RESPONSIBLE
RESEARCH SERIES
12:2025

OPEN EDUCATION AND EDUCATIONAL RESOURCES. NATIONAL POLICY AND EXECUTIVE PLAN BY THE HIGHER EDUCATION AND RESEARCH COMMUNITY FOR 2026–2030.

Policy components for open educational practices, open access to educational resources and open access to theses

RESPONSIBLE RESEARCH SERIES

Responsible Research Series publishes declarations, policies, studies, recommendations and other documents relating to the openness, responsibility and accessibility of science and research. Publications also cover science communication and science-society interactions. The publication series is not a scientific peer-reviewed publication. The series is published by the Committee for Public Information (TJNK) and the Federation of Finnish Learned Societies (TSV).

OPEN EDUCATION AND EDUCATIONAL RESOURCES. NATIONAL POLICY AND EXECUTIVE PLAN BY THE HIGHER EDUCATION AND RESEARCH COMMUNITY FOR 2026–2030.

Policy components for open educational practices, open access to educational resources and open access to theses.

Responsible research series 12:2025

7th volume

Author: Open Science Coordination in Finland, Federation of Finnish Learned Societies

Publisher: The Committee for Public Information (TJNK) and Federation of Finnish Learned Societies (TSV), Helsinki 2025

ISSN: 2670-062X

ISBN 978-952-7589-22-9

DOI: https://doi.org/10.23847/tsv.1626

Open education and educational resources. National policy and executive plan by the higher education and research community for 2026–2030. Policy components for open educational practices, open access to educational resources and open access to theses.

Update accepted 8 October 2025 by the National Open Science and Research Steering Group.

CONTENTS

COMMITMENTS OF THE POLICY

We integrate open educational practices and open educational resources into higher education.

We acknowledge work that promotes open education in assessment and career advancement.

INTRODUCTION

This policy applies to open education, open educational practices and open access to educational resources and theses.

Research and education have always been closely linked. Research reveals new knowledge that is disseminated more widely to people and that is learned as part of an individual's own skills. This is why openness in science and research is inherently linked to openness in education.

In order for the general public to genuinely be able to utilise research results that have been made open, the results often need to be processed into a form that serves and facilitates the exploitation, dissemination and learning of the results. The open availability of materials developed for needs of education, i.e. educational resources, thus serves to raise awareness of research results.

Open educational resources and new types of more open educational practices, for example, those offered by digitalisation, reduce the need to tie education, learning and teaching to a specific time and place. In this way open education becomes a natural part of a new type of flexible education, in which everyone, regardless of their situation in life and place of residence, has more opportunities to learn new things.

The policy is the result of collaboration within the Finnish university and research community, constituting a shared view of the direction that the openness of education, educational resources and theses should take.

FREEDOM OF THE TEACHER, THE RESEARCHER AND THE STUDENT

The aim of the policy is to achieve openness in a way that supports and increases the freedom and opportunities of teachers and researchers to share researched information in their teaching and in the educational resources they have prepared, and the freedom and opportunities of students in higher education to open their theses. The purpose of educational resources is to distribute research-based information to society as a whole. Teachers and researchers must be able to choose the best methods for this purpose in their teaching and educational resources. The higher education and research community must guarantee incentives and structures for the open education and educational resources in a way that respects, on an equal basis, the work done by teachers and researchers to develop education and educational resources.

INTERNATIONAL AND NATIONAL FRAMEWORK

This policy has been prepared using the extensive domestic and international work that has been done to improve open education and educational resources. Important international sources for drafting the policy have been the European Commission publication Practical Guidelines on Open Education for Academics: modernising higher education via open educational practices (2019), the UNESCO Recommendation on Open Educational Resources (2019) and the complementing Dubai Declaration on Open Educational Resources (2024), and especially regarding open educational resources, the UNESCO Recommendation on Open Science. Significant national achievements include the national Library of Open Educational Resources owned by the Finnish National Agency for Education, and the joint Digivisio 2030 -project of all the Finnish higher education institutions, together with Opin.fi-service developed within that project.

RISKS AND THREATS

A risk analysis (in Finnish) has been prepared for the coordination of open science and research in 2021–2022. The risk analysis identifies the following risks related to the open education and educational resources in particular and proposes the following measures to prevent them:

- **Risk**: insufficient resources for developing open educational resources and study modules – **measure**: joint development of open educational resources and study modules and sharing of resources
- **Risk**: negative attitudes among education providers towards the use of open educational resources and educational practices – **measure**: targeted training
- **Risk**: quantity-based incentives undermining the quality of open educational resources and study modules – **measure**: use of national quality criteria
- **Risk**: fragmentation of open education and educational resources software and platforms hindering educational cooperation – **measure**: national cooperation and common standards for the procurement and use of platforms and software
- **Risk**: unclear guidelines for the recognition and accreditation of open education– **measure**: national cooperation in the development of recognition and accreditation practices
- **Risk**: negative attitudes towards the use of open educational resources in education exports and cooperation – **measure**: targeted marketing to education exports actors and education partners

- **Risk**: lack of skilled support staff for open education and educational resources – **measure**: integration of open education into, for example, information studies training.

The risk analysis for open science and research is updated regularly. With regard to open education and educational resources, the challenges posed by applications utilizing artificial intelligence, for example, are likely to be considered in the update of the risk analysis..

STRUCTURE AND BACKGROUND OF THE POLICY

The policy has been prepared by the Finnish higher education and research community. A working groups commissioned separately by the Expert Panel in Open Education under the national Open Science Coordination have been responsible for developing the policy (introduction, principles and Policy component for open access to educational resources 2020, Policy component for open educational practices 2022 and Policy component for open access to theses 2024) and for updating it. The work has been guided by the Finnish National Open Science and Research Steering Group. The policy supports the Declaration for Open Science and Research 2025-2030.

The policy is composed of joint principles and policy components of (a) open educational practices, (b) open access to educational resources and (c) open access to theses that determine objectives and actions. Policy component for open access to theses is shared with the Policy on open access to scholarly publications.

The principles define the general terms and conditions for promoting open education and educational resources. They consist of important principles for the higher education and research community that must be adhered to in the promotion of openness. The objectives recorded in the policy components are more time-dependent goals that involve concrete actions. A changing international environment will impact the objectives and the actions they involve sooner than it will impact the principles. The principles and objectives of the policy are in line with the objectives of the Digivisio 2030 -project.

IMPLEMENTATION AND FOLLOW-UP

The policy is applied in higher education and in various forms of continuous learning in which the organisations of the higher education and research community participate, for example, as organisers or partners. This policy can also be used, where appropriate, for the planning of the practices of open education and open educational resources of other educational organisations.

The policy will take effect from 1 January 2026 onwards. The details of the policy can be specified in separate recommenda-

tions. During the update, it was noted that the following national actions had already been implemented:

- quality criteria for open educational practices and quality criteria for open educational resources
- guidelines for accessibility of open educational resources and for open learning environments
- recommendation on accounting for copyright when publishing open educational resources
- recommendation on the reliability and inclusiveness of open education
- recommendation on taking open education into account in recognising merit
- recommendation on tools and good practices for creating open educational resources
- competence requirements for open education
- national open education awards
- roadmap for the funding of open science and research that avoimen tieteen ja tutkimuksen rahoituksen tiekartta, which also explores opportunities for funding open education and educational resources.

The national Open Science and Research Secretariat is responsible for monitoring the implementation of the policy and, with the help of the Expert Panel on Open Education, defines the monitoring indicators every two years. The need to update the policy will be reviewed next time when the Declaration on Open Science and Research expires in 2030.

STRATEGIC PRINCIPLES AND THE RESPONSIBILITIES FOR THEIR FULFILMENT

More detailed recommendations have been drawn up to ensure that these principles are implemented, and their adoption by the research community is monitored at the national level.

PRINCIPLE 1:

When evaluating education and open educational resources developed with it, the reliability of their content and other elements defining their quality are considered in addition to their openness.

Ensuring the realisation and monitoring of the principle:

In addition to national monitoring, universities and universities of applied sciences ensure in their own quality systems that investments in creating and using open educational resources and other openly accessible education increase the overall quality of education. The universities ensure that high-quality contact teaching is provided, even though open educational resources and education are extensively available.

PRINCIPLE 2:

In the development and utilisation of open education and open educational resources copyright, data protection and ethical practices are respected.

Ensuring the realisation and monitoring of the principle:

In addition to national monitoring, higher education institutions shall ensure internal processes that ensure compliance with copyright, data protection, and ethical practices when developing and utilizing open education and educational resources.

PRINCIPLE 3:

The development of open education and open educational resources takes into account their accessibility and applicability to a diversity of learners.

Ensuring the realisation and monitoring of the principle:

In addition to national monitoring, higher education institutions shall ensure internal processes to guarantee the accessibility of open education and educational resources.

PRINCIPLE 4:

Work for developing open education and educational resources is evaluated in the merit criteria and in the planning of duties.

Ensuring the realisation and monitoring of the principle:

In addition to national monitoring, higher education institutions ensure that open education and educational resources are taken into account as a merit criterion in recruitment, remuneration, career advancement, and working time planning. CSC and higher education institutions develop the Researcher's information in Research.fi-service to enable the collection of merits for open education.

POLICY COMPONENT FOR OPEN EDUCATIONAL PRACTICES

DEFINITION

When the actions refer to organisations, they primarily mean higher education institutions, but they can also be applied to other organisations that develop open education:

By 2030:

OBJECTIVE 1:

Higher education institutions make use of open educational practices and support cooperation, communality and sharing in education.

Actions required by the objective:

A. Higher education institutions have their own policy that steers the administration of open education, quality work and the personnel's merit and incentive systems so that they support open educational practices.

B. Higher education institutions promote openness in the organisation of services that support education, for instance, by the use of open data, open learning and collaboration platforms and open source software, as well as by promoting transparency in service procurement.

   - The teaching, IT management and library networks of higher education institutions work together to promote the interoperability of open learning and collaboration platforms used in teaching as well as that of open education services.

C. The higher education and research community develops expertise in open educational practices.

   - The Open Science and Research Coordination, in cooperation with higher education institutions and other organisations promoting open education, sustains a network of experts in open educational practices.
   - The higher education and research community establishes competence requirements for open education as part of teacher training.
   - Higher education institutions enable their personnel to develop their skills in open educational practices.

D. Higher education institutions encourage their personnel to share their expertise in planning and organising teaching.

OBJECTIVE 2:

Learners are provided with opportunities and support for open education.

Actions required by the objective:

A. Higher education institutions have diverse ways of recognising competence gained through open education.

B. Higher education institutions provide means and support to improve the availability and accessibility of education.

C. Higher education institutions involve learners in the planning and implementation of open education.

D. Higher education institutions support learners' skills in themes related to open science and education, such as licensing practices and copyright.

E. Higher education institutions encourage learners to share the products of their learning openly and to make use of materials opened by other learners, applying the quality criteria for open education.

- Higher education institutions provide learners with support, guidance, and instructions on sharing the products of their learning outcomes.
- Higher education institutions, together with the Open Science and Research Coordination, increase teachers' understanding of the conditions imposed by copyright for the open sharing of materials produced by learners.

F. Higher education institutions encourage teachers to openly share teaching and evaluation related materials with learners.

G. Higher education institutions plan in the Digivision 2030 project how learners can utilise information related to their learning in accordance with the MyData principles.

OBJECTIVE 3:

Open education is a significant part of the societal interaction of the higher education and research community.

Actions required by the objective:

A. Higher education institutions provide more teaching that is open to everyone.

- Higher education institutions clarify and communicate how to participate in teaching open to everyone, including contact teaching.

- Higher education institutions develop platforms and services that enable the digital opening of teaching.
- Higher education institutions cooperate nationally and internationally in the development and implementation of teaching open to everyone.

B. Higher education institutions grant open badges in accordance with the standards or other credits for the open education accomplishments.

C. Organisations cooperate in implementing scientific communication and science education in accordance with the recommendations of the Committee for Public Information and the Federation of Finnish Learned Societies.

D. Higher education institutions plan the open sharing of educational data in accordance with responsible data management practices.
   - Higher education institutions agree in the Digivision 2030 project on the best practices for opening educational data.
   - Higher education institutions design in the Digivision 2030 project services to enable the opening of educational data.

E. Organisations cooperate nationally and internationally in the development of and research into open education.

POLICY COMPONENT FOR OPEN ACCESS TO EDUCATIONAL RESOURCES

DEFINITION

When the actions refer to organisations, they primarily mean higher education institutions, but they can also be applied to other organisations that develop open education:

By 2030:

OBJECTIVE 1:

Open educational resources are used and created extensively in higher education.

Actions required by the objective:

A. Training on open educational resources is provided.
   - Open Science and Research Coordination, in cooperation with organisations, establishes an open online course, which will give the participant the skills needed for the creation and utilisation of open educational resources.
   - Organisations include the course in their orientation material for teaching and research staff and recommend that all staff complete it.
   - Organisations offer training on open educational resources as part of staff training and ensure that working hours can be used for training.

B. Support is provided for the creation and use of open educational resources.
   - Organisations will share and collaborate to develop tools and practices to ensure the findability, interoperability, reusability and further development of open educational resources.
   - Organisations are responsible for resourcing support services for open educational resources.
   - Organisations instruct and encourage learners and teachers to use open educational resources in their learning, teaching and the creation of new educational resources.

- Organisational draw up their own guidelines on open educational resources, which provide advice on, for example:
  - contracts and licences in accordance with the national recommendation
  - finding and using open educational resources
  - tools and platforms for opening educational resources
  - the use of artificial intelligence in the use and creation of open educational resources.

C. The findability and accessibility of open educational resources is ensured.

- The authors of open educational resources are recommended to provide metadata of their open educational resources to the Library of Open Educational Resources. National recommendations on the quality and accessibility of open educational resources can be used as guidelines.
- Organisations create with the Library of Open Educational Resources interfaces to ensure that metadata of open educational resources stored in other repositories will also be stored in the Library of Open Educational Resources.
- Organisations ensure that the authors of open educational resources have guidelines, tools and platforms in place to ensure findability and accessibility.

OBJECTIVE 2:

There is a sufficient supply of high quality open educational resources that serve education in different disciplines at higher education.

Actions required by the objective:

A. The quality of open educational resources is improved.

- Open Science and Research Coordination, in cooperation with organisations, develops practices for peer review of open educational resources using national quality criteria. Together with the Library of Open Educational Resource, technical solutions to enable peer review will be developed.
- Open Science and Research Coordination Unit develops with organisations guidelines for taking into account the life cycle of open educational resources.

- Inclusion of unique identifiers for both the educational resource and its author in the open educational resources is recommended.
- Organisations engage in dialogue with staff and learners about the quality of open educational resources.
- Open Science and Research Coordination operates a network for sharing good practices in producing high-quality open educational resources and for promoting high-quality open educational resources.

B. Opportunities for gaining merit from open educational resources are developed.

- Research.fi -service will be developed to allow researchers' profiles to include information on open educational resources and related activities, such as peer review of open educational resources.
- Organisations take the development of open educational resources into account in recruitment, career development, remuneration, and working time planning.

C. The creation of open educational resources is encouraged through funding and awards.

- Research funders will provide positive consideration to open educational resources drawn up on the basis of research results in funding decisions, as a part of societal impact.
- High-quality open educational resources are developed in projects carried out by the organisations themselves and in collaboration with other organisations.
- Open Science and Research Coordination continues to distribute national open education awards and raises awareness of these awards, and organisations recognise the promotion of open education.

OBJECTIVE 3:

Finland is known as a pioneer and promoter of open educational resources in higher education.

Actions required by the objective:

A. The use and appreciation of open educational resources is promoted internationally.

- Finnish experts in open education, organisations, and Open Science and Research Coordination participate in international networks and cooperation projects aimed

at promoting the development and utilisation of open educational resources.

- Open Science and Research Coordination, in cooperation with organisations, develops guidelines for the publication of open educational resources produced through international collaborative projects.
- The Library of Open Educational Resources develops interfaces to international portals for educational resources.

B. Open educational resources and related services and projects are communicated about.
   - Organisations and Open Science and Research Coordination organise national open education events and international open education conferences.
   - Finnish open education experts produce articles and other publications on open educational resources.

C. Research on open educational resources is promoted.
   - Open Science and Research Coordination, in cooperation with organisations, creates a network of open education researchers.
   - A professorship in open education is established in Finland or open education is included as a research topic in one of the Finnish professorships in open science.
   - Finnish open education researchers develop research methods
     - to fairly assess the use and appreciation of open educational resources published in different countries and languages
     - to monitor the impact of opening up educational resources on the cost of higher education
     - to assess the relationship between the opening up of educational resources and the achievement of the UN Sustainable Development Goals (SDGs).
   - Open Science and Research Coordination, in cooperation with organisations, draws up guidelines on the use of the results of research projects as open educational resources.

POLICY COMPONENT FOR OPEN ACCESS TO THESES

STRATEGIC PRINCIPLES

The policy component on open access to theses follows, where applicable, the strategic principles defined in the National Policy for Open Access to Scholarly Publications and the National Policy on Open Education and Educational Resources.

INTRODUCTION

The Declaration for Open Science and Research states that "In the research community, responsible openness is a part of everyday research throughout the research process, and research organisations have assessment practices, incentives, and services in place to support this." (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2020, 3) This also applies to the thesis process, and this policy component on open access to theses applies to all theses completed in higher education institutions (bachelor's and master's theses at universities and universities of applied sciences, advanced studies theses, licentiate theses, and doctoral theses).

Open science enables a broader use of research results by the research community and society, thus increasing the impact of research as well as the level of scholarship and innovation in society. Openness and the transparency of the process are also intended to support the quality of research. In the context of universities of applied sciences, a thesis is a task that requires and demonstrates expertise and takes into account aspects of the challenges of working life, thus making openness particularly useful from a professional point of view. The policy component on open access to theses has been developed to serve these basic objectives from the perspective of theses.

A thesis written in a public educational institution is, in principle, a public document (Constitution of Finland 12.2 §; Openness Act 1 §). A thesis being a public document means that the metadata of the thesis are available, and the thesis is accessible directly or upon request. According to a 2019 decision by the Administrative Court of Northern Finland, copyright law does not limit the disclosure of information about a public document, and the author's consent is not required for disclosure (Dnro 01976/17/1203).

All theses are public, but in addition to publicity, efforts and skills are needed to promote openness, both in terms of publications and education. Openness is a core value of science and

research, and a part of responsible research and teaching. The aim of immediate open access is to raise the quality of science and research and to increase their societal impact and visibility (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2019, 2).

According to a Ministry of Education and Culture's guideline (Dnro 3/500/2004), universities and universities of applied sciences must ensure that their theses do not contain confidential material and that they are made public as soon as they are approved. If the research material of a thesis contains confidential material, it should be placed in the background/annex material rather than the publicly accessible part of the thesis. The Publicity Act defines what information should be kept secret (§ 24, link in Finnish). The National Defence University and the Police University College may, if necessary, deviate from the thesis publicity requirement on the grounds of security classification.

Open access to a thesis means making the work available online free of charge. In some subjects, there may also be parts of a thesis, such as events or artwork, which cannot be made open. In practice, it is mainly the archivable part of the thesis that can be opened.

Openness and the degree of openness are the thesis author's choice, but organisations and supervisors must ensure that every thesis author has the option to be open and to determine the degree of openness, for instance by providing the infrastructure and guidance to enable openness.

In principle, theses are not considered publications, but doctoral theses are also research publications. Similarly, articles that are included in theses are publications, to which the policy on open access to scholarly publications applies. Theses and dissertations are usually made openly available in a repository (e.g. Theseus, institutional repository).

Responsible opening of theses

Higher education institutions are responsible for providing thesis supervisors and authors with support and guidance in opening theses responsibly. An essential part of this support and guidance is to provide advice on the laws (e.g. General Data Protection Regulation, The Copyright Act) and principles of good scientific practice to be followed when making a thesis public and possibly open access. It is also important to advise, for example, that when publishing and opening theses, one must respect the copyright of third parties, especially concerning the use of images, and that the privacy of research subjects should be respected.

Higher education institutions must ensure that thesis supervisors and authors have sufficient support and guidance to meet accessibility requirements for all theses. The minimum digital

accessibility requirements are defined in the Act on the Provision of Digital Services (link in Finnish), and the accessibility of theses is also required in the third principle of the National Policy on Open Education and Educational Resources. The necessary support includes, for example, templates for the production of accessible theses.

Higher education institutions should also provide support and guidance on choosing the appropriate license if the author decides to make their thesis open access. As a general rule, Creative Commons (CC) licences should be favoured, as they are widely used and provide the reader with clear information on how to use the thesis. When opening the metadata of a thesis, it is usually best to use a CC0 licence, which allows the metadata to be easily distributed from one system to another.

It is the responsibility of the thesis supervisor to guide the author on responsible opening of the thesis with the help of the university's guidelines and support. Ultimately, it is the responsibility of the thesis author to follow the provided guidance.

Merits and other benefits of opening a thesis

An openly accessible thesis reaches a wider audience, and openness increases its impact as other students and researchers can benefit from the work already done. The merits of open science, such as making data, methods, and publications openly accessible, should be more widely recognised, and national and international recommendations do aim to reduce the weight of citations in various research and researcher evaluations (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2020b, 7; UNESCO 2021, 29; CoARA 2023, 5.)

An open thesis will also find a readership outside the scientific and research community, and it can be used as a portfolio and demonstration of skills at the beginning of a career. Both companies and specialist organisations can use the results for practical solutions and development work. As societal impact is an important part of the academic merit system, further use of the thesis outside the research world will also benefit the author. From the perspective of higher education institutions, open theses are a reflection of the knowledge produced by the education and training institutions and the effectiveness and quality of their activities (see e.g. Tolonen, Pudas & Marjamaa 2021, link in Finnish).

The degree of openness of a thesis is always the choice of the thesis author, taking into account potential partners as well as legislation. Therefore, the thesis supervisor will not directly gain merit from making a thesis open access.

OBJECTIVE:

All approved theses will be openly accessible.

Implementation

Higher education institutions will assess the current situation with regard to their own theses. Higher education institutions will encourage, support and enable open access in theses in their own operating environment.

Monitoring

Higher education institutions will monitor the development of open access publication of their own theses. The objective is taken into account in the monitoring of open science and research.

Actions required by the objective

A. All thesis authors have an equal opportunity to publish their thesis open access, regardless of, for example, grade, field of research, funding base or career stage.

B. Higher education institutions provide thesis supervisors and authors with support and guidance on how to open theses responsibly. Thesis supervisors and authors will have the necessary skills to open theses responsibly.

C. Higher education institutions recommend that the archivable part of the thesis be licensed under a Creative Commons license, taking into account copyright. Other open licences, such as open source licences, may also be used depending on discipline.

   - Higher education institutions develop guidelines for thesis supervisors and authors on how to open theses responsibly.
   - Organisations offer support to the thesis supervisor and the author in choosing the appropriate open licence. Third party rights must be taken into account when licensing.

D. The metadata of theses, excluding abstracts, is published openly under a CC0 licence.

   - Organisations provide support and guidance for metadata production.

E. Higher education institutions provide a contract template for theses conducted in cooperation with companies and other organisations (such as research institutes). Conditions for open access are defined as part of the contract template.

F. Higher education institutions provide a contract template for collaborative work on theses, defining the conditions for open access.

G. Higher education institutions support and train thesis supervisors and authors in data management. The thesis author will write a data management plan to the extent required by the thesis level, if the thesis involves research data.

   - Both the supervisor and the thesis author have knowledge of and skills to apply the FAIR principles. The organisation provides support for FAIR management, e.g. in the form of guidelines. If research data included in the thesis is opened, it will be handled in accordance with the policy for open research data and methods.

H. Accessibility requirements apply to all theses. Higher education institutions provide thesis authors with an accessible template for the textual material as well as guidance and support for its use. Support is also provided for other thesis formats to ensure the thesis author can make them accessible.

I. For articles included in theses, The policy component for open access to journal articles and conference publications is applied.

   - Higher education institutions provide support and templates for obtaining permission to republish articles included in theses.
   - For article-based theses, the use of delayed publication (embargoes) should be avoided.
   - Authors' awareness of predatory publishers and their practices is increased.

J. Higher education institutions aim to cover reasonable costs of open access publication of theses (e.g. article processing charges, Teosto fees).

   - Thesis authors are informed about open access article publication channels without author fees.

K. Higher education institutions provide a publication repository for the archivable parts of theses (e.g. institutional repositories, Theseus).

L. Portfolios and theses containing prior learning outputs may be subject to the policy on open education and educational resources. Where appropriate, prior learning or theses will be identified and recognised.

SOURCES TO THE POLICY COMPONENT FOR OPEN ACCESS TO THESES

Official Statistics of Finland (OSF): Innovation [e-publication]. ISSN=1797-4399. 2018, 16. Cooperation between enterprises and research organisations. Helsinki: Statistics Finland [referred: 31.1.2024]. Access method: http://www.stat.fi/til/inn/2018/inn_2018_2020-04-23_kat_018_en.html.

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2019). Open access to scholarly publications. National Policy and executive plan by the research community in Finland for 2020–2025 (1). Responsible Research Series 3:2019. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/isbn.9789525995343 (Accessed 3.7.2023.) CC BY.

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2020). Declaration for open science and research 2020–2025. Responsible Research Series 3:2020. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/isbn.9789525995251 (Accessed 3.7.2023.) CC BY.

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2020b). Good practice in researcher evaluation. Recommendation for the responsible evaluation of a researcher in Finland. Responsible Research Series 7:2020. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/isbn.9789525995282 (Accessed 3.7.2023.) CC BY.

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2020c). Ohje tekijänoikeuksiin liittyvästä avoimesta lisensoinnista tutkijoille ja tieteellisille kustantajille. Responsible Research Series 11:2020. Helsinki: Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/isbn.9789525995350 (Accessed 15.8.2023.) CC BY

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2021). Recommendations for open education 2021. Responsible Research Series 9:2021. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/tsv.84 (Accessed 3.7.2023.) CC BY.

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2022). Open science recommendation and checklist for research, development and innovation activities in collaboration between research organisations and companies. Responsible Research Series 11:2022. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/tsv.441 (Accessed 15.8.2023.) CC BY

Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies (2023). Open research data and methods. National policy and executive plan by the higher education and research community for 2021–2025: Policy component 1 (Open access to research data) and 2 (Open access to research methods and infrastructures). Responsible Research Series 4:2023. Helsinki: The Committee for Public Information and The Federation of Finnish Learned Societies. URL: https://doi.org/10.23847/tsv.669 (Accessed 15.8.2023.) CC BY.

Tolonen, Tiina; Pudas, Annamari; Marjamaa, Minna (2021): ”Opinnäytetyö avoimesti verkossa – käytänteitä, mahdollisuuksia ja uhkia”. Kreodi 1/2021, Avoin toimintakulttuuri. http://urn.fi/URN:NBN:fi-fe202102195481

GLOSSARY

Open education

Opening up education or Open Education means extending access to and participation in education to larger audiences and target groups by lowering barriers to education and increasing accessibility, unrestrictedness, offering and learner-centeredness. It diversifies the possibilities of teaching, learning and building, joint development and sharing of knowledge and combines the pathways of formal and non-formal learning.

Although open education is often carried out using digital technologies, open education is not the same as digital education or digitalisation of educational resources.

Open educational practices

Open educational practices mean practices by which education, learning and teaching are made transparent and shared and which enable their further processing.

Such practices include:

- peer learning and the development of education between students, researchers, teaching staff and the rest of the society;
- involving students in the planning of their learning pathways, including the identification and recognition of competences acquired outside their own educational establishment;
- opening up the education offering to the general public (e.g. MOOC courses);
- sharing and reuse of information relating to the planning and organising of teaching (e.g. curricula, evaluation methods, guidelines, experiences from the implementation of teaching and from learning);
- use, further development and joint development of open educational resources (e.g. videos, podcasts, written material).

Open educational resources

Open educational resources mean materials or information in any form and used on any medium, partly designed for teaching and learning purposes, which have been:

- released for public use (public domain) or;

- shared by an open licence that permits no-cost access, re-use, re-purpose, adaptation and redistribution by others.[1]

Although scholarly publications can be used as educational resources, especially at higher education levels, and although openness of scholarly publications therefore makes these open as educational resources as well, this policy applies, above all, to educational resources which are not primarily scholarly publications. In addition, according to the policy, open educational resource must be a pedagogically meaningful whole that can be utilised in education.

The Finnish higher education and research community

The Finnish higher education and research community comprises

- individual Finnish and foreign researchers and doctoral candidates affiliated with Finnish research organisations, and researchers with personal funding affiliated with Finnish research organisations or funded by a Finnish research funder;
- Finnish research organisations such as universities, universities of applied sciences and research institutions, including their research teams and individual teachers and researchers and service personnel supporting teaching and research, as defined in the Finnish legislation;
- students at Finnish universities and universities of applied sciences,
- Finnish research funders that specialise in funding research, including the Academy of Finland, Business Finland, and numerous private foundations and funds;
- Finnish service providers that develop the infrastructure of open science, including CSC;
- learned societies in Finland;
- academies and national scientific boards and committees in Finland;
- research libraries and archives in Finland
- scholarly publishers in Finland.

1 The definition of open educational resources is in line with the definition of open educational resources given in the UNESCO Recommendation on Educational Resources 2019, except that the reference to research materials has been omitted, because these are discussed in the Policy of open access to research materials and methods.

Learners

For the purposes of this policy, learner means a person who participates in education organised by a Finnish higher education institution or is applying or has applied for this in different ways at different stages of life or otherwise utilises the learning opportunities offered by Finnish higher education institutions. Learners include graduate students from Finnish universities, though the learner is not necessarily a graduate student.

Open licence

A pre-formatted licence, the terms of which must be respected before the material can be used. Openly published material is available to all. If material is to be used publicly, the terms of the licence must be respected. Thus, anyone who uses the work further can comply with the terms of the open licence, which include, for example, attribution of the author and source in a way formulated by the author. The user obtains the rights granted by the licence (such as redistribution and modification rights) by complying with the terms of the licence. (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2020 c).

Availability

Availability refers to the accessibility of information in, for example, a public document.This means that the information in the document can be used at the desired time and in the required manner. An available document may, for example, be openly accessible or available on request.

Open access

The publication in its entirety is available on the Internet free of charge and without restrictions to read, print and copy at least for non-commercial use. (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2019, 14).

Accessibility

Digital accessibility means supporting equality and inclusion, i.e. 'that as many people as possible can use online services as easily as possible. It also means that accessibility has been taken into account in the planning and implementation of the services' (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2021, 9). Accessibility is mandatory for public documents such as theses and open educational resources, among others. Accessibility involves good technical implementation, ease of use, and comprehensibility of content (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2021, 9–10). The accessibility requirement is based on the Act on the Provision of Digital

Services (306/2019, link in Finnish) and the European Parliament's Accessibility Directive (European Accessibility Act, 2019/882), which implements the UN Convention on the Rights of Persons with Disabilities. Accessibility benefits a large number of users of a material or service.

Creative Commons

The world's most common open licensing system that was created in 2001. It is the preferred licence for open source material in many countries. Creative Commons licences are designed to be easy to use and understand. It is up to the author to decide on the licence according to their own objectives. In principle, a CC licence includes an irrevocable worldwide right to redistribute the material. By choosing the appropriate additional conditions from a list of four, the author can limit these rights as they see fit. No additional restrictions or conditions may ever be attached to the CC licence. The conditions of CC licences are:

- Attribution (BY, ByAttribution): the name of the author, the licence and the original place of publication must be mentioned.
- ShareAlike (SA, ShareAlike): any changes made must be published under the same licence.
- NoDerivatives (CC ND, NoDerivatives): the licence does not include the right to modify the work.
- NoCommercial (NC, NonCommercial): the licence does not cover commercial uses, i.e. uses "primarily for commercial advantage or financial reward".

By using the CC0 licence option, the author declares that they waive all rights which may be waived by law. CC0 allows the material to be copied, modified, distributed, and reproduced in any medium or format without conditions (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2020, 2; link in Finnish.)

Competence requirements for Open Education

The National recommendation on competence requirements for open education defines the knowledge and skills required for competence in open education. The competence requirements form a three-step, cumulative scale:

- the user of open educational resources understands the basic concepts of open education and is able to place them in the wider field of open science and research, understands the rights and obligations that copyright law imposes on the user of educational resources, knows how to find and use open educational resources and other materials in their teaching respecting the copyrights and

licence clauses as well as knows how to assess the quality of open educational resources,

- the author of open educational resources understands the rights and obligations that copyright law imposes on the author of educational resources, knows how to prepare, publish and describe open educational resources, understands the data protection and information security issues related to open educational resources and is able to demonstrate merit in the preparation of open educational resources,
- the open education influencer is familiar with open educational practices, knows how to co-create open educational resources and open online courses and is familiar with networking and merit practices in open education.

Sharing competence related to the planning and organisation of teaching

Teachers have a wide range of competence in planning and organising teaching. Some of this may be explicit information expressed in writing, such as plans for the progress of the study unit being taught or the methods to be used. Some, on the other hand, may be more implicit competence, such as experiences about the implementation of teaching. This competence can be shared with others in many ways, at best also across organisational boundaries. Written or other materials can be shared directly with other teachers, while more implicit knowledge can be shared, for example, in presentation sessions or as informal peer tutoring and mentoring.

Recognition of prior learning

Recognition of prior learning (link in Finnish) means a measure in which the learner's competence that meets the criteria for the degree to be completed, the criteria for the education to be completed or the degree qualification requirements but has been acquired and demonstrated in another context and has been verified is included in the degree. The recognition of prior learning is usually preceded by the identification of prior learning (link in Finnish), in which the education provider identifies the learner's competence and other preconditions in relation to the requirements and goals on the basis of the documents and other possible accounts presented by the learner. Together, the identification and recognition of prior learning constitute a measure similar to the accreditation of prior learning (link in Finnish), though the competence to be identified and recognised may also be something else than completed study units.

Involvement in the planning and implementation of open education

Learners can be involved in the planning and implementation of open education at many levels. First of all, an individual learner can plan their open education by tailoring education for them from different study units. In addition, learners can be more generally involved in the planning of various study units utilised in open education, e.g., through surveys or workshops. Developing study units through feedback from learners is also one way of involving learners in the planning and implementation of open education.

Product of learning

A product of learning is the material created as a result of learning, such as a blog post, video or report.

Sharing materials related to teaching and evaluation

The sharing of materials related to the teaching and assessment means, for example, the open sharing of curricula and assessment methods as well as guidelines and experiences related to learning and the implementation of teaching.

MyData

MyData refers to a people-centred approach to managing person-related information. MyData aims to enable individuals to continue to use and manage the (continued) use of their personal data in an interoperable, machine-readable and clear manner. MyData can also refer to a subset of personal data in which the above features are realised.

MyData's principles involve people-centred management of personal data, the individual as the "integration point" – that is, the enabler of the information flow, the individual's empowerment, transferability of data, transparency and responsibility, and interoperability. These principles, written out in the MyData declaration can be used to examine the degree of implementation of MyData.

Teaching open to everyone

In terms of openness, teaching is a continuum, with teaching open to everyone free of charge at one end and teaching for a limited group (e.g., for graduate students) at the other. In practice, it may be difficult to classify different teaching situations at or between either end; otherwise, open teaching may have to limit, for example, the awarding of study attainments due to the lack of resources, while it may also be possible for others to follow teaching aimed primarily at graduate students, for example.

This policy defines open teaching available to everyone as all education that is widely available and in which anyone can participate free of charge. There may be a fee for providing a study attainment for teaching open to everyone. Teaching open to everyone can take the form of contact teaching, distance teaching or hybrid teaching through a variety of open online courses, for example.

Open Badges

Open Badges are created and awarded to identify and recognise competence, skills and achievements. Open badges are often associated with making non-formal learning visible. Open badges aim to identify and recognise, for example, what we learn at work, in our hobbies or in various positions of trust. They are seen as a means of supporting lifelong learning and employment and are aimed at preventing social exclusion.

The original idea of open badges is not only to make non-formal learning visible, but also to better identify competences when, in addition to organisations, individuals and communities can identify and recognise their own or each other's competence, skills and achievements.

From a technical point of view, an open badge is an image that contains metadata. Metadata indicates who has granted the badge to whom, what the badge recognises and stands for and the criteria on which it is based. Metadata follows the Open Badge standard, which can be used to verify whether the badge is genuine and valid.

Learning analytics

Learning analytics refers to the collection, measurement, analysis and reporting of information on the learner and the learning process in order to understand and develop learning and learning environments. Learning analytics collects, measures, analyses and reports data from studies, and technical functionalities are built into the latest learning platforms. Learning analytics is based on the students' digital traces that they leave in the systems used during their studies.

Educational data

Educational data refers to information accumulated on different platforms during the process of education.

DEFINITIONS RELATING SPECIFICALLY TO THESES

Data Management Plan (DMP)

A formal and dynamic document that specifies how resources are managed across the life cycle of a thesis, covering, for instance, research data, analysis steps (e.g. protocols, algorithms, procedures), devices and tools (e.g. information on lab equipment and manufacturers, reagents, infrastructure, software), other relevant documentation, versioning, preservation, services, terms and conditions, and open development and sharing of research data, methods and infrastructures. (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2023, 34)

Archivability

The archivable part of a thesis includes any part of the thesis where the publication format allows for long-term preservation. In some disciplines, there may also be parts of a thesis, such as events or artistic works, which are not archivable.

To open a thesis

To open a thesis means that the archivable part of the thesis is made available online free of charge. Making the thesis public means that the metadata of the thesis are available, and the thesis is accessible directly or on request. A public thesis is therefore not necessarily open.

Embargo or delayed access

Where appropriate, the thesis is initially in a restricted access collection, but is available on request within the framework of the Public Access Act.

FAIR principles

A set of guidelines to make research data Findable, Accessible, Interoperable and Reusable. This facilitates scientific discovery and access to knowledge. (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2023, 34)

Institutional repository

A technical system for the storage and open online publication of scientific publications and the services built around it.

Public thesis

See To open a thesis

Article processing charge

A fee that may be charged by the publisher of an open access journal to the author or their organisation. Article processing charges may be charged by fully open access journals (so-called ”gold standard” journals) or by ”hybrid” journals, where only part of the content is open access.

Accompanying material, background material

Information or materials related to the thesis assignment that should be kept confidential.

Metadata

Metadata refers to data that describes and summarizes the context, content and structure, management and/or processing, and compilation of research data (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2023, 36).

Predatory publication

A journal or other publication that presents itself as scientific but neglects the responsibility of a scientific publisher, for example for peer review, and relies on aggressive marketing and charging fees to authors.

Business cooperation

Cooperation between businesses and research organisations refers to organised, active collaboration, as well as other forms of knowledge transfer, collaboration, and purposeful interaction and communication. Cooperation may be funded by a public or private organisation (Open Science and Research Coordination in Finland, Federation of Finnish Learned Societies 2022, see also Statistics Finland 2020).

ANNEX: DRAFTING OF THE POLICY

The original version of the policy was drafted by a working group assembled by the Expert Panel on Open Education. The working group included:

- Kaisu Clarot, University of Oulu
- Minna Fred, Laurea University of Applied Sciences
- Susanna Hasiwar, University of Oulu
- Janniina Heinonen, The Trade Union of Education in Finland OAJ
- Aino Helariutta, Laurea University of Applied Sciences
- Ira Hietanen-Tanskanen, The Trade Union of Education in Finland OAJ
- Ilmari Jauhiainen, The Federation of Finnish Learned Societies
- Terhi Kaipainen, South-Eastern Finland University of Applied Sciences
- Joni Kajander, National Union of University Students in Finland
- Miki Kallio, University of Oulu
- Anne Kärki, Satakunta University of Applied Sciences
- Leo Lahti, University of Turku
- Anna Lindfors, CSC
- Jouni Markkula, University of Oulu
- Paula Merikko, Finnish National Agency for Education
- Minna Niemi-Grundström, University of Tampere
- Seliina Päällysaho, Seinäjoki University of Applied Sciences
- Maria Rehbinder, Aalto University
- Jarkko Toikkanen, University of Oulu/The Finnish Union of University Researchers and Teachers
- Tarmo Toikkanen, Open Knowledge Finland/Creative Commons Finland/The Association of Finnish eLearning Centre/IT instructors
- Tarjaleena Tuukkanen, Häme University of Applied Sciences
- Marjo Vallittu, University of Jyväskylä
- Salla Viitanen, The Finnish Union of University Researchers and Teachers

The policy component on open access to theses was drafted by a working group assembled by the Expert Panels on Open Education and Open Access to Scholarly Publication. The working group included:

- Minna Fred, Haaga-Helia University of Applied Sciences
- Markus Hatakka, Turku University of Applied Sciences
- Tommi Harju, The University of the Arts
- Anne Holappa, HUMAK
- Jyrki Ilva, the National Library of Finland
- Ilmari Jauhiainen, Federation of Finnish Learned Societies
- Tiina Jounio, University of Oulu (library)
- Marja-Leena Juntunen, The University of the Arts
- Eija Kalliala (secretary), Open Knowledge Finland
- Merja Kallio, Tritonia Academic Library
- Tapani Lehtilä, Tampere University (library)
- Erkki Lähderanta, LUT University
- Pia Keiski, Tampere University of Applied Sciences
- Helena Kangastie, Lapland University of Applied Sciences
- Eetu Kejonen, Åbo Akademi University
- Tekla Kosonen, National Union of Students in Finnish Universities of Applied Sciences
- Anne Kärki, Satakunta University of Applied Sciences
- Hanna Lahdenperä, Federation of Finnish Learned Societies
- Jari Linden, Savonia University of Applied Sciences
- Minna Marjamaa, Laurea University of Applied Sciences
- Teemu Makkonen, Jyväskylä University of Applied Sciences
- Mikko Niemi, University of Helsinki
- Anna Nyberg, University of Oulu
- Pekka Nygren, The Finnish Society of Forest Science
- Heli Palomäki, LUT Universities/LUT Academic Library
- Jussi Piipponen, University of Helsinki
- Matti Raatikainen, Aalto University
- Terhi Reima, Metropolia University of Applied Sciences
- Tomi Rosti, University of Eastern Finland (chair)
- Taina Sahlman, University of Eastern Finland
- Mathilda Timmer, The Student Union of the University of Helsinki
- Marjo Vallittu, University of Jyväskylä (chair)
- Tanja Vienonen, University of Turku

The policy was updated in 2024–2025 by a working group assembled by the Expert Panel on Open Education. The working group included:

- Hellevi Hakala, Metropolia University of Applied Sciences
- Aino Helariutta, Laurea University of Applied Sciences
- Anne Holappa, Humak University of Applied Sciences

- Laura Huhtinen-Hildén, Metropolia University of Applied Sciences
- Ilmari Jauhiainen, Federation of Finnish Learned Societies
- Terhi Kaipainen, South-Eastern Finland University of Applied Sciences
- Miki Kallio, University of Oulu
- Elina Kähö, University of Helsinki
- Anna Lindfors, CSC
- Laura Niemi, University of Turku
- Tuulevi Ovaska, University of Eastern Finland
- Tomi Rosti, University of Eastern Finland
- Heidi Troberg, University of Vaasa
- Marjo Vallittu, University of Jyväskylä
- Heli Väätäjä, Lapland University of Applied Sciences

Open
Science

Federation of Finnish
Learned Societies

tjnk