KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

STANDARDS FOR ONLINE OPEN EDUCATIONAL RESOURCES (OERs) AND GUIDELINES FOR USER GENERATED CONTENT (UGC)

JANUARY 2018

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Definition of Terms

Active Learning: Any instructional method that engages learners' in the learning process

Animation: Movies with drawings, computer graphics, or photographs of static objects, including all techniques other than the continuous filming of live-action images.

Approved Digital Course Materials: Those that have been curated and approved by KICD in accordance with the specified standards.

Community of Practice (CoP): It is a group of people who share common interest for something that they all do and learn how to do it better through their regular interaction. A CoP, in this case, will come about because members are motivated to share their digitally generated resources which they want to improve through their collective quality assurance process.

Community Service Learning: A teaching and learning approach that incorporates meaningful community service with instruction and reflection to enrich the learning experience.

Competence: The ability to apply appropriate knowledge and skills to successfully perform a function.

Course Content (CC): Course content refers to any information or subject matter that is related to a specific subject taught in Kenyan institutions of learning which is submitted to the KICD Education Cloud Platform (KICD EdCP) for online curation.

Course: An accredited unit of curriculum.

Curriculum Design: An outline of what is to be covered in a given course.

Digital Learning Content: Assembly and aggregation of discreet, digital (or electronic for display on a computing device) learning objects designed to meet intended learning outcomes. Content is a specific package of material for use in an overall curriculum.

Guidelines: Suggested or recommended approaches to performing a task.

Instructional Design: Systematic method of planning, developing, evaluating and managing instruction to ensure competent performance by the learner.

Interactive: allowing a two-way flow of information between a computer and a computer-user; responding to a user's input.

Learning Content: Assembly and aggregation of discreet learning objects designed to meet intended learning outcomes.

Learning Outcomes: They are statements of what learners are expected to do at the end of a learning experience.

Learning resource: A learning asset or assets designed to address an intended learning outcome(s).

Metadata: Information that identifies content during submission.

Multimedia: Multimedia is a computer application which represents information through audio, animation, text, drawings, still and moving images, and any other media where every type of information can be represented, stored, transmitted and processed digitally.

Plug-in:A file containing data used to alter, enhance, or extend the operation of a parent application program.

Revision Material: Materials that provide further practice and review the knowledge, skills and attitudes acquired through activities, assignment and tests. Revision materials involve revision books and workbooks.

Standards: Document descriptions that have received a stamp of approval or accreditation from KICD.

Strand: Specific theme in a learning area.

Supplementary Content: These are materials which assist in the implementation of the curriculum by supporting Course materials in further interpreting the designs.

List of Acronyms and Abbreviations

1. **CBC**- Competence Based Curriculum
2. **EYE –** Early Years Education
3. **GIF**- Graphic Interchange format
4. **JPEG** - Joint Photographic Experts Group
5. **KEC -** Kenya Education Cloud
6. **MP3 -** MPEG Audio Layer-3
7. **MP4 -** MPEG Layer-4
8. **MPEG** - Motion Picture Express Group
9. **OER –** Open Education Resources
10. **PCIs**- Pertinent and Contemporary Issues
11. **PNG**- Portable Network Graphics
12. **TIFF**- Tagged Image File Format
13. **TVET-** Technical Vocational Education and Training

General Information

Open Educational Resources (OERs) are any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them [not for commercial purpose]. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation (UNESCO, 2002).

The standards are intended for the development, curation and approval of Open Educational Resources. Early Years Education (EYE) resources should comply with Standards that are in tandem with the Competence Based Curriculum (CBC). These standards are subject to regular review and refinement.

Invitation for submission of digital OERs

Invitation for submission will be availed by KICD through its official website (www.kicd.ac.ke).

Eligibility

Submissions will only be accepted from individuals, groups and publishers who are legally incorporated and registered in Kenya, and who can therefore provide, on request, valid certification of such incorporation/company registration and legal operation.

Content developers who wish to submit materials on behalf of firms that are not locally registered should make available a certified copy of the Agency Agreement or Representation Authority.

Registration

During registration, the developer is required to provide the following:

  i.   KRA Pin registration (Required)
 ii.   Certificate of originality (A declaration of ownership)
iii.   Evidence of payment of required submission fee.
 iv.   Where necessary, evidence of official registration and incorporation in Kenya.
  v.   Evidence of agency agreement or power of attorney for company's action on behalf of foreigners.

vi.   Contacts (phone number, email address, physical address)

Submission areas

Eligible content developers may submit Open Educational Resources for any of the learning areas in basic education and tertiary levels. Content may also be submitted for these levels addressing pertinent and contemporary issues in the broad areas ofGlobal Citizenship, Health Education, Life Skills and Values Education, Education for Sustainable Development (ESD), Community Service Learning, ParentalEmpowerment and Engagement. **(See Appendix 7)**

The choice of education level, subject/learning area and category of material(s) to submit is entirely at the discretion and judgment of the interested/submitting developer. A developer can submit in different learning areas and categories. Each Submission will be curated solely in terms of its relevance and suitability for the requirements of the specific curriculum area and categorization as outlined in the necessary specific standard.

Submission requirements

- Materials submitted for curation and approval should strictly be finished products.
- Any material that a content developer intends to be curated and considered for more than one level should be submitted in the distinct sets for each level, each set constituting a submission.
- Any material that bears information that purports it to have been 'Approved' by MoE or KICD prior to the current Submission, Curation and Approval process, shall still be curated.
- Electronic teaching aids which require operations must be accompanied by an operational manual. The parts and components of such submissions should be in good working condition. Testing to confirm workability of equipment will constitute the curation process.

Licensing

Content licensing details should be stated clearly including a description of when the license expires, where it may be used and by whom. The most common open license for content is **Creative Commons. (See Appendix3).** In most cases users of OERs have the right to modify the content (re-

use or re-mix) to meet individual learner and educator needs, except where third party agreements are restrictive.

Technical specifications

All materials presented for curation and approval must satisfy the requirements as outlined in the specific standards.

- The software used to package the content should be supported across various operating systems.
- They should be branded.

Costs of curation and approval

The submission fees will be communicated during invitation.

Schedule for Submission, Curation and Approval of OERs

This schedule will provide details on activities in regard to submission, curation and approval of OERs.

Submission form

This form will be filled by digital content developers who would wish their OERs to be curated. A duly completed form should be submitted to KICD before uploading the materials for curation. The form contains the content developer's profile.

Specific standards

These have been provided for use when curating the submitted OERs.

Disclaimer

Any digital material which is awarded 'Approved' status as a result of the curation procedures will be maintained on the approved list for as long as there are no changes in the existing curriculum.

KICD will not accept any responsibility for marketing approved OERs to the learning institutions. Equally, the Institute will not accept any responsibility if approved OERs fail to achieve acceptable sales.

Invitation to Submit Open Educational Resources (OER's) for Curation and Approval

The Kenya Institute of Curriculum Development wishes to invite educational digital content developers represented in Kenya to submit Open Educational Resources**.** This Standard contains details on what to submit and the requirements for submission including assessment details where applicable.

Educational digital content developers should therefore submit Open Educational Resources (OERs) to the Kenya Institute of Curriculum development (KICD) in accordance with the requirements as stipulated in this document.

The **Open Educational Resources Standards** may be downloaded from the KICD website portal www.kicd.ac.ke at no cost. You can access and interact with the standards before submission.

All submissions will be received continuously at the Institute through the portal. All prospective content developers should submit their contentonline after filling the OERs submission form as well as the Meta Data.The learning resource (content) will undergo various quality assurance processes:

- To assure quality
- For efficiency of processing
- To place the content in the right context/category

The learning resource must be peer reviewed through communities of practice, publishers, organization or peers before submission for curation to KICD.

The **OERs** will be used for learning purposes within Kenya and should therefore be appropriate for achievement of learning outcomes **(See Appendix 6)** for the following levels:

a. Early Years Education (Pre-primary, lower primary and Foundation level).
b. Middle school (Upper Primaryand Lower Secondary)
c. Senior School
d. Tertiary Level (Teacher Education and TVET)

Note: OERs for the current curriculum for Upper Primary, Secondary and Tertiary levels are still relevant.

Open Educational Resources are required for all learning and activity areas across the different levels of education for both regular and special needs learners.

Each submission has to be accompanied by a non-refundable curation fee paid online as stated in the invitation for submission.

All enquiries should be directed to:

Director General
Kenya Institute of Curriculum Development
P O Box 30231 – 00100 NAIROBI GPO – Kenya
Tel (254 2) 3749900-9, 3748204, 3747994; (254) 20 – 2053419 Fax (254 2) 3639130
E-Mail: info@kicd.ac.ke

General Standards

Digital OERs will be curated on the following broad areas:

- Relevance to the curriculum designs
- Accuracy and currency of the content in the material
- Language use
- Promotion of positive values and attitudes
- Responsiveness to pertinent and contemporary issues
- Multimedia elements
- Technical design
- User guide
- Content optimized for online use with ease of download and smooth streaming
- Compliance with the Kenyan education policies
- Creativity of packaging to enhance the information
- Provision of assessment activities to deepen the understanding of concepts and develop required skills (where applicable).

Generally, whatever the category, the materials should;

- ✓ feature Kenyan content and examples wherever applicable
- ✓ be sensitive to societal and cultural values
- ✓ help identify and nurture learners' potential
- ✓ enhance CBC core competencies for EYE
- ✓ represent the Kenyan ethnic and environmental diversity, illustrations and examples, wherever it is considered appropriate.

<h1 style="text-align:center">Specific Standards for OERs</h1>

A. Instructional Design and Pedagogy

The following standards represent design considerations for the learning resource to be motivating and effective in fostering and supporting learning. These include aspects of content, pedagogy and language.

Content

i. The learning resource organizes and sequences content in a way that is appropriate for the subject matter and age of the intended audience.

ii. Ongoing interaction between users and content is fostered to make learning interesting, motivating and involving.

iii. Activities in the learning resource require users to manipulate information and ideas to comprehend, apply, analyze, synthesize and evaluate new knowledge.

iv. The learning resource provides opportunity for practice and transfer of learning in a variety of ways.

v. A wide range of methods for completing assignments or progressing through the content is accommodated for the user.

vi. Facts and ideas are applicable to the real world and are authentic for users.

vii. Information presented in the learning resource is current and accurate.

viii. The learning resource clearly identifies the relevant learning outcomes.

ix. The learning resource is socially and culturally diversefor the intended audience in terms of gender and age appropriateness.

x. The learning resource should promote core competencies, positive values and attitude.

Pedagogy

    i. A wide range of learning styles is supported such as visual, auditory, and kinesthetic.

    ii. The learning resource provides examples of activities, assignments and reflections.

    iii. Different modes (pictorial, verbal) for presentation of essential information are incorporated.

    iv. Appropriate questioning strategies are evident in the interactions set up in the learning resource.

    v. Users are given opportunities to apply knowledge to meaningful and authentic problems.

    vi. The learning resource indicates clear and accurate directions for all activities and/or assignments.

Language

    i. The learning resource uses appropriate language in terms of gender, age, level of education and cultural diversity.

    ii. The language used in the learning resource should be grammatically correct such as punctuation, spelling, typographical and sentence structure.

    iii. The terminologies used are accurate and consistent throughout the learning resource and abbreviations are defined in full.

B. Technical Design

    i. The learning resource should be packaged in a format that can be used on different operating systems.

    ii. The learning resource multimedia has been optimized for size and use with standard computer graphics and systems such as compressed files; MP3 files, JPEG or TIFF for photos, and GIF or PNG for computer graphics.

    iii. Video, animation and sound file formats can be played on freely available and commonly used plug-ins or players.

    iv. A simple, consistent and accessible structure for the navigation of the materials is provided.

v. The learning resource provides learner control of audio or video (i.e. learner can turn on/off audio and/or video files. The user can also start, stop, pause video clips and alternate tags or script of the audio is provided.

vi. The resource should provide for controls –back, forward and play. Other features include; search, help, glossary, links and hyperlinks.

C. Layout (Visual Design)

i. The learning resource explains each icon function (i.e. cursor over tag appears describing button), and graphics are relevant, consistently identified, labelled and described.

ii. All clickable objects in the content are identified through the use of labels, borders, or instruction in text as appropriate.

iii. Text material is provided in standard formats accessible to learners.

iv. The resource uses identifiers in a consistent manner to signal steps in a process.

v. Key terms are highlighted on screen and are in the glossary.

vi. Format is uncluttered, includes white space, effective use of colour, and graphics where appropriate, and text colours are clearly legible over background colours.

vii. Text is organized into readable paragraphs for presenting on display.

viii. The resource provides learners the opportunity to proceed at their own pace and revisit sections as required (adaptive learning).

ix. The resource has a consistent tone, readability, look and feel.

x. An efficient and comfortable learning interface that provides a minimum of fatigue is employed (i.e. is visually appealing without being over stimulating).

D. Assessment

The following standards will only apply to digitalOERs that have an assessment component;

i. The learning resource specifies clear instructions for successful completion by the user.

ii. The user assessment is linked to learning outcomes, associated content, and learning resource activities.

iii. Assessment methods are constructed to measure learning on a variety of levels such as fact, concept, process, critical thinking, problem solving.

iv. The learning resource incorporates a variety of methods of user assessment such as quizzes, matching activities, reflection, discussion questions and on-the-job activities.

v. The learning resource provides opportunities for user practice and transfer.

vi. Meaningful, useful and relevant feedback is provided to the user.

Guidelines for Online User Generated Content (UGC'S) General Information

User Generated Content is the content generated from the interaction in a web. This could be a forum which allows the users to share their content, comments, ideas and links. Other examples could include wiki's, Edmodo, Edublogs that allow users to share content.

Many different types of websites contain user generated content. The Kenya Education Cloud will provide a platform through which content will be generated and allow for feedback from the users.

Rules for UGC on Kenya Education Cloud

When users post comments on content that is already on the platform, the user should

1. Create a user account

2. Use acceptable language (no –Swearing, mother tongue, slang, vulgar)

3. Not share external links

4. Not post more than 200 words

5. Follow the Acceptable User Policy

Appendices

Appendix 1: Submission Form

Where applicable, the following information should be provided when submitting digital content in order to generate a tracking number.

KRA PIN Registration: …………………………………….

Declaration of Originality: By agreeing with this statement, I hereby declare that this is my original work and that any additional sources of information have been appropriately acknowledged.

I agree ☐   I disagree ☐

Evidence of official registration and incorporation in Kenya: (Scan and attach copy of registration document): ....

Evidence of agency agreement or representation of Evidence of official registration and incorporation in Kenya (Scan and attach copy of agreement document): ....

Contact (Phone, e-mail and physical address): ………………….

Appendix 2: Meta Data

Meta Data

Subject …………………………………… Level ………………………..……

Class ………………………………

Category of Learners (Regular or SNE)...

Category of Special Need (if Applicable)

For Example, Visually Impaired – VI, Hearing Impaired – HI,

Others (specify)...

Title...

Digital Content ID…………………………………………………..………………….....

Content Developer(s)...

Content Developer (s) Credentials……………………………………………....................

Content Provider(s)..

Country……………………………………………………………………………………….

Community of Practice (Where Applicable) …………………………………………………...

Type of License (Applicable to OERs) ……………………………….………………………

Language ……………………………………………………………………………….

Brief Description:

....

....

....

Format (such as e-Pub, Interactive Digital Content) …..

Year of Production...

Edition/Version Number………………………………………………………………….

Rights (Where application) ……………………………………………………….……

Price...   Date ………...................................

Appendix3: Licensing

Open License for Content

    A. Creative Commons https://creativecommons.org

  i.   **Attribution**

     CC BY

This license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licenses offered. Recommended for maximum dissemination and use of licensed materials.

  ii.   **Attribution-Share-Alike**

     CC BY-SA

This license lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms. All new works based on yours will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia, and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects.

  iii.   **Attribution-No-Derivatives**

     CC BY-ND

This license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you.

  iv.   **Attribution-Non-Commercial**

     CC BY-NC

This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-

commercial, they don't have to license their derivative works on the same terms.

v. **Attribution- Non-Commercial-Share-Alike**

CC BY-NC-SA

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.

vi. **Attribution-Non-Commercial-No Derivatives**

CC BY-NC-ND

This license is the most restrictive of our six main licenses, only allowing others to download your works and share them with others as long as they credit you, but they can't change them in any way or use them commercially.

B. Public Domain   https://en.wikipedia.org/wiki/Public_domain - note that copyright expiration can vary by country. You may have to 'add value' in some scenarios to make commercial

C. More for Code / technologies – Open and can be used in commercial situations with some obligations

Apache   https://en.wikipedia.org/wiki/Apache_License

BSD   https://en.wikipedia.org/wiki/BSD_licenses

MIT   https://en.wikipedia.org/wiki/MIT_License

Mozilla   https://en.wikipedia.org/wiki/Mozilla_Public_License

D. List of all open type licenses

https://en.wikipedia.org/wiki/Comparison_of_free_and_open-source_software_licenses

Appendix 4: Online Submission, Curation and Approval Schedule

NO	ACTIVITY
1.	Continuous submission of digital content, apps and platforms
2.	Formal alert of the beginningof curation for the digital content, apps and platforms
3.	Digital content developers conference (content, apps and platforms)
4.	Curation process
5.	Formal approval and recommendation
6.	Dissemination of curation report
7.	Uploading the online list of approved content, apps and platforms on KEC

Appendix5: Core Competencies for CBC

1. Communication and Collaboration
2. Critical Thinking and Problem Solving
3. Imagination and Creativity
4. Citizenship
5. Digital Literacy
6. Learning to Learn
7. Self - Efficacy

Appendix 6: Learning Outcomes for Early Years Education

(Pre-Primary and Lower Primary)

By end of Early Years Education, the learner should be able to:

1. Communicate appropriately using verbal and/or non-verbal modes
2. Demonstrate basic literacy and numeracy skills
3. Apply digital literacy skills for learning and enjoyment
4. Apply creative and critical thinking skills in problem solving
5. Practice hygiene, proper sanitation, safety and nutrition to promote health
6. Practice appropriate etiquette for interpersonal relationships
7. Explore the immediate environment for learning and enjoyment
8. Demonstrate acquisition of emotional, physical, spiritual, aesthetic and moral development
9. Demonstrate appreciation of the country and its rich, diverse cultural heritage for harmonious living
10. Exhibit appropriate organizational skills.

Appendix 7: Pertinent and Contemporary Issues

Global Citizenship; Peace Education, Integrity, ethnic and racial relations, social cohesion, patriotism and good governance, child's rights and, child care and protection

Health Education: HIV and AIDS Education, Alcohol and drug abuse prevention, Life style diseases, personal hygiene, Common Communicable and chronic diseases

Life Skills and Values Education: Life Skills, Core Values and Human sexuality,

Education for Sustainable Development (ESD): Environmental Education, Disaster Risk Reduction, Safety and security Education (small arms, human trafficking, Financial Literacy, Poverty eradication, Countering terrorism, extreme violence and radicalization, Gender Issues and Animal Welfare Education.

Learner Support Programmes: Guidance services, Career guidance, counselling services, Peer education, mentorship, learning to Live together, clubs and societies, Sports and games.

Community Service Learning, Parental Empowerment andEngagement: Service learning and community involvement and parental empowerment and engagement.

Broad area	Pertinent and Contemporary issue
1. Global Citizenship	Peace Education, Integrity , ethnic and racial relations, social cohesion, patriotism and good governance, child's rights and, child care and protection
2. Health Education	HIV and AIDS Education, Alcohol and drug abuse prevention, Life style diseases, personal hygiene, Common Communicable and chronic diseases
3.Life Skills and Values Education	Life Skills, Core Values and Human sexuality,

4.Education for Sustainable Development (ESD)	Environmental Education, Disaster Risk Reduction, Safety and security Education (small arms, human trafficking, Financial Literacy, Poverty eradication, Countering terrorism, extreme violence and radicalization, Gender Issues and Animal Welfare Education.
5.Learner Support Programmes	Guidance services, Career guidance, counselling services, Peer education, mentorship, learning to Live together, clubs and societies, Sports and games
6. Community Service Learning, Parental Empowerment and Engagement	Service learning and community involvement, parental empowerment and engagement