

# Global/Localisation SIG

ICICLE (International Consortium for Innovation and Collaboration in Learning Engineering)

**Meets First Friday month at 9 am ET**

**Join Zoom Meeting**

<https://us06web.zoom.us/j/84718680942?pwd=KwkXo7zLb4mzRz11A0lveKNhphAtqP.1>

Meeting ID: 847 1868 0942

Passcode: 141504

## SIG Information

[Meeting Agenda and Notes](#)

[Meeting Presentations and Recordings](#)

## Purpose

- Localise the context in learning engineering process for implementation
  - Examples in different contexts
- Why? Value add for LE
  - International groups are focused on educational planning systems, digital learning.
    - Gaining traction is looking at digital learning systems
    - We can add value with LE process, standards, holistic approach
- Other ideas
  - What is data strategy? What are the LE strategies can adapt? Data sources - what is the location for data resources for LE

**Dec 6, 2024**

Attendees: Zarka Ali, Jodi Lis, Avron Barr, Lillian Warutere, Adesola Ogundimu, Tutaleni Asino, Michael Jay, Clement Audu, Erin Czerwinski, Marilu Lam, Leonard Mensah, Adesunloye Adeoila, Jim Goodell

## Agenda

- Introductions (New attendees)
- Announcements
  - Invitation to Learning Engineering webinar - Please share

Members of the IEEE Learning Engineering community (ICICLE) are facilitating an event on how you can get engaged with Learning Engineering (LE) to take place via Zoom on Wednesday 11 December at 1pmET/10amPT. This session will provide an overview of Learning Engineering, share a use case on the application of Learning Engineering, discuss that use case from a variety of perspectives, and open the floor to participants to pose questions and, if time permits, discuss all things LE. Register here:

<https://us02web.zoom.us/meeting/register/tZAvdeCrqToiE9w0k3-uWbBsm7OjZSF1258E>

- ICICLE community call: Wed Dec 18th at 12pm ET  
<https://ieeesa.webex.com/ieeesa/j.php?MTID=mfe39e7e42a9d43818953b77c12b85c1b> Meeting number: 711 711 672/ Password: N9Ek6sWMJc8
- World Bank report: Digital Pathways for Education : Enabling Greater Impact for All  
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099102124103012716/p173530151854505218eb417834e0f954cd>
- Conferences
  - AECT International Convention - <https://convention.aect.org>
  - eLearning Africa - <https://www.elearning-africa.com/conference2025/>
  - CIES 2025 conference - <https://conference.cies.us>
  -
- Recap of our Purpose:
  - Adapt learning engineering to context at a global level
  - Ideas for collaboration captured in this [Miro Board](#)
- Thoughts on our progress so far: Based on the projects and ideas the group has listened to so far, **what niches and gaps have we observed in the international learning, education and development space?**
- Naming the Group: Final voting on possible names - [Take the survey](#)
- Project/Idea Spotlight: Clement Audu - Oklahoma State University

Exploring Contextually Appropriate Professional Development Around Technology Integration

- Impacting student learning through teacher training/professional dev. on selecting and using appropriate technology

Questions for Clement

Nov 1, 2024

Attendees: Adesola Ogundimu, Jim Goodell, Avron Barr, Adesunloye Adeola, Zarka Ali, Erin Czerwinski, Gideon Anapey, Michael Jay, Gainford Amponsah, Clement Audu, Marilu Lam-Herrera, Mike Dawson

### Agenda

- Introductions (New attendees)
- Recap of our Purpose:
  - Adapt learning engineering to context at a global level
  - Ideas for collaboration captured in this [Miro Board](#)
- Our progress so far: Based on the projects and ideas the group has listened to so far, **what niches and gaps have we observed in the international learning, education and development space?**
- Naming the Group: Final voting on possible names
- Project/Idea Spotlight: [Mike Dawson](#) of [Ustad Mobile](#). [mike@ustadmobile.com](mailto:mike@ustadmobile.com)  
Developing an open source offline-first learning management app
  - The app is in use in Afghanistan, Uganda. Available on the app storeIntroduction of the [Resilient Edtech Standard Project for Educational Courseware and Technologies \(RESPECT\) initiative](#).
  - [Technical details on interoperability](#) (draft)
  - Purpose: Improving interoperability in ed tech apps which is a common challenge in low and middle income environments.
  - Issues like speed, high data/storage usage, no offline use, apps don't work together, needing separate account setup/log ins, etc.
  - Apps are tested on a set of technical criteria. Apps that meet these requirements can use the RESPECT logo which signals interoperability
  - Targets four areas of interoperability: Cost, data, privacy, ease of use
    - Cost: Extraordinary cost of providing internet/data access alone. RESPECT data standards and requirements can reduce the cost of access by decreasing the data required to install and run apps.
- Questions for Mike

Oct 4, 2024

### Agenda

- Introductions (New attendees)

- Recap of our Purpose:
  - Adapt learning engineering to context at a global level
  - Ideas for collaboration captured in this [Miro Board](#)
  
- Naming the Group:
 

Possible names (from Gen. AI)

  - **Global Learning Engineering for Local Impact (GLELI)**
  - **Learning Engineering for Localized Solutions (LELS)**
  - **Local Context Learning Engineering Initiative (LCLEI)**
  - **Adaptive Learning Engineering for Global Contexts (ALEGC)**
  - **Contextual Learning Engineering for Global Education (CLEGE)**
  - **Learning Engineering for Cultural Adaptation (LECA)**
  - **Regional Adaptation in Learning Engineering (RALE)**
  - **Localized Learning Engineering Network (LLEN)**
  - **Global Contextual Learning Engineering Consortium (GCLEC)**
  - **Learning Engineering for Regional Innovation (LERI)**
  - **Learning Engineering for Regional Adaptation**
  - **Global Learning Engineering Adoption and Adaptation (GLEAA)**

And from last month:

- LINGUAL - Learning Engineering for Global and Local Application SIG
  - GLOLE - Global and Local Learning Engineering SIG
  - LEGLSIG - Learning Engineering Globalization and Localization SIG
  - LGSIG - Localization and Globalization Special Interest Group
- 
- Project/Idea Spotlight: Avron Barr - Teaching AI to Teachers in India
    - [A Course on AI for Educators](#)
  
  - Discussion and Q&A

## Sep 6, 2024

### Agenda

- Introductions (New attendees)
  - Zeinab Serhan
  - Maggie
- Recap of our Purpose:
  - Adapt learning engineering to context at a global level
  - Ideas for collaboration captured in this [Miro Board](#)
- Name of group - See ideas below (Thanks, Henry!)
  - LINGUAL - Learning Engineering for Global and Local Application SIG
  - GLOLE - Global and Local Learning Engineering SIG
  - LEGLSIG - Learning Engineering Globalization and Localization SIG
  - LGSIG - Localization and Globalization Special Interest Group
  -

Sharing projects: Lilian Warutere and Omotayo Olorunfemi

- Lilian: Learning Design Challenge
  - Low pre-work completion rate among workshop attendees (trainers, coaches, etc.)
  - Used gamified content (workshop attendees receive email notifications)
  - Needs recommendations on how to improve pre-work completion rates
- Omotayo: Teachers (K-12)
  - Recognized the need for teacher capacity development. Some teachers have no teacher education training or need to develop in areas like 21st Century skills.
  - Teachers' Academy Africa: Started with basic educator training, using educational technologies (low tech solutions to address resource constraints)
  - Helping teachers develop knowledge and application of learning science in context.
  - Bridging gap between low tech and high tech solutions

Avron Barr: Teaching AI to 200 teachers in India (more at the next call)

Zarka: Designing one-room schools in Pakistan using Bamboo (due to flooding in the area)

- Speak local provincial language (Sindhi)
- Children learn some English in school
- Addressing high rate out-of-school children
- Goal: Basic education to help children become self-sufficient to strengthen communities. Preparation for secondary education (if interested)
- Teaching digital skills to teachers.

Discussion and Q&A

<https://enterprof.com/> - From Maria

## August 9, 2024

### Agenda

Introductions

Defining our Purpose  
ICICLE conference reflections  
Collaborations

Introductions  
Name of group

Maybe we do an async name brainstorming through a Miro board, The board can be open between now and the next meeting

Ideas:

~~CIRCLE - Cultural Integration and Refinement in Contextual Learning Engineering~~  
LINGUAL - Learning Engineering for Global Understanding/Application/Localization  
GLOBAL - Global Learning Engineering and Localization Alliance  
LEARNGLLO - Learning Engineering and Regional Network for Global Localization  
GLEAMS - Global Learning Engineering and Adaptation for Multicultural ~~Society~~ SIG

GLOBE - Global Learning Optimization and Best-practice Exchange  
LEGLIS - Learning Engineering Globalization and Localization Integration ~~Society~~ SIG  
GLISTEN - Global Learning, Internationalization, and Localization Special Interest Group  
~~Network~~  
LEGSIG - Learning Engineering Globalization and Localization Special Interest Group  
GLEE - ~~Globalization and Localization in Educational Engineering~~  
GLENS - ~~Global and Local Educational Engineering Network & Society~~  
GLOLE - Global and Local Learning Engineering  
LEGS - ~~Localization and Engineering Globalization Society~~  
LEGENDS - Learning Engineering Globalization and Localization Network ~~Development~~  
~~Society~~  
GLOLEAD - Global and Local Learning Engineering and Development  
LGSIG - Localization and Globalization Special Interest Group  
GLoSIG - Globalization and Localization Special Interest Group  
LoGSIG - Localization & Globalization Special Interest Group  
LIGSIG - Localization and Internationalization Group Special Interest Group  
GLINT - Globalization and Localization Interest Network Team  
LOGLENS - Localization and Global Learning Engineering Network Society  
LOCAL - Localization of Learning and Cultural Adaptation League  
GLOBALENS - Global and Local Engineering Network for Learning Systems

Defining our Purpose

- Localise the context (culturally, origin) in learning engineering process for implementation
- Narrow our focus and decide on ST goals

Ideas for collaboration

- University of Ghana

- UNESCO
- CMU and work with Mastercard Foundation and edtech hubs
- Latin America

Maria

Make online learning accessible

Paper: "Addressing the need for online engineering labs for developing countries," it can be downloaded from <https://ieeexplore.ieee.org/document/9657298>

<https://sagroups.ieee.org/edusc/virtual-graduate-studies-consortium-vgsc/>

Zarka

Building schools in Pakistan <https://www.brecorder.com/news/40310012> Look at it from learning engineering perspective.

Marilu - decolonializing education; HCD, complexity and LE bringing them together; working with linguist, physics and researcher; working with leadership with Mayan community and Mayan artists; provide professional development to teachers

Omotayo - working on capacity development for teachers, continuing professional development. How to adapt LS principles to teaching at various levels.

Lilian - use LE to develop courses

Spreadsheet to capture ongoing work and ideas: Contributors can describe the challenge/need/opportunity, provide a provide detailed description of the target audience

Workshop/course

Basic understanding of process, iterative process

Basic training on LE process and tools

Digital version/Online tool for LEED tracker

## June 7, 2024

### **Agenda**

Introductions

Defining our Purpose

- Localise the context in learning engineering process for implementation

ICICLE conference

- Global LE Perspective session with 4 presentations

## Welcome to the University of Ghana

- Guests - Olivia Kwapong and Gideon Anapey
- Recently implemented a new curriculum on Learning Science: Understanding LS across contexts especially in K-12
  - Teachers unable to connect the curriculum to digital learning standards (teaching about tech instead of teaching with tech.)
  - Similar learning loss and challenges with achieving learning milestones in other African countries: Sierra Leone
  - Need for standards-based learning that are directly connected to real-world application (critical thinking, problem-solving, digital literacy, 21st century skills)
- Current project meeting teachers in their learning environment to collect data and identify opportunities to incorporate technology into in-class learning:
  - Example: concepts like gravity are learned through memorization of definitions and workbooks
- Need: Strong research team for establishing efficacy, ethical application and efficiency of technology applications in context

## Other activities continue to consider

- UNESCO TPD
- Mastercard and CMU

May 3, 2024

## Agenda

Introductions

Co-chair

Defining our Purpose

- Harness opportunities
  - Where we can put things together
  - UN - Transfer of Knowledge Through Expatriate Nationals (TOKTEN)
  - DAAD: German Academic Exchange Service
  - ADEA - Association for Development of Education in Africa
- How can we contribute, how to work together, not replace things
  - Contextualize

Sharing ideas

- Kofi - Met with Professor at University of Ghana
  - Director for Center of Excellence - teach all faculty and move the university online.
    - Teacher education department working on introducing learning sciences
    - Working with a group in Germany and CMU





- Jim - UNICEF, Finland
  - Edtech for Good framework (interoperability, safe, etc.)
  - Focus on 6 countries
- Erin - CMU work in Africa
  - Roll out and teach edtech startup hubs on LE and LS
    - Funding through Mastercard Foundation
    - Looking at courses offered in METALS program
  - Teaching LE as informed by underlying theory of LS
    - Could potentially be adapted for faculty and teachers
    - Turn theory into practical
- Hamadou - STEM education, technology enhanced education
- Other local groups
- Genzeb - [UNESCO International Institute for Online Education](#)
  - Ethiopia, South Sudan
  - [Camara.org](#): worked with in seven countries remote integrating TPACK Framework, covered pedagogy and technology

#### Contextualizing LE

- Michael Jay: Just a start on a description of the goals of this group. Anyone want to run with this?

IEEE ICICLE's Localization/Global Committee is established to acknowledge and advance the contextual nature of learning and ensure that culture is integral to the Learning Engineering practices. With roots in Situated Learning developed by Jean Lave and Etienne Wenger based on the earlier work of Dewey, Vygotsky, and others, localization and globalization is essential to creating broadly applicable learning engineering practices and ensuring that those practices integrate with local needs and culture.

- Design SIG working on [LE Use Case Process Mock Up](#)
- Learning Sciences
  - How is being defined in these contexts? What language do people use? What terms do we use?
  - How do we introduce the concept?
  - aka cognitive sciences
  - Resources
    - <https://www.puq.ca/catalogue/livres/ingenierie-pedagogique-171.html>
    - [https://edu6014.telug.ca/telugDownload.php?file=2014/07/EDU6014\\_ingenie\\_cognitive.pdf](https://edu6014.telug.ca/telugDownload.php?file=2014/07/EDU6014_ingenie_cognitive.pdf)
  -
- Practitioners
  - Jim: We don't need to turn everyone into a cognitive science researcher but practitioners could learn to think and practice with more of an action research mindset.

- Erin: Codify terminology around LE
  - Educate people on that work and practical application

#### Resources/Conferences

- Conferences
  - [Global Digital Development Conference](#), June 12-13
- Resources
  - Report: [United Nations Secretary-General's High-Level Panel on the Teaching Profession](#) and [Blog Post](#)
- edX and they have courses on UX, ID, and EdTech
  - <https://www.edx.org/learn/educational-technology>

Next Meeting: June 7, 2024

Apr 5, 2024

#### Agenda

1. Purpose
  - a. Our “Why?”  
What is the purpose of the group?
  - b. What?  
What will we do?
  - c. How?  
How will we do it?
2. Conference: Localisation session  
We have
3. What is happening in IEEE that is relevant to this work?
4. What is our value add at an international level?

#### UNESCO

- Focus on Digital Transformation
- Opportunities to approach things with LE perspective
- Area to support: TPD
  - What aspects of LS add value to TPD?
  - What aspects of data decision-making?

#### Think tank to move things forwards

- Provide technical support

- Be a platform to liaise with other organization

#### ICICLE role:

- Question to the group: Do we want to get engaged in projects like the one suggested by UNESCO in Ghana as ICICLE or identify people/orgs affiliated with ICICLE to take these on? ICICLE as facilitator? Define what sort of team is needed to implement a pedagogically successful program?
- Are people involved in groups that we can support?
- We have SIGs, MIGs (Market Interest Groups) and maybe we need Local Interest Groups (LIGs) that take what is happening in the SIGs and MIGs and applies it to a localized context making explicit cultural and political opportunities and barriers.
- The goal would be to develop strategies for applying LE in these contexts informing teams for local implementation and transfer what they learn to other LIGs.

#### Adapt to local context

- What do we want to contextualize?
- Design and applicable across many countries
- What are the characteristics for a successful LE intervention?
  - “Diamond in the rough” or “glass in rough”

#### Identify:

- How/who should work with?
  - Local organisations to work?
    - Kofi: University of Ghana, Center for Teaching and Learning, funding from Carnegie Foundation
      - Area of focus: Learning Sciences
    - International organizations?
- What should we focus on?
  - Pk-12 or higher ed or corporate
  - This are the problems I have heard so far: Lack of expertise, Lack of a strategic approach, Need to frame the product to determine a methodology, creating networks
  - Knowledge transfer to build local capacity
    - Identify what entities are doing locally
- How?
  - Question: Are there frameworks or case studies for contextualizing LE? That can give a process and then help us decide the problem to start with.
    - We will use our LE process model to adapt

#### Action Items

- Identify what entities are doing locally. What are they doing? How can we support them?
- Contact IEEE, Jim provide contact

- Local groups
  - Kofi, University of Ghana
- TPD and UNESCO - where can LE add value?
  - Support how to enhance TPD program
  - Working with UNESCO on two-pager
- Value add: Identify global learning reports and documentation -
  -

## November 2023

### Discuss purpose

- Localise the context in learning engineering process for implementation
  - Examples in different contexts
- Why? Value add for LE
  - International groups are focused on educational planning systems, digital learning.
    - Gaining traction is looking at digital learning systems
    - We can add value with LE process, standards, holistic approach
- Other ideas
  - What is data strategy? What are the LE strategies can adapt? Data sources - what is the location for data resources for LE