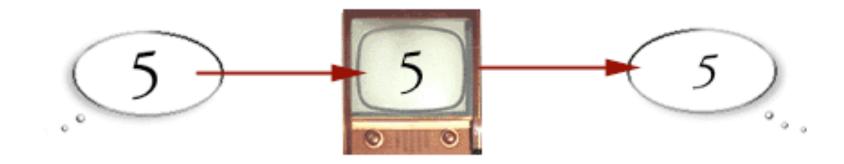




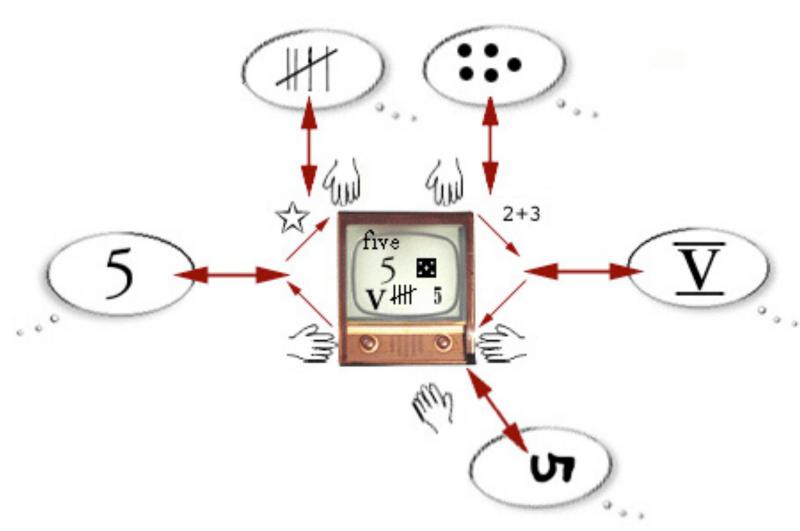
Internet and WWW

- Internet The network of the networks (1969).
- WWW "All in one" ICT platform (1991).
- Design to be "read and write" platform.
- Personal notes, group work, publishing.
- Platform for applications (group work, e-mail, e-learning, accounting etc.)
- Open platform and standards.
- ICT + media (multimedia)
- Internet and WWW in education?

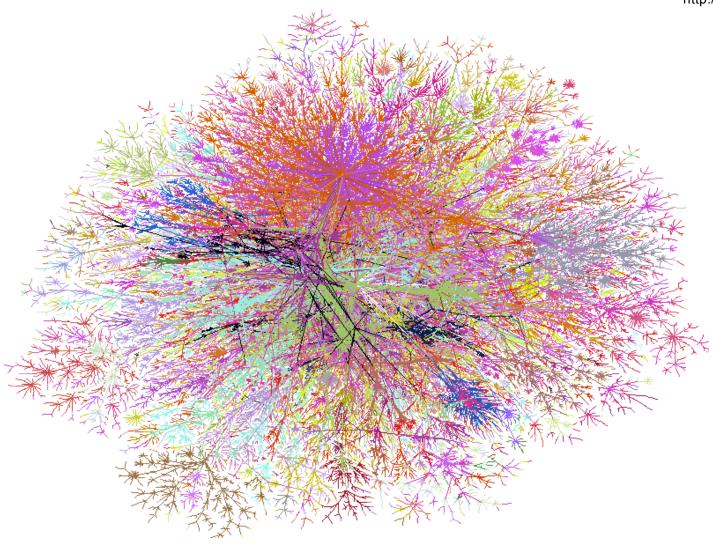












(Source: http://www-personal.umich.edu/~mejn/networks/)



Characteristics of modern ICT

- Users/consumers are publishers of content.
- Users/consumers are marketers and distributors of their content.
- User/consumers build up communities.
- Use of ICT and content is community driven.
- Content is free for the users/consumers.
- Users/consumers are happy to pay to have a change to give their content for other users/consumers for free.
- ICT in 2004+ is about "connecting people".





(Source: http://www.darkroompeople.com/ - Photo by Bruno Furnari)



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Free Encyclopedia and platform

Wikipedia, the Free encyclopedia - http://www.wikipedia.org

- Started 2001.
- 135421 registered users, 354 administrators.
- Languages:
 - More than 10 000 articles: Bulgarian, Danish, German, English (396336), Esperanto, Spanish, Finnish, French, Hebrew, Italian, Japanese, Dutch, Norwegian, Polish, Portuguese, Swedish, Traditional Chinese, Simplified Chinese.
- Free platform to set-up your own Wikipedia (MediaWiki).
- Free database content for your local Wikipedia.

(Source: http://www.wikipedia.org)



Learning "environments"

Moodle

- Free / open source software for online courses
- Project started in 1999 in Australia
- http://www.moodle.org

Fle3 - Future Learning Environment

- free software for collaborative learning
- Project started in 1999 in Finland
- http://fle3.uiah.fi

Tens of other free platforms for online courses and learning.

(Source: http://www.wikipedia.org)



Educational projects 1/(2)

UNESCO Young Digital Creators - Finland/France

- For young people in school and UNESCO clubs to produce and share audio samples, music pieces and discuss about them.
- http://unesco.uiah.fi

JCLic /clicZone - Barcelona, Spain

- Free software for teachers to create educational "activities".
- Website to share the "activities".
- http://clic.xtec.net/.



Educational projects 2/(2)

Learning Folders - Estonia

- For teachers to share "worksheets"
- http://lefo.net/

California Open Source Textbook Project (COSTP) - USA

http://www.opensourcetext.org/

A Free High School Science Textbook (FHSST) - South Africa

– http://www.nongnu.org/fhsst/

Connexions - USA

– http://cnx.rice.edu/

MIT Open Courseware - USA

– http://ocw.mit.edu/



Other community driven projects

Open content travel guide

– http://www.world66.com/

Open source software development sites

- http://savannah.gnu.org/
- http://savannah.nongnu.org/
- http://sourceforge.net/

Education projects/software development site

– http://eduforge.org/

Social software: Weblogs, social network services, etc.



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Some ideas

Colombian (or Bogotan) "local" Wikipedia

- Local / internal encyclopedia content made by the students: texts and pictures.
- History/Politics/Geography/Economy/People/Culture of our Department (or City district)
- Content validated by the teachers and then posted to the International Wikipedia.
- Translations to other languages.

Moodle/Fle3 users' seminar/conference

- To share the best practices of use.
- To promote the use free and open source software in education.



More ideas here

Gracias!