



Open Education Resource (OER) Standards for use with the CENEAST Virtual Research Environment

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Version History

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Important!

Before using this document please check that it is the latest available version. If there is a later version it will be posted on the CENEAST Virtual Research Environment.

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Introduction

1. This document sets out the platform, accessibility and inclusion, rights management, and approaches for CENEAST partner organisations to describe, manage, and share their study and research knowledge resources online. The standards will form the basis for the CENEAST virtual research environment (VRE) and its content.

Definitions

2. Open Access Publishing: Open access publishing usually refers to the worldwide electronic distribution of peer-reviewed journal literature in order to give free and unrestricted access to it.¹

Open Educational Resources (OER): OER are teaching, learning and research materials in any medium that reside in the public domain and have been released under an open licence that permits access, use, repurposing, reuse and redistribution by others with no or limited restrictions (Atkins, Brown & Hammond, 2007)². The use of open technical standards improves access and reuse potential.

OER can include full courses/programmes, course materials, training materials, modules, student guides, teaching notes, textbooks, research articles, videos, assessment tools and instruments, interactive materials such as simulations, role plays, databases, software, apps (including mobile apps) and any other educationally useful materials.

3. The term 'OER' is not synonymous with online learning, eLearning or mobile learning. Many OER — while shareable in a digital format — are also printable.
4. Open Licence: An open licence is a standardised way to grant permission and to state restrictions to accessing, using, repurposing, reusing or redistributing creative work (whether sound, text, image, multimedia, etc.).³

¹ Budapest Open Access Initiative (<http://www.soros.org/openaccess/read>)

² A Review of the Open Educational Resources (OER) Movement: Achievements, Challenges, and New Opportunities (<http://www.hewlett.org/uploads/files/ReviewoftheOERMovement.pdf>)

³ Creative Commons (<http://creativecommons.org/licenses/>) and Open Definition (<http://opendefinition.org/guide/>)

Purpose of these standards

5. CENEAST aims to reform the curricula on built environment in the Eastern Neighbouring Area. In working towards this aim, CENEAST is developing a virtual space for lecturers and researchers from all the partner institutions to share their study and research knowledge. A virtual research environment for Open Educational Resources (OER) will be used host digitised materials offered freely and openly for educators, researchers, students and self-learners to use and reuse for teaching, learning and research.

Management of the OER platform and these standards

6. On behalf of the CENEAST consortium, USAL is responsible for drafting standards on platforms, accessibility and inclusion, rights management, and approaches to describing, managing, and sharing research and learning resources online. They will submit the draft standards for approval in accordance with the Quality Plan (WP4).
7. USAL is responsible for the development of a VRE that will be used to host the OERs (WP3). Initially, the platform will be populated with OERs developed through the activities and outputs of the project's WPs, such as the training events and workshops conducted throughout the project (for example, WP3, Deliverables 3.3 and 3.4). However, partners will be invited to upload other research and educational resources that they wish to disseminate and make available to educators, researchers, students and self-learners.
8. The digital materials may include research outputs, courses, course materials, content modules, learning objects including audio/visual, collections, and journals. They may also include materials on best practices such as case studies, techniques, and methods.
9. Evaluation of the VRE will take place in accordance with the network's quality plan (WP4). The results of internal and external evaluation, including users of the OER platform, will be used to refine the platform.
10. The VRE and content will be accessible to all network partners.
11. Long-term support for the platform will be considered as part of the CENEAST quality plan (WP4).

An introduction to the OER platform

Open educational resources (OERs)

12. The concept of Open Educational Resources (OER) describes any educational resources (including curriculum maps, course materials, research outputs, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been designed for use in research, teaching and learning) that are openly available for use by educators, researchers and students, without an accompanying need to pay royalties or license fees.
13. OER has emerged as a concept with great potential to support educational transformation. While its educational value lies in the idea of using resources as an integral method of communication of curriculum in educational courses (i.e. resource-based learning), its transformative power lies in the ease with which such resources, when digitized, can be shared via the Internet.
14. There is only one key differentiator between an OER and any other educational resource: its license. Thus, an OER is simply an educational or research resource that incorporates a license that facilitates reuse, and potentially adaptation, without first requesting permission from the copyright holder.
15. OER is not synonymous with online learning or e-learning. Openly licensed content can be produced in any medium: paper-based text, video, audio or computer-based multimedia. A lot of e-learning courses may harness OER, but this does not mean that OER are necessarily e-learning. Indeed, many open resources being produced currently – while shareable in a digital format – are also printable. Given the bandwidth and connectivity challenges common in some developing countries, it would be expected that a high percentage of resources of relevance to higher education in such countries are shared as printable resources, rather than being designed for use in e-learning.
16. The following benefits can accrue from sharing content under an open license⁴:
 - As digitized content can so easily be shared between students and institutions, sharing it publicly under an open license is the safest way to protect the author's IPR and copyright; the license can ensure that, when content is shared, it remains attributed to the original author. Open sharing of content can more rapidly expose plagiarism, by making the original materials easy to access. In addition, releasing materials under an open license also reduces the incentive for others to lie about the source of materials because they have permission to use them.
 - Sharing of materials provides institutions opportunities to market their services. Educational institutions that succeed economically in an environment where content has been digitized and is increasingly easy to access online are likely to do so because they understand that their real potential educational value lies not in content itself, but in offering related services valued by their students. These might include: guiding students effectively through educational resources (via well-designed teaching and learning pathways); offering effective student support (such as practical sessions, tutorials, individual counseling sessions or online); and providing intelligent assessment and critical feedback to students on their performance (ultimately leading to some form of accreditation). Within this environment, the more other institutions make use of their materials, the more this will serve to market the originating institution's services and thereby attract new students.

⁴ A Basic Guide to Open Educational Resources (OER) Prepared by Neil Butcher Edited by Asha Kanwar (COL) and Stamenka Uvalic-Trumbic' (UNESCO)

- For individual educators, proper commercial incentives for sharing content openly are most likely to flow when institutions have policies to reward such activity properly. Up to now, many institutional and national policies and budgetary frameworks have tended, at worst, to penalize collaboration and open sharing of knowledge (by removing possible streams of income when knowledge is shared openly) or, at best, to ignore it (as so many universities do by rewarding research publication over other pursuits). Thus, for most educators, the incentives lie in changing the institutional and national policies and budgetary frameworks so that they reward collaboration and open sharing of knowledge.
- Even if institutional and national policies and budgetary frameworks do not reward collaboration and open sharing of knowledge, there are still incentives for educators to share their resources openly. Open licenses maximize the likelihood of content-sharing taking place in a transparent way that protects the moral rights of content authors. Furthermore, people who seek to ring-fence, protect, and hide their educational content and research will likely place limits on their educational careers. They will also increasingly be excluded from opportunities to improve their teaching practice and domain-specific knowledge by sharing and collaborating with growing networks of educators around the world. Those who share materials openly already have significant opportunities to build their individual reputations through these online vehicles (although, of course, the extent to which they manage this will remain dependent on the quality of what they are sharing).

Types of educational resources

17. Whilst purely informational content has a significant role in learning and teaching, it is helpful to consider learning resources by their levels of granularity and to focus on the degree to which information content is embedded within a learning activity:

- Digital assets – normally a single file (e.g. an image, video or audio clip), sometimes called a ‘raw media asset’.
- Information objects – a structured aggregation of digital assets, designed purely to present information.
- Learning objects – an aggregation of one or more digital assets which represents an educationally meaningful stand alone unit.
- Learning activities – tasks involving interactions with information to attain a specific learning outcome.
- Learning design – structured sequences of information and activities to promote learning.

Technical requirements

18. The VRE will enable partner institutions to share their study and research knowledge through innovative educational resources that support reformation of the curricula on built environment in the Eastern Neighbouring Area. The VRE will be built using a free and open-source e-learning software platform, such as Moodle or Joomla. The VRE will support the searching and organisation of content.
19. It is essential that study and research knowledge shared through CENEAST can be found, used, analysed, aggregated and tagged. In order to facilitate this, content will have to be accompanied by some form of metadata. In this instance metadata doesn't necessarily mean de jure standards, application profiles, formal structured records, cataloging rules, subject classifications, controlled vocabularies and web forms. Metadata can also take the form of tags added to resources in applications such as flickr and YouTube, time and date information automatically added by services such as slideshare, and author name, affiliation and other details added from user profiles when resources are uploaded. Consequently the CENEAST VRE only mandates the following "metadata":
 - Programme tag - ceneastoer
 - Project tag – a project tag should be used to group related content and is for use in conjunction with the programme tag. e.g. projectname
 - Title - of the resource being described
 - Author / owner / contributor – the CENEAST VRE will allow registered users to create a user profile detailing their name and other relevant details. When a user uploads a resource, these details will be associated with the resource.
 - Date - This is difficult to define in the context of open educational resources which have no formal publication date. Most applications are likely to record the date a resource is uploaded but it will also be important to record date of creation so users can judge the currency of a resource.
 - URL - Metadata must include a url that locates the resource being described. The system must assign each item a unique url.
 - Licence information – Creative Commons is the preferred licence for programme outputs. The cc license element can be used to provide a URI for the licence chosen and the dc rights element can be used to provide general textual information about copyrights, other IPR and licence. Embedding the license within the resource is also recommended where practicable.
 - Technical information such as file format, name and size may be added but is no longer mandatory.
 - The hash symbol # should be added to the programme and project tag for use on twitter. E.g. #ukoer for twitter, ukoer for blogs etc.
 - Language information - The language of the resource, such as English or Russian.
 - Subject classifications - Specific subject classifications vocabularies are not mandated. However if a controlled vocabulary is required, projects are advised to use a vocabulary that is already being used by their subject and domain communities. It is not recommended that projects attempt to create new subject classification vocabularies.
 - Keywords - May be selected from controlled vocabularies or may be free text.

- Additional Tags - Tags are similar to keywords. They may be entered by the creator / publisher of a resource and by users of the resource and they are normally free text. Many applications such as flickr, SlideShare and YouTube support the use of tags.
- Comments - Are usually generated by users of a resource and may describe how that resource has been used, in what context and whether it's use was successful or otherwise.
- Descriptions - In contrast to comments, descriptions are usually generated by the creator/ publisher of a resource and tend to be more authoritative. Descriptions may provide a wide range of additional information about a resource including information on how it may be used or repurposed.

It's also useful for authors to be aware that once OERs are released they can easily become separated from their metadata descriptions, if this information is recorded in an associated file. Consequently authors are encouraged to consider embedding relevant descriptive information within the open educational resource where practicable.

20. Content Standards

CENEAST is expected to generate a wide range of content types so mandating specific content standards is impractical. However authors should consider using appropriate standards for sharing complex objects e.g. IMS Content Packaging, IMS Common Cartridge and IMS QTI for assessment items.

Rights management

21. Content owned or licensed to CENEAST as part of the Service can be used by any user of the Service for any such purposes that are conducive to education, teaching, learning, private study and/or research. This has been made possible by the use of a Creative Commons License (www.creativecommons.org). The particular license adopted allows educators and researchers to use or repurpose CENEAST resources within their own institutions, for use in training or with learners under the following creative commons license:



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This license lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.

If you download materials from the learning packages and use them with your own staff or students then you will need to attribute the original author(s) and cite the CC BY-NC-SA licence (as it has to be shared under the same license).

22. What are the requirements of use for CENEAST materials?

Content published by CENEAST may be used, copied, distributed, translated, and modified, as specified under the [Creative Commons Licenses](#). CENEAST grants the right to anyone to use the materials on CENEAST either "as is," or in a modified form. There are three requirements that a CENEAST OER platform user must meet to use the materials:

- *Noncommercial.* Use of CENEAST materials is open to all except for profit-making entities who charge a fee for access to educational materials or otherwise use the materials or derivatives of the materials for commercial purposes.
- *Attribution.* Any and all use or reuse of the material, including use of derivative works (new materials that incorporate or draw on the original materials), must include an attribution of the original materials to CENEAST and, if a author's name is associated with the material, to that person as well.
- *Share Alike (a/k/a "copyleft").* Any publication or distribution of the original materials or derivative works which are based on these materials, including production of electronic or printed class materials or placement of materials on a Website, must offer the works freely and openly to others under the same terms that CENEAST first made the works available to the user.

23. How do I properly cite my reuse of CENEAST materials?

If you choose to reuse or repost CENEAST materials you must give proper attribution to the original author(s). Please utilise the following citation:

[Name], [Course Title], [Term]. (CENEAST), [URL] (Accessed [Date]). License: Creative commons BY-NC-SA

If you want to use the materials on your own web site, you must also include a copy of the [Creative Commons Licenses](#) or clear ad reasonable link to its URL with every copy of the CENEAST materials or the derivative work you create from it.

24. Can I/my organisation state on our website or in our literature that we make use of CENEAST materials?

In accordance with the terms of the [Creative Commons Licenses](#) used by CENEAST, you must give credit to CENEAST and the author of the materials anytime you use CENEAST materials. However, any reference to CENEAST, (including the CENEAST name in any of its forms or CENEAST seals or logos), the European Union or TEMPUS programme that claims or (in the CENEAST consortium's sole judgment) gives the appearance or impression of a relationship with or endorsement by CENEAST is prohibited.

25. Should I acknowledge the support of the European Union / Tempus programme or other institutions within any materials that I upload to the VRE?

It is the responsibility of authors to acknowledge any institutions that have supported the development of educational resources that are uploaded to the VRE. Any resources developed as part of the CENEAST project should acknowledge the support of the European Union. Please refer to the CENEAST project team for advice on providing this acknowledgement.

26. Can I link to the CENEAST OER Platform from my website?

Links to CENEAST or to courses or pages within the host domain are permitted so long as the use of the materials associated with the link is permitted under the terms of the [Creative Commons Licenses](#) used by CENEAST, the link is freely accessible (e.g., no restrictions or fee for access) and there is no claim, appearance, or implication of an affiliation with or endorsement by CENEAST. The CENEAST consortium cannot guarantee the persistence of any specific link other than those to the CENEAST VRE Homepage.

Accessibility and inclusion

27. Individual members of faculty and students learn differently. Learning experiences that match a learners' individual learning needs result in the best learning outcomes. OER should be open and accessible to students with a diversity of learning needs. Learning needs are affected by:
- Sensory, motor, cognitive, emotional and social constraints;
 - Learning styles or approaches;
 - Linguistic and cultural backgrounds; and
 - Technical, financial, and environmental constraints.
28. Accessible learning is achieved by matching the individual learning needs of each student with a learning experience that addresses those needs. This can be accomplished through the resource delivery system by reconfiguring the resource, where possible, augmenting the resource or replacing the resource or parts of it with another resource that addresses the same learning goals.
29. To support this, research and learning materials or educational resources should:
- Include labelling to indicate what learning needs the resource addresses;
 - Allow the creation of variations and enhancements through open licences;
 - Support flexible styling (e.g., enlarging the font, enhancing the colour contrast and adjusting the layout for students with vision impairments or mobile devices);
 - Support keyboard control of functions and navigation (for students who cannot use or do not have access to a mouse or pointing device);
 - Provide audio or text descriptions of non-text information presented in videos, graphics or images (for students who have visual constraints or who have limited displays);
 - Provide text captions of information presented in audio format (for students who have hearing constraints or lack audio interfaces);
 - Cleanly separate text that can be read in the interface from underlying code or scripting (to enable translation);
 - Use open formats wherever possible to make it easier for alternative access systems and devices to display and control the resource; and
 - Adhere to international standards of interoperability so that OER can be used on a wide variety of devices and applications.

Operational policy for the CENEAST VRE

Takedown Policy

30. Any takedown requests are taken very seriously.
31. Where a takedown request has been made, items will normally be removed from public view pending investigation.
32. In the first instance takedown requests will be reviewed by the CENEAST quality plan team (WP4).
33. Where necessary the request will be escalated to the CENEAST consortium.
34. If there is proof of copyright violation then the resource in question will be permanently removed from public view.

Metadata policy for information describing items in the repository

35. Anyone may access the metadata free of charge.
36. The metadata may be re-used in any medium without prior permission for not-for-profit purposes and re-sold commercially provided the OAI Identifier or a link to the original metadata record are given.

Content Policy for types of learning resources held

37. Anyone may access (unfederated) items free of charge.
38. Items must not be sold commercially in any format or medium without formal permission of the copyright holders.
39. This repository is not the publisher; it is merely the online archive.
40. Mention of the repository is mandatory.
41. The repository may contain Learning Objects in a variety of file types including multimedia.
42. Principal Languages: English and Russian. However, all languages are welcome.

Submission Policy concerning depositors, quality & copyright

43. Items may only be deposited by registered members on the repository.
44. Authors may only submit their own work for archiving.
45. The administrator only vets items for the eligibility of authors/depositors, relevance to the scope of the repository, valid layout & format, and the exclusion of spam
46. The validity and authenticity of the content of submissions is the sole responsibility of the depositor.
47. Items can be deposited at any time, but will not be made publicly visible until any publishers' or funders' embargo period has expired.
48. Any copyright violations are entirely the responsibility of the authors/depositors.
49. If the repository receives proof of copyright violation, the relevant item will be removed immediately.

Preservation Policy

50. Items will be retained for the duration of the project plus 3 years. This situation will be revisited as part of the CENEAST quality plan.

51. The VRE will try to ensure continued readability and accessibility.
52. The VRE regularly backs up its files according to current best practice.
53. The original bit stream is retained for all items, in addition to any upgraded formats.
54. Items may not normally be removed from the VRE.
55. Acceptable reasons for withdrawal include:
 - 55.1. Proven copyright violation or plagiarism
 - 55.2. Legal requirements and proven violations
 - 55.3. National Security
 - 55.4. Falsified research
56. Withdrawn items are not deleted per se, but are removed from public view.
57. Withdrawn items' identifiers/URLs are retained indefinitely.
58. URLs will continue to point to 'tombstone' citations, to avoid broken links and to retain item histories.
59. Changes to deposited items are permitted.
60. Errata and corrigenda lists may be included with the original record if required.
61. If necessary, an updated version may be deposited.