



“harmonization and modernization of basic medical education through digitalisation”



cLovid -presentation
19.5.2022 at 16:10 CET

MEDigi project report in English:
<http://urn.fi/urn:isbn:9789526232454>

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Background:

KARVI: Finnish Education Evaluation Centre 2017- 2018 report:

Basic Medical Education and Training assessed:

The aims and contents of the training vary – a common view of a Finnish doctor is needed.



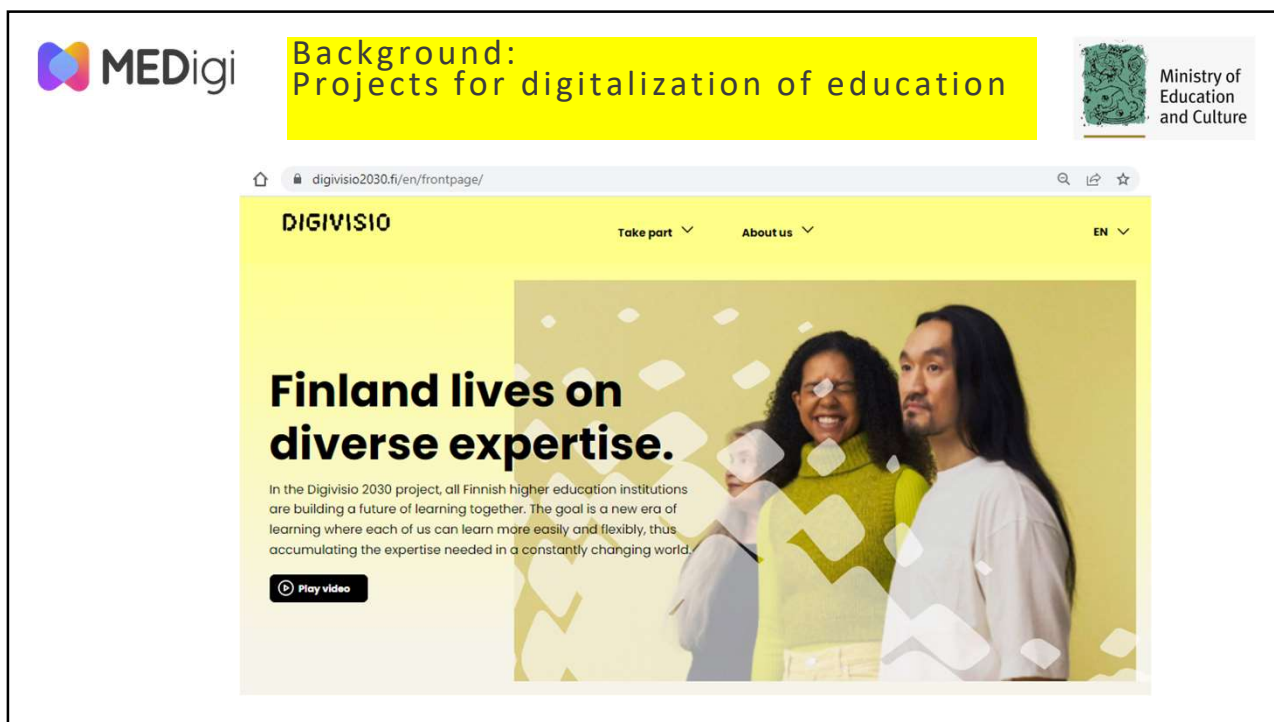
EDUCATING DOCTORS FOR THE FUTURE

Evaluation of undergraduate medical education in Finland

- Marjukka Mäkelä
- Riitta Möller
- Christopher Stephens
- Gerda Croiset
- Joel Telkkä
- Ermo Haavisto
- Hannele Seppälä
- Kirsi Mustonen
- Kirsi Hiltunen

https://karvi.fi/app/uploads/2018/06/KARVI_1418.pdf

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MEDigi Background: Projects for digitalization of education

Ministry of Education and Culture

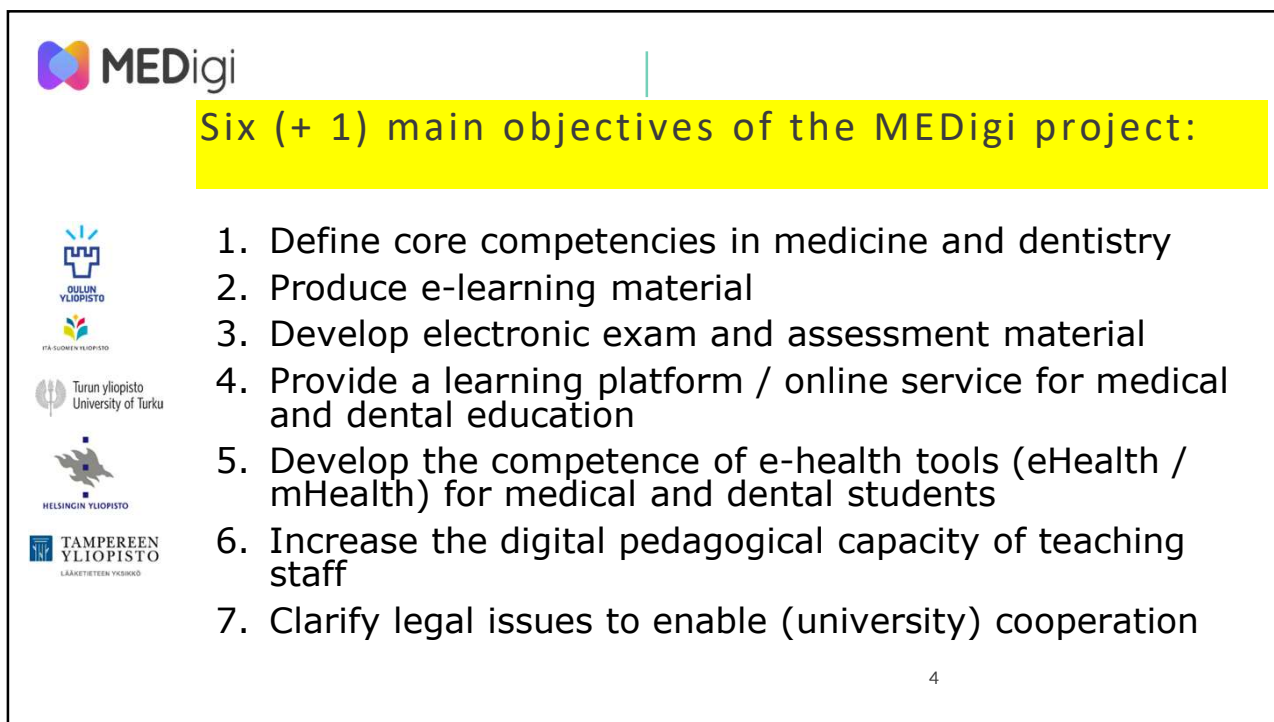
DIGIVISIO Take part About us EN

Finland lives on diverse expertise.

In the Digivisio 2030 project, all Finnish higher education institutions are building a future of learning together. The goal is a new era of learning where each of us can learn more easily and flexibly, thus accumulating the expertise needed in a constantly changing world.

Play video





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MEDigi

Six (+ 1) main objectives of the MEDigi project:

1. Define core competencies in medicine and dentistry
2. Produce e-learning material
3. Develop electronic exam and assessment material
4. Provide a learning platform / online service for medical and dental education
5. Develop the competence of e-health tools (eHealth / mHealth) for medical and dental students
6. Increase the digital pedagogical capacity of teaching staff
7. Clarify legal issues to enable (university) cooperation

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Harmonization and digitalisation of education in medical fields

All medical and dental universities involved.

Coordination responsibility at the University of Oulu

Budget 4,6 M€

Project time 1.4.2018-31.12.2021

Implementing higher education Division 2030 roadmap

49 Workgroups/Sections



> 400 Experts involved

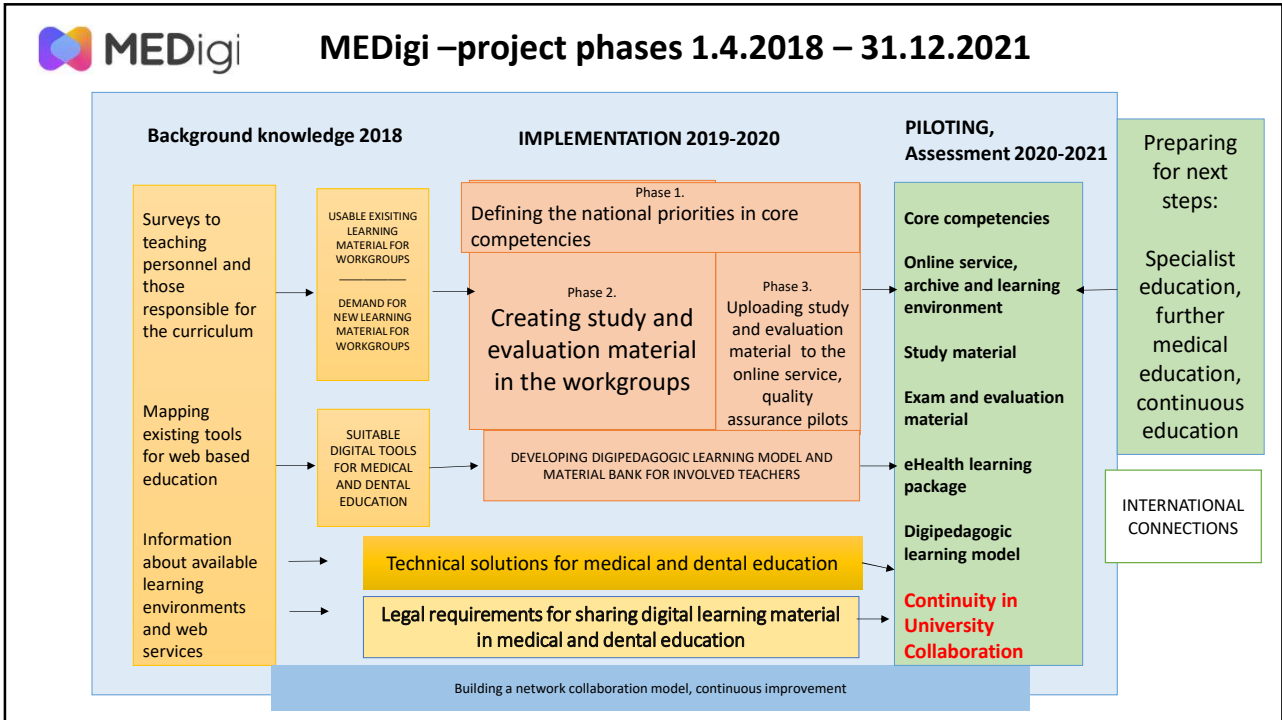


www.medigi.fi

 medigihanke
  @MEDigiFinland

Source: Jarmo Reponen 2021
Twitter: @reponenjarmo

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Towards Competency-based learning...

<https://www.edglossary.org/competency-based-learning/>

- Aim: to harmonize the basic education of doctors and dentists
What are key competencies?
- The importance of the different contents of the subject is defined in three stages:
 - **1 = Core content:** The student must know / manage well and be able to apply knowledge in practice.
 - **2 = Complementary content:** The student must know, identify, understand.
 - **3 = Speciality content:** It is good for the student to know these in addition to the basics.

Lähde:

Ohje ydinainesanalyysin tekemiseen, MEDigi-hanke, editointi Paula Veikkolainen

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Example: 12 themes in eHealth education; Subject to Core Content analysis:

1	Electronic patient record systems
2	Electrical databases and clinical decision support systems
3	National Health Information Exchange: Kanta archives
4	Information systems used by patients - integrated to health care system
5	Information security and data privacy
6	Secondary use of patient data
7	Interaction in digital environment
8	Big Data in medicine and healthcare
9	Health technology assessment in digital health
10	Megatrends in digital health care
11	Development, research and innovations
12	Medical technology

Published in:

<https://www.telemedicine.fi/images/pdf/julkaisut/978-952-69224-2-3.pdf>

Virtual Conference
#eHealth2020 International Conference
25th Finnish National Conference on Telemedicine and eHealth
1st October 2020
Virtual Conference
Free-of-Charge for 200 Participants
ISiTeH
International Society for
Telemedicine and eHealth

Theme: Digital competence in healthcare

O-7 eHealth in Finnish undergraduate medical education: defining core content
Timo Tuovinen MD¹, Jarmo Reponen MD PhD², on behalf of the MEDigi eHealth division
¹ Research Unit of Medical Imaging, Physics and Technology, Faculty of Medicine, University of Oulu, Finland

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Core content analysis of eHealth education /EPR

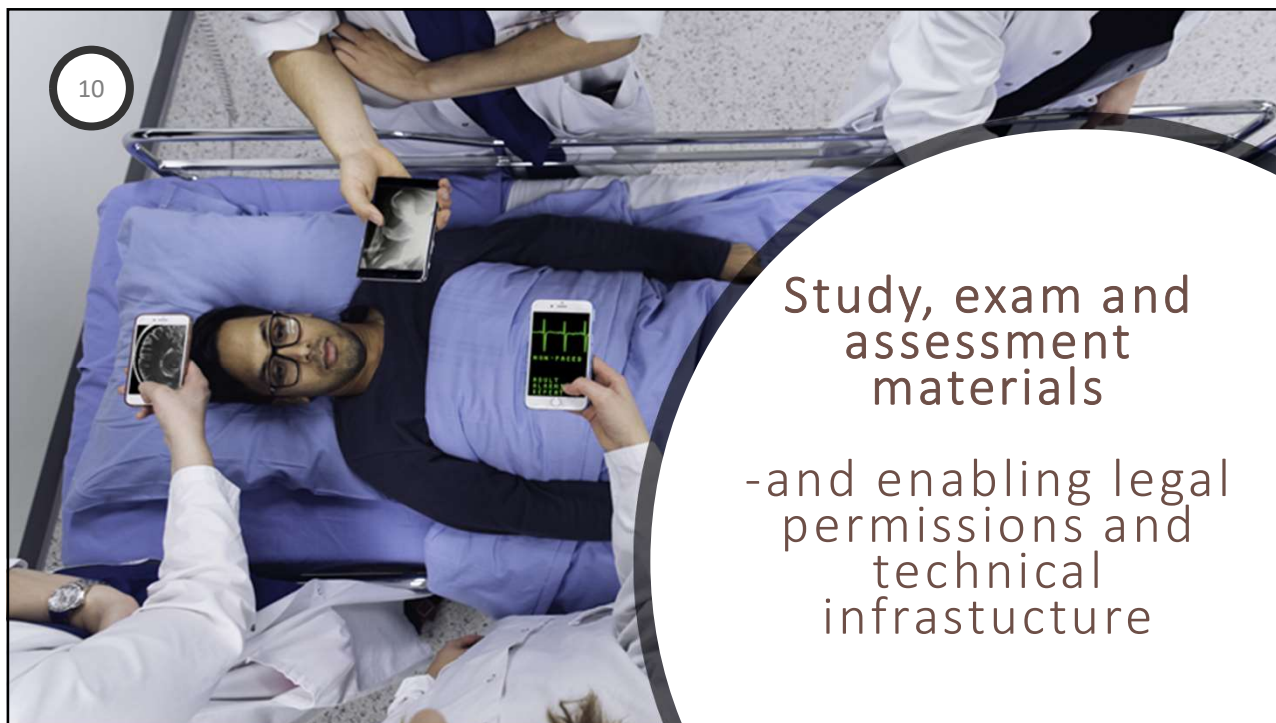
Core content	Description	Significance	Education
1. Electronic patient record systems			
1.1 Daily use	Basic use and competence of EPR required in clinical work		
1.2 Advanced use	More extensive exploitation of systems and their facilitating working routines.	1	3
1.3 Referral/Reply system	Referring patients for further investigation and giving reply by using an information system. Reporting laboratory test results to the next stage of the treatment path. Referral and reply system from a technical point of view.	2	3
1.4 System Architecture	A general understanding of what types of systems exist, how they are interrelated, and how information transits between them.	1	3
1.5 Development work	Participation in the development of existing information systems based on user experience.	2	1
		3	2

Significance:
 1 = Core content: Students must know/manage well and be able to apply knowledge in practice
 2 = Complementary content: Students need to know, identify, understand
 3 = Specialty content: Students should know in addition to the basics.

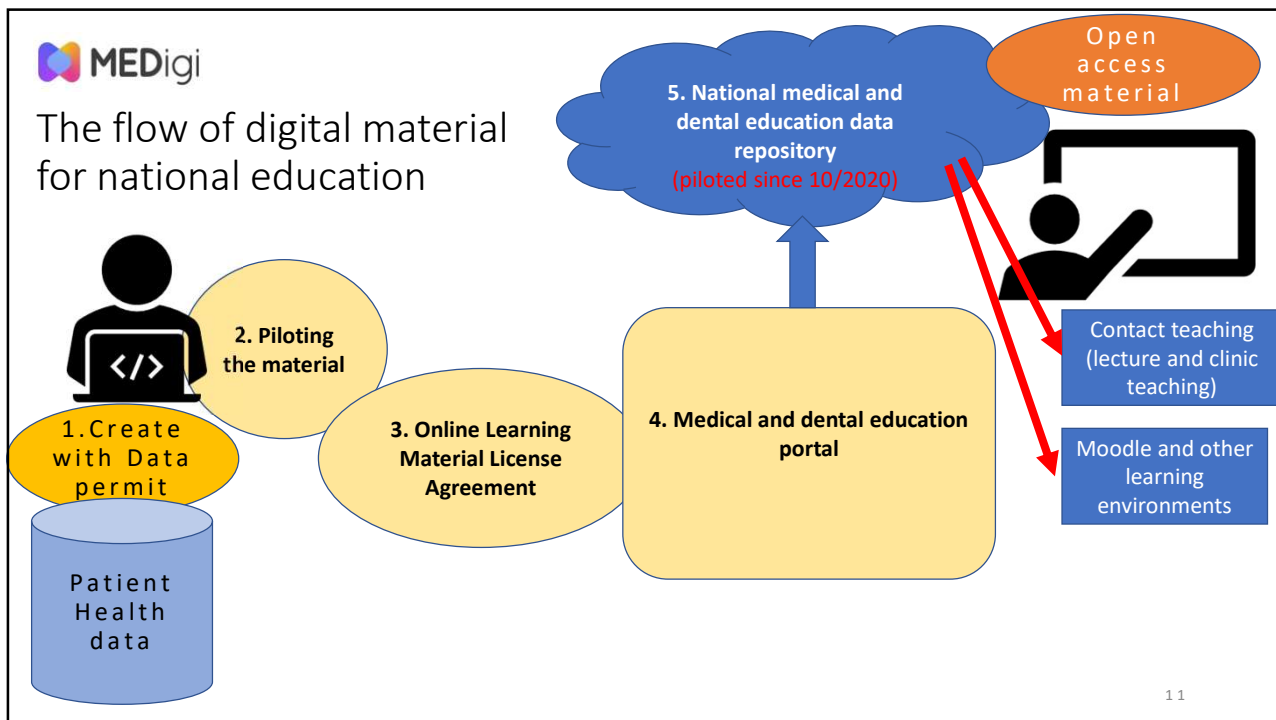
Education:
 1 = Common teaching
 2 = Common material
 3 = Faculty's own teaching and material

Source: MEDigi eHealth Section, Paula Veikkolainen 2021

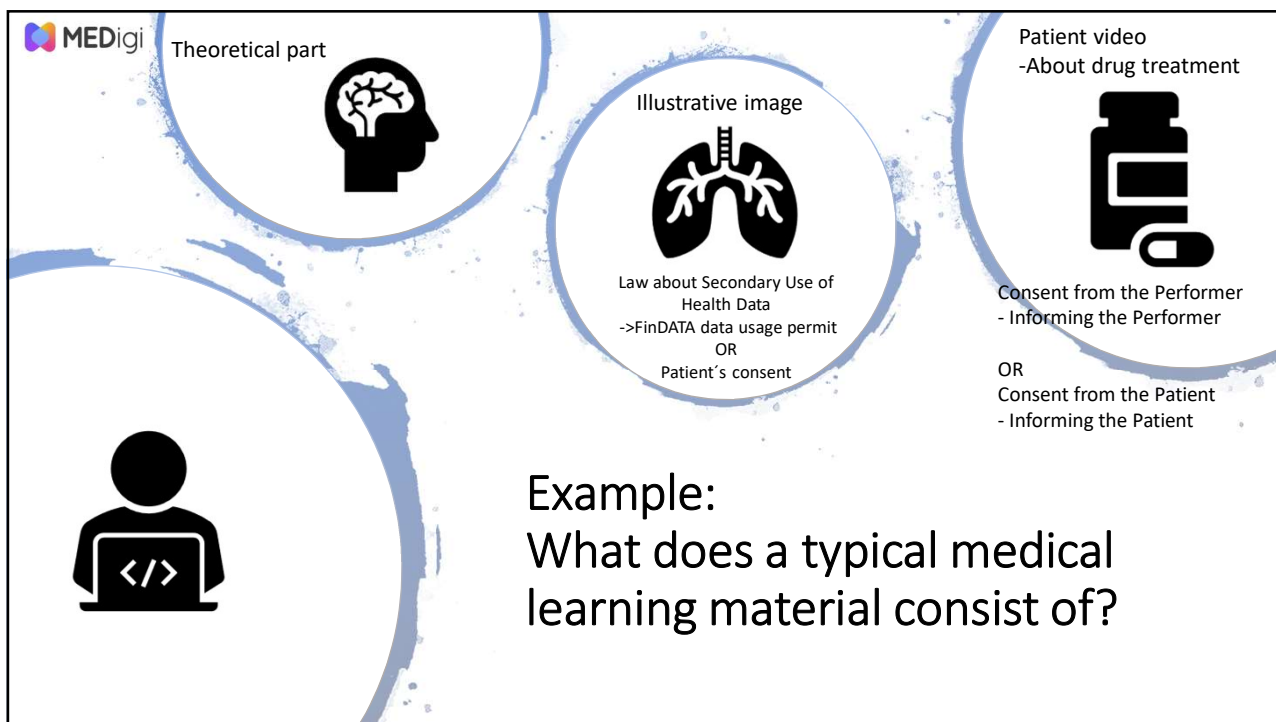
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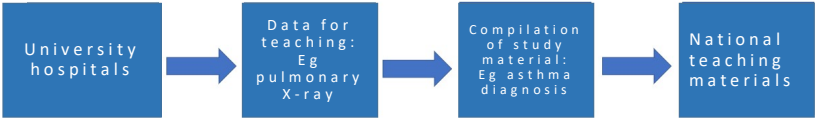


1 1



1 2





-Finland: since 2019 a law about secondary use of health data

- A licensing authority FinDATA grants permits

- MEDigi was granted the first data permit to **use health data for education**,

-permit includes also detailed instructions, how to make this (GDPR, other national laws).

FINDATA PÄÄTÖS 1(7)

Sosiaali- ja terveysalan tietolupaviranomainen

MEDigi-hankkeen projektkoordinaattori Anna Levý
Oulun yliopisto
anna.levy@oulu.fi

Tietolupahakemuksenne 29.06.2020

Dnro THL/3379/14.02/2020
pvm 09.09.2020

Data permit for the use of personal data for the production and use of educational material

Tietolupa henkilötietojen käyttämiseksi opetusmateriaalin valmistamiseen ja käyttöön

1. LUVANSAAJA
Oulun yliopisto, MEDigi-hankkeen projektkoordinaattori Anna Levý

2. PÄÄTÖS


Sosiaali- ja terveysalan tietolupaviranomainen Findata myöntää sosiaali- ja terveystietojen toissijaisesta käytöstä annetun lain (552/2019) nojalla luvansaajalle luvan käsitellä tässä päätöksessä tarkoitettua henkilötietoaineistoa. Tämä tietolupa oikeuttaa myöhemmin kerrottavin tavoin käsittelemään henkilötietoaineistoa. Tietolupa oikeuttaa tässä luvassa tarkoitetun henkilötietoaineiston valmistamiseen ja opetuskäyttöön.

Tietolupaviranomainen myöntää luvansaajalle tietoluvan seuraavaa käyttötarkoitusta varten:

Tieteellinen tutkimus
 Opetus
 Tilastointi
 Viranomaisen suunnittelu- ja selvitystehtävä


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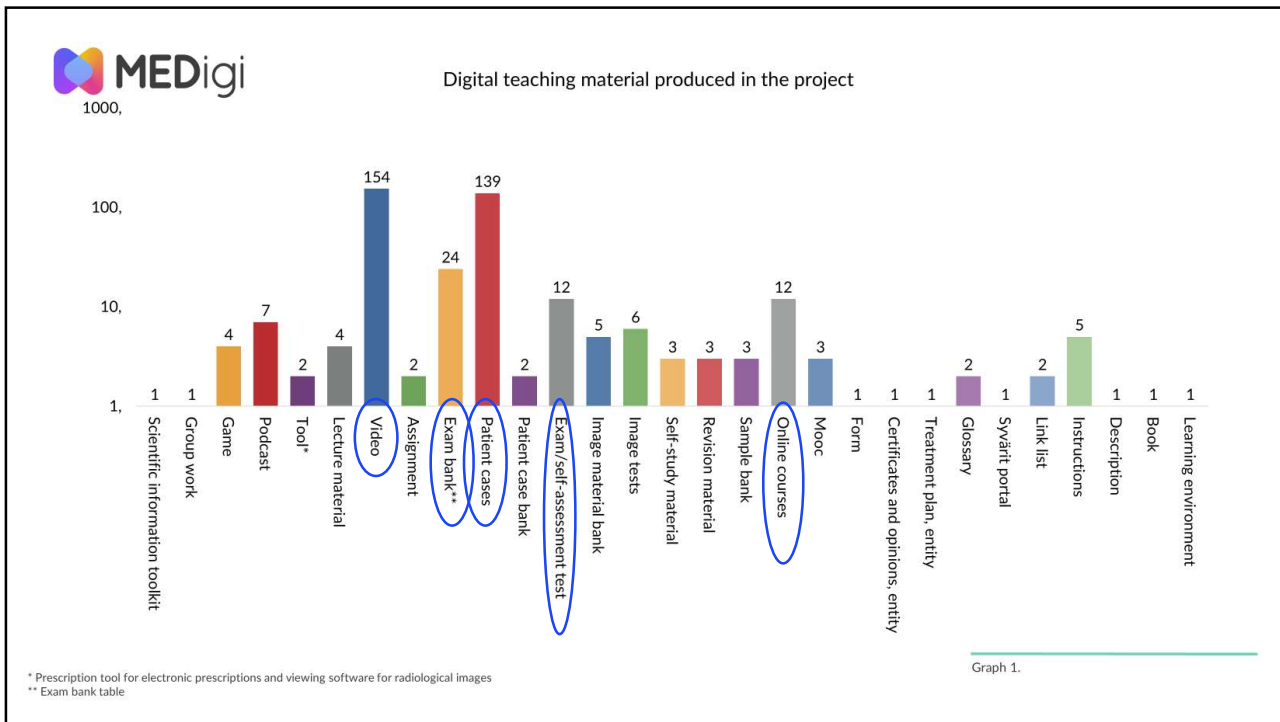


Cooperation: MEDigi project Universities and Finnish university hospitals

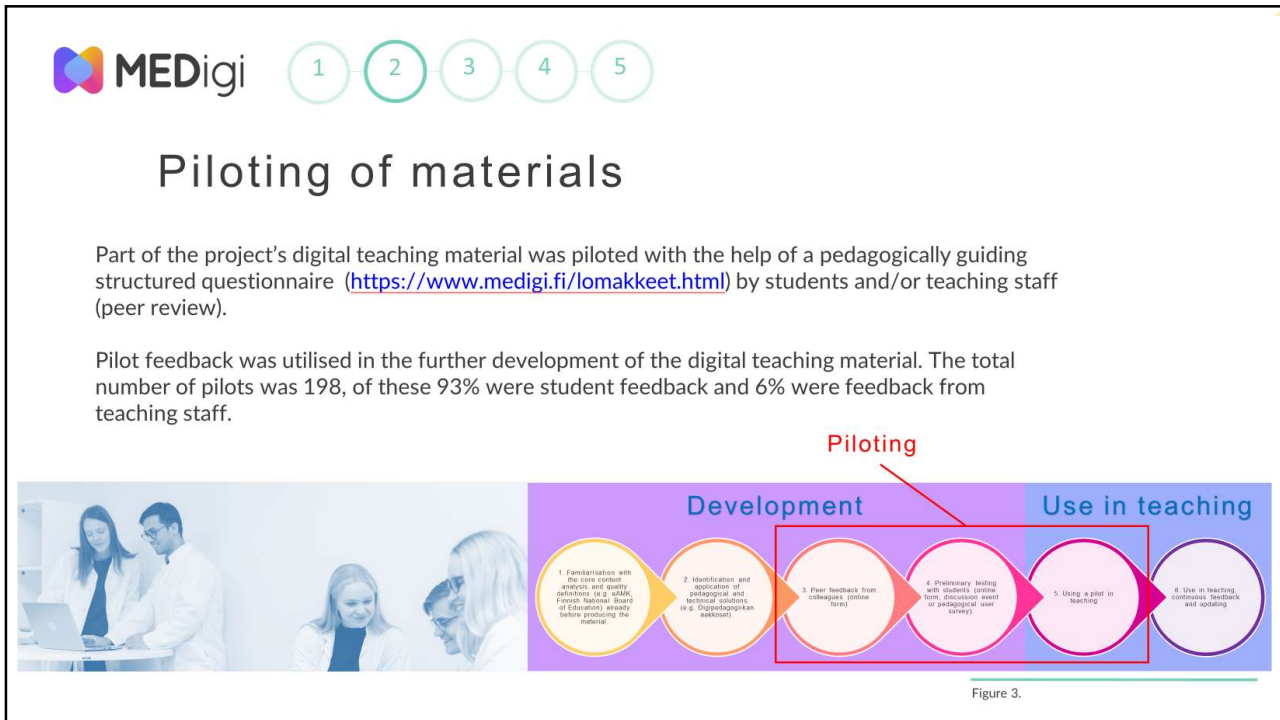
- The source of the national teaching material prepared from the patient data are mainly the university hospitals.
- Each university hospital has its own processes for preparing its Teaching Data Permit guidelines, e.g. between their data protection actors and those responsible for education.
- **MEDigi coordinates the joint actions.**
- **The aim was to harmonize the content of the teaching data permit practices in order to implement national co - operation**



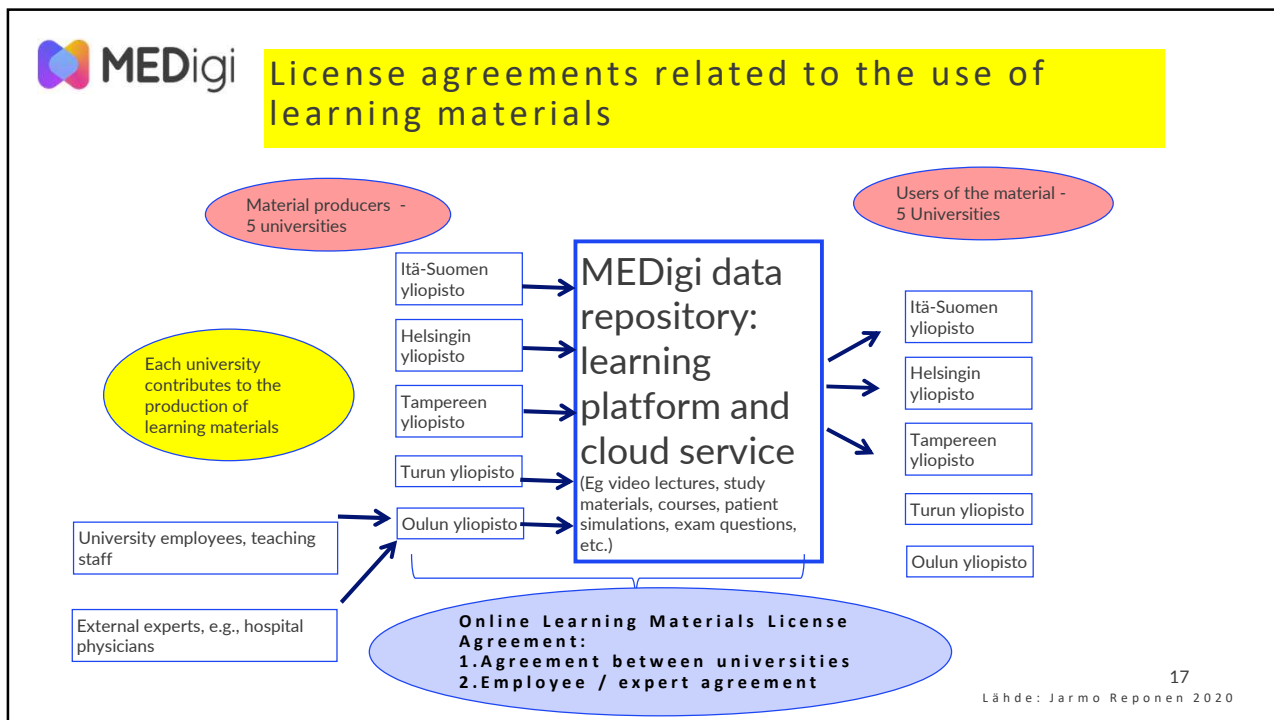
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1 5



1 6




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MEDigi **Prototype:**
One portal for MED edu services

Definition of the national education portal

The education portal would include an open website for all those interested in medical and dental education and a restricted user environment for students and teachers.

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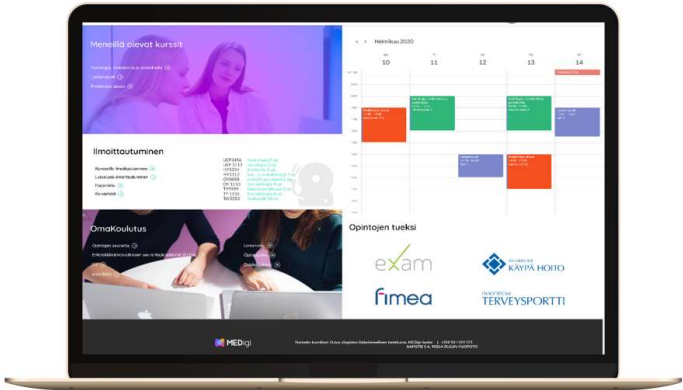
Future Vision:

Vision of the student's view in the medical and dental education portal


The student's view would include student-specific study information, enrolment systems for studies, class schedules, competence assessment systems, key study materials, links to university-specific learning environments, and field-specific environments that support learning.

Overview:

My learning data for students
My teaching data for teachers



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Oppimateriaalihaku Julkaise oppimateriaali
Suomi ▾ Oma profiili Sivukartta

National repository of medical and dental teaching materials

Lääketieteen ja hammaslääketieteen tietovaranto

Lääketieteen ja hammaslääketieteen kansallinen tietovaranto on opetuksen digitaalisen materiaali-
tietovarantoon joko itse tekemään tai työryhmässä tehtyjä digitaalisia materiaaleja, mikäli mate-
Sopimuksessa tekijä antaa luvan käyttää tietovarantoon tallentamaansa materiaalia kansallisessa
Materiaalin tallentaja vastaa myös, että materiaaleissa esiintyviltä henkilöiltä on hankittu asiann...

Oppimateriaalin haku

[Hae oppimateriaalia >](#)

- There is a need in the medical fields for “limited access material resources” due to the potential sensitivity of information.
- Connections to open data resources possible.
- The database uses the metadata structure of open learning materials (aoe.fi).

Oppimateriaalin lisäys

[Julkaise oppimateriaali >](#)

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MEDigi Materiaalihaku Julkaise oppimateriaali

Retrieval of learning material, connection to learning environments

Etusivu / Haku

Oppimateriaalihaku

Hae oppimateriaalia

Sairas lapsi

42 hakutulosta

21

2 1

MEDigi Avaa oppimateriaali

Lataa tiedosto (0.43 GB) Kopioi linkki

lapsen arviointi

NOPEA ALKUARVIO
<30 s kestävä nopea silmäys,
onko lapsi vakavasti sairas?

KÄYTTÄYTYMINEN
Jänteisyys, tajunnantaso, liikehdintä, ään

HENGITYS
Työstä (apuhengitysilhakset käytössä)?
Epänormaalit äänet (kuorsaus,
vinkuna, stridor)?

IHON VÄRI
Kuvailee verenkiertotilannetta;
ihon kalpeus/marmoroituminen/syanoosi

> HANDS OFF –ARVIO:
JOS MITÄÄN POIKKEAVAA
EDETÄÄN ABCDE

0:06 / 5:47

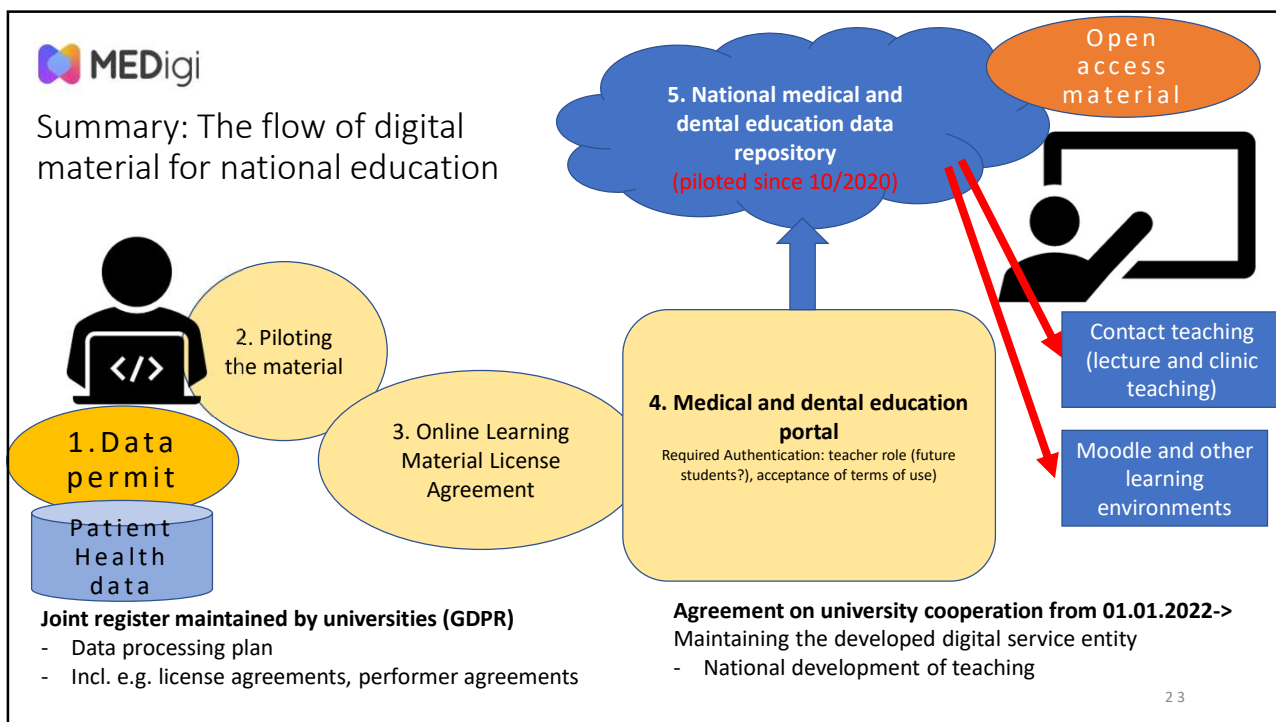
MEDigi Sections have had a possibility to store their produced teaching material into the national repository since the pilot phase.

Now we are in roll-out phase

Teaching video in Pediatrics.
Produced in University of Turku for national use

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2 2



2 3

MEDigi

Digital pedagogical training for teaching staff
- Alphabets of digital pedagogy, courses in Digicampus Moodle

Digital Badge

Digipedagoginen käsikirjoitus

Osaamismerkki

Digimateriaalit

Digiympäristöt

Virtuaalisimulaattorit ja pelit

Digiohjeus

Digiarviointi

Digivuoroaikutus

Digipedacaseja



Palaute tästä kurssista

Opintopistelaskuri monimuoto-opetukseen


credit counter for multimodal teaching


2 4


2 4



www.medigi.fi

 [medigihanke](https://www.instagram.com/medigihanke)

 MEDigi - Lääketieteen alojen opetuksen digitoiminen ja harmonisointi

 [@MEDigiFinland](https://twitter.com/MEDigiFinland)

MEDigi project report in English:
<http://urn.fi/urn:isbn:9789526232454>

Thank you!

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