Quality OER at Scale in India
The Curriculum, Interactive Tools and Platforms of the Connected Learning Initiative
Brandon Muramatsu, mura@mit.edu
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An initiative seeded by

TATA TRUSTS

Connected Learning Initiative

MIT

Massachusetts Institute of Technology

Inter-University Centre for Astronomy and Astrophysics

National Institute of Advanced Studies

Government of Telangana

Government of Mizoram

Government of Rajasthan

State Governments, Civil Society Organisations, Universities, Research Institutes, Philanthropic Organisations, Schools

An Ecosystem Of Partners
CLix – The Connected Learning Initiative

Quality at Scale

**Students**

Improve the professional and academic prospects of high school students

**Teachers**

Improve teacher education and transform teacher practice

**Platform**

“Platform” for curriculum, professional development of teachers, research and innovation in education

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CLlx as of December 2017

RAJASTHAN

- Schools: Proposed Reach 300, Current Reach 101
- Teachers: Proposed Reach 1,000, Current Reach 248
- Students: Proposed Reach 33,000, Current Reach 13,277

MIZORAM

- Schools: Proposed Reach 200, Current Reach 30
- Teachers: Proposed Reach 800, Current Reach 154
- Students: Proposed Reach 15,000, Current Reach 4400

TELANGANA

- Schools: Proposed Reach 300, Current Reach 300
- Teachers: Proposed Reach 1,800, Current Reach 1,589
- Students: Proposed Reach 36,000, Current Reach 10,080

CHHATTISGARH

- Schools: Proposed Reach 300, Current Reach 47
- Teachers: Proposed Reach 900, Current Reach 139
- Students: Proposed Reach 27,000, Current Reach 4680

* Current reach as of December 2017
CLiX LEARNING DIMENSIONS

THREE DOMAINS
Maths  Science  English
Integrating values & 21st century life skills

TWO GRADES
VIII  IX

THREE LANGUAGES
Hindi  Telugu  English

DELIVERED THROUGH
Teachers  Devices  CLiX Platform

ACHIEVED THROUGH
Real world projects  Online text, audio, & video
Interactive edu tech apps  Hands-on activities & labs
Discussion & community building
Activating ICT Labs & Hands-on Learning
CLIX and Open

Open content, open source, open pedagogy
To reach the scale needed, the processes, curriculum and tools developed by CLIx must be readily usable by others (in India).

The project is using “OER Release” to describe a release of CLIx products for others to use as if they were “Open Educational Resources”.

The OER Release will include:

- Software platforms (e.g., gStudio / CLIx Platform, Unplatform)
- Interactive tools (e.g., Police Quad, Open Story Tool)
- CLIx modules (e.g., English Beginner, Geometric Reasoning)
- Teacher Professional Development materials
5R Activities

- **Retain** - the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
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Recommended by Creative Commons
*Commercially friendly
No copy-left condition, most interoperable
*Required by Grant

Content modules, Teacher Professional Development materials

AGPL
“Protects” original developer’s commercial interest, can commercialize but must share

Software Platforms, Interactive Tools

MIT License
*Commercially friendly
No copy-left condition, very interoperable

"strong philosophical beliefs"
Open Content

• New to OER, some new authors
• What’s possible? Khan Academy, PhETs, Logo, etc.
• Reuse existing & contextualize for curriculum—or–design new?
  o Nuance of licenses
  o Much of traditional Indian OER used in printed materials (textbooks and workbooks)
  o Attribution 👍, format 👏
Open Pedagogy

- Contemporary pedagogies
  - Changing expectations about teacher pedagogy
  - Curriculum & learning experiences...move rote to active learning
  - Learner and teacher empowerment...teacher exploration of learning materials, mostly lightly guided teaching experiences

“strong philosophical beliefs”
CLlx’s OER Release
CLIX Modules

- 🌐 Websites to explore modules
- 📚 “ePub” of module distribution
  - Core learning materials are accessible, renders in some ePub readers
  - ~50-500MB compressed (zip) file with module content as HTML,
- 📚 ePub(s) + 🖥️ Unplatform distribution
  - Some (but not all) learning activities are accessible (some are specific to gStudio)
  - ~2GB compressed (zip) file loaded into Unplatform as a player, which also allows access to some (but not all) of the interactive tools
  - Ubuntu, Mac, Windows versions
- 🌐 CLIX Platform with all modules and interactive tools distribution
  - 45-60GB Virtual machine with all modules and interactive tools
  - CoreOS installation

Reusable, Revise, Retain, Remix, Redistribute
Editable HTML, and media

LMS with edit & authoring capability

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How to get CLIx software & content?

Well…

• Some software is available now via Github: Unplatform, Open Educational Assessments (players and authoring), Open Story Tool, Run Kitty Run, Video Player

• Rest of software should be available by ~August 2018: gStudio / CLIx Platform, math and science interactives, runtime of StarLogo NOVA

And…

• Curriculum modules and Teacher Professional Development materials should be available by ~August 2018 from the CLIx website clix.tiss.edu
Missed Opportunities

• Using most open licenses
• Authoring workflow & CMS—easier revision, retention
  o OERPub
  o Google Docs -> translator -> (customized) ePub3 -> player platforms
  o Strong structure in production (well formed HTML) and a true Content Management System
• Having versions available for you!*

* You’re more likely to be able to use the process and software rather than the curriculum modules as they’re highly localized to the Indian context.
Thank You!