



Inclusive Access to Quality OER: Low and No Connectivity - Learning Equality's Approach

Offline technologies and the role of AI in aligning OERs to curriculum

Presentation by: Revanth Voothaluru
Date: 19-Nov-2024





Needs driving our work

- 2.6 billion people today aren't online, unable to participate in the digital learning revolution.
- 1 in 3 children and youth aren't achieving basic literacy & numeracy
- And the least connected are most in need of new opportunities for learning.
- Importance of making OERs accessible for learners

kolibri

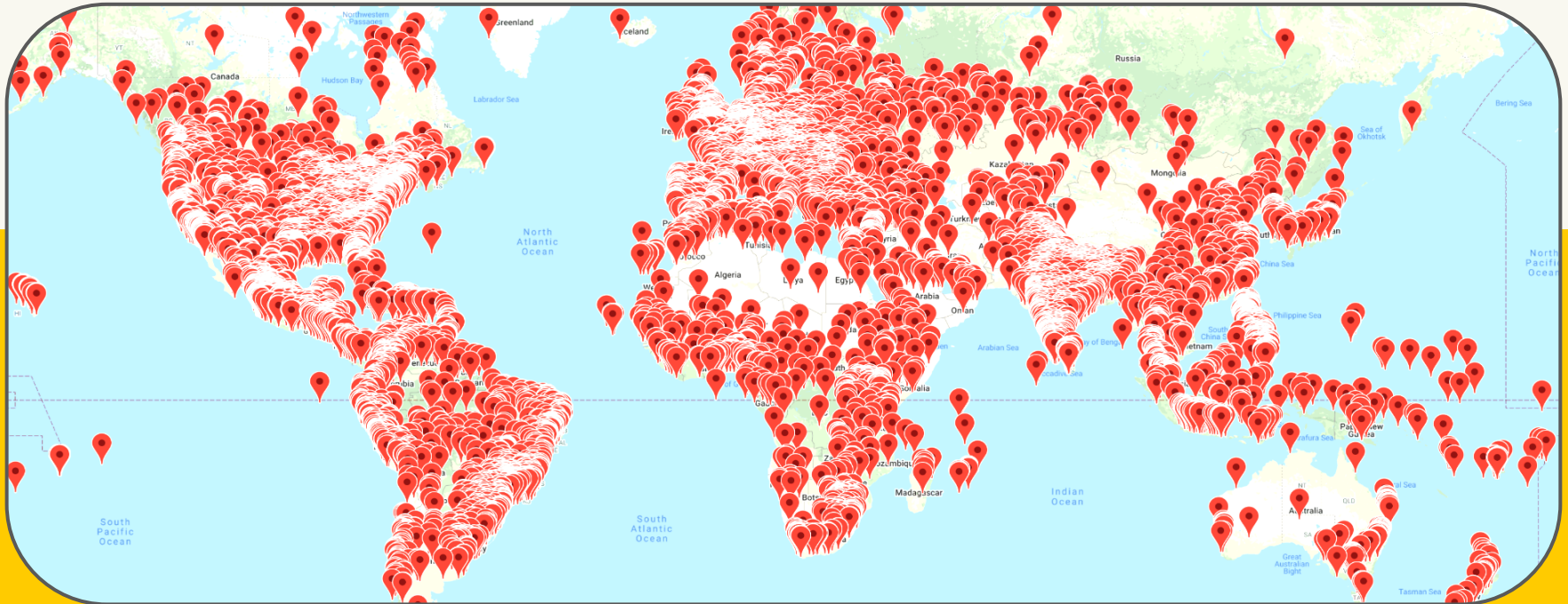


Teaching & learning with tech, but without the Internet

- Free to use and open source
- Library of 200K+ Open Educational Resources (K-12)
- DIY toolkit of guidance materials
- Used in different hardware models with different pedagogical approaches
-



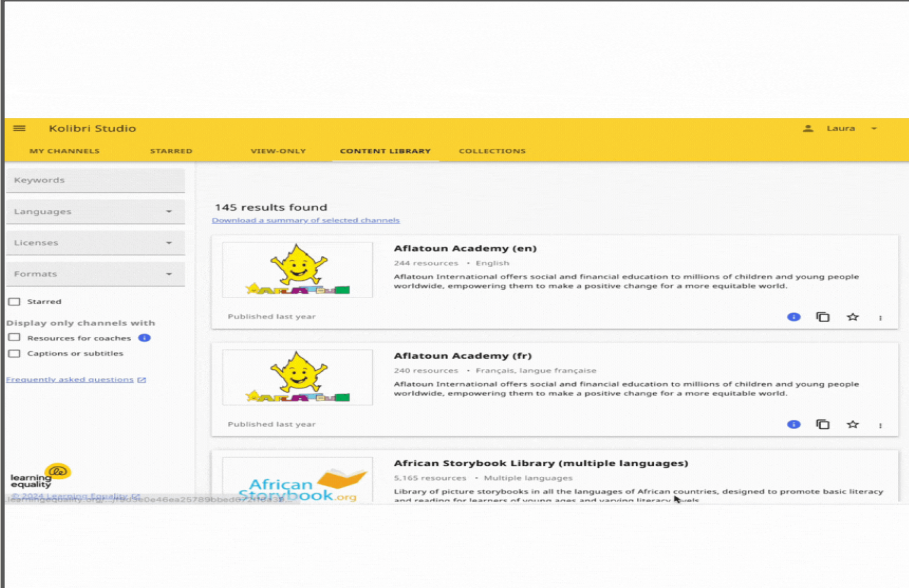
**Through organic adoption and strategic partnerships,
we've reached over 10 million learners
across more than 220 countries and territories.**



Our approach to OERs

Redistribution: We make high quality content sources available to learners in underserved areas through offline technology through Kolibri Library.

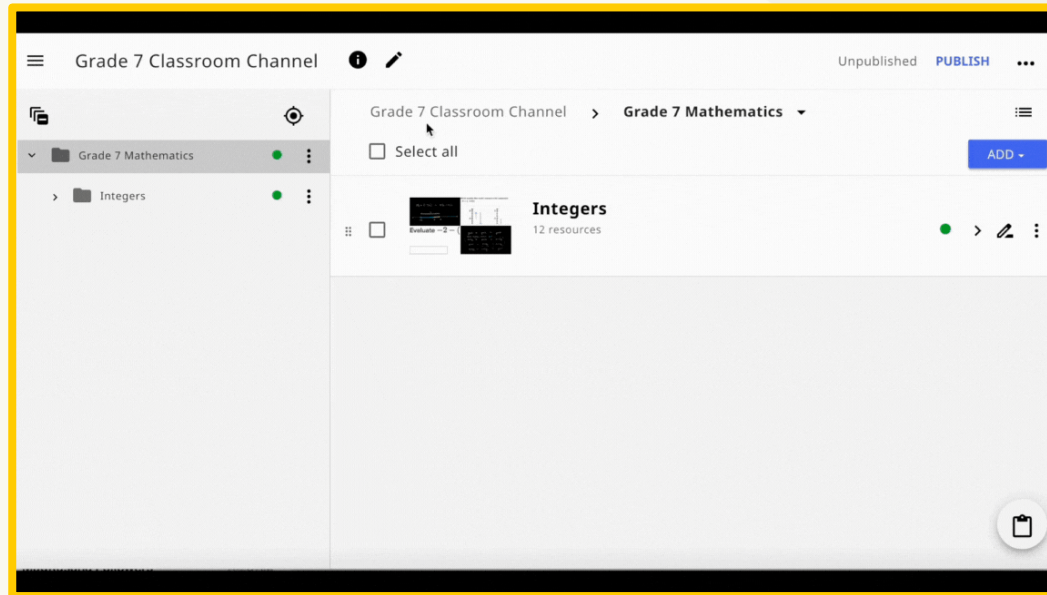
- 121 public channels
- ~200,000 unique resources
- 173 languages
- Documents, Videos, HTML5, Audio, Exercises.



The screenshot displays the Kolibri Studio interface. At the top, there is a yellow navigation bar with the text 'Kolibri Studio' and a user profile 'Laura'. Below the navigation bar, there are tabs for 'MY CHANNELS', 'STARRED', 'VIEW-ONLY', 'CONTENT LIBRARY', and 'COLLECTIONS'. The 'CONTENT LIBRARY' tab is active. On the left side, there is a sidebar with search filters: 'Keywords', 'Languages', 'Licenses', and 'Formats'. Below these filters, there are checkboxes for 'Starred', 'Display only channels with Resources for coaches', and 'Captions or subtitles'. The main content area shows '145 results found' and a list of search results. The first two results are for 'Aflatoun Academy (en)' and 'Aflatoun Academy (fr)', both with 244 resources and published last year. The third result is for 'African Storybook Library (multiple languages)' with 3,165 resources. Each result includes a small icon of a yellow character and a brief description of the resource.

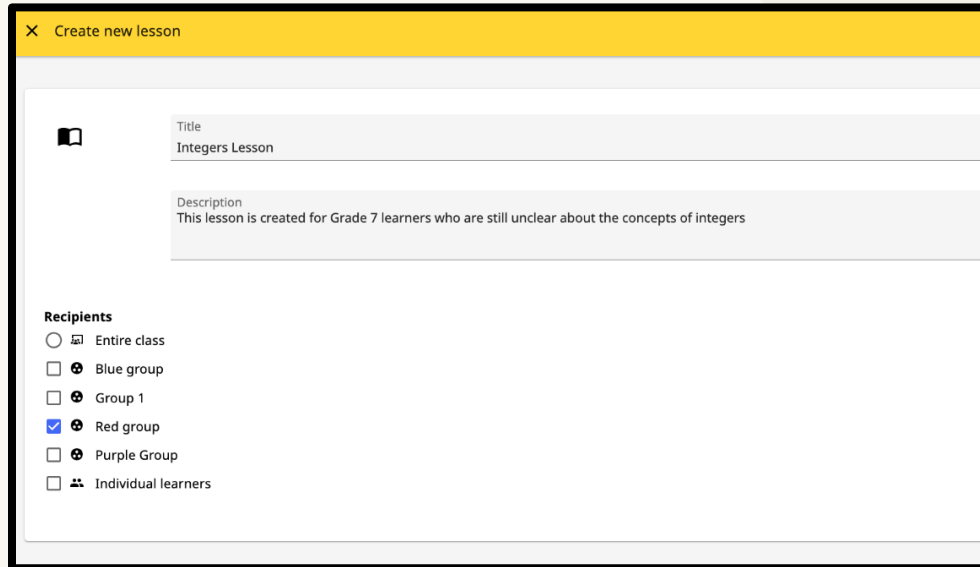
Our approach to OERs

Remixing: We support organizing of content according to curricular standards in the way that is most contextual for the learners.



Our approach to OERs

Reusability: We have built in functionality to facilitate differentiation and personalization through offline quizzes and lessons.



The screenshot shows a 'Create new lesson' window with a yellow header. It contains a title field with the text 'Integers Lesson', a description field with the text 'This lesson is created for Grade 7 learners who are still unclear about the concepts of integers', and a 'Recipients' section with the following options:

- Entire class
- Blue group
- Group 1
- Red group
- Purple Group
- Individual learners

In Practice

Flying Colors is tech-enabled project-based learning with refugees to build foundational skills.

How we use OERs:

- Redistribute supplemental OERs to support curriculum
- Remix OERs to have content aligned to the standards
- Support teachers to use Kolibri coach tools with existing content



Curriculum Alignment Process

CHALLENGE: Scarcity of time, personnel, & tools for a process that can increase edtech adoption

APPROACH: Use GenAI and machine learning + human expert review to automate key parts of the process



Results with automation

An example from PROSPECTS Uganda (ILO, UNICEF & UNHCR)

- **Output:** Mapped 6,500 content items to 2K+ learning objectives for use in multi-actor program in Uganda
- **Efficiency:** Made best use of the local curricular experts' time; reduced time from months to weeks and reduced cost
- **Impact:** Unlocks ability to respond quickly to crisis situations and changing curricula

200,000 OERs in Kolibri Library

Recommender
using ML algorithms
based on data from
manual processes

20,000 recommendations

Use of GenAI to
narrow down

12,000 filtered results

Human
expert
review

6,500 final selection

Calls to Action

- Invest in local OER creation to fill content gaps particularly for underserved learners
- Build OERs that consider realities when Internet doesn't exist
- Work with curricular bodies to make curriculum documents openly available for digitization
- Collaborate with us to digitize and align OERs to national standards

