



# Religious Education (RE) and Information and Communication Technology (ICT) ?



Should we use, could we use, possible to use...?

# RE and ICT

**What kind of working methods are reasonable and worth to be achieved?**

- ❑ the learner as an active partner, producer and influencer
- ❑ the meaningfulness and relevance of study and learning to real life
- ❑ working together and interacting
- ❑ emotional commitment and motivational involvement
- ❑ use of information sources and modern technologies

(Cf. 21st Century Skills)



# RE and ICT

## Three ways of learning

- ❑ **Understanding learning** aims to
  - ❑ develop a deep conceptual understanding of what is being taught
  - ❑ understand of what is being taught and to be able to apply the knowledge outside school
  - ❑ emphasises pupils' ability to solve problems
  - ❑ to formulate meaningful arguments
  - ❑ to make analogies with other problems
- ❑ Learning is seen as being based on social interaction
  - ❑ must consider the learner's own social reality



Impiö 2012

# RE and ICT

## Three ways of learning

### ❑ Collaborative learning

- ❑ emphasises pupils' ability to solve problems by the communication with the other pupils
- ❑ learning the facts is not enough
- ❑ in life you need to use your skills in situations where you work with others

### ❑ Creative learning

- ❑ uses in teaching and learning digital tools and applications
- ❑ emphasizes environments based on social media
- ❑ part of the collaborative learning



Impiö 2012;Lakkala 2018



# RE and ICT

## **The basics of the Orthodox pedagogy (OP)**

- ❑ A starting point: "Teaching with attention to body and soul"
  
- ❑ The Orthodox Church herself has always applied in the life of the Church "multimedia" to teach the people by
  - ❑ Listening (hymns, prayers)
  - ❑ Seeing and watching (icons, wall paintings, mosaics, liturgical colors, motions)
  - ❑ Tasting ( wine, bread, koliva)
  - ❑ Experiencing (Liturgical life)
  - ❑ Participating (Church year, Holy mysteries)



# RE and ICT

## The basics of the Orthodox pedagogy

- ❑ The basics of OP are applied also where applicable in educational contexts at schools
- ❑ Multi-sensory and multi-media education is to use
  - ❑ illustrative images
  - ❑ doctrinally deepening texts (prayers, hymns)
  - ❑ sense of community in the teaching group that allows for living experiences
  - ❑ pupils' knowledge is formed and assimilated through social interaction in the context of their own religious culture and its elements
- ❑ Teaching and learning should be contextualized (Boojamra 1989)
  - ❑ theologically and contextually holistic in its approach to learning
- ❑ In school environments is supposed to apply these pedagogical principals also when using ICT in education



# RE and ICT

## Design based action research development project – OrtoWeb



- ❑ OrtoWeb (1997 – 2017) was a forerunner applying ICT into RE
  - ❑ End-users involved in the process of producing artefacts
  - ❑ Learner-centredness
  - ❑ User-centredness (tools)
  - ❑ Liberating design
  - ❑ Based on the Orthodox Church´s multimedia pedagogical approach to education
  
- ❑ Models of intervention-oriented and practical action research were implemented
- ❑ Applied the ADDIE model and user-centered design to the production of educational materials
- ❑ Diversified school instruction of the Orthodox religion education through ICT
- ❑ A pioneer in the field of developing RE pedagogy in Finland in 1990´s

**Here is an idea to be recycled in new digital environments!**



# RE and ICT



## During the action research

- ❑ Participants (teachers) collected materials related to the Orthodox Church's visual and auditory cultural heritage (e.g., the divine services, icons, church buildings, and sets of church-related articles) to the Web
- ❑ Participants (teachers) implemented a Web-based learning process, posted their knowledge back to the Web, and collected feedback
- ❑ This innovation utilized a virtual, open-learning environment for the students; teachers could also communicate with each other
- ❑ In 1990's in this project collaborative content production over the Internet was not possible by using SoMe applications
- ❑ The contents were made off-line and then uploaded to the website

# RE and ICT



## **Research results of the OrtoWeb**

### **Role of ICT in OrtoWeb (Law, Kankaanranta, & Chow 2005)**

- ❑ Internet connections, videoconferencing equipment and e-mail were critical to this innovation in order to extend the learning activities beyond the classroom walls
- ❑ These tools also allowed students to learn with and from other students, as well as to meet with Orthodox priests etc., multimedia software (Real Player) was used for putting course materials on the Web
- ❑ Project utilized collaborative pedagogy before it came into wider use

# RE and ICT

## **A slow start in 1990´s to use ICT in RE**



- ❑ Compared with other school subjects in Finnish schools, Religious Education has warmed up to the use of ICT and Internet based applications for educational purposes relatively slowly
- ❑ The interest among the churches and RE teachers in the middle of the 1990s was quite low
- ❑ The pioneer attempt for the Lutheran religion education (LRE) was the website called “Virtual Agricola”, which was a link site at the end of the 1990s , there was no platform or learning environment.
- ❑ In the Orthodox religion education (ORE), history took a different path between in late 1990´s (OrtoWeb)
- ❑ Partly due to slow start, the research on the use of technology and Internet based applications in Religious Education has also been scarce
- ❑ The following slides present one approach to applying ICT to RE based on a research



# RESEARCH TASK

Teachers using Technological Devices and Social media in Religious Education on 5<sup>th</sup> and 9<sup>th</sup> Grade in Finnish Comprehensive School

## RESEARCH QUESTIONS

### QUESTION 1

What is teachers' self-image as users of ICT and WEB 2.0 applications on 5<sup>th</sup> and 9<sup>th</sup> grade in RE?

Questionnaire:  
ICT-  
knowledge/  
skills (2, 14)

### QUESTION 2

How ICT and WEB 2.0 applications have been applied on 5<sup>th</sup> and 9<sup>th</sup> grade in RE?

Questionnaire:  
ICT and SoME in  
teaching and own  
usage  
(8,9,10,11,12,13,17)

### QUESTION 3

What are the experiences of using ICT and WEB 2.0 applications have been applied on 5<sup>th</sup> and 9<sup>th</sup> grade in RE?

Questionnaire:  
ICT and SoME in  
teachings:  
experiences, effects,  
justifications (8, 9,  
15,16,18,19)

### QUESTION 4

How ICT and WEB 2.0 applications are going to be applied on 5<sup>th</sup> and 9<sup>th</sup> grade in RE?

Questionnaire:  
ICT and SoME in  
teaching: TOP 5  
(10, 11)

# RE and ICT

## Core research findings as summarized in factors

- ❑ The main **reasons for the justification** for the use of devices and SoMe (from highest to lowest)
  - ❑ those were useful from the perspective of learning materials (F1/ 4,0)
  - ❑ those were suitable in Religious Education (F2/3,57)
  - ❑ those give pedagogical support (F3/3,49)
  - ❑ those were a communication mean for theachers (F4/3,06)

Scale, 1= totally disagree, 2=somewhat disagree, 3=no disagree or agree, 4=somewhat agree, 5=totally agree

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# RE and ICT

## Core research findings as summarized in factors

- ❑ The main **experiences about** using (from highest to lowest)
  - ❑ positive learning and teaching effect (F6/3,30)
  - ❑ appropriate online materials (F5/3,19)
  - ❑ SoMe is suitable for different learning contents (F1/3,16)
  - ❑ technology that works and received training (F2/3,07)
  - ❑ difficulty in applying materials and difficulties in use (F3/2,66)

Scale, 1= totally disagree, 2=somehow disagree, 3=no disagree or agree, 4=somehow agree, 5=totally agree

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# RE and ICT

## Core research findings as summarized in factors

- ❑ The main **impact findings** (from highest to lowest)
  - ❑ positive pedagogical impact (F1/2,96)
  - ❑ increased cooperation (F3/2,46)
  - ❑ the impact of change on working practices (F4/2,46)
  - ❑ negative pedagogical impact (F2/2,26)

Scale, 1= totally disagree, 2=somewhat disagree, 3=no disagree or agree, 4= somewhat agree, 5=totally agree

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# RE and ICT

## Core research findings as summarized in factors

- ❑ How devices and SoMe **were used** (from highest to lowest)
  - ❑ Technology to support teacher-centred teaching (F6/3,23)
  - ❑ Technology as a diversifier of working methods (F2/3,23)
  - ❑ Technology-oriented approach in teaching (F4/2,50)
  - ❑ Active monitoring of technology applications (F5/2,27)
  - ❑ Versatile use of SoMe in educational contents (F1/2,25)
  - ❑ Avoiding to use technology (F3/2,18)

Scale, 1= totally disagree, 2=somewhat disagree, 3=no disagree or agree, 4= somewhat agree, 5=totally agree

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## The use of devices (n=532)

### The most frequently used devices in education

- Computer and software (61 %)
- Computer, software, DP (60 %)
- Document camera (57 %)

### In some frequency used devices

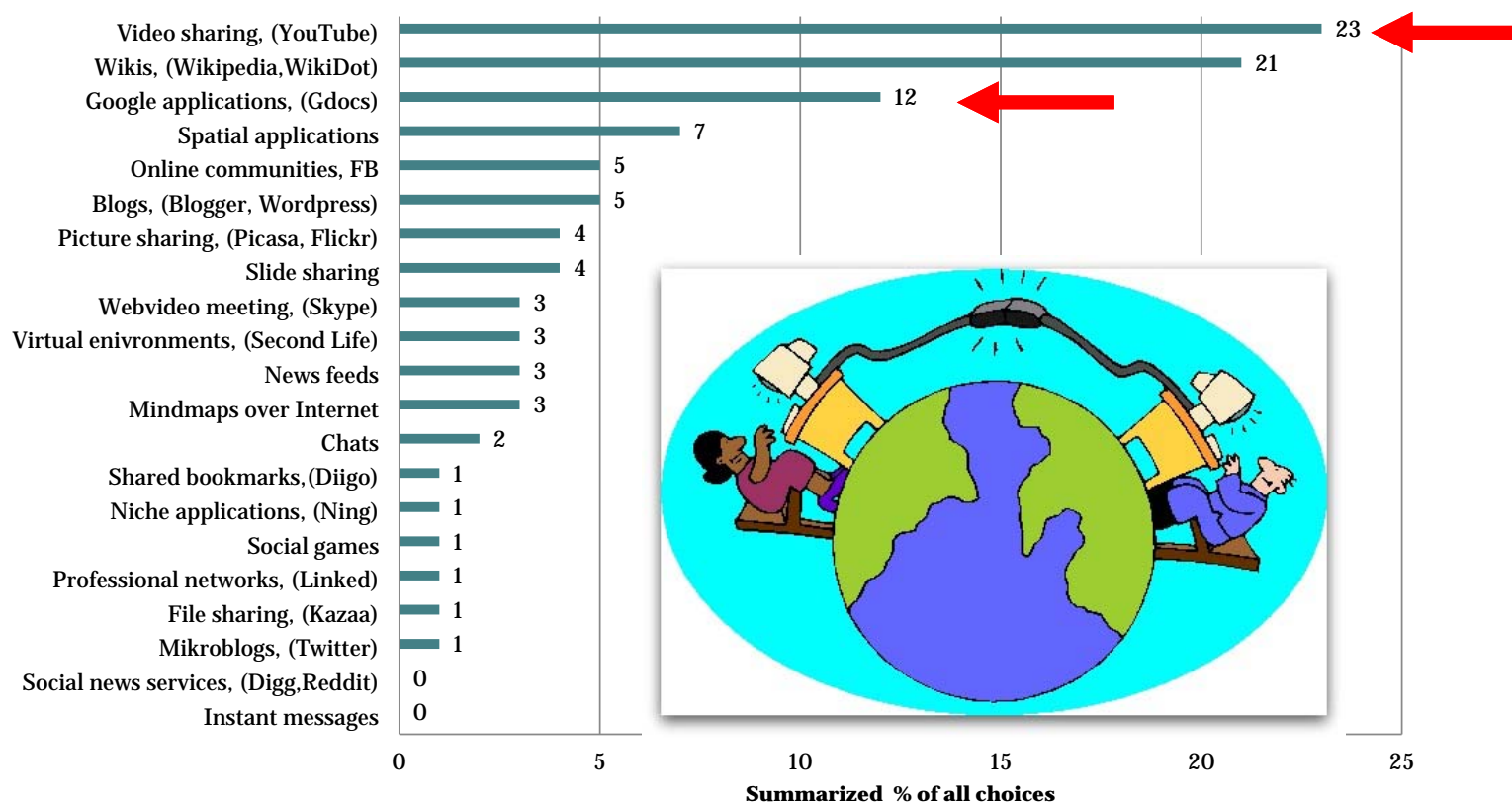
- Digital camera (61, 7 %)
- TV (55, 5%)
- Video player - VHS (50, 5 %)
- Video camera (40, 7 %)
- Scanner (40, 7 %).

### What about smartboards, tablets and smartphones in 2012?

- Daily usage: smartboards 77 teachers (15.5 %), tablets 16 teachers (3.2 %), smart phones 23 teachers (4.6 %)

- Currently, there is no specific platform or learning environment for religious education on the Internet in Finland.
- Teachers use different applications in religious education in different pedagogical ways.

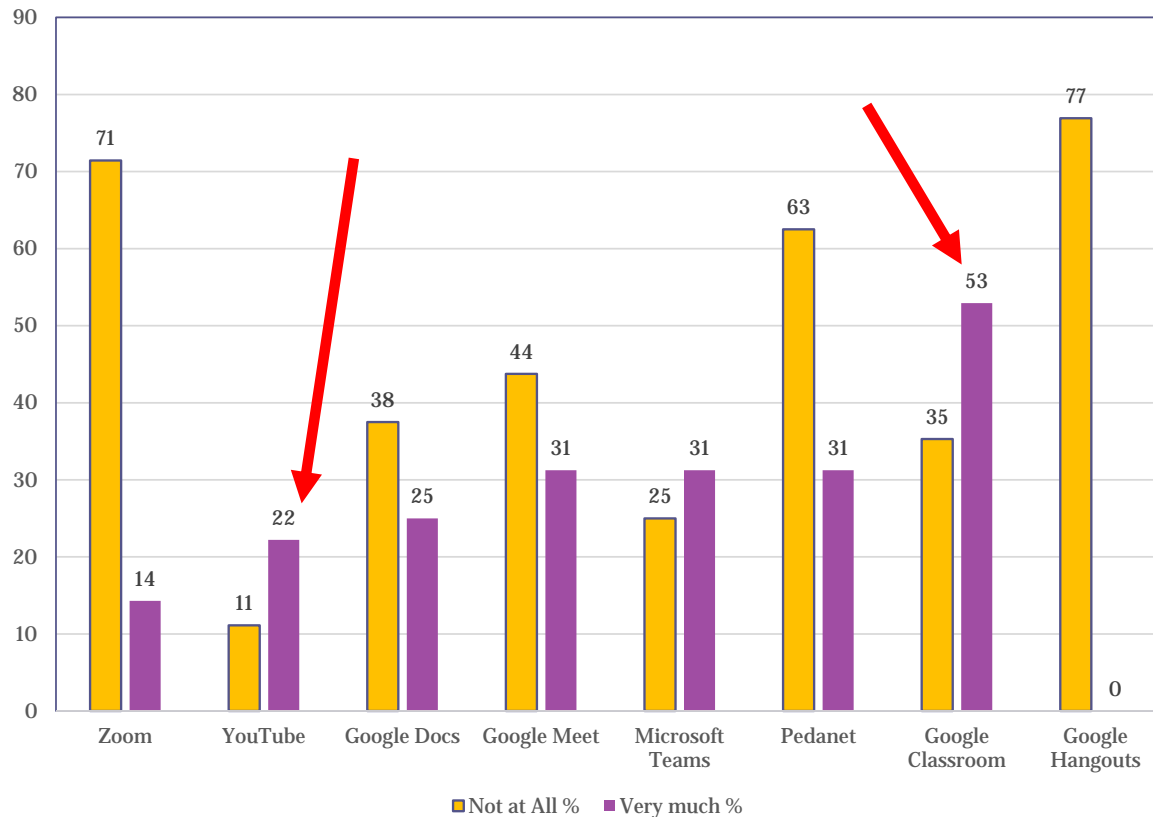
## The SoMe app most used in education (n=532)



Aikonen 2013-2022



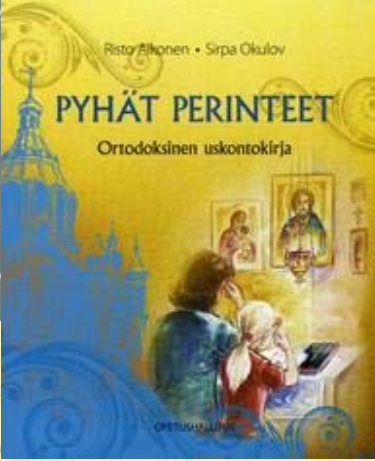
## Applications used in distance education in spring 2020 (n=18)



- ❑ As can be seen, **YouTube** has maintained its position compared to 2012, and has remained almost unchanged among this group of teachers.
- ❑ **Google Group** apps have taken a clear lead among the apps used in education.

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Pyhät perinteet  
opetushallitus



Tuohus on kapea  . Se on tehty  ja  eteen. Tuohuksen liekki kuvastaa Jumalalle no

Tuohuksen voi laittaa  tai Neitsyt Marian ikonin eteen.  ikonin edessä  ajatteleme, että hän rukoilee puolestamme. Kun rukoilemme jonkun toisen ihmisen, äidin, isän, ystävän, sairaan, köyhän tai surua ja murhetta tuntevan ihmisen puolesta, rukoilemista sanotaan .

Kirkossa muistellaan myös kuolleita omaisia tai läheisiä. Silloin tuohus viedään pöydälle, jota sanotaan vainajien  . Tuohukset valmistetaan  luostarissa Heinävedellä.  on  kuin tuikkukynttilä. Se roikkuu tavallisesti katosta tai se on pidikkeen päässä. Kolme ketjua kannattaa avointa lasikuppia, jossa on  . Lampukka voi palaa  edessä myös jatkuvasti.

Palava liekki ikonin edessä kuvastaa  nousevaa rukousta.

Kirkossa tuoks  on hyväntuoksuista  savua. Se syntyy, kun hehkuvan  päälle laitetaan suitsutuspihkaa. Se voi tuoksua ruusulle tai

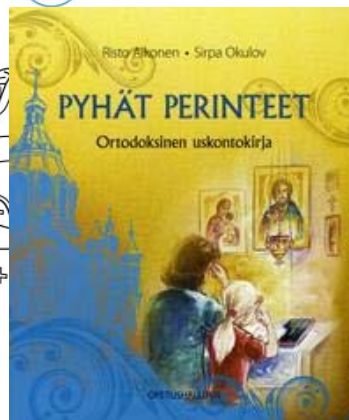
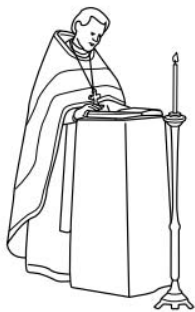
**LearningApps.org**

## An example to enrich a textbook with ICT

- ❑ From the textbook (The Holy Traditions), 20 texts were selected and recorded.
- ❑ The read texts are the basis for tasks in which the pupil has to add, for example, a missing word to the text of an online task or deduce the solution to any other task based on what he or she has heard.
- ❑ This textbook is written in plain language to support pupils with reading difficulties or otherwise weak Finnish language skills, such as immigrant pupils.

1. Katso kuvia. Missä järjestyksessä asiat tehdään liturgiassa?

Numeroi kuviin oikea järjestys.



An example to enrich a textbook with ICT - Downloadable work sheets

maanantai ja tiistai

1

keskiviikko

2

torstai

3

perjantai

4

lauantai

5

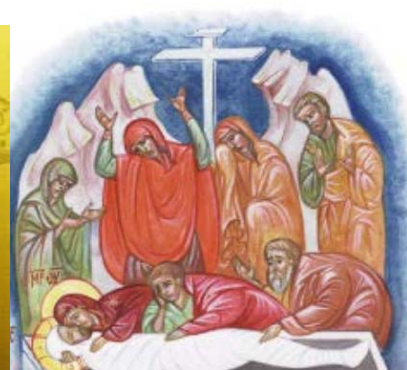
a Kristus lepäsi haudassa

b Kristus asetti ehtoollisen

c Kristus opetti kansaa synagogassa

d Juudas kavalsi Kristuksen

e Kristus ristiinnaulittiin



## Examples of the applications

**Thinglink** (To add informative hotspots to pictures)

<https://www.thinglink.com/scene/614891045133484032>

See example:

<https://www.thinglink.com/scene/614891045133484032>



**Shadow Puppet Edu** (Combining images/videos to make a narrative presentation)

<https://apps.apple.com/us/app/shadow-puppet-edu/id888504640>



## Examples of the applications

**Morfo** (An example to put an icon to "talk" by using Morfo app.)

<https://www.youtube.com/watch?v=YF8qv5Yk0YE>

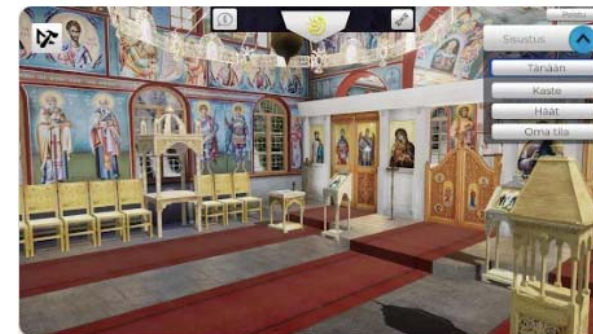
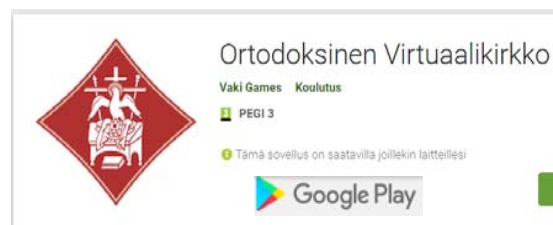


**OrtoBoxi** (A platform for ORE at schools – exercises)

<http://www.ortoboxi.fi>



**Orthodox Virtual Church** (The Orthodox Church 3D app on Google Play)





# Religious Education, ICT and SoMe?





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