Introduction

Open Educational Resources are discussed widely on a global, European and even Nordic level. UNESCO coined the term Open Educational Resources (OER) some 10 years ago and published in June 2012 a global agenda for OER, the Paris Declaration (adopted by OER World Congress). The Declaration shows the importance of Open Educational Resources and gives recommendations to governments and institutions around the globe. The European Union has started a large-scale initiative on “Opening Up Education”. Both the Nordic Council and the Nordic University Co-operation (NUS) will discuss OER in 2013.

These developments inspired a Nordic initiative on promoting and utilizing Open Education in the Nordic countries with a focus on creating a strong base for OER and Open Educational Practices (OEP) in the region, also with a global outreach in mind. The Nordic countries have the potential to become a forerunner in OEP and the use of OER activities in Europe:

1. The Nordic countries share many values related to education and technology development; the political and governmental institutions are quite similar and there is a

tradition for exchange of knowledge and solutions between the countries. Focusing on a relatively homogeneous region allows the newly-formed group to come up with specific recommendations that can reach the ears of policy makers, be implemented in policies and practice, and be used in new project proposals.

2 Open Educational Resources could potentially be a change agent in schools as well as in universities and vocational education. Having OER as scope allows the group to use one strong prism to reflect the crossroads the educational systems have to navigate in the target countries.

In this document, we will briefly give an introduction to OER and reflect on the main recommendations as well as propose implementation actions for governments and institutions.

*This document is a living document - the current status reflects the discourse in the Nordic OER Alliance in January 2013. As discussions and collaborations progress the document will be continuously revised and improved.*

The Nordic Open Education Alliance

The Nordic Open Education Alliance is a network of stakeholders to support uptake, adoption and collaboration around Open Education. The Alliance will have a 3 - 5 year perspective, and is now planning actions to sustain a broad awareness and networking platform. The main objectives of the group are:

1. To contribute in utilizing OER for educational development in the Nordic countries and to enable and support collaborative actions in these countries
2. To support the implementation of the Paris OER Declaration and future EU OER initiatives in the Nordic countries
3. To analyse opportunities and barriers for a successful implementation of the Paris Declaration as well as current EU strategies in order to provide guidance for policy makers in governments, institutions and organisations
4. To build and exchange knowledge on OER and OEP in the Nordic Region as a basis for good practices, inspiration for policy building and policy implementation
5. To contribute to global educational development

The Nordic Open Education Alliance aims at contributing to:

1. Enabling and supporting collaborative actions
2. Analysing opportunities and barriers for a successful implementation of the different initiatives such as the UNESCO Paris Declaration in order to be a relevant and strong partner for dialogue and for policy makers in governments, institutions and organisations
3. Creating a knowledge resource and an awareness network for advice on OER and OEP policy building and policy implementation
We welcome all forms of feedback and open consultation with regard to these objectives.

What are Open Educational Resources?

In the following, we will give a brief introduction to the concept of OER and current issues regarding global adoption (based on Pirkkalainen & Pawlowski 2010, and the UNESCO 2012 Paris OER Declaration).

In principle, OERs simply mean that they are freely accessible and reusable under different licensing conditions such as Creative Commons\(^2\). The UNESCO 2012 Paris OER Declaration designate OER as “teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. Open licensing is built within the existing framework of intellectual property rights as defined by relevant international conventions and respects the authorship of the work”.

We define OER as “Any digital resource, which can be freely accessed and used for educational purposes”. This broad definition includes a lot of different objects, such as digital learning resources, software tools like wikis or authoring systems, simulations or animations, electronic textbooks, but also lesson plans or records of shared experiences. The main aspect is that the resource is usable to improve education. Looking at how OER could be classified (see also the Creative Commons definition), we see that OER shows parallels to other “openness initiatives”:

- **Learning resources**: Currently, the main research field is how to make resources specifically created for learning purposes available and reusable. This includes multimedia documents and simulations, but also simple web resources in HTML or XML format.
- **Articles, textbooks and digital equivalents**: These resources contain typical objects provided by libraries, such as articles, conference papers, books or journals. When becoming freely available, these resources are connected to the concept of Open Access (Björk, 2004, Bailey, 2005).
- **Software tools**: These tools are usually referenced as Open Source or Free Software (Raymond, 1999). Software tools are used for different purposes, such as producing / authoring learning resources, but also for communication and collaboration.
- **Instructional / didactical designs and experiences**: Educators are highly dependent on successfully planning and designing their learning experiences – these resources includes access to instructional designs, didactical plans (lesson plans), case studies or curricula. It also includes one of the most valuable resources: sharing experiences about

\(^2\) [http://wiki.creativecommons.org/Creative_Commons_and_Open_Educational_Resources](http://wiki.creativecommons.org/Creative_Commons_and_Open_Educational_Resources)
materials and lessons among colleagues. These resources are also called Open Educational Practices.

- **Web assets:** These are simple resources (assets) like pictures, links, or short texts, which are not usable on their own in a learning context but can be used to support or illustrate certain topics. In many ways, these are resources found by Google or similar search engines.

Summarizing the definition, we see the core of OER being freely accessible, reusable and modifiable / adaptable resources. In a broader sense, also related resources (documents, publications, tools) should be considered as (broad) OER.

The concept of OER seems promising, potentially leading to educational collaborations, stimulating innovation in education, reducing cost of education and broadening access to education for all. However, the awareness of the opportunities of using OERs is still low. In contrast to Open Access (for publications) or Open Source (for software development), OER are not yet broadly known and accepted / adopted. It is therefore desirable to combine the initiatives and ideas of “open” approaches. This is the case at a user level as well as at the policy level (see also Clements & Pawlowski 2012). Therefore, it is important to promote OER to governments as well as institutions. It is a goal that the current initiative, in collaboration with national and global movements, may contribute to new OER practices and policies.

**OER in the Nordic Countries**

In the following, we give some examples and links to successful initiatives in the Nordic countries. The list does not intend to be complete, however, it will be extended by the network. Not all initiatives or links are OER only. Also initiatives and sites related to OER or close to OER are listed. The list has been developed in collaboration with the POERUP project which has made significant efforts to map OER across Europe.

**Nordic**

- Nordlet was a Nordic Baltic initiative to promote collaboration. The network has organized a series of seminars and discussed future potentials: documentation of the Nordic Baltic OER Summit

**Denmark**

- [EMU](https://emu.dk) is the a public portal for educational content in Denmark by UNI·C
- [Materialeplatformen](https://platform.emu.dk) is a national repository for all Danish learning resources
- [e-museum.emu.dk](https://emu.dk) is an online museum initiative supported by the Danish Ministry of Education and the Ministry of Culture which includes pedagogical presentations of the digital content of museums
- The Danish Public Broadcasting (DR) provides [a portal for academic lectures](https://emu.dk)
• **Duda.dk** is a comprehensive site with links to educational resources for school children, parents and teachers


**Faroe Islands**

• **Snar.fo** is the public portal for educational content in the Faroe Islands. It is maintained by Nám, which provides the educational sector with material, courses and IT support.

**Finland**

• **EDU.fi** is set up and maintained by the Finnish National Board of Education (FNBE), a national agency under the Ministry of Education and Culture. FNBE has a wide range of tasks related to the development of education all through pre-primary and basic education, general and vocational upper secondary education and training, adult education and basic education in the arts.

• Edu.fi also provides access to [Vetamix.net](http://www.vetamix.net) and a collection of other learning resources in Swedish which are available via [edu.fi/hitta_material/digitala_larresurser](http://www.edu.fi/hitta_material/digitala_larresurser)

• **Theseus.fi** is an open access repository for universities of applied sciences, some parts learning resources - these institutions have also a common open access policy[^3] which is a good example for policies in the field

• **Länkhåven** provides selected and qualified learning resources in Swedish and Finnish.

• **FIN Instructions for teachers, teacher cards**

• **Small Highschools in Finland**

• **Lapland** [net school](http://www.net-school.fi)

• **LeMill**, collaboration between Finland and Estonia

**Norway**

• **NDLA** is a cooperation between 18 counties to provide learning materials using open licensing models for the learning resources and the technical infrastructure. In Norway the counties are responsible for providing learning resources to the students of secondary schools free of charge.

• **matematikk.org** is a portal for resources in mathematics, - a cooperation between a number of Norwegian universities and the Norwegian Centre for Mathematics Education.

• **NRK**, the Norwegian state broadcasting company, provides OER services developed with public funding which are freely available at [nrk.no/skole](http://www.nrk.no/skole)

• **TV2**, a commercial broadcaster, offers learning resources through the portal [portal.tv2skole.no](http://portal.tv2skole.no)

• **delogbruk.no** is a Norwegian Web 2.0 initiative which stimulates educators at all levels to share learning resources and experiences.

• **utdanning.no** is the official Norwegian national education and career portal, and includes an overview of education in Norway and more than 500 career descriptions.

[^3]: [http://www.theseus.fi/web/guest/open-access-lausuma](http://www.theseus.fi/web/guest/open-access-lausuma)
- **ovttas.no** is a collection of pedagogical articles, pictures, books, videos, and audio resources for Sami schools.

**Sweden**
- **Länkskafferiet** is a Swedish Link Library for educational use. It is meant to be a pedagogical aid for Swedish pupils from 5 to 18 years of age.
- The National Agency for Education (Skolverket) is the central administrative authority for the public school system and provides resources through a page with links and information about digital learning resources.
- The project **OER - Open opportunities for learning** involves nine universities with Karlstad University as project coordinator in collaboration with Lund University.
- **UR access** is a collaborative service from more than 25 educational institutions. It provides access to all streamed material, radio- and TV-programs provided by Utbildningsradion (UR).
- SUHF, The Association of Swedish Higher Education is an organisation for institutional cooperation on a voluntary basis. 40 universities and university colleges in Sweden are members (16 universities, 18 university colleges and 6 university art: SUHF has started to work on strategic issues for universities on Open Educational Resources).
- **Spindeln** is a search engine for open educational resources for schools.
- **Libguides** is a portal for resources on OER, and also with links of different kinds on OER, especially for higher education institutions.
- **DELA!** (Share!) a community (Ning) for education and learning.
- **Digiref** is a repository and search facility for OER, administered by the University of Gävle and regional partners.

**European (with strong Nordic involvement):**
- **OpenScout**: Portal and tool for OER in Management, Business and related domains.
- **Open Science Resources / Open Discovery Space**: Recent projects on OER for schools as well as informal learning.

It can be observed, however, that a lot of regional / institutional initiatives exist but are not linked to national initiatives and thus are not networked appropriately. There is at present a lack of national strategies and policies in how to best exploit the potential of OER in the national education system as a whole and a similar lack of coordinated Nordic initiatives. As a conclusion, OER has received considerable attention but has not been exploited fully yet in the Nordic countries.
Open Education in the Nordic Countries - a Future Vision, Barriers, Opportunities and Actions

In the following, we discuss key aspects of Open Education: What are current barriers towards the uptake of OER; and what are the opportunities? These questions were discussed in an expert workshop in Oslo, November 2012 with participants from 4 Nordic countries. We start with the vision of OER in the Nordic countries in a 5 year horizon: How will the OER landscape influence education in the Nordic countries by 2017? Based on this future scenario, we develop an analysis of the current status and future actions.

Future Vision

A future vision for the year 2017 could be that Open Education in the Nordic countries has reformed education towards collaboration, innovation and global responsibility. The key aspects would be:

- The Nordic countries are a leading area regarding global and European OER
- Ministries and universities acknowledge and support use of OER
- Educators are aware of OER and how to access and utilize OER
- “Opening up Education values” are shared by a majority of educators
- All schools and institutions have the freedom to choose between their own, commercial or open materials
- OER creation is rewarded in tenure and evaluation procedures
- Communities have formed on research and teaching
- Access to OER exists through communities
- Cost of educational materials has decreased
- New businesses have been formed providing educational services
- All publicly funded materials are shared and distributed with open licences
- Quality mechanisms are available and known
- All schools and educational institutions are involved in long-term educational collaborations, nationally as well as internationally
- Materials and expertise are made available globally
- Individuals and institutions engage in cross-border collaborations
## Barriers and Opportunities of OER

Opening up education seems promising from educational, economical and development perspectives - however, there are currently still many barriers keeping stakeholders (educators, administrators, management, learners etc) away from broad OER adoption. We have identified some of the main **barriers** to OER in the Nordic countries. As a second step, we discuss **opportunities and key questions** of Open Education / OER. What is the possible impact for OER on a national, regional (Nordic) and global level?

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<th>Aspect</th>
<th>Barriers</th>
<th>Opportunities / Impact</th>
<th>Actions</th>
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| **Strategies and Policies: Specific OER Strategies** | Lack of Nordic policies on OER  
Lack of national policies  
Lack of incentives for creating and taking up OER  
Lack of a holistic framework for optimizing the take up of OER | Provide political guidance, support and engagement | Build a Nordic position on OER  
Create national OER policies |
| **Enabling environments: Connectivity, mobility, literacy, standards** | Lack of interoperability  
Lack of easy-to-use systems | Creating access to a variety of OER through national / regional portals and communities  
Utilize OER across platforms and systems | Create flexible portals and collaboration environments  
Support the development and use of (international) standards |
| **Use and Awareness: Inclusion, access & equality** | Lack of awareness and attitudes on policy and user level  
Lack of support by middle management in institutions | Allow collaborations within and across the Nordic countries as well as internationally | Create Nordic communities  
Connect to international communities  
Create and support university policy development |
<p>| <strong>Open Licensing Frameworks (understanding, public funding)</strong> | Lack of knowledge on open licenses (eg Creative Commons) | Make simple licensing mechanisms, understandable to educators and others | Support and enforce use of open licenses |</p>
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<tr>
<th>Sustainable Development and Quality: Supporting teachers, quality, peer review</th>
<th>Lack of uptake by teachers insecurities on quality lack of quality mechanisms</th>
<th>Creating collaborations and shared teaching Increase quality</th>
<th>Provide collaboration support and incentives Create user-based quality mechanisms</th>
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<td>Strategic Alliances: across borders, Public Private Partnerships (PPP)</td>
<td>Lack of policy instruments lack of partnerships</td>
<td>Increased international collaboration Supporting educational global collaborations</td>
<td>Provide programs for international shared teaching Support PPP and business model creation</td>
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<td>Development / adaptation for culture / language: adaptation, accessibility</td>
<td>Lack of long-term collaborations Lack of accessibility Lack of tool to collaborate across borders</td>
<td>Allowing diversity and support of languages and culture Create access for special needs</td>
<td>Provide accessibility and adaptation guidance</td>
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<td>Research: development, efficiency, quality</td>
<td>Lack of research on OER, in particular business models, acceptance, sector-specific uptake and effects</td>
<td>Increase research for OER and related topics, in particular applied research</td>
<td>Create specific OER research programs</td>
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<tr>
<td>Finding / retrieving: Services and tools, interoperability</td>
<td>Lack of knowledge on available tools</td>
<td>Create easy opportunities to find, adapt and embed OER</td>
<td>Use good practices and validated tools from international projects and collaborators</td>
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<td>Change / adoption processes</td>
<td>Lack of balanced approaches (bottom up and top down)</td>
<td>Create good practices of both, bottom up (eg initiated by students) and top down (eg providing institutional strategies)</td>
<td>Collect and synthesize mixed approaches to adoption and change</td>
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Based on these barriers and opportunities, we recommend to continue the discourse on priorities for OER initiatives.
18 Consequences for the Nordic Countries:

Open Education is an issue which can reform education in the Nordic countries and across the globe - however, it needs strong actions on a policy, research and implementation level. The following recommendations are an initial set and should be discussed on different levels in the near future. It needs to be discussed how those recommendations can be implemented overcoming the identified barriers towards the main aim: utilizing OER to improve Nordic education with a global outreach!

Policy recommendations
1. Create a Nordic ministry collaboration on OER, consider making OER a priority for the Nordic Council of Ministers, NCM
2. Provide a position and input to international policy discourse (UNESCO, EU)
3. Create national OER policies for different domains
4. Support research in critical areas, create a clear research agenda on OER
5. Support collaboration across borders with selected regions and countries
6. Consider open licenses for materials developed with public funding

Institutional recommendations
1. Consider OER as a part of the institutional strategy and engage in OER activities by providing institutional policies and guidance
2. Provide recognition to educators using and developing OER
3. Encourage collaborative teaching and learning using OER
4. Engage in Nordic OER collaborations, consider participating in international OER collaboration
5. Provide awareness and training on OER, licensing and tools
6. Utilize partnerships for international exploitation / collaboration

Technology and implementation recommendations
1. Create collaborations and international communities for OER
2. Create access channels to portals, repositories, tools and communities on OER
3. Utilize international standards
4. Create solutions that are accessible for all
5. Provide quality mechanisms
6. Create and share guidance, good practices and experiences
Summary

The current OER initiatives such as the Paris OER Declaration can be a big step forward towards widening access to education. However, it is necessary that governments engage and commit to integration of certain OER recommendations into national and regional policies.

This document is a starting point for supporting policy building and prioritizing actions. The action items can be used by stakeholders to determine necessary implementation steps and create action plans. As this process gathers momentum, the OER movement will create great synergies for access, collaborations and quality of learning, education and training.


