

# Global Perspectives: Education + AI



*Co-Produced by Joaquin Melara and Dr. Jess Mendoza*

 **SWARM.**

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# About

## SWARM Community

The SWARM Community is a global network of AI enthusiasts and practitioners committed to moving beyond theory and marketing hype. SWARM is an acronym that stands for Sentient Wisdom and Artificial Reasoning Machines. Our work is focused on developing the responsible adoption of AI technologies.

We focus on practical, real-world applications of artificial intelligence to tackle pressing Environmental, Social, and Governance (ESG) challenges. More than just a platform, SWARM operates as a “Community of Practice,” driven by collective learning, action, and ethical responsibility. Guided by the principles of courage, honor, humility, prudence, and responsibility, we create tangible positive impact.

## Global Perspectives

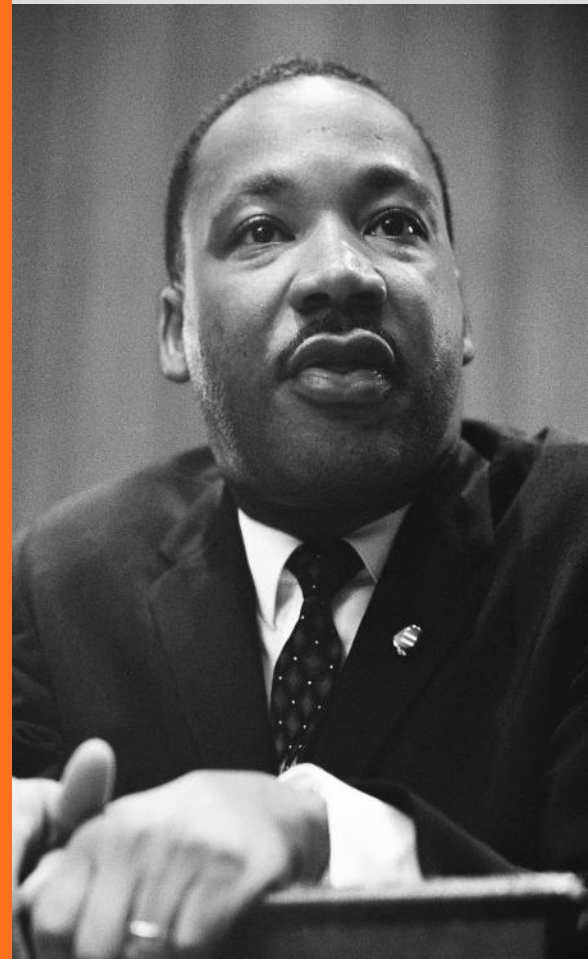
Global Perspectives is an event series organized by the SWARM Community, designed as a set of temporary think tanks that go beyond discussion to deliver actionable solutions at the intersection of ESG (Environmental, Social, and Governance) and AI.

Each event confronts some of the most pressing and complex global challenges, such as; advancing inclusive education in low-resource settings, addressing the loneliness epidemic, enabling responsible AI adoption, and designing equitable economic models for both early-career professionals and older adults facing workplace ageism.

By convening dozens of global experts with decades of experience across diverse domains, Global Perspectives transforms collective insight into practical strategies and targeted recommendations, reshaping how these challenges are understood and solved.

*“Intelligence plus character -  
That is the goal of true education”*

**- Martin Luther King**





# Global Perspectives: Education + AI

## The Focus of this Event

For our inaugural event, we convened specialists in various subdisciplines of education and AI.

Then, we facilitated a live brainstorming to bridge educational gaps and ensure truly inclusive learning experiences, no matter the learner's context or resources.

## Why Pursue this Project?

We developed this event, and its accompanying open-source report (*this document*), to surface diverse expert perspectives on designing inclusive learning environments, especially in under-resourced communities.

The reason is that low-resource communities face chronic shortfalls in both:

- 1. Financial capital:** limiting investments in infrastructure, education, and essential services.
- 2. Human capital:** with too few educated leaders able to mentor, organize, and pass skills to future generations.

These dual deficits undermine collective resilience and, in turn, perpetuate cycles of underinvestment and limited opportunity.

Our goal is to empower educators by consolidating best practices and guiding principles, enabling them to confidently explore AI-driven innovations within their own contexts.



# Co-Produced by



## Joaquin Melara

Joaquin is a content and event producer specializing in branding, operations, and the ethical application of AI technologies.

He collaborates with leading AI experts at organizations such as Adobe, IBM, and MIT, serving as a trusted advisor known for building strong, trust-based relationships grounded in clear communication. He has spent several years as a technical project manager, working closely with C-suite executives and product managers to transform ideas into production-ready solutions across a wide range of industries.

He believes that great relationships are built on trust, communication, and mutual respect; a philosophy he brings to every engagement to ensure projects meet both technical and strategic goals while fostering lasting partnerships.

Outside of work, Joaquin enjoys hiking, making (and eating) good food, exploring crafts, and bringing creative concepts to life.



## Dr. Jess Mendoza

Dr. Jess Mendoza is a cognitive psychologist turned tech industry specialist.

By day, she works as a User Experience Researcher; by night, she serves as an AI and Human Experience Specialist, finding ways to use technology to enhance the human experience beyond just interfaces.

She draws on 10 years of experience studying human-technology interactions, including how technology shapes learning, behavior, memory, communication, and wayfinding.

She's passionate about maintaining a growth mindset and practices this through continuous learning. She values partnerships that support human-centered research, inclusivity, psychological safety, and community. Jess brings scientific rigor, ethics, and a people-first mindset to every project.

Outside of work, she enjoys painting, reading, spending time outdoors, growing her plant collection, and connecting with loved ones.

# Sponsored by Unanimous AI

## Unanimous.AI

Unanimous.AI amplifies networked human group intelligence to deliver more accurate forecasts, decisions, brainstorming, and insights. Drawing on the biological principle of swarm intelligence, they've developed proprietary AI algorithms and award-winning platforms: Swarm®, Thinkscape®, and Mindmix®, that help teams converge on optimized solutions. Their mission is to build collective superintelligence, a goal validated by rigorous studies conducted with top universities.

## The Thinkscape Platform

Thinkscape enables groups (up to 400 people) to hold real-time, productive conversations that optimize group insights and amplify collective intelligence.

## Sponsorship Provided

Unanimous AI sponsored the first Global Perspectives event by providing platform access and active, in-kind support during the live session. After our brainstorming exercise, their experts guided us through interpreting the session's anonymized datasets, allowing us to translate insights into this resulting report.

## Comment about the Production

*"Finding free time in people's careers is always a challenge.*

*Scheduling events on weekdays means competing with work obligations, while scheduling them on weekends means competing with personal commitments and passions.*

*The fact that even people from Asia joined in the middle of their night shows how deeply committed people were to participating."*

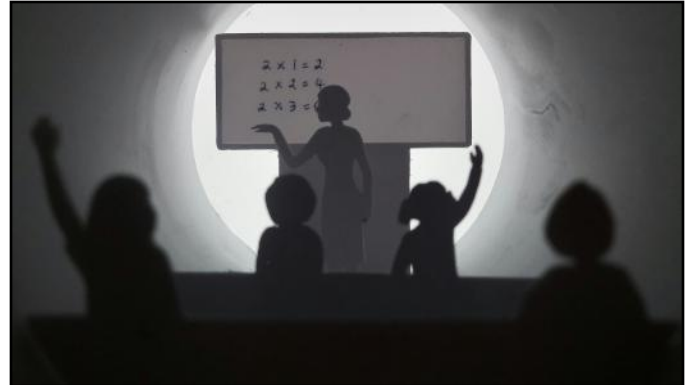


# Event Participants

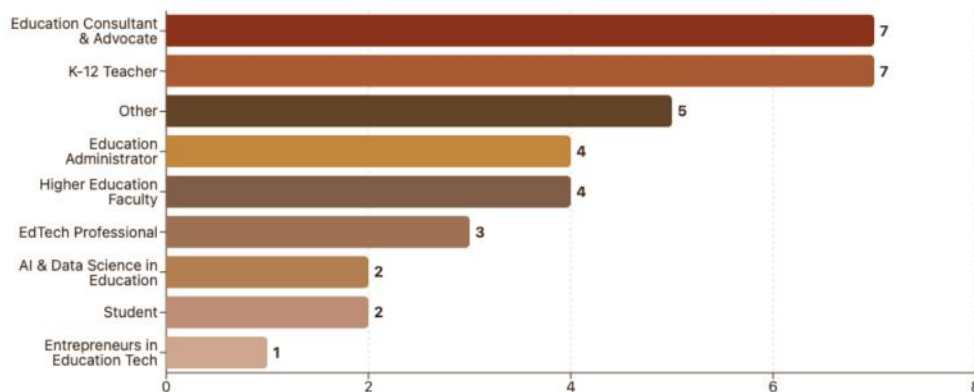
## Professional Backgrounds

Event participants held a variety of backgrounds:

- AI & Data Science in Education
- EdTech & Instructional Technology Professionals
- Education Administrators
- Education Consultants & Advocates
- Entrepreneurs in Educational Technology
- Higher Education Faculty, K-12 Teachers
- Special Needs Specialists
- Students Pursuing Advanced Degrees.



## Distribution of Roles



## Incentive for Participation

The primary incentive for participants in this project was the development of an open-source report to help create inclusive learning environments, even in low-resource settings. No financial compensation was mentioned, or provided.





# Inclusive Education

## 20 Different Definitions

*Participants defined inclusive education as:*

1. "Access to education and means of learning for everyone without exception."  
— **Rafiat Aliyu, IT and EdTech Professional**
2. "Education without roadblocks based on personal characteristics or economic situation."  
— **Mark Loundy, Instructional Technology Specialist**
3. "Free high-quality AI-assisted adaptive intelligent textbooks with rich MicroSims for all people in the world."  
— **Dan McCreary, AI Researcher**
4. "Inclusive education means education for all persons at all stages including race, sex, gender, religion, ethnicity or age."  
— **Oluwajomiloju Aluko, Financial Education Advocate**
5. "Everybody has the same opportunities to learn and develop themselves no matter their background or their personal circumstances."  
— **Luis Herrero, Independent advisor and educator**
6. "Inclusive education isn't just about access—it's about engagement, equity, and empowering every learner to reach their potential."  
— **Ioannis "John" Anapliotis, Head of Nea Paideia School AI Lab**
7. "Inclusive Education isn't subject to just learning; it's about creating pathways to success, self-sufficiency and generational impact!"  
— **Kee Jones, K-12 AI Strategist and Facilitator**
8. "Meeting the needs of all students on a way that allows all learners to feel confident and accepted in the classroom regardless of ability or differences."  
— **Julie Daniel Davis, Startup Co-Founder/ Adjunct Professor**
9. "Listen to everybody's perspective independently from age, race, faction, or any other factor without needing to mention the concept of inclusivity itself."  
— **Riccardo Stevanato, Student**
10. "Inclusive education is a space where every voice is heard, every participant has the opportunity to shine, and barriers are placed with a sense of belonging."  
— **Jessica Maddry, Education Consultant and PhD Student**
11. "That all learners are in a "system" that they can define and reach their success, as well as have a role in designing how they will learn and be in community."  
— **Tracy Faucher, Deputy Head, K-12 School**
12. "No child (truly) is left behind. Creating learning environments and modes of connectivity which are as diverse as the human species, powered by technology and creativity."  
— **Thu Do, Head of Experience Design**
13. "Ensuring that everyone, regardless of their background, abilities, or socioeconomic status, has access to the skills and knowledge needed to thrive in the future job market."  
— **Mike González, Student Success Manager**
14. "It is to provide access to education, regardless of your background, disabilities, and more. Ensure students feel they belong in the classroom, value and collaborate with others."  
— **Eliza Bianchi, Executive Director of Community Relations and Development**
15. "Making sure every learner, regardless of background, ability, or access to technology, has the opportunity to thrive in an increasingly AI-driven world. It's about removing barriers."  
— **Tina Austin, AI Adoption Consultant and AI Innovation Lecturer (USC+UCLA) Chair of AI Initiatives**
16. "Inclusive education to me means the ability for people from all walks of life to be able to access resources, skills and opportunities that could enable them realize their full potential."  
— **Dean Walusimbi, Co-founder & Programmes Lead at Outcast Activists Forum Uganda**
17. "Ensuring that all students have equitable opportunities to learn and thrive. This involves student centered pedagogy, the ethical use of AI, fostering engagement, and lifelong learning."  
— **Dayamudra Dennehy, Tenured ESL Faculty**
18. "To sum it up in a single line, Inclusive education is education for everyone; One in which none bears the burden to make an effort to fit in. To deviate from this is everything but inclusion."  
— **Obed Boateng, Doctoral Researcher**
19. "Inclusive education is every learner regardless of their state (background, situations) and where they have inhibited access to quality education tools in a way that suits their learning needs."  
— **Confidence Osein, Digital Citizenship & Cyber Safety Educator**
20. "Creating a learning environment where all students, regardless of their abilities, backgrounds, or identities, have equal opportunity to succeed. An educational approach where all students feel valued, safe, and happy."  
— **Laurie Foley, Assistant Head of Senior School**

# Taking a Stance for Inclusive Education

## 27 Tactics Anyone Can Do

*When asked how to take a stand for inclusive education, participants offered the following advice:*

1. "The everyday person can support inclusive education by first educating themselves, then using that knowledge to influence local change. Sharing accurate information and real stories helps demystify inclusive practices, while consistent, informed community engagement, through both personal action and public advocacy, can drive meaningful progress."  
— **Katie Young, Lead Teacher Internship Program**
2. "We can approach inclusive education by centering kindness and empathy for others."  
— **Devina Sarwatay, Presidential Fellow**
3. "Read stories about how Trees and Mushrooms communicate, and learn from nature's indiscriminate board of education."  
— **Kamau Zuberi Akabueze, Founder**
4. "Support diverse learning needs by advocating for accessible resources and inclusive teaching methods. Encourage open dialogue and challenge biases to create a more equitable educational environment."  
— **Rodolfo Salazar, CEO**
5. "You can make education more inclusive by applying human-centered design and understanding how learning works."  
— **Hoda Mostafa, Director Center for Learning and Teaching**
6. "One thing the everyday person can do is advocate for equal access to educational resources and support for all learners, regardless of their background or abilities, by supporting inclusive policies and practices."  
— **Muzdalfa Akram, AI Educator**
7. "Make education more inclusive by validating the challenges that learners face."  
— **Rosane Weiss, Retired math and computer science teacher**
8. "Being mindful of diverse learning styles in conversations and community settings."  
— **Confidence Osein, Digital Citizenship & Cyber Safety Educator**
9. "Being intentional about one's own actions, and seeking to self-improve for the social good."  
— **Obed Boateng, Doctoral Researcher**
10. "Advocating for equitable access to learning resources, showcasing diverse perspectives, promoting inclusive policies, and fostering accessible humanized education."  
— **Dayamudra Dennehy, Tenured ESL Faculty**
11. "Everyday individuals should continuously advocate for and promote lifelong learning, believing that everyone, regardless of age, economic status, or background, can leverage available educational opportunities for personal and community development."  
— **Dean Walusimbi, Co-founder & Programmes Lead at Outcast Activists Forum Uganda**
12. "Encouraging ethical and inclusive AI use, advocate for equitable access to learning resources and technology, "  
— **Tina Austin, AI Adoption Consultant and AI Innovation Lecturer (USC+UCLA) Chair of AI Initiatives**



13. "One of the simplest yet most powerful actions is advocating for awareness; challenging biases in daily conversations, supporting policies that promote inclusivity, and amplifying the voices of marginalized communities."

— **Bushra Yousaf, Quality Manager in Education**

14. "Advocate for an inclusive education, spread awareness, engage in conversations about it."

— **Eliza Bianchi, Executive Director of Community Relations and Development**

15. "Use and support our local libraries!"

— **Thu Do, Head of Experience Design**

16. "Sharing knowledge and opportunities.

Mentoring someone, recommending free or affordable learning resources, or simply advocating for accessibility in education."

— **Mike González, Student Success Manager**

17. "Make education more inclusive by considering your own biases, and working to evolve beyond them."

— **Tracy Faucher, Deputy Head, K-12 school**

18. "Consider a dynamic, decentralized perspective in which standards vary among individuals yet still reflect their unique thoughts."

— **Riccardo Stevanato, Student**

19. "See the best in others and recognize that everyone has potential."

— **Julie Daniel Davis, Startup Co-founder and Adjunct Professor**

20. "Make education more inclusive by supporting schools that serve English language learners and students with special needs."

— **Aaron Makelky, High school teacher, AI integration consultant**

21. "Make education more inclusive by eliminating gatekeeping and openly sharing your knowledge and resources!"

— **Kee Jones, K-12 AI Strategist and Facilitator**

22. "Reflect about whether they are excluding anyone in their approach, be humble about that, and improve efforts to be inclusive. This could mean rethinking the whole content, process, media, language, and timeline of education."

— **Brian Moynihan, CEO**

23. "Inclusivity starts with awareness and action in small, everyday moments—listening, supporting, and making space for everyone to learn & grow."

— **Ioannis "John" Anapliotis, Head of Nea Paideia School AI lab**

24. "Understanding the question's goal, it is difficult for me to identify just one universal proposal.

Each person and their situation are different, so there are many different ways to contribute to promoting inclusive education. In my opinion, the positions can vary from the passive attitudes, such as simply not harming the proposed initiatives in their environment, to the more active ones supporting and implementing actions for harnessing inclusive education."

— **Luis Herrero, Independent advisor and educator.**

25. "Believe that everyone has the right to live in a welcoming respectful environment."

— **Mireille Tabet, E-learning Expert & Game Designer**

26. "Understand that GenAI, agents, and graph databases with vector indexes can reduce the cost of building intelligent textbooks by four orders of magnitude within two years and help build them!"

— **Dan McCreary, AI Researcher**

27. "Make education more inclusive by providing access to voting rights."

— **Laurie Foley, Assistant Head of Senior School**

# Roots of Education

## Introduction

Throughout history, learning has been a tool for power that was often reserved for the privileged few.

In early civilizations like Egypt and Greece, education was mainly for elite males, while others were excluded based on class, race, or gender (Bowles & Gintis, 2002). However, when access to education expands, the ripple effects of social progress and equality expand with it. After all, progress is not only something experienced on a societal level, but also on a personal level.

Studies in neuroscience show that each learning experience we engage with strengthens neural pathways that improve memory, attention, and emotional regulation; all of which lead to better mental health and overall well-being (Sousa, 2016).

The results of education can be powerful, and, in many cases, transformative. Consider the story of Frederick Douglass, who escaped slavery and taught himself to read; his words helped dismantle a system of oppression and are now studied in over 75% of U.S. high schools (Gates, 2018). Another powerful example is Malala Yousafzai, who was persecuted for seeking an education, yet went on to become the youngest Nobel laureate. Today, her advocacy is helping to expand educational opportunities for over 130 million girls worldwide (UNESCO, 2022).

Stories like these show that education has the power to change lives and transform societies. For this power to work, we must be intentional. That means designing learning spaces that break down barriers, uplift culturally responsive teaching, and create inclusive environments where all learners feel they belong.

*"The importance of the right to education reaches far beyond education itself. Many individual rights are beyond the grasp of those who have been deprived of education, especially rights associated with employment and social security."*

**- Katarina Tomaševski**





# Education as Empowerment for Change

Education plays a critical role in shaping society.

Strong education systems foster critical thinking, creativity, and informed decision-making. With access to quality education, individuals gain the skills necessary for personal development and career advancement.

AI is transforming the way we live and work. As technology continues to evolve, so does the job market. Many roles that once required human labor can now be performed by machines and automation.

This wave of change isn't new. Society has experienced similar shifts through past industrial revolutions. What sets today's AI-driven transformation apart is the unprecedented speed and the broad impact across multiple generations.

The rise of AI is capturing the attention of parents, students, and teachers around the world. As the pace of innovation accelerates, it's more important than ever to reinforce critical thinking as a core educational priority.



# Critical Thinking & Inclusive Practices



Dr. Facione, a leading scholar in the discipline of critical thinking, highlighted the skill of critical thinking as a *“purposeful, self-regulatory judgement that results in interpretation analysis, evaluation, and inference”* (Facione, 1990, p.3). Educators who apply critical thinking into their instructional design develop supportive relationships with their students and create a cultural climate that optimizes learning.

This includes practices such as creating feedback loops, adapting to learning styles, and rejecting deficit-based mindsets that often label students from marginalized backgrounds as “less capable” (Darling-Hammond et al., 2020).

In addition to applying critical thinking to create inclusive learning experiences, it's essential to foster positive reinforcement among students themselves. This includes equipping them with the tools they need to navigate the rapid advancements in technology. After all, as we have seen with recent advances in AI technologies, it is not only capable of mimicking certain human abilities through automation, it can also pass as human.

Take this study, for example: researchers at the University of California, San Diego, examined how effectively humans can distinguish between AI-generated and human-generated text. A sample of 284 individuals engaged in five-minute text conversations with both a human and an AI model. The findings revealed that participants believed the AI-generated conversations were human 73% of the time (Metcalf, 2024).

Without critical thinking and media literacy skills, students are left vulnerable to predatory or malicious behavior from bad actors. This highlights the urgent need to rethink how we approach education. Now, you might be thinking to yourself, *“Have we not made enough progress in our world to make education equitable and inclusive?”*

Here are real-world stats to answer that for you.

## Educational Barriers & Discrepancies

About 86% of worldwide adult population can read and write basic text. However, some geographical regions, especially parts of Africa and Asia, still face challenges (UNESCO, 2023). Even though most modern jobs require digital skills (such as using computers or smartphones), only about one in three people have strong enough digital abilities to comfortably handle these tasks (National Skills Coalition, 2023). Schools around the world also face uneven access to technology: most high schools (76%) have classroom computers, but less than half (40%) of elementary schools can reliably access the internet. Additionally, while many people understand they learn differently from one another, fewer than half of students globally have been taught about their own learning styles, indicating there's still room to improve how schools help students understand their own learning strengths (OECD, 2018).

Systemic barriers play a significant role in shaping someone's learning path. Research indicates that socioeconomic status (SES) is a significant predictor of academic achievement. Lower academic performance and slower rates of academic progress are linked to lower SES when compared to those in higher SES communities (American Psychological Association, 2017). Poverty is a significant predictor of the digital divide, which adversely affects educational access and quality (Global Citizen, 2020). In Malawi, the average first-grade classroom accommodates 130 students, highlighting severe overcrowding due to limited resources. In 2022, roughly 24 million Americans lacked access to the internet which negatively impacted online learning (van de Werfhorst, Kessenich, & Geven, 2022).

This begs the question:  
*How do we create experiences that include learners from inadequate infrastructure, language barriers, digital divides, and displacement?*

# Reshaping the Landscape of Education

The United Nations has publicly shared a blueprint for tackling 17 Sustainable Development Goals (SDG), one of which is SDG #4: Quality Education.

This goal aims to ensure that inclusive and equitable education of quality is available to all so that individuals have a fair chance at lifelong learning and the opportunities that follow. Today we know that over 75% of the global population lack basic literacy skills (UNESCO, 2023). In the absence of these efforts, 300 million students would be at risk for lacking basic math skills. Both literacy and a basic understanding of math are essential to thrive in a technology-led world.

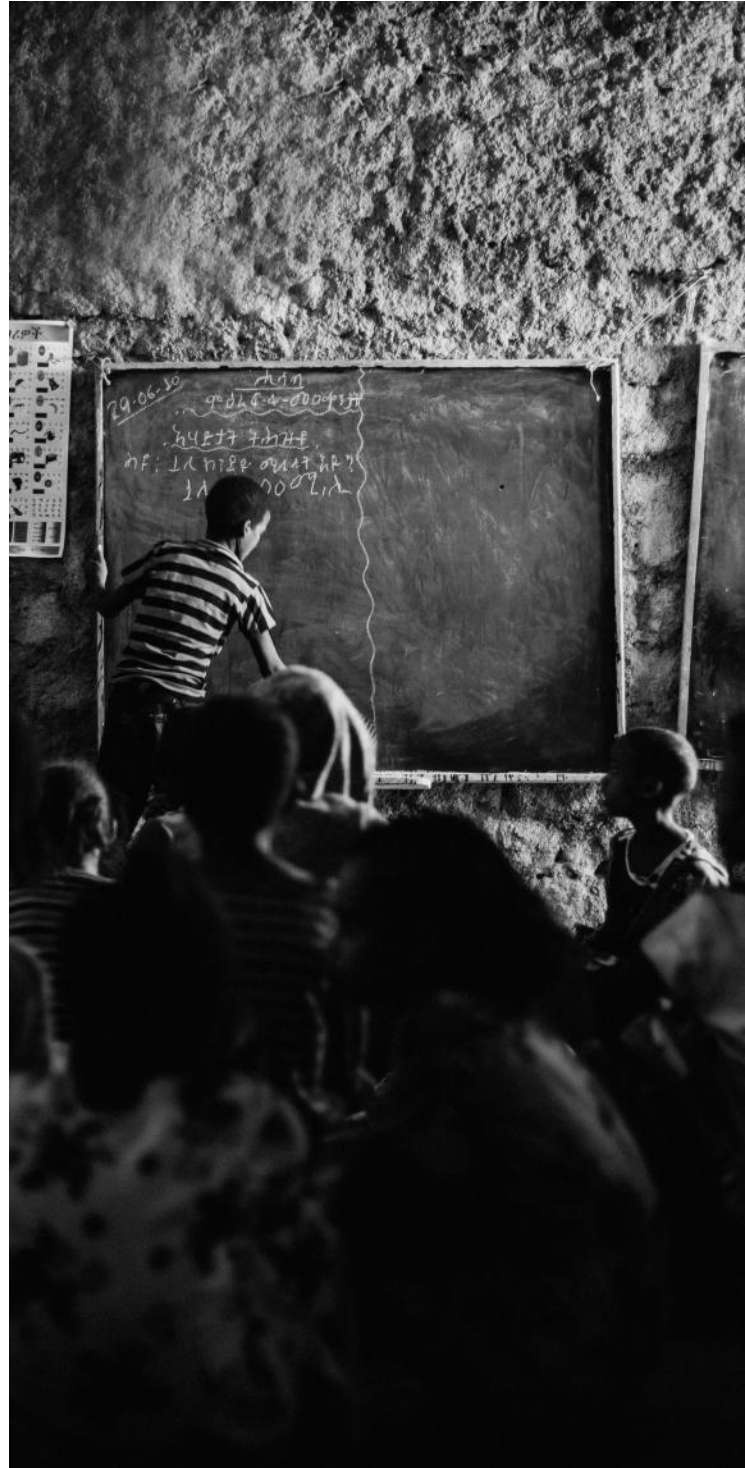
The acceleration of AI technologies has shifted the skills landscape, emphasizing the need for lifelong learning, digital literacy, and interdisciplinary thinking. Education is no longer just about acquiring knowledge for the sake of doing well on an exam. The way we educate today will require challenging students to learn how to adapt to constant change, evaluate outputs, and engage ethically with emerging technologies. It will also require extensive conversations beyond classroom walls across teachers, students, and their families.

## The Value of Global Perspectives

We understand the value of community and believe that multiple perspectives must be considered when addressing complex challenges, such as supporting the development of inclusive learning environments around the world.

With this in mind, the SWARM community launched Global Perspectives, a virtual think tank designed to bring together experts in education, AI, instructional design, and inclusive learning.

The focus on education and AI emerged from a unique experience: hosting a virtual flash mob aimed at discussing and solving current educational gaps.





# Methodology

To conduct a virtual live brainstorming session and set the stage for the facilitation of a dynamic think tank, we took the development of a clear methodology seriously. Here's what we did.

With support from our platform sponsor, Unanimous.ai, we developed a series of four questions. Over a 12-minutes, each question drew out participants' expertise on creating inclusive learning environments, with and without the usage of AI technologies. After responding, participants were asked to justify their reasoning, generating proactive mental friction to debate emerging ideas, prioritize them, and produce well-ranked recommendations.

Some background on why we chose to partner with, and solicit sponsorship from the crew at Unanimous.ai may help provide context.

The organization, Unanimous.ai, was inspired by how schools of fish move and make decisions together. As a result, they developed several solutions powered by Conversational Swarm Intelligence (CSI) to help groups of individuals share ideas and make decisions by breaking-down large facilitation sessions into smaller discussion groups. Each group is then monitored by 'AI helpers' to keep conversations productive (Rosenberg, Schumann, Dishop, Willcox, Wooley, & Mani, 2025).

One of the platforms that Unanimous.ai created was Thinkscape. Thinkscape is designed to host and analyze all CSI from a swarm of conversations. All interactions take place via an anonymous chatroom-like setting that allows every individual to have the space to voice their thoughts without influence from the loudest voice in the room.

Each thinkscape session is structured into three key phases that guide participants through a dynamic and collaborative decision-making process:

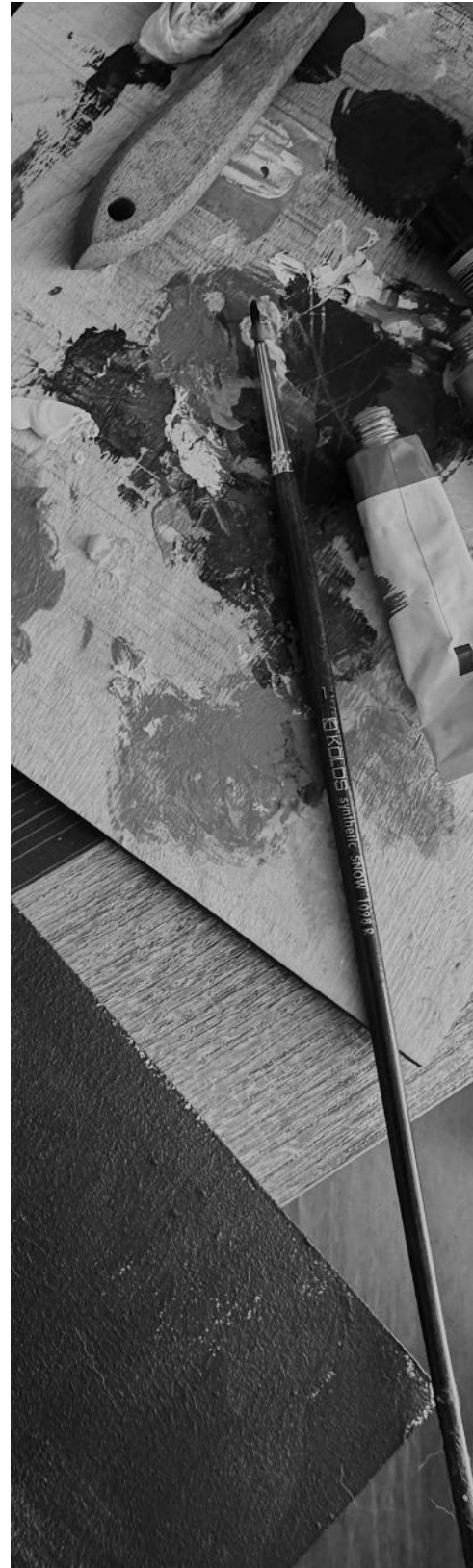
**1.Deliberation:** Participants break into small think tanks for brainstorming and real-time discussion. Each group generates and shares their ideas across the broader network of think tanks, encouraging diverse input and cross-pollination of perspectives.

**2.Narrowing:** The system highlights the top 7-10 ideas based on initial input. The groups then analyze these leading concepts, offering feedback and rating them to refine and elevate the most promising solutions.

**3.Convergence:** Focus shifts to the top 2-4 ideas. Participants engage in a final round of evaluation and discussion to determine overall rankings. The system then calculates support and conviction scores to reflect group consensus and confidence levels.

Throughout the session, a moderator actively monitors engagement, response patterns, and group sentiment via a real-time dashboard, ensuring a smooth and balanced flow of discussion across all groups.

After the session ends, the platform delivers an aggregate summary of the results, and a play-by-play of the data collection from an administrative view.





# Process Behind the Tools

## Demographics

For the Global Perspectives event, we gathered a total of 35 passionate individuals from across six continents.

The majority of participants were based in the United States. Countries with multiple attendees included Canada, Nigeria, and Pakistan.

Additional participants joined from the Bahamas, Bolivia, El Salvador (Wahool!), France, Italy, Japan, Lebanon, the Netherlands, Spain, Uganda, and (most surprisingly) Vietnam, despite the event taking place late relative to their time zone.

This diverse distribution underscores a broad, cross-continental interest in educational initiatives and highlights the global and local contexts influencing participation.

Country	Cities
Bahamas	Nassau
Bolivia	Cochabamba
Canada	Newmarket, Toronto
El Salvador	San Salvador
France	Nice
Italy	Rome, Turin
Japan	Tokyo
Lebanon	Beirut / West Bekaa
Netherlands	Amsterdam
Nigeria	Lagos, Abuja
Pakistan	Islamabad
Spain	Alicante
Uganda	Kampala
United States	Minneapolis, Atlanta, New York City, Los Angeles, Jersey City, Charlotte, Hoboken, San Francisco Bay Area, Houston, Union City, Stamford, Hartford
Vietnam	Ho Chi Minh City



# Interpreting the Structured Data

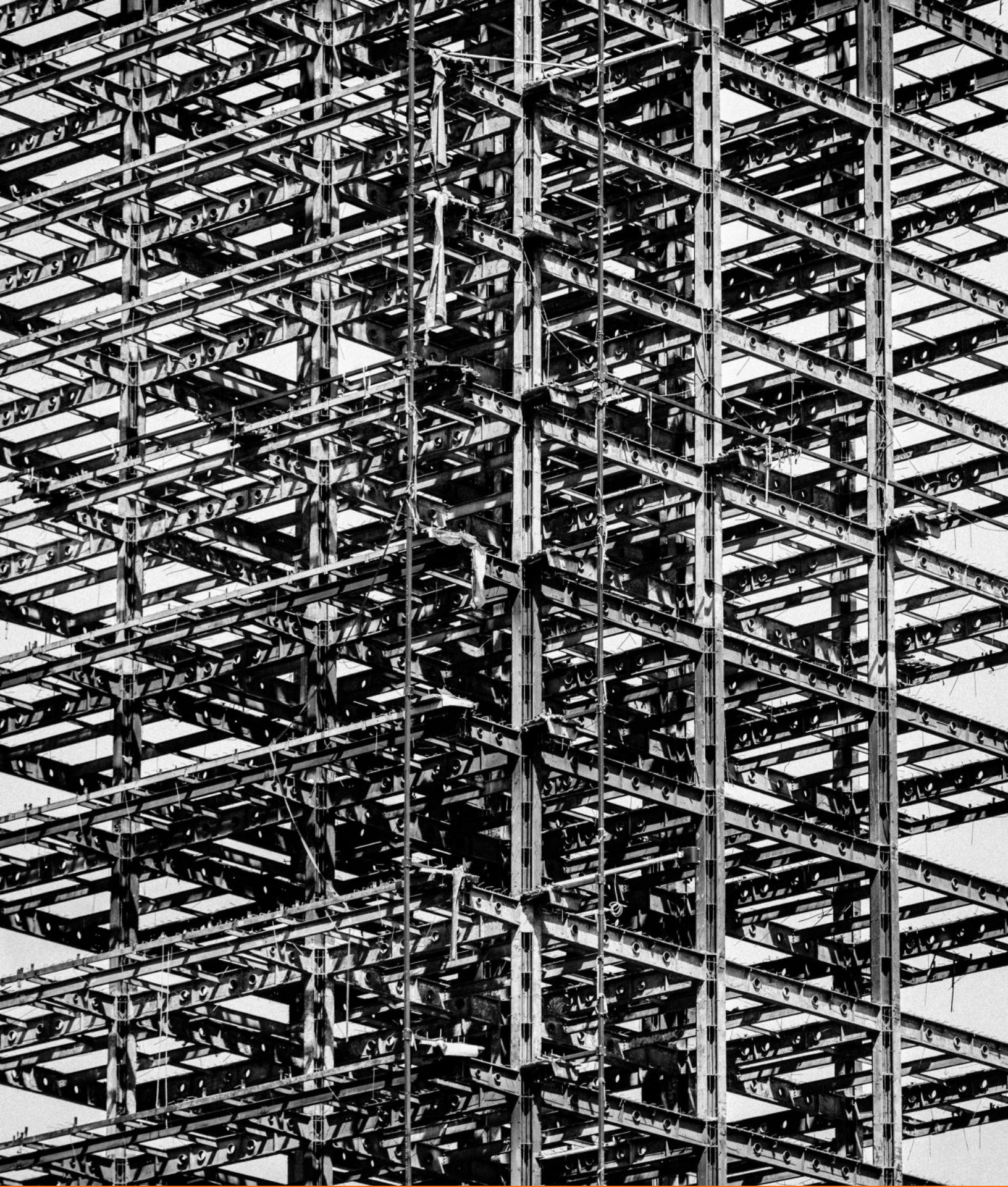
As stated on page 16 in the Methodology section, the four questions we posed to participants yielded incredibly rich results. The data is a mine field of insight, and to make it actionable, we've provided a detailed synthesis of the findings in the sections that follow.

To interpret the analysis, it's important to understand the key metrics used:

- **Assertions:** The reasons, justifications, or explanations expressed by participants as to why they believe an answer option is a good or bad answer to the question posed.
- **Conviction:** The fraction of positive group sentiment for the subset of options considered during Convergence. If the full set of options is considered during Convergence, Conviction values will be the same as the Support values. Conviction helps us understand not just what people believe, but how strongly they believe it and how that belief aligns with group consensus.
- **Engagement:** The fraction of participants that have mentioned an answer (directly or indirectly) or expressed sentiment towards that answer.
- **Exposure:** The fraction of participants with an idea mentioned in their local room by at least one user.
- **Percent of Conversation:** The proportion of the total message length spent discussing a given answer.
- **P-value Compared to the Top Choice:** A statistical test to determine the significance of the top choice over the given answer. Using a bootstrapping method, this test determines the proportion of bootstraps in which the given answer receives higher Support than the sample's top answer.
- **Sentiment:** The sentiment for each user represents the degree to which they believe an answer is the best answer to the question. It ranges from -3 to 3, where a sentiment of 3 indicates the user strongly believes in the answer choice, and a sentiment of -3 indicates the user strongly disagrees with the answer choice. A sentiment of 0 indicates neutrality.
- **Statistical Certainty:** A statistical test to determine the confidence that the answer is the true top choice of the participants. Using a bootstrapping method, this test determines the proportion of bootstraps in which the given answer has the highest support.
- **Support:** Calculated as the fraction of positive group sentiment for each option, across the full set of participants. Items that have a net negative sentiment are assigned 0% Support.
- **Top Answer Choices Considered:** Shows the answers that were considered during Convergence.

Read on for a deep dive into the findings.







# The Price of Learning: Educational Barriers to Equitable Education





What are the most significant barriers to achieving equitable access to education, and why?



## Stats & Observations:

### What are the most significant barriers to achieving equitable access to education, and why?

#### **FINANCIAL BARRIERS DOMINATE EDUCATIONAL ACCESS:**

The first question posed during the Global Perspectives session was:

“What is the most significant barrier to achieving equitable access to education, and why?”

Based on participant responses, financial constraints faced by underserved communities emerged as the most significant barrier. Many noted that limited funding directly affects access to both education and technology, further widening existing inequalities. Without adequate financial resources, communities struggle to provide the infrastructure and tools needed for equitable learning environments. Participants emphasized that increased funding is essential to level the playing field and ensure all learners have access to quality education.

#### **TWO KEY FACTORS EMERGED:**

##### **1. Financial Barriers**

- Statistical Certainty: 88%
- Conviction Score: 62%
- Support: 21%

High conviction indicates strong group consensus on financial barriers. The gap between support (21%) and conviction (62%) suggests that while fewer people discussed this issue, those who did were highly aligned in their views.

##### **2. Technology Access: Both Barrier and Solution**

- Statistical Certainty: 12%
- Conviction Score: 38%
- Support: 13%

Moderate conviction indicates some group consensus but with more diverse viewpoints. The lower conviction compared to financial barriers suggests more debate about technology's role. The gap between support (13%) and conviction (38%) indicates that while technology access is discussed less frequently, there's still significant agreement among those who do discuss it.

#### **THE AI PARADOX:**

In our session, we observed that AI presents a fascinating paradox. Some view it as a means for leveling the playing field, while others note it could raise entry barriers for careers or perpetuate bias toward privileged groups. This reflects broader societal debates about technology's impact on inequality.

The voices of the educators who brought their thoughts to the Global Perspectives event tell a story of the educational inequities worldwide are driven primarily by economic factors but complicated by geographic, cultural, and technological considerations. It suggests solutions must be multifaceted, addressing not just funding but also infrastructure, teaching approaches, and cultural barriers, ultimately highlighting the need to explore alternative paths to foster inclusive education.

Personalized learning cannot flourish without electricity, infrastructure, and funding. At the root lies a cruel consequence: if you can't pay, you often can't learn. While the barriers are complex, they are not perpetual. They are clear reminders of where to focus, invest, and act on collectively. They are reminders to build and engage in your community to create opportunities for one another. It's clear that a larger effort from those with financial power is required to make monumental shifts, but here are some steps that the everyday person can take today to start driving change.

## Recommendations:

### What are the most significant barriers to achieving equitable access to education, and why?

#### YOUR ROLE IN THIS JOURNEY:

Whether you're an educator, policymaker, or community leader, you have a unique opportunity to be part of this transformation. The data shows us the path, but it's your actions that will create the change.

#### THREE STEPS TO IMMEDIATE IMPACT:

##### 1. Think Big, Start Small:

Begin with one community, one school, one family and let success stories multiply and inspire others. Every small victory contributes to the larger goal. Engage with local school boards and policymakers to promote fair distribution of resources and increased investment in underfunded schools. Provide students and families with information and guidance in navigating financial aid options and scholarship opportunities.

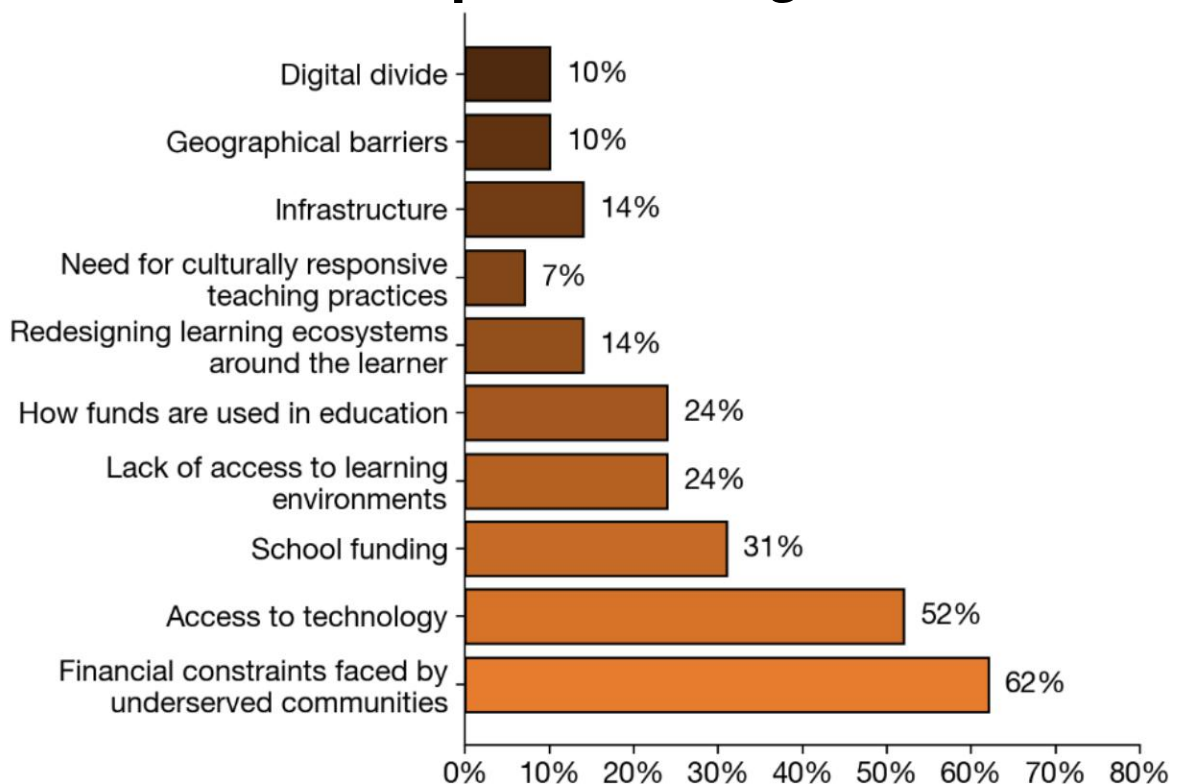
##### 2. Build Bridges, Not Barriers:

Connect resources with those who need them most and create partnerships that amplify impact. Transform challenges into collaborative opportunities. Contribute to or volunteer with organizations that provide school supplies, technology, or meal programs to students in need. Collaborate with local businesses and organizations to provide additional support and opportunities for students.

##### 3. Measure Progress, Celebrate Growth:

Track both quantitative and qualitative improvements and share success stories to inspire others. Use data to guide, not limit, your vision.

## Additional Themes Explored Through the Session



# **Education as an Investment for both Teachers & Learners to Thrive**





What are the most effective frameworks for helping educators support learners in areas with limited educational resources and digital tools, and why?



## Stats & Observations:

What are the most effective frameworks for helping educators support learners in areas with limited educational resources and digital tools, and why?

### THE HEART OF REDESIGN:

The second question asked was:

“What are the most effective frameworks for helping educators support learners in areas with limited educational resources and digital tools, and why?”

From the discussions, a clear narrative emerged around the evolving educational landscape—highlighting the intersection of three critical elements: teacher expertise, personalized learning approaches, and thoughtful technology integration.

### TRANSFORMATION OF THE TEACHER ROLE:

Experts agree that teachers play a pivotal role in education, some key themes from the conversation demonstrated the strong belief that teachers are key players which add consultation value and have a unique lens on the local challenges faced by learners in their classrooms.

- Statistical Certainty: 51%
- Conviction Score: 39%
- Support: 18%

This is the most validated approach in the data (51% certainty). Teachers are seen as the critical bridge between educational theory and practice. While AI can be a tool to accelerate learning, teacher involvement and expertise are critical to success to guide learning.

### PERSONALIZED LEARNING & TECHNOLOGY INTEGRATION:

Another theme that surfaced was the need for project based learning. Traditional learning has historically followed the pattern of using timed multiple choice tests that don't necessarily provide learners with the opportunity to tie their learnings to real-world experiences which are essential for thriving beyond the classroom setting.

- Statistical Certainty: 31%
- Conviction Score: 35%
- Support: 16%

### ADDRESSING THE SYSTEM NOT THE SYMPTOM:

These conversations embody a holistic approach that embraces the full spectrum of learning, honoring both the formal lessons of the classroom and the informal lessons that happen at home. Other thoughts that were captured were establishing trust and accessibility in order to develop systems that meet the triad of students, education, and teachers where they are.

Overall, these conversations unveiled a multifaceted view of education that values teacher expertise, personalization, real-world relevance, and critical thinking while acknowledging resource constraints. It suggests a balanced approach to technology integration that maintains human relationships and addresses accessibility concerns. The data reflects a shifting educational paradigm that combines traditional human-centered values with progressive approaches to learning and technology.

This led us to ponder the following questions:

- What if we rebuilt education around the learner, not the system?
- What if we stop asking how to standardize success?
- What helps each learner thrive?

## Recommendations:

What are the most effective frameworks for helping educators support learners in areas with limited educational resources and digital tools, and why?

### YOUR ROLE IN THIS JOURNEY:

The insights from this analysis are not just for policymakers, they offer practical steps that everyone can take to improve education in their communities. Here's how you can make a difference:

### FOR PARENTS AND GUARDIANS:

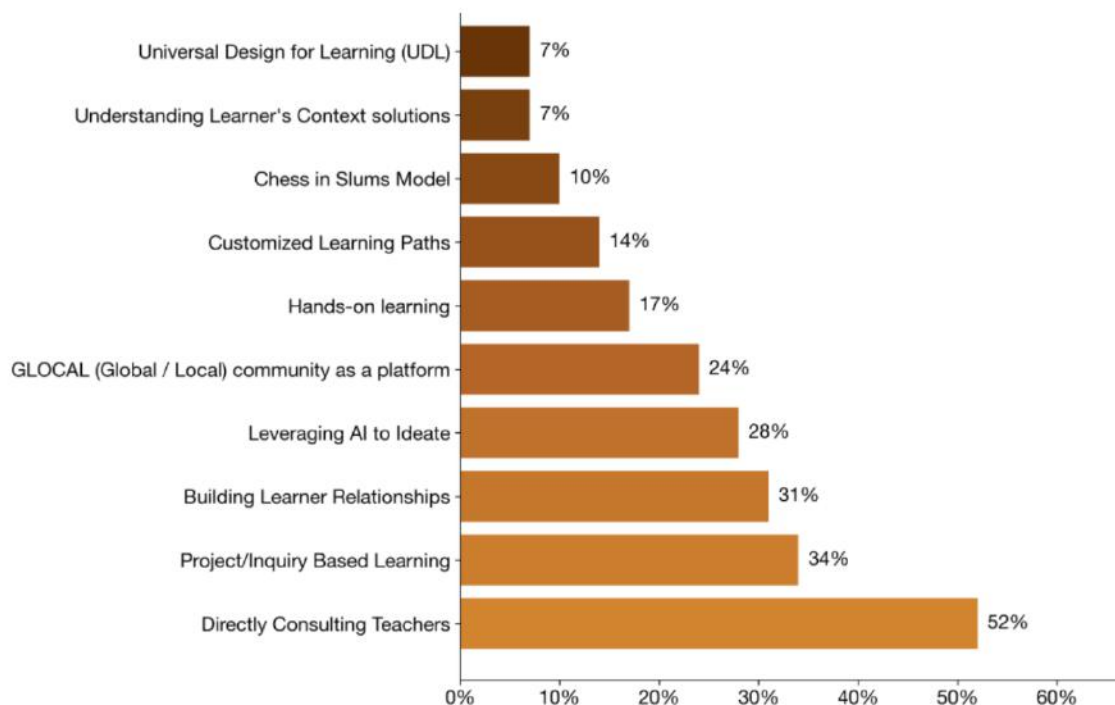
Support Home-Based Projects; Encourage learners to undertake projects at home that align with their learning interests. This reinforces the principles of Project-Based Learning (PBL) and helps them connect learning to real life. Foster Inquiry at Home; Create an environment where questioning is welcomed, not taboo. Support your child's curiosity and exploration to nurture a lifelong love of learning.

### FOR EDUCATORS AND COMMUNITY MEMBERS:

Facilitate Local PBL Initiatives; Work with schools to implement community-based projects that address local issues. This enhances the relevance of learning and increases student investment. Promote Inquiry-Based Activities; Integrate curiosity-driven learning into daily lessons by encouraging questioning and exploration. Advocate for Learner-Centered Policies; Engage with school boards and policymakers to support frameworks that prioritize student agency and adaptability.

By taking these steps, you can help bridge the gap between educational theory and practice, foster critical thinking, and build stronger, more supportive learning communities. Every action, no matter how small, contributes to a more effective and equitable educational future.

## Additional Themes Explored Through the Session





# Reimagining Education through Co-Designing with Parent-Educator Partnerships



What are the best ways  
to include learners and  
their families in shaping  
education systems and  
solutions, and why?



## Stats & Observations 1:

### What are the best ways to include learners and their families in shaping education systems, and why?

#### **FAMILY AND COMMUNITY ENGAGEMENT:**

The third question asked was:

“What are the best ways to include learners and their families in shaping education systems, and why?”

Experts agreed that educational success requires an ecosystem approach; integrating families, educators, and technology. While parent engagement is a critical foundation, it remains a persistent challenge due to work-related time constraints and limited access to resources. This highlights the need for support for both educators and parents in navigating modern educational approaches.

Moving beyond simply informing parents about school activities, fostering a shared understanding of educational goals and methods can help co-create more inclusive and effective learning environments. The data suggests a fundamental shift in educational paradigms that is focused around student agency and empowerment:

- Statistical Certainty: 81%
- Conviction Score: 61%
- Support: 26%

#### **MANAGING CHANGE THROUGHOUT THE ECOSYSTEM:**

One central theme discussed was that education improves when families are co-creators. Parents don't need to have advanced degrees to be educational allies. However, parents need to be seen, included, and supported through co-designed projects, community workshops, accessible training, along with open and consistent channels of communication. Educational approaches will need to respond to real needs and consider skills that set students up for success beyond the classroom.

There is a stark reality to be acknowledged: several parents face harsh constraints, such as parents working multiple jobs, single parents, and caregivers of children with undiagnosed or diagnosed disabilities face extraordinary demands on their time and energy. Traditional expectations of parent involvement often privilege those with flexible schedules, financial stability, and robust support systems. Therefore, as a society, we may benefit from rethinking the definition of 'engagement' to meet parents and learners where they are. Promoting two-way adaptation, where systems adapt to families (not just the other way around) and establishing shared responsibility across communities.

#### **ADAPTATIONS THAT MEET FAMILIES WHERE THEY ARE:**

##### **Micro-Engagement Opportunities:**

Brief, high-impact touchpoints that respect time limitations (5-minute check-ins vs. hour-long meetings). Asynchronous participation options that allow engagement on parents' schedules. Mobile-friendly communication that can happen during transit or brief breaks.

##### **Resource-Conscious Support:**

No-cost participation options with childcare, transportation, and meals provided alleviate financial constraints. Multiple access points (digital, phone, in-person) based on what parents already have. Compensation for parent expertise and participation when possible.

While parent engagement is crucial (81% statistical significance), current models often exclude the most vulnerable families. By reimagining engagement through an equity lens, we can create pathways for all families to contribute to and benefit from educational partnerships, regardless of their circumstances.



## Stats & Observations 2:

What are the best ways to include learners and their families in shaping education systems, and why?

### **Personalization: Restructuring Educational Systems**

Another theme explored personalized learning; recognizing that standardized approaches fail to address diverse student needs. The discussion highlighted the importance of adapting educational strategies to individual family circumstances and how recognizing cultural, socioeconomic, and linguistic differences influence the learning environment.

- Statistical Certainty: 19%
- Conviction Score: 39%
- Support: 17%

### **ADDITIONAL THEMES THAT WERE EXPLORED INCLUDE:**

#### **Assessment Reform:**

Moving from standardized testing toward portfolio-based and authentic assessment approaches that reflect lifelong skills such as leadership, effective decision making, & critical thinking.

#### **Curriculum Flexibility:**

Developing modular, responsive curricula that can be adjusted to customized to individual needs and accommodate for diverse learner backgrounds.

#### **Classroom Reorganization:**

Physical and temporal restructuring of learning environments to accommodate different learning paths.

#### **Technology Investment:**

Strategic technology deployment focused on enabling personalization at scale. Using data to make informed adaptations such as learning analytics can identify patterns and needs that inform personalization strategies.

#### **Skills over Scores:**

The emphasis on adapting to individual circumstances and recognizing differences is well-supported. Traditional assessments often prioritize knowledge retention over skill application, while stakeholders emphasized the need for evaluating "lifelong skills such as leadership, effective decision making, & critical thinking." Authentic assessment creates meaningful feedback that can inform personalized learning paths, creating a virtuous cycle of improvement.

## Stats & Observations 3:

What are the best ways to include learners and their families in shaping education systems, and why?

### **STUDENT AGENCY: REIMAGINING POWER STRUCTURES:**

When examining the statistical evidence for strategies directly focused on student agency as an educational approach, the data showed less than 1% statistical significance. This contrasts sharply with the high conceptual support of 60% for student responsibility and choice. The gap between conceptual support and statistical certainty suggests that while stakeholders strongly believe in the importance of student agency, more rigorous evidence is needed to validate its effectiveness compared to alternative approaches. However, a closer look at the data reveals key elements that do support agency.

### **KEY ELEMENTS THAT MAKE STUDENT AGENCY MORE EFFECTIVE:**

#### **Decision-Making Participation:**

33% of responses emphasized directly involving learners in solutions, recognizing students as active participants rather than passive recipients in the educational process.

#### **Responsibility and Choice:**

A substantial 60% of stakeholders noted the importance of encouraging student responsibility and choice, making this the most strongly supported aspect of student agency.

#### **Independence Development:**

20% identified that student agency "prevents parental intervention, promotes independence," highlighting the role of agency in developing self-sufficient learners.

#### **Future Leadership Preparation:**

The perspective that "students are future leaders" (100% within its category) connects student agency to broader societal outcomes beyond immediate academic performance.

### **ADDITIONAL AREAS OF CONSIDERATION FOR STUDENT AGENCY:**

Implementing student agency faces several concerns, one of which is equity. Not all students enter educational settings with the same capacity for self-direction. This may require additional scaffolded approaches and support structures rather than complete freedom. An additional challenge is alignment with assessments.

Traditional assessment systems often measure compliance rather than agency, creating misalignment between goals and evaluation methods. Finally, enhancing student agency requires a considerable cultural shift in the educational culture and mindsets about the roles of teachers and students.

## Stats & Observations 4:

### What are the best ways to include learners and their families in shaping education systems, and why?

#### **TRUST BUILDING AS THE FOUNDATION OF EDUCATIONAL CHANGE:**

The data reveals that trust is not merely a "nice-to-have" feature but a fundamental prerequisite for educational effectiveness. Trust functions as essential infrastructure for educational success, with 33% of responses noting that participatory processes "increase trust in institutions."

This infrastructure operates bidirectionally, flowing between families and schools, students and teachers, and among all stakeholders, creating a network of relationships that enables educational systems to function effectively.

#### **CRITICAL COMPONENTS THAT CONTRIBUTE TO TRUST DEVELOPMENT:**

##### **Authentic Listening:**

50% of responses emphasized "listen and understand parents/ students' voices" as essential for trust building. This suggests that demonstrating attentiveness to stakeholder perspectives is a primary trust-building mechanism.

##### **Responsive Action:**

Multiple data points indicate that listening alone is insufficient; trust develops when listening is followed by visible, responsive action. One specific individual noted within the session that asking authentic questions and applying insights "builds trust and community involvement" (100%).

##### **Transparency:**

Clear communication about educational goals, methods, and outcomes appears consistently in trust-related responses, with an emphasis on "transparent reporting of survey results and their application."

##### **Consistency:**

While not explicitly quantified in the data, the emphasis on "open and consistent channels of communication" suggests that reliability and predictability are important trust factors.

##### **Respect for Expertise:**

The data indicates that trust develops when all parties' expertise is acknowledged, including both the educators' professional knowledge and families' deep understanding of their children.

#### **ADDRESSING ONE PROBLEM AT A TIME:**

Overall, the data acknowledges that parent engagement faces significant challenges, particularly for families with limited resources, time constraints, and complex caregiving responsibilities. However, true educational equity requires addressing these barriers instead of accepting them as insurmountable obstacles.



## Recommendations:

### What are the best ways to include learners and their families in shaping education systems, and why?

#### **YOUR ROLE IN THIS JOURNEY:**

The data shows that educational transformation requires participation from all stakeholders. While system-level changes require collective action, your individual engagement matters significantly. By consciously choosing how you show up in educational spaces as an advocate, bridge builder, trust cultivator, co-creator, and learning model. You contribute to the educational ecosystem that shapes not just individual outcomes but our collective future.

Remember that the highest statistical certainty (81%) was associated with educating both parents and teachers. This suggests that your own learning about education may be the most powerful contribution you can make to educational improvement.

#### **FOR PARENTS AND GUARDIANS:**

##### **Participate in School Activities:**

Attend school events, workshops, and meetings to stay informed and involved in your child's education.

##### **Communicate Regularly with Educators:**

Establish open lines of communication with teachers to discuss your child's progress and collaborate on strategies to support learning at home.

##### **Advocate for Inclusive Policies:**

Engage with school boards or parent-teacher associations to advocate for policies that promote family involvement and address the specific needs of your community.

#### **FOR EDUCATORS AND COMMUNITY MEMBERS:**

##### **Facilitate Family Workshops:**

Organize sessions that equip families with tools and knowledge to support children's learning effectively.

##### **Implement Family Engagement Frameworks:**

Adopt structured approaches that encourage meaningful family participation in decision-making processes.

##### **Promote Two-Way Communication:**

Utilize platforms and strategies that allow for reciprocal communication between schools and families.



# **Redefining How We Teach for Learner Empowerment**





What are the best ways  
to empower learners to  
create their own  
personalized educational  
paths with emerging  
technologies, and why?



## Stats & Observations:

What are the best ways to empower learners to create their own personalized educational paths with emerging technologies, and why?

### **SHIFTING ROLES: FROM AUTHORITY TO COLLABORATOR:**

The fourth and last question asked was,

"What are the best ways to empower learners to create their own personalized educational paths with emerging technologies, and why?"

Across a broad landscape of conversations, one message emerged with the highest consensus: "Educators must evolve from authoritative figures to guides."

- Statistical Certainty: 54%
- Conviction Score: 51%
- Support: 26%

### **Additional things, experts said about the educational paradigm shift:**

- 22% cited the importance of shifting from authoritarian roles to facilitators
- 17% emphasized empowering learners through guidance
- 13% highlighted how this promotes autonomy and self-reliance.

Smaller but meaningful segments of the data highlighted personalized exploration, learner-led pathways, and metacognitive engagement. This approach empowers students and parents to design more tangible, individualized paths for success beyond traditional academic settings. As we move deeper into the AI era, learners will have more opportunities to take ownership of their growth.

### **AI AS A COLLABORATIVE TOOL, NOT A REPLACEMENT FOR EDUCATORS:**

Experts in the session viewed AI as a powerful amplifier and personalization engine for education, and not as a replacement for human educators. There was unanimous agreement that AI should serve as an educational consultant and a tool for reducing administrative burdens. This reinforces the need for educational technology investments that augment, teachers, particularly in areas like personalization, progress monitoring, and routine tasks. By offloading these responsibilities, educators can shift their focus to the deeply human aspects of teaching: relationship-building, motivation, and emotional support.

### **CRITICAL THINKING AS CENTRAL OUTCOME:**

During the discussion, we observed an emphasis on critical thinking development and creativity across multiple categories suggesting these capabilities should be central rather than peripheral educational outcomes. Curriculum design should center problem-solving, analysis, and creative application rather than knowledge acquisition alone. Group work and experiential approaches (which are reflective of the demands in the current-day job market) appear particularly effective for developing these capabilities.

### **FINDINGS REINFORCE ESTABLISHED COGNITIVE DEVELOPMENT THEORIES:**

#### **Bloom's Revised Taxonomy:**

The preference for experiential learning (33%) and reflection/ analysis (33%) supports educational approaches that target the higher taxonomy levels (analyzing, evaluating, creating) rather than lower-order skills such as remembering, understanding (Krathwohl, 2002).

#### **Constructivist Learning Theory:**

The emphasis on hands-on approaches (33%) reflects constructivist principles where learners actively build knowledge through experience and experimentation rather than passive reception (Shah, 2019).

#### **Social Constructivism:**

The recognition of small group effectiveness (18%) connects to Vygotsky's zone of proximal development, where peer collaboration facilitates cognitive growth beyond what individuals might achieve independently (Saleem, Kausar, & Deeba, 2021).

## Recommendations:

What are the best ways to empower learners to create their own personalized educational paths with emerging technologies, and why?

### **YOUR ROLE IN THIS JOURNEY:**

These conversations identify clear actions educators can take to enhance the learner experience and promote autonomy by serving as collaborative guides, a key prerequisite for creating personalized learning paths. By advocating for authentic, formative, and growth-oriented assessment approaches while ensuring meaningful accountability, educators can better align educational outcomes with student needs.

### **FOR PARENTS AND GUARDIANS:**

#### **Support Personal Growth:**

Allow children to set personal learning goals.

#### **Let them Lead:**

Provide choices in learning activities to foster responsible decision-making skills.

#### **Reinforce Self-reflection:**

Encourage self-assessment to build reflective practices through conversations where the learner leads the conversation and discusses what their learning experience has been like.

#### **Leverage Technology:**

Explore AI-powered educational apps that adapt to your child's learning pace.

Set Learning Agreement with Screen Time: Monitor and discuss the use of AI tools to ensure they align with learning objectives.

#### **Prioritize Security:**

Stay informed about data privacy policies associated with educational technologies.

### **FOR EDUCATORS AND COMMUNITY MEMBERS:**

#### **Include Students in Decision-Making for Learning Objectives:**

Design classroom activities that allow students to choose and voice their opinion.

#### **Teach the Power of Community:**

Encourage collaborative learning to build community and shared responsibility.

#### **Listen and Challenge Growth:**

Provide constructive feedback that supports self-directed learning.

Embrace Technology as a Thought-Partner but not as a thought Replacement: Implement AI tools that provide real-time feedback and adapt to student performance.

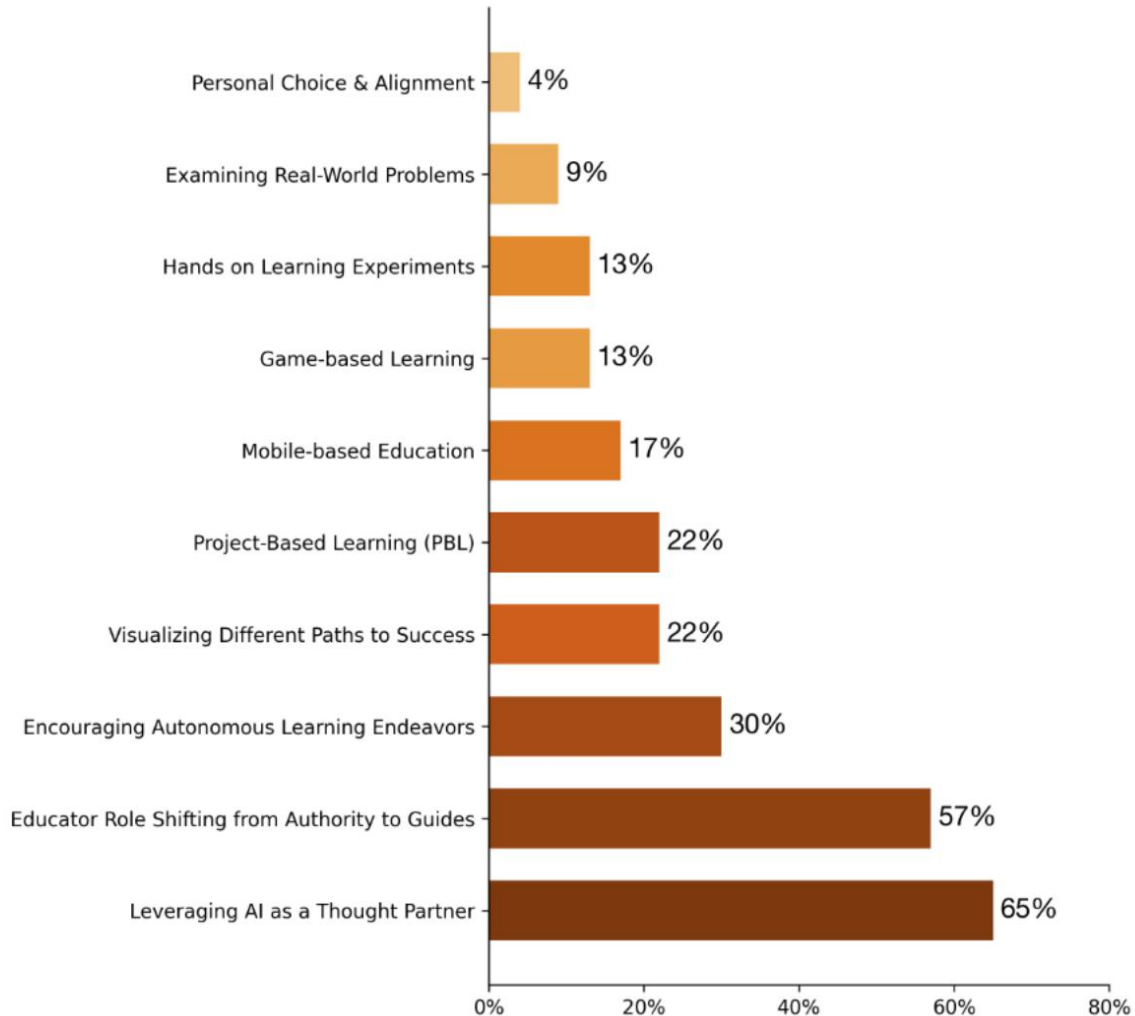
#### **Get Savvy with Metrics:**

Use AI analytics to identify learning gaps and inform instructional strategies.

#### **Remember that you are also a learner:**

Stay engaged in professional development to effectively integrate AI technologies into teaching.

# Other Themes Explored







# Final Thoughts... 1

## **THE PARADOX OF ACCESS AND INNOVATION:**

Our comprehensive analysis reveals a fundamental paradox in modern education: the very technologies that could democratize learning are often inaccessible to those who need them most. Financial constraints emerge as the dominant barrier (46% cite lack of devices and internet access), creating a cycle where economic disadvantages translate directly into educational ones. This digital divide is particularly pronounced in rural and remote areas, where infrastructure challenges compound financial limitations. However, technology also represents our greatest opportunity for transformation. When properly implemented, AI and digital tools can personalize learning, enhance learner's autonomy, and reduce administrative burdens for educators.

## **HUMAN-CENTERED INNOVATION:**

Teachers, Families, and Communities Across all analyses, a powerful consensus emerges; Technology alone cannot transform education. Teachers remain central to effective learning with their expertise, autonomy, and relationships forming the foundation of successful educational environments. As AI reshapes classrooms, teacher roles are evolving from knowledge authorities to learning facilitators, guiding students toward self-directed discovery.

Similarly, family and community engagement serve as critical infrastructure; especially in resource-constrained environments. Libraries and community spaces offer untapped potential to extend education beyond traditional classrooms and immerse learners in richer, more engaging environments.

## **PERSONALIZED LEARNING AS A STANDARD:**

Perhaps the most consistent finding across all analyses is the necessity of personalized, context-sensitive learning approaches. With 44% identifying context-based responses as powerful and responsive, and multiple indicators supporting the effectiveness of personalization, the data suggests this is not just a trend but a fundamental need in educational philosophy.

This personalization extends beyond content to include learning pathways, assessment methods, and support structures. The future of education lies not in standardized experiences but in recognizing and responding to each learner's unique needs, context, and potential. Consequently, the data not only highlights long-standing challenges but also offers a blueprint for what's possible in the Age of AI.



# Final Thoughts... 2

**EVERY INSIGHT POINTS TOWARD A SINGLE TRUTH:**

We already have what we need.

What we need now is to build trust and collaborate closely with those closest to the learning.

The age of command and control is over.

In its place, we must nurture curiosity, co-creation, and capability.

Through consistent practices and advocacy, we can prepare and enable students for lifelong learning.

Quality of life should be the true metric of success when evaluating the effectiveness of education.

You can start by building bridges; between parents, educators, and students.

Sometimes, it begins with something as simple as a conversation.

**So we, at the SWARM Community leave you with the following 3 questions:**

- 1.What actions will you take based on this information?
- 2.What organizations will you connect with to expand your network?
- 3.Who will you advocate for?





# References 1

American Psychological Association. (2017). Ethnic and racial disparities in education: Psychology's contributions to understanding and reducing disparities. <https://www.apa.org/ed/resources/racial-disparities>

Bowles, S., & Gintis, H. (2002). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. Haymarket Books. [https://openlibrary.org/books/OL5187762M/Schooling\\_in\\_capitalist\\_America](https://openlibrary.org/books/OL5187762M/Schooling_in_capitalist_America)

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>

Dudzik, K., & Pluta-Czachor, M. (2023). DTMethod: A new evidence-based design thinking methodology for effective teamwork. *Sustainability*, 15(5), Article 4187. <https://doi.org/10.3390/su15054187>.  
Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction (The Delphi Report)*. American Philosophical Association. <https://eric.ed.gov/?id=ED315423>

Gates, H. L. (2019). *Stony the road: Reconstruction, white supremacy, and the rise of Jim Crow*. Penguin Press.

Global Citizen. (2020). 10 barriers to education around the world. <https://www.globalcitizen.org/en/content/10-barriers-to-education-around-the-world-2/>

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice*, 41(4), 212–218. [https://doi.org/10.1207/s15430421tip4104\\_2](https://doi.org/10.1207/s15430421tip4104_2)

Mtebe, J. S., & Raisamo, R. (2014). Investigating students' behavioral intention to adopt and use mobile learning in higher education in East Africa. *International Journal of Education and Development using Information and Communication Technology*, 10(3), 4–20.

National Skills Coalition. (2023). New report: 92% of jobs require digital skills, one-third of workers have low or no digital skills due to historic underinvestment, structural inequities. Retrieved from: <https://nationalskillscoalition.org/news/press-releases/new-report-92-of-jobs-require-digital-skills-one-third-of-workers-have-low-or-no-digital-skills-due-to-historic-underinvestment-structural-inequities/>

OECD. (2018). *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*. Retrieved from: <https://www.oecd.org/publications/pisa-2018-results-volume-iii-acd78851-en.htm>

Saleem, A., Kausar, H., & Deeba, F. (2021). Social constructivism: A new paradigm in teaching and learning environment. *Perennial Journal of History*, 11(2), 403–421. <https://doi.org/10.52700/pjh.v2i2.86>



# References 2

Shah, R. K. (2019). Effective constructivist teaching learning in the classroom. Shanlax International Journal of Education, 7(4), 1–13. <https://doi.org/10.34293/education.v7i4.600>

Sousa, D. A. (2016). How the brain learns (5th ed.). Corwin Press.

UNESCO. (2022). Global education monitoring report 2022. UNESCO. (2022). Global education monitoring report 2022. <https://www.unesco.org/gem-report/en>

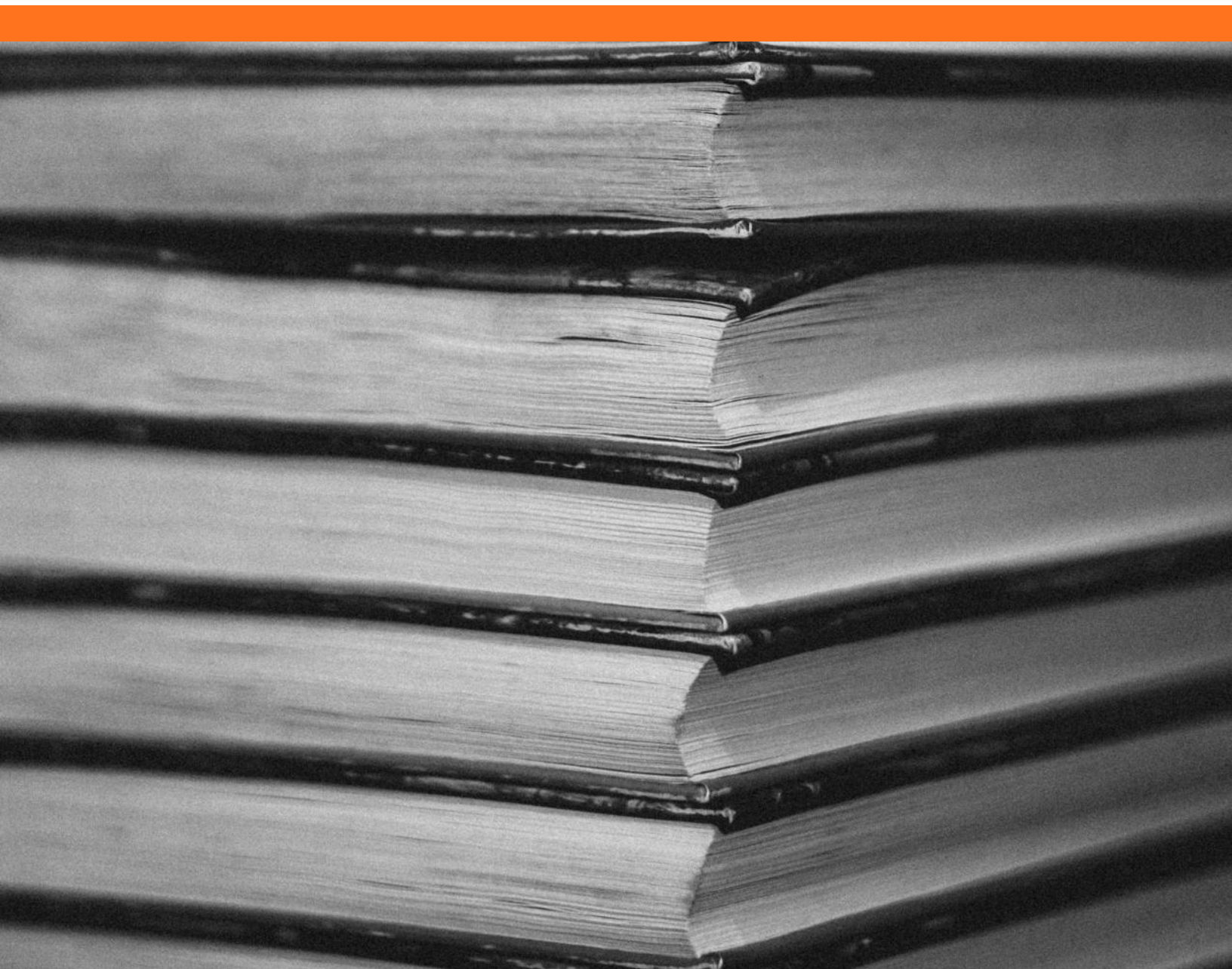
UNESCO. (2023). Literacy Rates Continue to Rise from One Generation to the Next. UNESCO Institute for Statistics. Retrieved from <https://uis.unesco.org/en/topic/literacy>

UNESCO Global Education Monitoring (GEM) Report. (2023). Technology in education: A tool on whose terms? Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000258942.locale=en>

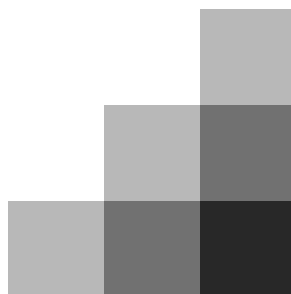
van de Werfhorst, H. G., Kessenich, E., & Geven, S. (2022). The digital divide in online education: Inequality in digital readiness of students and schools. Computers and Education Open, 3, 100100. <https://doi.org/10.1016/j.caeo.2022.100100>



# Appendix



We've compiled  
resources that may  
support your continued  
Investigation into  
equitable and inclusive  
education



# Online Communities

1. **AI for Education + Women in AI** (<https://www.aiforeducation.io/women-in-ai-ed>): A community aimed to bring together a diverse group of educators and leaders using AI to transform learning, improve teaching, and create more inclusive educational opportunities.
2. **AI4t Project** (<https://www.ai4t.eu/>): An Erasmus+ K3 project designed by France, Slovenia, Italy, Ireland and Luxembourg to contribute to training on AI in education for and by teachers and school leaders on a perimeter voluntarily restricted to mathematics, science and modern English language in high school (pupils aged 15-16).
3. **Edtech hubs like EARLI (European Academic Research in Learning & Instruction)** (<https://www.earli.org/>): Representing over 3000 members in more than 60 countries, EARLI is the biggest educational association in Europe.
4. **Educause** (<https://www.educause.edu/>): We are a nonprofit association and the largest community of technology, academic, industry, and campus leaders advancing higher education through the use of IT.
5. **Inclusive Schools Network** (<https://inclusiveschools.org/>): Offers a variety of tools, tips, and strategies to help evaluate and improve inclusive education.
6. **Junior Researchers in Education - JURE** (<https://www.earli.org/jure>): JURE is the network of Junior Researchers of EARLI and dedicated to the interests of all junior researchers in the field of learning and instruction.
7. **NYC CS4All Equity** (<https://sites.google.com/schools.nyc.gov/cs4all-equity?pli=1>): Drawing on pedagogies that recognize that differences should be treated as an asset for teaching and learning, the Equity Team works to build Culturally Responsive-Sustaining Education (CR-SE) into CS4All's core programming. Working collaboratively with academic experts and educators, we explore equity principles and directly apply a CR-SE framework\* to CS.
8. **Open Education Global** (<https://www.oeglobal.org/>): Open Education Global is a member-based, global, non-profit supporting the development and use of open education around the world.
9. **TIES Center** (<https://tiescenter.org/>): You will find tools to help you learn about inclusive education, inspire others, and plan lessons that work for all students. We focus on moving students from less inclusive to more inclusive educational environments.



# Local Resources

## **1.Academia in Your Country:**

Begin by reaching out to national or regional academic communities involved in educational research and policy.

## **2.ICT Asset Disposition Communities & Professionals:**

Partner with organizations focused on IT device repurposing and recycling, which can help close the digital divide, especially in low-income or underserved educational environments.

## **3.Inclusive Education Consultants:**

Engage professionals who specialize in advising schools and organizations on implementing inclusive practices effectively.

## **4.Local Libraries:**

Libraries serve as hubs for community programs, access to technology, and education-related events.

## **5.Local PMI and Agile Groups:**

Tap into project management and agile communities for volunteer support, organizational planning, and mentorship.

## **6.Special Education Experts:**

Collaborate with experienced educators and school administrators who focus on special education needs.

## **7.Special Education Networks & NGOs:**

Connect with organizations like the Inclusive Education Initiative (IEI) and The Council for Exceptional Children (CEC) for policy guidance and professional networks.

## **8.Teachers & Special Educators:**

Work directly with classroom professionals who have hands-on experience with inclusive and special needs education.

## **9.Universities with Education Departments:**

Partner with academic institutions to access research, teaching expertise, and student engagement.

# Resources 1/4

A

- **AI4K12 Initiative** (<https://ai4k12.org/>): The initiative is developing (1) national guidelines for AI education for K-12, (2) an online, curated resource Directory to facilitate AI instruction, and (3) a community of practitioners, researchers, resource and tool developers focused on the AI for K-12 audience. Check out the following information to learn about this initiative.
- **ALLFIE** (<https://www.allfie.org.uk/>): Allfie believes in the right of all disabled learners to access and be supported in mainstream education.

B

- **British Council** (<https://www.britishcouncil.org/>): The council supports peace and prosperity by building connections, understanding and trust between people in the UK and countries worldwide. For 90 years they have shaped brighter futures through education, arts, culture, language, and creativity.

C

- **CAIDP - Center for AI and Digital Policy** (<https://www.caidp.org/>): The Center for AI and Digital Policy aims to promote a better society, more fair, more just — a world where technology promotes broad social inclusion based on fundamental rights, democratic institutions, and the rule of law.
- **CAST - Center for Applied Special Technology** (<https://www.cast.org/>): CAST is an organization focused on breaking down the barriers to learning in education design. They created UDL to help break down these barriers so that all learners can shape their own learning journey and reach their potential.
- **Catch a Fire** (<https://www.catchafire.org/>): Catchafire's platform sits at the intersection of philanthropy and employee engagement. It is a great place to create, accept, and track volunteer opportunities with immediate impact – and simultaneously support nonprofits.
- **Career Village** (<https://www.careervillage.org/>): Career village is a community that believes in you. There are over 7M+ people who have unlocked free career advice from 190K+ professionals.
- **The Council for Exceptional Children - CEC** (<https://exceptionalchildren.org/>): The Council for Exceptional Children (CEC) is the largest international professional organization dedicated to improving the success of children and youth with disabilities and/or gifts and talents.
- **Coursera** (<https://www.coursera.org/>): Coursera partners with more than 350 leading universities and companies to bring flexible, affordable, job-relevant online learning to individuals worldwide.

D

- **The U.S. Department of Education** (<https://www.ed.gov/>): The U.S. Department of Education fosters educational excellence and ensures equal access for students in the U.S.
- **Duolingo** (<https://www.duolingo.com/>): Duolingo is a free, fun, and effective way to learn new languages.

E

- **EdSurge** (<https://www.edsurge.com/>): Edsurge curates journalism that ignites curiosity about education.
- **EdTech Hub – AI Observatory** (<https://edtechhub.org/ai-observatory/>): EdTech Hub's AI Observatory scans global trends, leads innovative pilots, and distills practical insights to support decision-makers in low- and middle-income countries. Their goal is to ensure AI is integrated effectively and equitably, improving education systems and learning outcomes for all.
- **Pro.ed Education Solutions** (<https://www.proed.com.vn/>): Inspired and guided by the words of the world-famous iconic Nelson Mandela, Pro.Ed was borne of the belief that high quality educational expertise can transform a society for the better. This is a educational consultancy obsessed with providing cutting edge educational services to their clients so that they will bring out the best in their learners.
- **EdX** (<https://www.edx.org/>): edX provides self-paced courses.

# Resources 2/4

- **Ellen MacArthur Foundation – Education & Circular Economy** (<https://www.ellenmacarthurfoundation.org/resources/education-and-learning/overview>): The Ellen MacArthur Foundation supports circular economy learning across a growing global community of schools, colleges and higher education institutions.
  - **The European Agency for Special Needs and Inclusive Education** (<https://www.european-agency.org/>): The EASNIE's work focuses on supporting our member countries to develop and implement inclusive education systems that ensure every learner's right to inclusive and equitable educational opportunities. This enhances learners' life chances and possibilities for actively participating in society.
- F
- G
- **Global Partnership for Education - GPE** (<https://www.globalpartnership.org/>): The GPE is one of the world's partnership and fund focused on providing quality education to children in lower-income countries.
- H
- **HundrED** (<https://hundred.org/en>): HundrED is the world's leading curator of impactful and scalable education innovations. They identify, amplify and help implement innovations together with partners in the global education sector.
- I
- **iMentor** (<https://immentor.org/>): iMentor matches every 11th and 12th grade student in our high schools with a committed mentor.
  - **Inclusion International** (<https://inclusion-international.org/>): The inclusion international network is made up of individuals and organisations who share our common goal - a world where people with intellectual disabilities and their families can equally participate and be valued in all aspects of community life.
  - **Inclusive Education Initiative** (<https://www.inclusive-education-initiative.org/>): The Inclusive Education Initiative provides access to resources geared towards improving participation and learning outcomes of children with disabilities.
  - **Inclusive Schools Network** (<https://inclusiveschools.org/inclusion-resources/>): This is an extensive of the Inclusive Education Initiative providing a resource library that contains a variety of tools, tips, and strategies that help you evaluate and improve the status of inclusive education in your school.
  - **International Society for Technology in Education** (<https://iste.org/>): The International Society for Technology in Education has the vision that all students engage in transformative learning experiences that spark their imagination and prepare them to thrive in learning and life.
- J
- K
- **Khan Academy** (<https://www.khanacademy.org/>): Khan Academy provides millions of people worldwide with resources to learn through videos, by tackling practice problems & getting AI-powered support.
  - **Khanmigo** (<https://www.khanmigo.ai/>): Khanmigo is an on-demand AI-powered support for education.
  - **Kompass Education** (<https://www.kompass.education/>): Kompass was founded to provide schools and colleges with the training and support they need to innovate safely / securely with AI.
- L
- **Learn to be** (<https://www.learntobe.org/>): The platform produced by Learn to Be provides students with a 1-on-1 tutoring for math and reading completely free.

# Resources 3/4

## M

- **The MIT Jameel World Education Lab** (<https://www.jwel.mit.edu/>): Educators everywhere are being asked to do more: to reach more students, to upgrade learning, and to fuel the economy and serve the community in new ways. The MIT Jameel World Education Lab meets this imperative by working with educational innovators across the world.
- **The National Association for Special Educational Needs** (<https://nasen.org.uk/>): NASEN is a not-for-profit charity, and the leading professional membership body dedicated to promoting the education, training, advancement, and development of individuals with special educational needs, disabilities, or learning differences.
- **Next Generation Science** (<https://www.nextgenscience.org/>): Within the Next Generation Science Standards (NGSS), there are three distinct and equally important dimensions to learning science. These dimensions are combined to form each standard—or performance expectation—and each dimension works with the other two to help students build a cohesive understanding of science over time.

## O

- **OECD Artificial Intelligence in Education Research Group** (<https://www.oecd.org/en/topics/sub-issues/artificial-intelligence-and-education-and-skills.html>): The OECD recognizes that alongside AI's rapid advances, it is crucial to understand how education will be affected.
- **Open Skill Genome Project** (<https://openskillgenome.substack.com/>): The Open Skill Genome Project supports the development of a decentralized, privacy-preserving data architecture that enables an AI-driven ecosystem for securely sharing and verifying learning and employment records, fostering equitable access to educational and career opportunities while increasing awareness of AI's potential to improve labor markets.

## P

- **Paper Airplanes** (<https://www.paper-airplanes.org/>): The mission of Paper Airplanes is to bridge gaps in language, higher education, and professional skills training for individuals affected by conflict. By harnessing virtual learning tech and the benefits of peer-to-peer connections, we seek to provide a means to pursue educational and employment opportunities.

## Q

## R

- **Re-Imagining Education** (<https://re-imagining.education/>): Re-Imagining Education provides an opportunity to immerse ourselves into the wisdom and knowledge of the ecosystems below the surface – the fungi realm, deep roots, clews of earthworms, natural aquifers etc. – as their metaphor for learning. They have an open invitation to continue to explore how mycelial threads are being connected and sprouts are rising from this connection all over the world.

## S

- **Stanford Institute for Human-Centered AI** (<https://hai.stanford.edu/>): The Stanford Institute for Human-Centered AI manages advancing AI research, education, and policy to improve the human condition.
- **Sustainable Development Solutions Network** (<https://www.unsdsn.org/our-work/topics/education-and-training/>): From early childhood education to professional development, Education for Sustainable Development (ESD) serves as a pivotal tool in cultivating lifelong learners equipped with the requisite knowledge and skills to effect meaningful change.
- **Systemic Design Lab at Politecnico di Torino** (<https://www.systemicdesignlab.it/>): The Systemic Design Lab at Politecnico di Torino explores methods and tools of systemic design for environmental, social, and economic sustainability.



# Resources 4/4

T  
U

- **Understood** (<https://understood.org>): Understood is the leading nonprofit empowering the 70 million people with learning and thinking differences in the United States.
- **Universal Design for Learning** (<https://udlguidelines.cast.org/>): The UDL Guidelines are a tool used in the implementation of Universal Design for Learning, a framework developed by CAST to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.
- **UN AI for Good** (<https://aiforgood.itu.int/>): AI for Good is identifying innovative AI applications, building skills and standards, and advancing partnerships to solve global challenges. AI for Good is organized by ITU in partnership with over 40 UN Sister Agencies and co-convened with the Government of Switzerland.
- **UNESCO - Education** (<https://www.unesco.org/en/education>): Education transforms lives and is at the heart of UNESCO's mission to build peace, eradicate poverty and drive sustainable development. It is a human right for all throughout life.
- **UNESCO - AI in Education** (<https://www.unesco.org/en/digital-education/artificial-intelligence>): Artificial Intelligence (AI) has the potential to address some of the biggest challenges in education today, innovate teaching and learning practices, and accelerate progress towards SDG 4. However, rapid technological developments inevitably bring multiple risks and challenges, which have so far outpaced policy debates and regulatory frameworks.
- **UNICEF - education** (<https://www.unicef.org/education>): A child's right to education entails the right to learn. Yet, for too many children across the globe, schooling does not lead to learning.
- **The Universal Sandpit** (<https://theuniversalsandpit.org/>): AI tools for inclusive schools
- **UPchieve** (<https://upchieve.org/>): Free Online Tutoring & College Counseling

V

- **Volunteer Match** (<https://www.volunteermatch.org/>): VolunteerMatch matches inspired people with inspiring causes. It's how volunteers and nonprofits connect to achieve remarkable outcomes.

W

- **World Education** (<https://worlded.org/>): The international work of World Education improves the education, social, and economic security of people worldwide. They focus on literacy, access to education for women and girls, community engagement, and conflict resolution to increase the quality of education systems.

X

- **XPrize Digital Learning Challenge** ([https://pop.xprize.org/prizes/digital\\_learning\\_challenge/overview](https://pop.xprize.org/prizes/digital_learning_challenge/overview)): The goals of the \$1M Digital Learning Challenge are to modernize, accelerate, and improve the ways in which we identify effective learning tools and processes that improve learning outcomes.

Y

Z

# Thank you for Reading!

If you need anything else related to the SWARM Community, reach out to Joaquin Melara or to Dr. Jess Mendoza via LinkedIn.

We will do our best to respond in a timely manner

